

A White Paper
Beginning the Discussion on
**Effectively Planning and Implementing
Safe Routes to School for
Students with Disabilities**

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Executive Summary

Introduction

The purpose of this paper is to provide a foundation for Safe Routes to School (SRTS) practitioners upon which to build concerted efforts to bring SRTS benefits to students with disabilities. In enacting the program in 2005, Congress was clear. The purpose of SRTS is to enable and encourage children, **including those with disabilities**, to walk and bicycle to school. It is reasonable to expect that people involved in SRTS initiatives take this purpose seriously. However, in comparison to many other aspects of SRTS planning, there is a lack of specific information, published guidance, and documentation of experiences, to assist practitioners and advocates in bringing SRTS benefits to students with disabilities.

One of the biggest issues facing students with disabilities is the challenge of living in an often inaccessible society. Students with disabilities can and will participate in SRTS when provided an accessible means to do so. SRTS locally, statewide, and nationally can better serve students with disabilities by:

- Identifying and promoting the benefits of SRTS for students with disabilities with special education teachers and other related professionals.
- Providing tools, techniques, and support so SRTS will be considered a viable option when working toward educational goals found in transition plans and Individualized Education Plans (IEP).
- Ensuring that promotional materials, evaluation procedures, event planning, and action plans recognize students with disabilities in ways that enable their participation without singling them out.
- Recognizing the characteristics of the three types of special education school settings and conducting SRTS in a manner appropriate for the students placed in each setting.
- Developing tools and resources to assist schools in conducting meaningful SRTS initiatives for students with disabilities.
- Sensitively engaging the families of students with disabilities in the SRTS planning process.
- Encouraging, facilitating, and creating a public archive of reports from the field (including pilot projects) regarding SRTS efforts to serve students with disabilities in the three special education school settings.
- Encouraging an investment in special education for SRTS now, so that in the long run it may minimize the cost of public programs each student with disabilities will receive over his/her lifetime.
- Initiating a dialogue at the state and national levels to promote SRTS opportunities and benefits with special education professionals to engage them collaboratively in local SRTS efforts.
- Educating state legislatures and Congress regarding the benefits of public investment in SRTS, advocating for increases in SRTS funding to better serve

students with disabilities, and broadening the SRTS purpose to allow for teaching and development of self-powered travel skills.

When reading this paper, it is important to keep in mind that SRTS in Michigan has two levels. The first, and most important level, features a planning process that results in an action plan including all SRTS activities that could benefit a community. The second level involves federal funding to implement parts of the action plan. Some of the recommendations in this paper may not be appropriate for the SRTS federal funding. For example, at the time of this writing, SRTS federal funds are not available for general health and fitness activities taking place on or near school campuses; all activities must be specifically related to walking, biking, or rolling to and from school. The authors feel it is beneficial to offer a wide scope of ideas and alternatives for students with disabilities and understand that some will need to be implemented outside of SRTS federal funds.

PART I. A Primer on the Special Needs Student, Special Education, and Life in a Special Needs Family

Students with disabilities represent 15 percent of the student population in Michigan. Their attributes are widely varied in type and severity, but most can be understood by understanding the process of functional development every child experiences growing from infancy to adulthood. Disabilities arise out of delays or barriers at various stages of this process. The barriers in turn stem from underlying biological difficulties. As is true of all people, each individual with disabilities presents a unique profile of attributes. Acknowledging and identifying this profile is key to creating effective interventions and accommodations, both in education and in SRTS, to enable each student to realize his/her full potential.

Special Education is the institution created by Congress to ensure students with disabilities have opportunities equal to that of general education students in order to develop their full educational potential. Special education programs involve an array of specialized services providing instruction, other therapies, and accommodations necessary to make instruction effective. In order to more effectively support students with disabilities, their education and related services are developed and documented in an Individualized Education Plan (IEP). SRTS initiatives for students with disabilities may support special education professionals and the IEPs they implement. It is responsibility the of SRTS to arm special education professionals and SRTS planning teams with the necessary tools, resources, and support to engage students with disabilities.

Because of the wide range in type and severity of special needs, three types of school settings for delivering special education have evolved: neighborhood schools, regional/district-wide schools, and center-based-program schools. Schools involved with SRTS initiatives need to recognize which of these settings characterizes their school and develop their programs accordingly.

Both in the family and society, students with disabilities may face challenges. Families carry a greater parenting load which overlays the regular demands of parenting.

Engagement in society even for mundane needs like shopping is often difficult because of the reactions of strangers to the child with disabilities and his/her family. These sensitivities must be respected by SRTS planners attempting to engage parents that have a student with disabilities.

PART II. Involving Students with Disabilities in Safe Routes to School

Benefits of SRTS for students with disabilities go beyond physical fitness and development of healthy lifestyle habits. SRTS is an opportunity to support individual growth and goals. Many students with disabilities struggle to learn social skills, understand social rules, and develop a personal sense of responsibility, self-sufficiency, and independence. Travel to and from school under their own power, to the extent they are able, provides a real-world situation within which to learn, practice, and hone these skills and behaviors.

SRTS Planning in Three Special Education School Settings

Planning for SRTS activities and projects is required in Michigan prior to submission of a funding application. Planning must include:

- Establishing a multidisciplinary team.
- Identifying barriers to walking and rolling to school.
- Using attitude and belief surveys.
- Conducting an environmental audit.
- Completing an action plan of priority interventions (e.g., activities and projects) to increase walking and rolling to school and address the barriers.

Schools currently engaged with SRTS activities or planning processes should consider the three special education settings. Neighborhood schools serve special education students who live in the neighborhood and are placed in the general education classroom. Regional/District-wide schools are neighborhood schools with one or more classrooms set aside for special education students. Center-based-program schools are schools that exclusively serve students with disabilities. In each setting, an important planning step is to promote SRTS benefits to parents of children with disabilities and to the special education professionals serving them so these individuals become members of the planning team. The approach to SRTS planning and implementation varies among the three settings by degree. For example, techniques used at a neighborhood school must be complemented with additional strategies at the satellite school. The center-based-program school requires a rethinking of typical planning and implementation because with few exceptions, students reside at great distance from the school. In addition, SRTS efforts at neighborhood and regional/district-wide schools typically begin outside of the special education setting. In a center-based-program school, SRTS would need to be initiated and implemented with a special education focus.

Five categories are used by SRTS to describe the range of challenges and solutions associated with walking and biking to school. These categories, known as the Five Es,

are education, encouragement, enforcement, engineering, and evaluation. All five Es are considered during Michigan's SRTS planning process.

The Neighborhood School Walk to School Day and any other special events associated with SRTS can be planned with sensitivity to the accommodations like wheelchairs or crutches by ensuring that graphics routinely include these mobility aids along with the feet and pedals. Routes can be offered that provide a viable choice (e.g., shorter or accessible) for students with various physical disabilities; and these choices can be offered to all participants, enabling students with disabilities participation without singling them out. It is essential that special education professionals from the school and parents of students with disabilities are represented on the SRTS planning team. Using the school's professional and social networks can yield candidates willing to participate.

Parent and student surveys can be revised to include mobility choices beyond walking and biking, since for some students with disabilities these may not be perceived as an option. Reports showing survey results should incorporate the response choices for students with disabilities without distinguishing them as such. In organizing route safety audits, participating parents of students with disabilities can be assigned routes that represent potential options for their student.

In terms of the 5 Es, for **education** activities (e.g., walking safety lessons) to be effective, the aids and accommodations already being used in the school must be available to support the SRTS education activities. The attributes of each student will dictate the need for additional materials and techniques which may be necessary for education to be effective for individual students. Teachers, parents, advocates, and the other professionals serving the student at the school are great resources to determine the assistance necessary for an SRTS education intervention to be effective for a given student—another reason engaging this staff is so important. The ideal marriage between SRTS and special education is the inclusion of SRTS among the learning objectives and techniques to support the student's IEP.

Encouragement efforts should be sensitive to the additional stress faced by families having children with disabilities. Efforts to engage them may be most successful if they are approached through other families with students with disabilities and the people who provide their children instruction and related services. Efforts to engage families will be better received if the general promotional materials are inclusive of students with disabilities. In addition, if special education professionals at schools with SRTS programs have a clear understanding of SRTS benefits and how they could benefit their students, they may be more inclined to include SRTS in existing educational goals.

Enforcement personnel (whether uniformed officers or crossing guards) can benefit from training to provide an understanding of the types of students with disabilities attending the school, and the behaviors and causes that characterize each type.

Engineering interventions are governed by the Americans with Disabilities Act requirements for providing access. Care must be taken, though, not to assume that

engineering alone can address all the needs of individuals with disabilities. The **evaluation** (survey) alterations were described above.

The Regional/District-wide School Students with disabilities placed in special education classrooms at regional/district-wide schools often arrive from residences outside of the neighborhood. As with rural schools, remote drop-off locations are a means of providing an opportunity for students to travel some of the distance to school under their own power. Efforts to recruit parents of students with disabilities as members of the SRTS planning team should be sensitive to the fact that these parents are outsiders in the neighborhood on top of some parents feeling they are outsiders because they have a student with disabilities. This sensitivity extends to the planning of SRTS events to engage nonresident families. In this setting it is even more important to promote the benefits of SRTS for students with disabilities with the special education classroom teachers, aides, and staff.

The Center-based-program School Students in this setting are the most severely challenged. They will come from great distances and the opportunity for self-powered travel is from the bus or car to the classroom. Direct supervision will be involved in this trip for the majority of students. Nevertheless, for these students, making the most of that trip represents significant benefit, and the trip can become an educational tool for achieving learning objectives and life skills. Walk to School Day can be organized as a special event and as an extended trip from bus to room using a circuitous route on school grounds. Creativity is required in recruiting a planning team and facilitating its efforts since all parents are remote. As center-based-program schools are solely special education settings, SRTS planning will focus solely on students with disabilities.

Route safety assessment can be reinterpreted as creating routes to each classroom that provide learning opportunities tailored to the particular challenges characterizing students in each classroom. Attitude and behavior surveys can be revamped to reflect the objectives and benefits of the trip to school in this setting. Likewise, the action plans can be tailored to the unique educational and quality-of-life opportunities possible through creation of routes with unique purposes on school grounds.

Resource Scarcity: Special Education and SRTS

SRTS planning teams develop action plans that ensure all students experience the benefits of SRTS. However, successfully implementing an SRTS action plan requires resources—both human and financial—and both types of resources are scarce within federal and state SRTS programs. In Michigan, 51 of the 400+ schools engaged in SRTS planning have applied for and been awarded federal funds. The schools receiving awards were, for the most part, funded for only the highest priority elements of their action plans and the funding is very competitive.

A case can be made for investing more resources in SRTS for children with disabilities. Such investments can help students with disabilities develop to the highest level of

functioning potentially available to them. Achieving their potential level of independent functioning enables them to reduce the extent to which they are dependent on society.

Conclusion

Safe Routes to School can be successful for students with disabilities. Throughout the paper, various ways have been identified to better serve these students. Some things can be done at the local level without any funding, and some require support, financial resources, and action of state and national leaders.

Safe Routes to School has broad societal benefits beyond the direct objective of increasing the number of students who travel to and from school under their own power. Among these benefits is the opportunity to increase understanding and acceptance in our society of children with disabilities and the adults they become. Young children readily understand that differences are simply differences. They do not attach judgment or stigma to differences until they learn to do so. Through SRTS efforts, more children can be given the opportunity to experience the joy of independent travel under their own power. By engaging students with disabilities in SRTS, we provide each child the opportunity to appreciate the diverse means by which such travel can be accomplished, and that the joy is in the journey regardless of the means.

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Introduction

The purpose of this paper is to provide a foundation for Safe Routes to School (SRTS) practitioners upon which to build concerted efforts to bring SRTS benefits to students with disabilities. Congress clearly intended students with disabilities to be accommodated in Safe Routes to School programs as described in the program's purpose, which is to:

1. Enable and encourage children, including those with disabilities, to walk and bicycle to school.
2. Make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age.
3. Facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of elementary schools. {SAFETEA-LU Section 1404(b)}

While the need for SRTS initiatives to serve students with disabilities has been recognized from the beginning, it is just beginning to be the subject of specific analysis, guidance, and assistance.

This paper is written from the perspective that the reader has a general understanding of Safe Routes to School. If a brief overview of SRTS is needed, please see Appendix A. If more in-depth information is required, please visit www.saferoutespartnership.org, www.saferoutesinfo.org, and www.saferoutesmichigan.org.

When reading this paper, it is important to keep in mind that SRTS in Michigan has two levels. The first, and most important level, features a planning process that results in an action plan including all SRTS activities that could benefit a community. The second level involves federal funding to implement parts of the action plan. Some of the recommendations in this paper may not be appropriate for the SRTS federal funding. For example, at the time of this writing, SRTS federal funds are not available for general health and fitness activities taking place on or near school campuses; all activities must be specifically related to walking, biking, or rolling to and from school. The authors feel it is beneficial to offer a wide scope of ideas and alternatives for students with disabilities and understand that some will need to be implemented outside of SRTS federal funds.

A Brief History of SRTS and Students with Disabilities

In fall 2009, the Safe Routes to School National Partnership released a position paper for engaging students with disabilities. The National Partnership's paper brings attention to the need for additional SRTS resources and support for students with disabilities and encourages Congress to consider funding SRTS initiatives focusing on students with disabilities in the following possible areas: training and curricula, outreach to parents and students, evaluation, pilot projects focusing on the three special education school settings, and supporting transition plans and Individualized Education Plan (IEP). Michigan's Safe Routes to School Handbook, released in fall 2005, three months prior to the signing into law of the federal legislation, acknowledges students with disabilities in its guidance

on conducting walking audits and school grounds assessments. The handbook's Appendix U: Unique Challenges, offers a brief overview of mobility, vision, and cognition challenges. This material serves to bring students with disabilities to the attention of SRTS organizers, but it does not offer direction or insight to directly involve students with disabilities in SRTS. In addition, Michigan has worked with Programs to Educate All Cyclists (PEAC) to explore methods and opportunities for including students with disabilities in SRTS programs and activities.

A Michigan Pilot One Michigan school, the Hillside Learning and Behavioral Center, in Allegan, Michigan has moved forward with the SRTS planning process, recognizing the need to tailor the planning process to meet the needs of their students. Working with the Michigan Department of Transportation, the Michigan Fitness Foundation, Michigan State University, local officials, and community residents, Hillside completed a modified planning process and developed a full action plan. Rather than evaluating the trips students take to school, the planning process evaluated the routes students follow in walking to downtown Allegan, their "community classroom," for livability training. The Principal at Hillside believes this program is now critical to the curriculum at Hillside.

Hillside's planning team modified the surveys to ensure greater relevance and sensitivity to the parents' emotional needs. In addition, teachers were surveyed to the same extent as parents, citing the teachers' role in helping the students travel to and from downtown Allegan. The planning team also modified the walking audit process by conducting two audits. The first one examined winter conditions and took a more technical approach to the review. The second audit included Hillside student participation. The students contributed significantly to the action plan, noticing things that the adults had not noticed in the first audit. Additionally, their participation made them feel included in the program.

In Illinois, the Illinois Department of Transportation is conducting research on how students with disabilities are included in SRTS. The National Center on Physical Activity and Disability is gathering the data and expects to have results to report by the end of 2010.

In addition to the National Partnership's position paper, the Michigan Handbook material, the Hillside pilot project mentioned above, and the research being conducted in Illinois, there may be other activities taking place in schools across the country. With this said, there is no known published SRTS resource available to assist advocates and practitioners in understanding the wide ranging attributes of the students with disabilities, the structure and operation of the special education system which serves as the primary support for these students, and the knowledge gained from pilot programs currently underway. Without some grounding in working with students with disabilities and special education, it is difficult for local SRTS advocates and organizers to know how to effectively reach and engage students with disabilities in SRTS programs. This paper is an attempt to begin filling this void.

How this Paper is Organized

The paper is divided into two parts which are supported by appendices. Part I provides:

- A framework to begin understanding the diverse attributes manifested in students with disabilities.
- An introduction to the special education system and the various settings within which special education is delivered.
- A description of life in a special needs family.
- A discussion of the range of attitudes present in society toward students with disabilities and special education.

Part II provides guidance for:

- Conducting Michigan's Safe Routes to School Handbook planning process in a way that effectively engages students with disabilities and their families.
- Developing action plans which accommodate students with disabilities across the 5 Es—engineering, education, encouragement, enforcement, and evaluation.
- Recognizing and responding to the unique challenges and opportunities posed by the three different school settings used in delivery of services for students with disabilities.

PART I.

A Primer on Students with Disabilities, Special Education, and Life in a Disabilities Family

Understanding the Diversity of Disabilities

Disabilities may be cognitive, physical, emotional, or a combination thereof. Each stage of a child's development depends to some degree on a previous stage being successfully completed, and elements that are missing, weak, or delayed at any one stage can impede parts of or all further development. This results in the need for an extremely wide range of accommodations for students with disabilities.

A Child Development Model

There are many conceptual and theoretical approaches to understanding child development and disabilities. There are also many individual professions with specialized knowledge on one aspect or another of the overall disabilities picture. The knowledge among these specialties is not easily synthesized, and translation of this knowledge into language easily understood by people outside of these specialties is difficult.

The child development paradigm presented in this paper and its appendices comes from the book, The Child with Special Needs—Encouraging Intellectual and Emotional Growth, by Stanley I. Greenspan, M.D. and Serena Wieder, Ph.D., with Robin Simons, published in 1998 by Da Capo Press. (For the remainder of this paper and its appendices, the book will be referenced as “Greenspan et al.”)

Greenspan et al identify a six-stage child development model in which each stage represents a fundamental skill that is mastered on the child development ladder. These fundamental skills or functional milestones “...underlie all our intelligence and interaction with the world.” Children with disabilities may struggle to master these skills because of underlying biological factors. Understanding these factors helps design interventions, therapies, or treatments that may be effective in overcoming or mitigating specific challenges. Since mastery of each of these skills depends in part upon successful development of the previous skill, difficulty at any stage may delay or arrest development through subsequent stages.

The major premise of this model is that interaction and engagement with the world, and especially with parents, is crucial to achieving progress through developmental stages. Vital interaction is often missing or lost because of the child's particular biological challenges and the resulting coping behaviors, which if not understood, alter the normal flow of interaction with the child's parents. The intervention approach advocated in Greenspan et al is to create and engage the child in the interaction appropriate to the milestone at which development stopped. In their clinical work they find that through careful assessment and intensive intervention, many children can advance through developmental stages beyond the milestone at which they experienced serious challenges.

Appendix B provides further explanation of each milestone and Table 1 within Appendix B provides a summary of each developmental milestone along with the age range at which children typically develop and master each skill.

Underlying Biological Challenges

Three biologically determined systems underlie the one's ability to progress through the developmental milestones. These systems are inter-related and provide perpetual feedback, and when the feedback mechanisms are awry, function is compromised. Disruption in these mechanisms can originate from genetic anomalies, injury, premature birth, constitutional difficulties, or from undiscovered causes. Many diagnoses or syndromes stem from malfunction in one or more of these systems and/or the connections between them.

Sensory Reactivity is the way information is taken in through the senses and adjusted based on the stimuli the senses are providing. The senses—seeing, hearing, smelling, tasting, and touching—provide a connection to the external world. Reactivity, when functioning effectively, means that sensory input is received in a way that accurately reflects the stimulating reality.

In today's world, there is a constant bombardment of sensory stimulation. Over- and under-reactivity can cause important sensory input to be missed and can lead to the misunderstanding of a situation, environment, or other critical factors.

Sensory Processing enables one to make sense of the information taken in by the senses. Ultimately it leads to thinking which helps discern patterns from stimuli and form judgments about them. There is variability in the strength and weaknesses of everyone's senses.

If sensory processing is a challenge, there may be difficulty integrating information provided by the senses. This will result in misread signals from the environment, an incomplete picture of what's going on in the environment, and great difficulty figuring out what the sensory input means. This difficulty compromises the ability to read emotional content in sensory information, resulting in the potential for inappropriate or extreme emotional responses to sensory stimuli.

Muscle Tone, Motor Planning, Sequencing are important to successful development as they impact the capacity to control, plan, and implement responses to what the senses take in. This system makes the body move the way the mind wants it to. Later it enables someone to use their body and thoughts to plan and execute responses to stimuli.

Everyone has a unique blend of biological capacities and limitations and there are endless possibilities for variation among individuals given the relationship between biological factors and the development process.

While the variation among individuals with disabilities is great, clusters of attributes have been identified and used to group types of disabilities such as Autistic Spectrum Disorder, Cerebral Palsy, Attention Deficit Disorders, etc. These patterns, syndromes, and diagnoses have traditionally served as the basis for creating development expectations and programs to achieve them.

Greenspan et al make the case that the individual profile characterizing each child's unique combination of biological factors and developmental barriers, rather than a broad diagnosis or syndrome label, should be the basis for creating an intervention strategy. (See Appendix C for additional information on Disabilities Syndromes.) The presenting attributes and behaviors overlap substantially among the various familiar syndromes, and attributes from several syndromes may appear in one individual. The severity of the challenge and the prospects for mitigation vary greatly among children with the same diagnostic label. While in practice, special education is tailored to their individual attributes, the structure of special education delivery overall does rely upon diagnostic categories as an organizing principle.

A Note on “Physical Disability”

There are other classes of students with disabilities when considering SRTS—those with mobility challenges and those with visual impairments who may need auditory and tactile cues. In their cases, through injury, disease, genetic anomaly, or other cause, they have physical attributes that make walking or bicycling challenging. The challenge may be partially met through mobility aids like crutches, walkers, various wheelchairs, adapted equipment, or through assistance from another person.

These students have physical disabilities and their right to travel by the means available to them is protected under the federal Americans with Disabilities Act (ADA) and other federal statutes addressing the needs of persons with disabilities. The SRTS movement has long recognized the need for the infrastructure or engineering component of SRTS to comply with federal accessibility requirements. In Michigan, the SR2S Handbook provides specific guidance for assessing school grounds and potential routes to school from the perspective of the person with physical disabilities. This ensures that along with other necessary improvements, there are remedies for infrastructure conditions that pose a potential hazard or barrier to travel for these students. Such improvements will also be beneficial to students with disabilities who use mobility aids and have developmental challenges.

Because of federal accessibility requirements, and the general recognition of professionals in the field to meet these requirements, the SRTS movement is well equipped to ensure that physical disability alone does not pose an insurmountable barrier to the opportunity for safe travel to and from school. This paper acknowledges this potential barrier to students with disabilities and does not address it in the detail already available to practitioners from numerous other sources. (For further information, visit the National Center for Safe Routes to School Website at www.saferoutesinfo.org.)

Understanding Special Education

The provision of special education for persons with disabilities is mandated and funded under the federal Individuals with Disabilities Education Act (IDEA) and guided by federal regulations stemming from that act. Since each state administers the delivery of special education, they also have special education legislation, policy, and administrative rules incorporating and ensuring compliance with the federal requirements.

Special Education Definitions and Parameters

Under federal law, special education is defined as “specially designed instruction, at no cost to the parents, to meet the unique educational needs of the student with a disability and to develop the student’s maximum potential.” Special education includes instructional services and related services.

Establishing Eligibility to Receive Special Education

A child’s eligibility to receive special education is established by a multi-disciplinary evaluation team, the composition of which depends upon the nature of the disability. The request to create a team and evaluate a child can come from parents, physicians, or school officials. This team determines whether the child manifests a qualifying disability. The eligibility of various disability categories is defined in law, detailed in regulation, and discussed further in Appendix E. The team completes a report that documents its evaluation, findings, and recommendations regarding the child’s eligibility for special education services. In the report, the detail provided for each of the categories includes the presenting attributes and/or behaviors which define the category. Reviewing Appendix E will provide an understanding of the types of challenges faced by children eligible for special education within the various disability categories.

The Individualized Education Program

Based upon an evaluation team’s determination that the child is eligible for special education, a superintendent appoints an Individualized Education Program (IEP) team whose purpose is to develop a plan for instructional and related services tailored to the student’s unique needs and capabilities. The IEP team typically includes a special education teacher and professionals whose services would be required to address the unique aspects of the student’s functional profile (e.g., physical therapist, speech therapist, etc.). Parents are invited to be members of the team and participate in the development of the IEP, which they must sign to indicate their agreement with the contents. The student may also be part of the team.

An IEP is based on diagnostic, medical, and evaluative information requested by the IEP team, and/or provided by the parent or student. Based upon the available information, the team develops a program tailored to address needs indicated by this information. The IEP includes:

- A statement of the student’s present level of academic achievement and functional performance.
- A statement of annual goals, short-term objectives, and criteria, procedures, and schedules for determining whether objectives have been achieved. Note: IEPs include transportation goals and transition planning.
- Consideration and a recommendation regarding the need for an extended school year for the student.
- The need, if present, for placement of the student with a special education teacher who is endorsed in a particular disability category.

Student Placement in the Least Restrictive Special Education Setting

The IEP team determines the educational placement of a student with a disability, which includes the school setting along with recommended programs and services. The placement is not constrained by the availability of the services within the student’s resident district, although every effort must be made to locate the appropriate setting as close to the student’s residence as possible. This has a significant impact upon the types of opportunities available to the student in an SRTS program.

A fundamental tenet of federal legislation and regulation is that special education is to be provided in the *least restrictive environment* (LRE) with respect to general education. The LRE principle is reflected in Michigan’s special education rules and the Michigan State Board of Education policy on LRE which states in part “...that students with disabilities must be educated with their peers without disabilities to the maximum extent appropriate to meet their individual educational needs and potential.”

It is reasonable to expect that students with the mildest disabilities receive special education services from the general education teacher, with help from itinerant specialists who consult with the teacher or visit the student in the classroom. Students may also be removed from the classroom for brief periods to address specialized individual needs. In cases of more severe disabilities, students may be placed in a special education classroom in the general education building with other students with similar disabilities from other schools. For students whose needs are the most severe, special education placement may be in a separate school devoted exclusively to special education for this type of student.

A Special Education School Setting Paradigm for Use in SRTS Initiatives

The three special education school settings touched on above will dictate significantly different approaches, objectives, and actions when students with disabilities participate in SRTS activities that are happening at their school. While there may be some overlap among these settings, the three school types are based on the level and type of services provided, from least restrictive to most restrictive. The three types and the special education settings that distinguish them are:

A neighborhood school is a school providing special education to students placed in general education classrooms. It will usually have a resource room for special education

students, but it may not have classrooms set up specifically for special education. Students with disabilities may be receiving instruction and related special education services in the general education classroom or during brief removals from the classroom, but the majority of the school day is spent in the classroom, and instruction is provided by the general education teacher.

A regional/district-wide school is a general education school which may have some classrooms set up for students with specific disabilities (categorical classrooms) and other classrooms set up for students with various disabilities (cross-categorical classrooms). These classrooms provide support not available in the general education classroom. The students with disabilities spend the majority of their school day in the special education classrooms. These regional/district-wide schools are usually located outside the students' neighborhood.

A center-based-program school is a school serving only students with disabilities in special education classrooms. Because they draw from an area even larger than the regional/district-wide school, they are able to group students with like disabilities in single classrooms, creating the more specialized environment necessary to effectively serve students with the most severe challenges. These schools may, for example, have classrooms for students with ASD diagnoses distinct from those with a cognitive impairment diagnosis. As required in regulation, they also have classrooms distinguished by age group within a given diagnosis. These schools typically have full-time specialists (e.g., physical therapists, speech therapists, etc.) on staff to provide services.

Part II of this paper discusses SRTS planning in the context of these three distinct special education school settings.

Special Education and Transportation

Special education federal regulations include two elements specifically related to student transportation. The first element, student transportation to and from school, is a service that must be provided for special education students. This transportation is federally subsidized. A student's IEP must include a statement regarding transportation service requirements, and the school district must provide the transportation or arrange for its provision.

A second element is that special education services may include *travel training*, defined as providing instruction, as appropriate, to enable students to 1) develop an awareness of the environment in which they live; and 2) learn the skills necessary to move effectively and safely from place to place within that environment (e.g., in school, at home, at work, and in the community).

Travel training is related to another broad requirement that special education services include assistance in making the transition from school life to adulthood. Among the ways transition is accommodated for the special education student is through community-

based instruction (CBI). CBI consists of engaging the student in life experiences outside of the home and school.

These special education transportation elements offer an exceptional opportunity for synergy with SRTS because SRTS is uniquely suited to assist in travel training and community-based instruction using travel between home and school as the basis. Since SRTS focuses on making travel on foot or by bicycle safe for students, it offers the opportunity to create CBI opportunities to learn mobility life skills for students who will not be able to travel independently by car.

Additional Information

There is a wealth of additional information that can deepen your understanding of the special education system that serves students with disabilities. Some useful information identified by the authors can be found in Appendices D-H:

- D) Special Education Definitions and Parameters
- E) Michigan's Special Education Recipients
- F) Definitions of Disabilities Qualifying for Special Education under Michigan Rules
- G) Special Education Settings Distribution of Placements in Michigan
- H) Hypothetical Distribution of Eligible Disability Category by General Education Classroom Time

Life in the Family Having a Child with Disabilities

The experience and challenge of parenting a child with disabilities is an additional and heavy layer on top of traditional parenting stress. Every aspect of parenting is magnified in its impact on the child and on the family. Parents enter a world even more demanding of their time and resources, and depending on the type and severity of the child's challenges, care-giving responsibilities continue for a long period of time.

Prior to the inception of school or preschool, these stresses are experienced primarily at home. Once school begins, parents are confronted daily with the growing difference in development between their child and other children.

There is also the experience of venturing into public places as a family with a child with disabilities. Many people react with discomfort and there may be reactions from denial to tolerance to pity to contempt that affront the family. Others, however, are embracing and friendly and seem to know or intuitively recognize the basic humanity all families have in common.

Many families of children with disabilities weather the pressures and demands and lead happy, contented lives. These families have made peace with the demands that threaten the sustainability of relationships within the family. In these families SRTS will be taken at face value, just as their child with disabilities has been embraced.

For SRTS to successfully engage more families having a child with disabilities, the nature of their family life must be acknowledged and understood. For many families, requests to engage voluntarily in any additional activity, much less one that by the sound of it doesn't even apply to their child, are rejected out of hand. Some families will be suspicious or resentful about being singled out on the basis of the disabilities label. Others will assume that because they have a child with disabilities, they are likely to be left out. Parental reactions to SRTS may also vary to some degree based on the type of special education school setting into which their child was placed.

All of the SRTS education and encouragement activities already in use to change attitudes and behavior will apply to families having a child with disabilities too. Successful engagement of these families may depend upon showing the relationship between participation and efforts already being made on behalf of their children to empower them to realize their full potential. In Part II, suggestions are made regarding the avenues by which families of children with disabilities can be approached successfully. For an in-depth look at life in the family of a child with disabilities, please see Appendix I.

Students with Disabilities and Special Education Through the Eyes of Others

While students in general typically take differences between themselves and others in stride, there can be a range of reactions from those involved in SRTS to the idea of involving students with disabilities. While these attitudes and beliefs could be expressed at any school, they may be more likely to occur at regional/district-wide schools where the contrast is more apparent between the children in the general education classrooms and those in the special education classrooms.

Some people prefer students with disabilities be segregated from general education students. They may feel the quality of their general education student's experience is compromised by the inclusion of students with disabilities in their child's classroom or school experience. Many people experience fear or confusion over how to behave or interact when in the presence of children who look, act, or behave differently. This can lead them to avoid situations in which they interact with persons with disabilities. Some are quick to make judgments about what students with disabilities should or should not do, how they should behave, and what should be done to make them behave in "appropriate" ways. Some also hold the opinion that special education takes already scarce resources away from general education. Some who believe in and actively support SRTS efforts may be quick to say that SRTS will fail if its scarce resources are also spent on accommodations for students with disabilities.

People who hold and express these attitudes, feelings, and opinions are usually not intentionally malicious. This insensitivity may stem from a lack of knowledge and experience, and becoming acquainted with a person with disabilities can be a great remedy for this misunderstanding. In Part II, ideas are presented for increasing the comfort level of SRTS volunteers and advocates working to engage these students in SRTS activities.

PART II.

Engaging Students with Disabilities in Safe Routes to School Planning and Activities

A child developing is very much like an SRTS planning team—discerning, understanding, ordering, and managing a staggering array of diverse elements into a plan of action, and then making the actions happen. Sometimes there are people missing from the team whose contribution to effective understanding, planning, or implementation is essential if a particular intention is to be accomplished. Sometimes the resources or capacities needed to carry out a plan are not as yet present, are too weak, or their arrival sufficiently delayed as to render further progress impossible. In child development and in SRTS initiatives, often a missing, weak, or delayed resource can be created or compensated for using resources already present. Sometimes the absence must simply be accepted and compensated to the extent possible.

Benefits of SRTS for Students with Disabilities

Students with disabilities benefit from the creation of safe routes for walking and biking to and from school. If such routes were available, could all students safely walk and bike? To answer this question, it may be instructive to briefly review the commonly recognized benefits of SRTS for children in general, which can be found in Appendix J.

Each of the benefits described in Appendix J—including physical activity, health, and quality of life—would also benefit students with disabilities. Some of the benefits are even more important to the well-being of the student with disabilities than to that of the general education student. Of particular importance are the development of an active lifestyle, social skills, self-sufficiency, responsibility, independence, and an understanding of societal rules.

One of the biggest issues facing students with disabilities is the challenge of living in an often inaccessible society. Students with disabilities can and will participate in SRTS when provided an accessible means to do so.

Encouraging and Enabling an Active Lifestyle

Many children with disabilities face even greater risks for obesity than children overall. While all of the contributing lifestyle elements apply equally, many children with disabilities have additional barriers to being physically active. Physical disability, muscle tone, motor planning difficulties, and the absence of purposeful interaction with the physical environment and other people which characterizes the autism spectrum, are all hurdles to be overcome when engaging in physical exercise. These and other biological and developmental challenges affect fitness in children with disabilities—a fact borne out in research.

According to a report in the *Journal of Adolescent Health*, children with spina bifida, cerebral palsy, Down syndrome, attention deficit hyperactivity disorder, learning disabilities, muscular dystrophy, brain injury, visual impairments, and autism spectrum disorders have all been shown in studies to have a higher reported prevalence of being overweight than their peers without disabilities.¹

SRTS offers a unique opportunity to build activity into all children's lives, including children with disabilities who need it the most.

In addition to the benefits of exercise, the trip to and from school can supplement planned treatment, therapy, and instruction already being provided for children with muscle tone,

¹ Rimmer, J., Rowland, J., & Yamaki, K (2007). Obesity and Secondary Conditions in Adolescents with Disabilities: Addressing the Needs of an Underserved Population. *Journal of Adolescent Health*, Vol. 41, Issue 3, 224-229.

motor planning, and sequencing issues. Coordination with the specialists providing these services could bring general improvement to a child's capacity to develop and sustain new physical skills and improve a child's readiness to learn.

Developing Social Skills and Understanding of Societal Rules

Walking and biking to school can provide an opportunity to interact socially and absorb information about what is acceptable and unacceptable behavior in a social setting. Greenspan et al identify the importance of two-way interaction with the physical world and people to achieving the functional milestones of thinking and acting purposefully. Walking to school in the company of others can provide and reinforce the interaction experience.

Developmental intervention aside, children with special needs sometimes struggle to make friends and acquaintances. Reactions of strangers experienced in social settings often do not encourage opening up or reaching out to other people. The walk to and from school offers a setting for social engagement and learning which can become part of the routine important to many children with disabilities. It can provide the place where insights about the physical and social worlds can be gained and reinforced. Most certainly these benefits provide some quality and enjoyment to a child with disabilities.

Developing Self-sufficiency, Responsibility, and Independence

Non-motorized transportation and public transit may be the only transportation modes available to some children with disabilities when they reach adulthood. SRTS offers opportunities to reinforce preparation and practice to safely travel by foot, bicycle, or other mobility aids that make independent travel possible. SRTS is an attractive and convenient vehicle for carrying out travel training—an essential element of special education transition services. SRTS programs can communicate these benefits to parents, caregivers, advocates, special education teachers and other professionals who assist in preparing and carrying out students with disabilities' educational goals.

These benefits would seem to be easily available to students with disabilities who are placed in general education or special education classrooms in their neighborhood school, as they are likely to be within walking or biking distance. For students who attend a regional/district-wide or center-based-program school, the walk may be from the car or bus at the curb in front of the school to the classroom. This case is no different from the situation faced in rural schools where the majority of students are bussed to the school from all over the countryside. The SRTS movement has found ways to benefit bussed students by creating a substitute walk, adding some distance through a remote bus drop off, or by routing students a longer distance on the school grounds. In this way, the physical and social benefits of walking and biking to school are still available.

Some children with disabilities can walk and even ride a bike, but cannot safely do it without adult company or direction. Some children with disabilities cannot walk without mechanical aids such as crutches or walkers. Some cannot walk at all but can maneuver

a wheelchair manually, and some children cannot move at all without assistance from another person. Regardless of the severity of the physical mobility challenge, all children benefit from the experience of traveling, as independently as they are able. SRTS can create opportunities for children with these challenges to experience travel in an environment associated with school and in the company of familiar and friendly people. This affords children the degree of individual independence for which they are capable.

It is clear that SRTS can bring significant benefits to students with disabilities who participate. The remainder of Part II will discuss how to incorporate effective consideration of students with disabilities in SRTS planning and programming.

An Overview of Michigan's Safe Routes to School Handbook Planning Process

This section provides a brief overview of the SRTS planning process detailed in Michigan's Safe Routes to School Handbook. The handbook incorporates a five-stage planning process any school can follow to create an action plan for encouraging and enabling children to more safely walk, bicycle, and roll to school. In order for schools to receive federal SRTS funding in Michigan, they must have completed the handbook planning process. The five stages are briefly described below. Beginning on page 20, the five stages are discussed in each of the three special education school settings. In schools that are actively involved with SRTS planning and programming, recommendations are made to include students with disabilities in each of these stages.

Create an SRTS Planning Team

An SRTS Planning Team is a committee formed to carry out SRTS planning at a school. It is usually organized by a person or persons committed to and passionate about some aspect of SRTS. A team is needed because of the diversity of the environment, neighborhood, school, culture, and attitudes that may require attention and action. Representation from diverse stakeholders enhances the likelihood of broad community support and sustainability for the initiative.

Members recruited for the planning team should represent the varied interests, expertise, and influence needed to carry out the planning and implement action. To position itself for success, a core team at a minimum should include representation from school administration, teachers, parents, students, law enforcement, non-motorized transportation groups (e.g., trail friends groups, bicycling clubs), and the governmental entity with responsibility for the roads serving the school and its neighborhood.

A broader base of membership from community organizations, elected officials, planners, recreation or health organizations and specialists, is helpful in building the community support which may be needed especially to ensure approval and commitment of resources to implement SRTS action plans.

Investigate Behavior and Attitudes

One of the initial tasks of the team is to gather information that will serve as the basis for understanding the physical and social norms affecting safe routes to school. In Michigan, parent and student survey instruments and a classroom tally were developed as an outcome of the 2003-2005 Safe Routes to School pilot project.

Parent and student surveys measure attitudes, beliefs, and behaviors regarding safe routes to school. The parent surveys provide information on issues affecting current parental decisions about walking and biking to school, and what improvements might trigger a different decision. The student survey probes the attitudes and beliefs of the students

regarding what they would like or need to make walking and biking safe and fun. The student survey also assesses whether students would walk or bike if the issues were addressed. The final survey is an in-class tally of how students currently travel between home and school. It establishes benchmarks from which walking and bicycling behaviors are measured.

The survey information coupled with information about the infrastructure and environment collected in the next stage, provide the basis for planning comprehensive, coordinated action to achieve changes in attitudes, behavior, and the physical environment.

Route Safety Assessment

The fourth task in the planning process is assessing current routes to school for the safety of students walking and biking. Often called a walking and biking audit, this assessment also reviews the school grounds especially in relation to the staging areas for school busses and automobiles during arrival and dismissal times.

The planning team typically invites broad participation in conducting this assessment because a number of routes must be covered. The audit consists of small diverse groups walking specific routes and noting safety issues with the infrastructure or environment. The planning team combines the findings of the audit groups, and the result is a picture of the relative safety of various walking and biking routes. Based on this information, actions can be identified to correct infrastructure problems and improve safety.

Create a Comprehensive Action Plan

Using the information gathered in the surveys and the walking and biking audit, the planning team develops a list of actions to increase safety, enhance understanding of the benefits of walking and bicycling, and boost the number of children walking and biking to and from school. The action plan is structured in five categories—the Safe Routes to School 5 Es—Engineering, Enforcement, Education, Encouragement, and Evaluation. The action plan is the foundation needed to apply for federal SRTS funds in Michigan.

Host a Walk to School Day (Optional)

Walk to School Day serves several broad purposes for SRTS. It engages students, parents, school staff and officials, and community leaders in planning for and walking to school together on a particular morning. It raises awareness of the fun walking and biking can be, as well as the presence, condition, and absence of safe routes for students. It provides an opportunity to educate the community with regard to nutrition, health, and fitness issues affecting school children, and the potential to address these issues by encouraging more students to safely walk and bike to school. Perhaps most importantly for SRTS, it can serve as the springboard for recruiting potential participants (parents, teachers, city planners, community leaders, and other stakeholders) for an SRTS planning team at the school.

SRTS in the Three Special Education Settings

The planning process described in the previous section can be carried out in any of the three school settings in which special education is provided: neighborhood schools, regional/district-wide schools, and center-based-program schools. All of the techniques described in Michigan's SRTS Handbook can be effective in creating safe routes for the general population including students with disabilities. It is important to note that the efforts to include students with disabilities will occur at schools actively involved with SRTS planning. Rarely, if ever, will SRTS activities take place in special education settings where there are not other SRTS efforts engaging the general education population.

In general, the SRTS planning team will have the most success in accommodating students with disabilities by engaging those who already provide the instructional support and related services. Equally important is engaging special education teachers, professionals, and parents as members of the planning team. As with SRTS in general, not all special education advocates will share an equal view of the opportunity SRTS represents for student with disabilities, but one or two may become active participants and invaluable resources to the planning team.

In the sections which follow, the stages of the planning process are discussed in the context of each of these school settings. Much of what is discussed for the neighborhood school setting will apply to the regional/district-wide school setting, and to a lesser extent, the center-based-program school. The sections on the other two school settings will build on, not repeat, material discussed in the previous setting(s). Hence the neighborhood school section is the longest and most detailed.

The Neighborhood School

In the neighborhood school, children with disabilities are usually a part of the general education classroom. Their challenges do not preclude them from benefiting from the general education curriculum, and the additional services they require are provided as needed in the classroom or through brief sessions outside the classroom with special education professionals. In some cases, an aide may be assigned to assist the student with disabilities throughout the school day. These accommodations level the playing field for students with disabilities, enabling them to participate effectively in the general education environment. In neighborhood schools, the SRTS planning process can proceed in the standard fashion, as long as the planning team is aware of students with disabilities and encourages the participation of special education advocates in the planning process.

Creating the SRTS Planning Team

Students with disabilities and their families are stakeholders as well as experts on challenges and accommodations that would be helpful. School staff members who instruct or provide related services for students with disabilities are also stakeholders and

experts. These parents and professionals are essential members of an SRTS planning team.

A visit with the principal is a starting point for identifying potential team members from these ranks. The principal can provide information about which general education teachers have students with disabilities in their classrooms and what other staff members are working on with these students. In the neighborhood school, most of these professionals serve a case load at more than one school and may be at a particular school as little as once or twice a week. The principal or someone he/she recommends will know who has a grasp of the level of involvement of these specialists at the school, and whether there is a practical SRTS planning team candidate among them. The ideal representative would be someone working with several of the students with disabilities in the school, and/or who spends enough time at the school to be familiar with the staff and culture there. A second important criterion is a passion for their work and the well-being and growth of their students.

A general education teacher may be well-qualified to represent students with disabilities on the SRTS planning team, especially if he/she has taught or is teaching a student with disabilities.

Parents of children with disabilities are also important team members. Beyond paying attention to who participates in Walk to School Day and recruiting from that pool, a good starting point for finding parent representatives is a conversation with someone who knows a lot of the families in the school. Other school organizations—parent-teacher groups, coaches, advisory committees, youth sports organizers, etc.—may be able to offer suggestions. Finally, current planning team members may be friends or acquaintances with a family having a student with disabilities and can invite a parent to join the team.

An important attribute of the neighborhood school setting is that all students live in the same neighborhood. Families of special education students may also have general education students at the school. These parents bring their varied perspectives as a bonus resource to the planning team.

If a parent of a child with disabilities, a special education teacher, or other special education practitioner is not able to serve on the SRTS planning team, consider having someone with special education experience provide an orientation for the planning team. This type of activity, which could include a tour of the special education facilities, will be an incredibly powerful experience and learning opportunity for the team. An orientation of this kind may also be beneficial for road agency staff, municipal officials, local business owners, and others involved with SRTS.

Behavior and Attitude Surveys and the In-Class Tally

In the neighborhood school, student surveys and the in-class tally are conducted to assess attitudes and behaviors relating to walking and bicycling to school. These surveys are developed and made available to schools by Michigan State University (MSU). MSU

also complies and interprets the survey results. These instruments are administered in the classroom under the supervision of the teacher. In classrooms with students with disabilities, whatever accommodations are already routinely afforded these students for test taking or other language, communication, or motor-based activities should also be made to enable the student with disabilities to complete the survey. For most students with disabilities in the neighborhood school setting, these accommodations will make it possible for the survey and tally results to be meaningful for the student and the SRTS planning team.

For students with disabilities who use mobility aids (e.g., wheelchair, walker), the surveys may need to be revised to provide adequate choices for the questions discussing the means of travel. Current choices do not include a response allowing the student to identify his/her means if it involves the use of a mobility aid. This is most important on the question “If you had a choice, how would you most like to get to school?” Students who use mobility aids may at some level wish they could walk *anywhere*, much less to school. They may feel comfortable with their disability but feel left out because their mobility option is not included. The most independent choice possible, namely using the mobility aid to which they’re accustomed, isn’t provided as a response choice on the current survey. Similar review of the “what would make it better” response choices might yield some additional options enabling an authentic response for the student with disabilities. The general wording of some of the other survey questions which use the phrase “walk or bike” will require interpretation by the student who travels using mobility aids. If nothing else, a blank “other” response opportunity would enable unique points of view to be expressed and recorded.

Similar review and augmentation might be conducted for the parent survey. In addition to making it possible to select the appropriate “means of travel” response, guidance should be given regarding the walk or bike questions. Which means should the parent whose child uses a mobility aid select? Or should a third choice (other than walk or bike) be offered so a real answer is available as a response? In addition, asking “In which grade is your student?” can be very painful for a parent of a 15-year-old student functioning at the second grade level. By modifying the survey, parents of students with disabilities would feel more welcome in the program.

Survey compilation and analysis services are offered. In Michigan, the service is offered for parent and student surveys and nationally the service is offered for parent surveys only. In Michigan, schools that have amended the standard surveys for students with disabilities have the opportunity to work individually with MSU to compile and analyze their survey results. In Michigan, the surveys and in-class tally currently are being reviewed so changes can be made without compromising the data already collected. Future analysis and results would then reflect input of students with disabilities and their parents.

There may need to be consideration of whether additional surveys should be completed to assist in meeting the needs of students with disabilities. Surveying the teachers and staff

who assist with student mobility may help schools determine what is safe or not safe, what works or doesn't work for individual students.

Route Safety Assessment

This stage of the planning process is conducted using the same guidance (Michigan Handbook and the resources available at the National Center for Safe Routes to School) at the special education school settings. As already highlighted in Part I, the built environment must by law be accessible to people with disabilities. Protections are institutionalized requiring the public infrastructure be designed and constructed in a manner that provides access for people with disabilities. Design standards meeting this mandate are in place, and for the most part, public funding cannot be spent on infrastructure that does not meet these standards, unless the infrastructure is brought into compliance with ADA requirements during project implementation. Because of this longstanding statutory protection, SRTS initiatives are already well supplied with guidance on what to look for in assessing routes to school, to ensure they are safe and useable by students with disabilities. Because of this, discussion of this planning stage in this paper is limited.

Nevertheless, a unique opportunity exists in the neighborhood school setting to collect data on infrastructure improvements necessary to provide safe and useable routes for students with disabilities. The opportunity exists to get direct input from students with disabilities and their parents on specific routes between home and the school, such as objects blocking an accessible route like garbage cans, benches, vehicles, and bikes chained to objects. Families having a student with disabilities should be invited to participate in the walking and biking audits.

Creating a Comprehensive Action Plan

Action plan development relies upon the survey data, the results of the walking and biking audits, and the expertise and creativity of the planning team. If data collection and the audits have been completed with sensitivity to the challenges faced by students with disabilities, the team will have the information it needs to address accommodations. The diversity of interests and expertise represented on the planning team will continue to play a significant role. The participation of parents and service providers for students with disabilities is critical to ensuring the team identifies actions that will be effective in increasing “walking and biking” for these students.

Action plans are typically organized around the five Es—Education, Encouragement, Enforcement, Engineering, and Evaluation.

Education The purpose of the education component of SRTS is to create knowledge and understanding of the conditions and behaviors that make the trip to school safe. Typically, students are taught the rudiments of safe walking and biking in the context of the trip to school. Student training can take many forms and many examples are available from program sources at the state and federal levels, including free materials for

use in the classroom and regimens for training in a real-life setting. These child pedestrian and bicycle safety programs are useful for students with disabilities attending a neighborhood school, just as other general education curricula are useful.

For the safety programs to be optimally effective for students with disabilities, the supports and accommodations already provided for them in the general education classroom must be available when they participate in SRTS education programs. In addition, the programs being used must be reviewed in the context of the unique challenges characterizing each student with disabilities to determine if the program or curriculum will require augmentation to be effective. Each student with disabilities has a documented evaluation which serves as the basis for his/her educational goals. The general education teacher may be the best resource for determining what accommodations will be necessary and in the best position to judge what adjustment needs to be made in the curriculum or teaching technique, and can direct special education staff when their expertise is needed.

It would be very helpful to have SRTS teaching tools developed that could be used by all teachers and professionals working with students with disabilities. For example, having clearly explained and tested procedures for a wheelchair user who encounters a sidewalk panel which has heaved up an inch above its neighbor. For most students, a tripping hazard will not present an insurmountable problem. For the young chair user, this situation requires advice since it will block further progress. There are several options for dealing with this barrier. For example, the chair user can turn the chair 180 degrees so that the back wheels encounter the barrier first. Since the back wheels do not swivel, have a larger diameter, and are directly powered by the user, the chair can be rolled over the ridge and the front castors will follow. Information such as this, along with additional education and safety issues would be very beneficial for all teachers, parents, and volunteers participating in SRTS.

Developing an action plan that makes walking or bicycling safety training work for the student with disabilities may require some additional effort on the part of the planning team, teachers, and professionals providing services to the student. It may be helpful to have resources available to identify and address SRTS challenges facing students with disabilities. This type of resource could supplement the resources already available for special educators and advocates who are using SRTS to support students' IEPs and transition plans.

Another key element of an action plan is preparing SRTS volunteers that will be working with students with disabilities. Having tools that could be used for volunteer education may help alleviate SRTS barriers. In addition, a proactive effort to promote SRTS as a special education developmental resource could bring about a synergy resulting in enhanced teaching and learning opportunities, and daily reinforcement of critical skills in the student's educational program.

SRTS could be a tool to support, develop, and reinforce IEP goals, travel training, or transition training. The possibilities for effective use of SRTS to meet special education

objectives are limited only by the imagination and creativity of the parents and professionals involved with each student. It is not the role of the SRTS planning team to set individual educational objectives for students with disabilities. Rather, the SRTS team can offer SRTS as a tool and resource to help develop skills and capacities, with the added benefit of empowering students to travel as independently as they can to and from school.

For many students with disabilities in the neighborhood school setting, bicycling to school is possible either on standard bicycles and tricycles or on adapted equipment. Students can learn bicycle safety in the classroom, practice bicycle skills in physical education class, and practice via extracurricular events such as a bicycle rodeo. For students with disabilities, learning to ride a bike could occur at home under parental supervision or as part of recreation therapy or physical therapy in or outside of school. Evaluation for an adapted bicycle can be performed by a physical therapist, and if a physician prescribes the equipment, medical insurance may cover some or all of the expense.

Equally important for all students using bicycles, whether standard or adapted, is learning how to ride safely in the real world. As is the case with walking, classroom lessons must be augmented and reinforced with supervised practice in real-life settings. Planning teams should take special care to identify and engage volunteers to make riding safe for students with disabilities for whom learning to ride is a possibility. The role of the team is not to develop an individual riding regimen for each student with disabilities. Rather, it is the team's task to engage those people with the essential knowledge and resources to assist these students in overcoming or compensating for the unique challenges they face. For students with disabilities, real-life practice may include the rules of the road, safe riding maneuvers and behaviors, and additional elements created to address each student's unique challenges.

Again, from the school perspective, the best understanding of each student's individual profile of attributes is found in the teachers and other professionals delivering special education and related services to the student. While these providers can recommend additional areas of learning, skill development, or accommodation which may be necessary for their student(s) to bicycle safely, providing the real world experience and practice will likely fall to others recruited to help.

In Michigan, a unique resource is available to assist in preparing children with disabilities to bicycle as independently as possible given their unique profiles. Programs to Educate All Cyclists (PEAC) is a Michigan-based nonprofit organization dedicated to bicycle safety training for children with disabilities. PEAC works in conjunction with schools and in partnership with parents to:

- Evaluate a child's unique physical, emotional, and cognitive challenges and strengths.
- Develop a training regimen tailored to address these unique attributes (including bicycle adaptations).

- Provide the training both in sheltered and eventually in real-world settings.
- Provide opportunities to practice developing skills in the company of other students and families during group rides.

PEAC helps solidify the independent efforts of educators and service providers, parents, and the student into a coordinated collaborative whole. PEAC has been an active participant in Michigan's SRTS statewide coalition from its inception in 2003. More details on these services and PEAC contact information may be found in Appendix L and on PEAC's Website www.bikeprogram.org.

Lose the Training Wheels, Inc. is a national organization that has conducted bicycle riding training for children with disabilities at a number of Michigan locations during the summer. Information about the organization and its training programs can be found at www.losethetrainingwheels.org. The Website also includes a schedule of training dates at various locations across the country.

Encouragement As is the case with education, encouragement actions typically employed in general education schools can be successful in the neighborhood school special education setting. Similar to education interventions, typical encouragement strategies may require some modification to effectively engage students with disabilities and their families. As addressed in Part I of this paper, parents may be wary of their child's participation. Because of these potential sensitivities, SRTS planning teams face a more complicated task when developing and recommending programs to encourage walking and bicycling to school in the neighborhood school special education setting.

Fortunately, as this paper has already documented, there are many persuasive arguments for participation by students with disabilities. The planning team can develop and implement strategies for communicating the general benefits of walking and biking to school and the specific and often more significant benefits of doing so for students with disabilities. The following paragraphs provide a sampling of potential encouragement tactics that could positively influence participation by families of students with disabilities.

1. Ensure that materials distributed at any stage of the planning process are sensitive to the presence of children with disabilities. Already mentioned are inclusion of mobility aids (e.g., wheelchairs, crutches) in graphics. Using language that emphasizes independent self-powered mobility, and amending or augmenting surveys to provide response choices directly corresponding to the means of travel possible among the school's special education population.
2. Engage special education professionals at the school in thinking about SRTS in the context of meeting educational objectives for students with disabilities. To facilitate this, a fact sheet presenting the particular opportunities and benefits SRTS offers for students with disabilities could be prepared and presented to teachers and those providing related services. This presentation could be offered in conjunction with a luncheon or as an adjunct to another SRTS event such as the

walking audit. A setting enabling interaction is important so ideas can be exchanged between the SRTS team, the special education professionals, and families. Both the materials and discussion should include the potential use of walking and biking (or, more generally, independent travel) to school in supporting educational goals.

3. When encouraging families of children with disabilities to participate, consider approaching them through special education teachers and other related professionals already working with them. While general SRTS materials will be distributed to general and special education families alike, recommendations from teachers and other special education professionals may carry significant weight with parents of children with disabilities. Knowing a trusted teacher embraces SRTS and believes in the benefits of participation for their students may persuade parents to have their children participate. It may also motivate them to collaborate with SRTS in practicing and reinforcing lessons learned about safe travel to and from school.
4. Provide guidance and training for volunteers and others involved with SRTS activities so they are prepared to support students with disabilities. For example, walking school bus drivers and bike train engineers (two popular SRTS programs led by volunteers) need to know what to expect from the students with disabilities who are on their route. The information provided will depend upon the unique attributes of the particular student(s) who join their route and teachers and parents of each student are the appropriate people to provide this information. If possible, engage parents of students with disabilities as drivers and engineers for their children's group.
5. In general, it is best to enable participation through sensitive planning, rather than singling out families and students with disabilities for special treatment. Often, the needs of these students are transparent to their classmates and something they are used to accommodating without focusing on it. SRTS planning will be most effective for students with disabilities in neighborhood schools when it is conducted in the same spirit.

Enforcement SRTS planning teams typically find law enforcement involvement, especially in the initial year of implementation, is necessary to improve safety for the growing number of students arriving at school on foot or by bicycle. The presence of uniformed officers and police cars encourages better behavior on the part of drivers, especially those who are still picking up or dropping off students at school. Because special education participants will be walking and biking with their peers, they will benefit from whatever improvements law enforcement presence brings to the general student population.

Short of uniformed officers, many planning teams will recommend enhanced protection at road crossings through the use of volunteer crossing guards. Uniformed officers and crossing guards will be better able to serve students with disabilities if they have been adequately prepared. Empowering enforcement providers with the knowledge they need

to facilitate safe travel for students with disabilities as a routine matter, as opposed to singling them out for special treatment, will have the best results. For example, with relatively simple training, these providers will learn to interpret observed behavior as the result of particular challenges facing students with disabilities rather than seeing it as intentional misbehavior.

Enforcement also includes local ordinances regarding obstructions of sidewalks, roads, and multiuse paths. Snow removal issues can stop children in the winter. Leaves and yard debris can block the passage of students using mobility devices in the fall. Garbage cans become an obstacle course every trash day if citizens do not realize the importance of not blocking the sidewalk. Educating citizens of the ordinances can be a first step in enforcement.

Engineering As a matter of law and required design standards, engineering recommendations will address barriers for persons with physical disabilities. However, addressing accessibility in infrastructure improvements does not automatically produce an effective result for students with disabilities with other challenges. Consider a child that has challenges with verbal or written language. Engineering design standards include best practices for way-finding and regulatory signage. From an engineering standpoint, as long the signing is manufactured, located, and installed according to standards, it is appropriate and adequate. For a language-challenged student, however, the signs may be unintelligible. The infrastructure cannot be made to communicate effectively with such a child. Education interventions could be developed to assist the student in using other cues to interpret the meaning of the signs.

Construction or maintenance work may present a temporary barrier that cannot be corrected with engineering. Special efforts will be necessary to develop an education intervention to teach students to take an alternate route around the temporary barrier and help them cope with a temporary disruption of their familiar route.

These examples demonstrate that barriers associated with infrastructure will remain for many students with disabilities even when the infrastructure meets all of the governing engineering standards. These barriers will vary among students depending upon their needs. Fortunately, teaching and providing means to overcome or compensate for particular challenges is the purpose of special education. Special education professionals are a resource available to help address these challenges.

Evaluation This topic was addressed in the Behavior and Attitude Surveys and the In-Class Tally discussion beginning on page 29. Conducting surveys, tallies, and walking/bicycling audits initially and at periodic intervals provides the basis for determining whether attitudes and behaviors have changed over time. Students with disabilities can participate in these measurements using whatever special education accommodations are already used to facilitate their effective participation in similar school activities.

An indicator of SRTS program impact is an increase in the number of students walking and bicycling to school. If SRTS is used to support a special education goal (e.g., transition or travel training) in a special education student's IEP, the opportunity exists to document progress toward the goal. While walking and bicycling to school has been shown to yield indirect positive educational benefits for general education students (for example, exercise before class yields greater readiness to focus on learning), it should be clear that there can be *direct* educational benefits for many students with disabilities when SRTS is used as a tool for achieving individual education goals for these students.

An opportunity offered to special educators by SRTS is using a real-world context for teaching skills that are likely to be attractive and motivating for a student. Michigan's current student surveys consistently show that walking and bicycling are the preferred means of travel by the majority of students. For students with disabilities, empowering them to travel independently by whatever means, is likely to be similarly attractive.

Walk to School Day

Walk to School Day typically engages all of the classrooms in a school and it is publicized in a variety of ways, including notes and flyers to parents sent home in school bags. These usual methods will likely be sufficient to engage most students with disabilities and their families.

Sensitivities should be considered in organizing the event and in encouraging participation of students with disabilities. Organizers can discuss with appropriate school staff (starting with the principal who will know the appropriate person to consult) the students with disabilities in the school, identifying the types of challenges represented, and accommodations which may be required to ensure the opportunity to participate. Special consideration may be necessary for students with physical disabilities which require the use of mobility aids (e.g., wheel chairs, walkers) or for whom muscle tone or motor planning are issues. For the former students, care should be taken to ensure a route which is barrier free; for the latter group, shorter routes would be appropriate. Materials provided to parents and students can identify these alternatives for everyone without specific mention of students with disabilities, creating the opportunity for parents of all students to select a route facilitating a positive experience.

Students who need behavior and cognitive supports may need additional supervision during the Walk to School Day. Walking the route before the event may assist students' understanding, build students' expectations, and reduce students' anxiety. Walking in smaller groups may be necessary for some students who have difficulty relating to other students and adults. Shortening the route may also assist students who have difficulties crossing the street.

Promotional materials can be developed to be sensitive to and inclusive of means of moving that aren't precisely walking or bicycling by focusing emphasis on the joy of the trip by whatever means. Photos and graphics can reinforce this by routinely including a wheelchair, crutches, walker, or motorized scooter among the feet and pedals. Faces of

students with different syndromes, such as Down syndrome, should also be included as students may not relate to graphics and pictures of inanimate objects. The goal is enabling students with disabilities participation without singling them out. Such an approach will go far in making participation comfortable and attractive to families having a child with disabilities regardless of their attitude toward their child's participation in new events.

Discussing the needs of students with disabilities and their families ahead of time and working out the best walking scenarios and methods of encouragement before launching the event, are essential to ensure the needs of some students will not pose a barrier to their participation. While one of the objectives of Walk to School Day is to expose the community to the availability and safety of current routes to school, this objective should not be met at the cost of a positive Walk to School Day experience for the students with disabilities.

The Regional/District-wide School

The regional/district-wide school is a general education school that has at least one regional special education classroom. Students with disabilities placed here spend the majority of their time in the company of classmates with similar levels of challenge, receiving instruction from special education teachers and other services provided by related professionals. A regional/district-wide school may also have special education students in the general education classroom as described in the previous section.

While the regional special education classrooms are the distinguishing feature in this setting, the majority of the students at the school will be general education students from the neighborhood. For these students, and those students with disabilities from the neighborhood who are placed in general education classrooms, this setting is very similar to the neighborhood school. The neighborhood school discussion applies directly to the parallel students and classrooms at the regional/district-wide school. Much of the discussion is also applicable to the special education classroom and its students. To avoid being redundant, this material is not repeated in this section. Rather, this section focuses on the additional factors requiring attention because of the presence of the special needs classroom or classrooms.

Remote Pickup and Drop Off Location

A primary factor to consider throughout the planning process and in formulating the SRTS action plan is that most students with disabilities placed in these classrooms live outside of the school's neighborhood. It is common for most of these students to be transported to school by bus or car due to the distance between school and residence. Because of this, participation in SRTS for these students has the most in common with rural schools where the distance to the school for most students makes bus or car transport the only practical options. The most common SRTS action explored in these situations is the creation of a remote drop-off site from which students walk the remaining distance to school. Bicycling is not a likely option because it is impractical to have bicycles available and secured at the drop off location or transported every day from home.

For students placed in the special education classroom, travel between the remote site and the school may be complicated by the challenges they must overcome daily. Typically, the students' trips from the bus or car at curbside to their special education classroom are supervised, if not directly accompanied by a parent, caregiver, or school personnel. From a remote drop off location, the supervision or travel companion function must be replicated for each student with disabilities or group of students.

The remote drop-off site may be part of Walk to School Day and other SRTS activities, such as Walking Wednesdays, for all general and special education students. Whether the site is created for all students or for the exclusive use of those in the special education classroom, the supervision or companions could come from parents, volunteers, school personnel, crossing guards, older students, etc. If non-special education personnel are

being used for this function, they should be trained in the needs and demands of students with disabilities. Some schools have used the transportation aides to complete the trip to school, so adequate supervision is provided to meet the student's IEP requirements.

The SRTS Planning Team

It has been established that the SRTS planning team will be most effective for students with disabilities if parents and the professionals providing education and related services are members. In the regional/district-wide school setting, it may be more difficult to recruit these parents because their only connection with the neighborhood is that their child was placed there. Having the child educated outside their neighborhood poses two complementary problems for families. First, the student may not be acquainted with the children in his/her own neighborhood and second, the other children with whom he/she goes to school, live scattered across the region. A related difficulty is alienation from extracurricular activities at the regional/district-wide school because of the distance and inconvenience.

This potential lack of integration into the regional/district-wide school can make parents of students with disabilities feel like outsiders in SRTS planning—a feeling they may already experience with other school-related activities. To encourage participation on the planning team, efforts must be made to dispel this perception through genuine warmth and engagement and through respectful listening to the very unique needs and concerns of these parents. One way to create comfort is for a trusted special education teacher or other special education professional join the parents on the planning team. Another possibility is to form a subcommittee to develop specialized recommendations for the special education classroom students. This subcommittee could include parents of students with disabilities placed in the general education classroom and in special education classrooms.

Action Plan Concerns

The following suggestions are uniquely important to planning SRTS interventions that will benefit students in a special needs classroom.

1. Carefully plan the timing, organization, and operation of SRTS events—e.g., Walk to School Day—recognizing the unique constraints for students and their families who don't live in the neighborhood.
2. Engage the special education classroom teachers and other professionals at the beginning of the planning process. Stress the benefits of SRTS for students with disabilities and the opportunity to use SRTS as a tool to achieve individualized goals for their students. Ask what SRTS can do to make participation possible and rewarding for the students and work together to provide the requested help.
3. Include children with visible disabilities in all materials developed for the program. An ongoing objective of regional/district-wide school administrators

and staff is for student with disabilities to feel and be seen as belonging in the school and among the general student population. Again, the guiding principle is to enable and encourage without singling out.

Following these suggestions along with those made for the neighborhood school setting can position the planning team for success in engaging and bringing SRTS benefits to students with disabilities placed in special education classrooms and their families.

The Center-Based-Program School

A center-based-program school is devoted entirely to special education and has specialized classrooms organized by age and disability. These schools represent a very restrictive environment for special education. Student placement in this setting is recommended when the student's challenges are sufficiently severe as to render the general education environment inadequate to providing effective instructional and related services for the student. Students come from far greater distances—all arriving by bus or car—as these schools serve a large geographic area. These schools share little in common with the neighborhood and regional/district-wide schools. Families of students attending these schools share no neighborhood affiliation and have no other relationship to one another except the fact that they are families of students with disabilities.

The planning process steps are relevant for this setting, but successful approaches will depend upon reinterpreting these steps for the center-based-program school. For example, if legislation is revised to allow funding for specialized program for a center-based-program school, one focus of the SRTS effort may be the trip from whatever vehicle has transported the student to the school property to the school building and the classroom within. This trip for most students is accompanied by a parent, aide, teacher, or other school staff member. At many schools all school staff are mobilized and engaged in getting students between vehicles and their classrooms during arrival and departure times. Another SRTS focus may be on traveling from the school to a community-based instruction site. In some cases, the students may walk or roll, either under their own power or propelled by a teacher or para-professional, to these “community classrooms.”

The trip between vehicle and classroom may pale in comparison to the neighborhood trip between residence and school which is the focus of the standard SRTS initiative. But a systematic SRTS planning process can produce a plan which can bring significant benefits to these severely challenged students with disabilities. The following paragraphs offer some perspectives from which to create a meaningful SRTS initiative at a center-based-program school.

The SRTS Planning Team

The center-based-program school is a community unto itself. It does not take its identity from the neighborhood in which it is located. Its identity is defined by the role it plays in

the lives of its staff and its clients—the students placed there and their families. Everything that occurs at the school is created, coordinated, and implemented by the staff, the students and in limited ways, the parents. In this context, a SRTS planning team may consist nearly entirely of school staff and administrators and parents. While that would seem to make committee operation straightforward, the major challenge is in recruiting parents to participate. The major barrier to participation is the distance and disconnectedness of the parents from the school location.

Several innovations for committee function could surmount this barrier. First, the committee could meet during school hours, adjacent to either arrival or departure time, so that child transport doubles as the trip to the meeting. School representatives would need to be given leave to attend. Meetings could also be scheduled as staff in-service time, or on days where staff is present but school is out, as is the case for parent-teacher conferences. A variation on this is to make childcare available, and schedule meetings after dismissal time in the afternoon. Another option might be to meet virtually, using school teleconferencing capabilities or any one of the many interactive Web meeting or Web-casting services available via the Internet.

Attitude and Behavior Surveys

Parent and student surveys will require revision to eliminate questions and responses that are irrelevant to this setting. Some students will be able to provide responses to a survey if provided one-on-one assistance and/or using communication aids they may already depend upon. For other students, staff or caregivers may be able to answer reasonably accurately on their behalf, based upon their understanding of the students' body language and their general knowledge of the student's likes, dislikes, emotional reactions, etc. The key is for the planning team to formulate questions that have meaning in the context of the setting and the potential it offers for a version of SRTS. The team can tailor the survey so it provides information useful in planning effective interventions in this unique setting. Or, perhaps a new survey could be developed for students at center-based-program schools.

Route Safety Assessment

The route safety assessment could focus on potential routes from vehicle to classroom and/or routes to community-based instruction (CBI) sites. Since fewer route alternatives are involved, this assessment could be tailored to sort out routes by their suitability for various classrooms, and student needs and capacities—e.g., short routes for students with muscle tone or motor planning issues, routes with lots of turns, grade changes, etc., for students with under-reactivity in the body senses, routes with obstacles for students developing skills in navigating manual and motorized wheelchairs.

Action Plan Development

For the center-based-program school, many possible actions are available that would be irrelevant in any other setting. The common theme among these actions is the possibility

for synergy with the individual educational goals set for each of these students. Engineering interventions could include creation of path alternatives on the school grounds with specific attributes designed into them. These attributes could reinforce development objectives for students with particular categories of challenges alluded to in the previous paragraph. Educationally, each student has the chance to grow through SRTS because the initiative will be focused on achieving educational goals and be designed by the parents and professionals who set the goals. Only in this setting is one-on-one intervention possible; in fact it is the routine mode of operation in center-based-program schools.

Encouragement takes on a potentially different focus in this setting. In addition to encouraging parents to participate both in planning and reinforcing lessons, students learn through SRTS, they can be encouraged to engage in and embrace new experiences, skills, perceptions, and sensations. This will enhance their quality of life by enabling growth in their ability to function, enjoy, and control their experience. Enforcement may be a factor if part of the travel experience includes off-site remote drop off locations or extension of the trip from vehicle to school by using an off-site loop.

While challenging if viewed in the context of typical SRTS programs at general education schools, SRTS at a center-based-program school can be exceptionally beneficial to recipients in this setting. The book remains to be written on initiatives in this setting. The foregoing suggestions likely only scratch the surface of what may be possible in this as yet uncharted arena for SRTS.

Walk to School Day

Center-based-program schools conduct special events for their students just as other schools do. Students might participate in a spring picnic or field day on school grounds. They may be taken on field trips to community venues. Some students' IEP goals are to participate in community-based instruction such as trips to shopping centers, parks, movies, etc. Some schools offer multi-day trips to school camps where students, regardless of their special needs, take advantage of a variety of outdoor pursuits. Because students are already familiar and comfortable with these types of events at school and because staff are prepared and organized to carry them out, a Walk to School Day event could be appropriate.

The event could be the opportunity to test the possibilities to lengthen the trip between vehicle and classroom. Numerous options exist including routing students on paths, tracks, or playgrounds on school property before they proceed to the classroom. If the grounds are not suitable or impractical during inclement weather, the same goal can be accomplished by round-about routes inside the school. Remote drop-off sites could be arranged if available, even if remote means the far end of a parking lot as opposed to the curb outside the front door. Depending on the location and environs of the school, a short "walk" (say, around a block) in the school neighborhood before entering the school is another possibility.

Any and all of these possibilities would be tempered by the unique needs and capacities of individual students, but that is true of all activity for students in the center-based-program school. Accommodating individual differences is the strong suit for these schools as each student has a unique IEP that dictates educational supports.

The experience provided by a Walk to School Day will provide the fodder for discussing recommendations for permanent changes in behavior at pickup and drop off times and to take advantage of the opportunity the trip into school poses for the education, development, and well-being of the students.

Resource Scarcity: Special Education and SRTS

SRTS planning teams through their best efforts and acting in good faith can develop an SRTS action plan that ensures all students experience the benefits of SRTS. However, to successfully implement an SRTS action plan requires resources—both human and financial. It is safe to say that both types of resources are scarce within federal and state SRTS programs. In Michigan, federal program allocations for the five fiscal years for which funding was authorized is substantially committed and more than 50 of the 400+ schools engaged in SRTS planning have applied for and been awarded federal funds. The schools with awards were, for the most part, funded for only the highest priority elements of their action plans—those interventions which promised to provide the biggest payoff in SRTS benefits for the costs involved. Other priority components of their action plans will require funding from other sources if they are to be completed in a reasonable time frame.

Education in general is seen by many to be chronically under-resourced and in economically hard times financial pressures exert in turn, pressures on the human resources necessary to deliver services effectively. In this climate, special education is especially challenged, as school districts seek ways to bring costs in line with available revenues. The primary reason special education is targeted is that it costs substantially more per pupil to deliver than does general education (20 percent of total education costs), and serves a minority of the student population (15 percent in Michigan). Fortunately, federal and state statutes, rules, and regulations, prevent the elimination of special education and set minimum standards (e.g., classroom staff to pupil ratios for various disability types) for delivery of special education instruction and related services. Meeting only minimum standards may be insufficient effort to ensure that the service provided to these students is sufficient to enable them to achieve their educational potential.

When SRTS activities happen in a school, SRTS success for students with disabilities may depend upon the engagement and participation of special education teachers and the professionals that provide related services. This is true because these professionals are in the best position to understand the needs of their students and the accommodations the students need to reach their SRTS potential. It is essential that SRTS planning teams understand they seek the engagement of people already beleaguered and perhaps overwhelmed in their work because of the resource-scarce environment. If engagement can be achieved (perhaps following suggestions made in this paper), it may be easier to tap these human resources to carry out special needs elements of the SRTS action plan; but always it must be remembered that special education practitioners are likely already overburdened. The SRTS planning team can be helpful in this environment by offering whatever support it can to ease the load on these professionals.

When it comes to pursuing financial resources from SRTS, the school district, or any other source, SRTS teams can be prepared to cite the broad longer term societal benefits of successful SRTS outcomes, in addition to the immediate and short term benefits to current school children. An improvement to the physical environment which makes it

accessible to a person with a physical disability is a potential benefit to everyone, if for no other reason we will all suffer temporary and perhaps eventually permanent disabilities.

A similar case can be made for investment in special education and investment of SRTS resources in children with disabilities. In both cases, the investment contributes to enabling students with disabilities to develop to the level of functioning potentially available to them. Aside from being the fundamental objective of education for any person, achieving their potential level of independent functioning enables those with disabilities to reduce the extent to which they are dependent on society for their well-being. The cost of that residual dependency is often defrayed with public funding, as is the cost of special education. The difference is that special education funding eventually ends for each student, while public funding for those dependent upon it will continue for a lifetime. So an investment in special education in the short run likely minimizes the cost to public programs each student with disabilities will receive over his/her lifetime.

To the extent that SRTS investment contributes to children with disabilities achieving their potential, it too is a short term investment that produces a lifetime of savings for public programs. This is already true for general education students, but is magnified for the reasons suggested in the previous paragraph for student with disabilities.

These long-term-benefit arguments can be made with local school districts, with state education departments, and in state SRTS applications for funding. The case must also be made at the federal level. It is especially important for:

- The Departments of Transportation and Education to initiate a dialogue aimed at identifying how best to collaborate on the SRTS program and bring about synergy between SRTS and education programs.
- The U.S. Congress to understand the need for increasing SRTS funding during reauthorization of national transportation programs to broaden the purpose allowing travel-like skills development to be funded with SRTS, at least for those with disabilities.

Conclusion

This paper has begun a focused discussion on how SRTS can address students with disabilities in the planning process and in the activities undertaken to increase the number of children who safely travel to and from school under their own power. The means by which students with disabilities make this trip are many—on foot with or without mobility aids, by standard or adapted bicycles or tricycles, by manual or motorized wheel chair, by motorized scooter or cart, with or without personal assistance, or with whatever other accommodation makes it possible. Because there is a lack of documented SRTS experience with students with disabilities, little is known about what has been accomplished with and for these students in the thousands of schools across the country engaged in SRTS initiatives. It is not yet possible to know of the challenges encountered, effective solutions, or the resulting changes in parent and student attitudes and behavior.

In the absence of this knowledge, this paper is providing an introduction to students with disabilities in their incredibly diverse form and the special education system that serves them. It also identifies ways that everyone involved with SRTS can begin effectively engaging students with disabilities in activities and initiatives. SRTS at the local, state, and national level can better serve students with disabilities by:

- Identifying and promoting the benefits of SRTS for students with disabilities with special education teachers and other related professionals.
- Providing tools, techniques, and support so SRTS will be considered a viable option when working toward educational goals found in transition plans and Individualized Education Plans (IEP).
- Ensuring that promotional materials, evaluation procedures, event planning, and action plans recognize students with disabilities in ways that enable their participation without singling them out.
- Recognizing the characteristics of the three types of special education school settings and conducting SRTS in a manner appropriate for the students placed in each setting.
- Developing tools and resources to assist schools in conducting meaningful SRTS initiatives for students with disabilities.
- Sensitively engaging the families of students with disabilities in the SRTS planning process.
- Encouraging, facilitating, and creating a public archive of reports from the field (including pilot projects) regarding SRTS efforts to serve students with disabilities in the three special education school settings.
- Encouraging an investment in special education for SRTS now, so that in the long run it may minimize the cost of public programs each student with disabilities will receive over his/her lifetime.
- Initiating a dialogue at the state and national levels to promote SRTS opportunities and benefits with special education professionals to engage them collaboratively in local SRTS efforts.

- Educating state legislatures and Congress regarding the benefits of public investment in SRTS, advocating for increases in SRTS funding to better serve students with disabilities, and broadening the SRTS purpose to allow for teaching and development of self-powered travel life skills for students with disabilities.

Safe Routes to School has broad societal benefits beyond the direct objective of increasing the number of students who travel to and from school under their own power. Among these benefits is the opportunity to increase understanding and acceptance in our society of children with disabilities and the adults they become. Children readily understand that differences are simply differences. They do not attach judgment or stigma to differences until they learn to do so. Through SRTS efforts, more children are given the opportunity to experience the joy of independent travel under their own power. By engaging students with disabilities in SRTS, we also provide all children the opportunity to appreciate the diverse means by which such travel can be accomplished, and that the joy is in the journey regardless of the means.

APPENDIX

An Overview of Safe Routes to School

The Safe Routes to School (SRTS) movement in the United States has grown from initiatives in a few isolated places in the late 1990s to a federally funded program benefiting elementary and middle school students nationwide in 2009. The rapid growth created by the federal program has raised awareness of the personal, health, social, educational, and environmental benefits of providing the opportunity for children to safely travel to and from school under their own power. Modest as the quantity of federal funding is, the movement continues to expand explosively as more and more people, schools, organizations, and communities seek models for bringing about the kinds of change the SRTS movement can achieve.

The purpose of Safe Routes to School is to:

1. Enable and encourage children, including those with disabilities, to walk and bicycle to school.
2. Make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age.
3. Facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of elementary schools. {SAFETEA-LU Section 1404(b)}

One of the most remarkable aspects of SRTS success is that it depends upon diversity. SRTS engages diverse stakeholders in diverse activities within diverse settings requiring diverse areas of expertise. Creating safe routes to school requires engagement of not only parents, students, teachers and school officials, but also law enforcement, public works experts, public health practitioners, government at all levels, and a vast array of other community organizations and members with an overlapping interest in achieving one or more SRTS benefits.

SRTS typically involves these diverse stakeholders in:

- Assessments of the physical environment.
- Assessments of the attitudes, beliefs, and behaviors of parents and students.
- Creation of a plan around the SRTS “Five Es” (engineering, education, encouragement, enforcement, and evaluation) to facilitate the desired increase in walking and biking.
- Marshalling myriad means and resources to implement the elements of the plan.

These planning efforts occur within a variety of multidimensional environments—urban, suburban, rural communities; elementary, middle, junior high; public, charter, private schools; temperate to subtropical climates; high, medium, low income neighborhoods and communities; and varied cultural, ethnic, and language mixes.

Greenspan et al's Functional Developmental Milestones: A Synopsis

The child development paradigm presented in this document is derived from a book written for the purpose of enabling parents of special needs children with a variety of diagnoses to understand their children's unique collection of attributes, the underlying biological conditions which could explain these attributes, and an approach to intervention which has been shown in the authors' clinical experience to be effective in helping many special needs children advance on the development ladder. The book is The Child with Special Needs—Encouraging Intellectual and Emotional Growth, by Stanley I. Greenspan, M.D. and Serena Wieder, PH.D., with Robin Simons, published in 1998 by Da Capo Press. For the remainder of this paper the book will be referenced as "Greenspan et al".*

Greenspan et al identify a six-stage child development model in which each stage represents a fundamental skill that is mastered on the child development ladder. These fundamental skills or "functional milestones...underlie all our intelligence and interaction with the world."¹ Children with disabilities may struggle to master these skills because of underlying biological factors; understanding these underlying factors is critical in designing interventions, therapies, or treatments that will be effective in overcoming or mitigating specific challenges. Since mastery of each of these skills depends in part on successful development of the previous skill, difficulty at any stage may delay or arrest development through subsequent stages. Greenspan et al's description and discussion of the functional developmental milestones is condensed and summarized below.

Milestone 1. Self Regulation and Interest in the World Babies are born into a chaos of stimuli to all of their senses. The baby must learn to take in sensations and at the same time not become overwhelmed by them. After time his/her interest will begin to focus on particular stimuli among the many bombarding him/her—namely, upon the familiar and pleasant (parent's faces, soft blanket, etc.), which also become calming stimuli. "This pair of skills is the most basic building block of emotional, social, and intellectual health.

*The material presented in this appendix is paraphrased and condensed from various locations in Greenspan et al. Because the verbatim phrases and descriptions incorporated in the narrative are consolidated from a collection of locations within the book, citation of page references is impractical and would add unnecessary complexity for reader. Where a whole sentence or more are taken from the book, the reference is provided. In the book, Greenspan et al randomly vary the gender of personal pronouns. To avoid confusion in the condensed material, the author has replaced the randomly-gendered personal pronouns with dual-gendered pronouns (e.g., he/she).

¹Stanley I. Greenspan, M.D. and Serena Wieder, PH.D., with Robin Simons, The Child with Special Needs—Encouraging Intellectual and Emotional Growth, (Da Capo Press of the Perseus Books Group, 1998), p. 3

Without it we can't learn, we can't develop relationships with others, and we can't survive in our highly stimulating world. How an infant modulates and processes sensations is an important contributor to this first milestone."²

Milestone 2. Intimacy The baby experiences joy and warmth with parents—recognizing their voices/faces and brightening when they are sensed, smiling and gazing into their eyes; and these gestures are returned by the parents. Parents and baby “fall in love” and share this intimate relationship. For the baby, parents and the relationship become the cognitive and language skills. The infant learns to use his/her body to seek out the face and touch of the parent, whether through eye contact or snuggling. He/she learns to scan his/her world for familiar objects and faces and to pay attention to them for 30 seconds or more. He/she learns to recognize the sound and source of speech, especially the speech of the most important aspect of the world. “Mastery of this milestone, also cements motor skills. The infant learns to use his/her body to seek out the face and touch of the parent, whether through eye contact or snuggling. He/she learns to scan her world for familiar objects and faces and to pay attention to them for 30 seconds or more. He/she learns to recognize the sound and source of speech, especially the speech of his/her parents. All these skills provide a foundation for his/her later capacity to move, think, and talk.”³

Milestone 3. Two-way Communication After intimacy between parent and child is established, children soon learn that they can have an impact on their parents. When the baby does something, the parent does something in return. Soon the idea that he/she can have an impact on parents evolves into recognition that other actions cause effects, e.g., dropping a toy makes a sound. The child becomes aware that he/she can chose to take an action, and the action will produce a result—a fundamental emotional, cognitive, and motor lesson.

“Two-way communication is essential for all human interaction. It also allows children to learn about themselves and the world. The older child hugs a teacher and the teacher hugs her back; he/she learns that she is appreciated. A child pushes another child, and that child begins to cry: he/she learns that her actions can move someone to tears. Without these essential experiences in two-way communication, children can't form a basic sense of intentionality, which means they can't form a basic sense of who they are or see that the world is logical.”⁴

Milestone 4. Complex Communication Mastering two-way communication with single gestures soon leads to linking a series of gestures together for a more complicated response. Using a growing vocabulary of gestures the child begins to create responses beyond imitating what he/she sees her parents do. Individuality and personality begin to emerge through these behaviors and sense of self is growing in complexity; *patterns* of responses as opposed to single simple responses are understood to be related to emotions

²Ibid., p. 72

³Ibid., p. 74

⁴Ibid., p. 77

being expressed. Comprehension of the meaning of others' gestural communication also is being learned. Through complex gestural dialogues with parents the child learns to discern his/her condition in a given situation, e.g., whether he/she is safe or in danger, respected or humiliated. These dialogues are the prelude to speech, and at this stage a child may begin to imitate the sounds of parents' words. The child is creating mental representations (emotional symbols) enabling pretend play and use of rudimentary words and phrases to convey emotional intention (e.g., "want that," "mad," "happy," "more").

"The ability to express one's self through complex gestural conversations builds a child's motor and motor-planning skills. To convey his/her wishes and intentions he/she must first organize his/her behavior into logical sequences and he/she must learn to read the sequenced behavior of others. As his/her ability to use and enjoy the world grows, so grows his/her ability to grasp the world cognitively. Now he/she knows that when Daddy is hiding behind the curtain, Daddy hasn't disappeared. Now he/she can pull the curtain aside and find him."⁵

Milestone 5. Emotional Ideas Play is the arena within which a child develops the ability to form ideas. Creating/acting out stories using toys enables exploration of a range of intentions and wishes a child feels. Use of words also increases and grows in complexity in play; at first words are simply labels for the objects of play, but soon word dialogues are occurring in play, and eventually names are attached to a range of intentions, wishes and feelings. This is the gateway for learning that symbols stand for things, activities, and emotions. Pretend play and words are the tools with which the child learns abstractions and ideas.

"Eventually he/she is able to manipulate ideas, to use them in ways that meet his/her needs. For instance, he/she can see, hear, and feel Mommy when Mommy isn't there. Now when he/she wakes at night, instead of simply crying, he/she can call for her. Sometimes just picturing and thinking about his/her mother is enough to comfort him. When he is thirsty, he can think about juice and say, "Mommy, juice," instead of hoping he/she will know what he/she wants. With this new ability to manipulate a world of symbols, he/she has made the leap to a much higher level of communication and awareness."⁶

Milestone 6. Emotional Thinking In the previous stage, play expresses islands of emotion as various toys are encountered, used, and then abandoned for the next toy. In this stage the child begins to connect ideas associated with more than one toy and link these ideas into logical sequences in play. He/she develops the capacity to engage in pretend play and symbolic communication which involves logic and reality testing, modulating impulses and mood, and learning how to concentrate and plan. He/she can now imagine and predict his/her feelings in imagined circumstances, and can understand nuances of distance (next door vs. next town) and time (today vs. tomorrow).

⁵Ibid., p. 79

⁶Ibid., p. 83

The child can now “...answer what, when, and why questions, enjoy debates, logically articulate an opinion, and begin the long journey to higher and higher levels of abstract thinking. Both verbal and spatial problem-solving abilities rest on emotional problem-solving skills. As with the earlier stages, emotional interactions create the thinking strategies that are then applied to the more impersonal world.”⁷

The biological factors that underlie achievement of these milestones, and the developmental and behavioral ramifications which present themselves when these factors are not fully functioning, are discussed further in Part I of the white paper.

⁷Ibid., p. 86

Table 1. FUNCTIONAL DEVELOPMENTAL MILESTONES

In “normal” development, these milestones are achieved in roughly the age periods indicated in the table; but even within the general student population there is great variability in the pace at which these benchmarks were reached. The biological factors involved in progressing up the developmental ladder are the key to understanding why development can go awry, and what happens to behavior and capacity as a result. These factors are discussed below.

MILESTONE	DESCRIPTION
1. Self Regulation and Interest in the World; Mutual Attention—All Ages	<i>The dual ability to take an interest in the sights, sounds, and sensations of the world and to calm oneself down.</i> Infants try to process what they see, hear, and feel, and instinctively turn toward a pleasing face or a soothing voice. They learn to enjoy, understand, and use those pleasant sensations to calm themselves. This ability to self-regulate enables us to take in and respond to the world around us.
2. Intimacy; Mutual Engagement—Observable between 3 and 6 months	<i>The ability to engage in relationships with other people.</i> In our earliest experiences with our parents we learn to fall in love. We recognize our parents as something nurturing and joyful, we reach out for them, and we trust them. This ability to be intimate allows us to form warm and trusting relationships with people that grow throughout our lives.
3. Two-way Communication; Interactive Intentionality and Reciprocity—Observable between 6 and 8 months	<i>The ability to engage in two-way communication.</i> Mommy smiles at me, I smile back. Daddy rolls me the ball, I eagerly roll it back. These early efforts at two-way communication teach us about our own intentions, provide our first sense of causality, of making things happen, and begin to establish our sense of self. As these early interactions become more complex, we learn to communicate with our gestures and understand the intentions and communications of others. We build the foundation for participating in much more sophisticated conversation later on.

MILESTONE	DESCRIPTION
4. Complex Communication; Representational/Affective Communication—After 18 months	<i>The ability to create complex gestures, to string together a series of actions into an elaborate and deliberate problem-solving sequence.</i> The toddler runs to greet Daddy at the door, holds up her arms for a hug, then teasingly runs away, saying through her behavior, “Daddy, I’m glad you’re home. Hug me, now chase me!”
5. Emotional Ideas; Representational Elaboration—After 30 months	<i>The ability to create ideas.</i> Simple play, such as stacking blocks, transforms into complex fantasy play—the blocks become a fort where good guys and bad guys engage in battle. The child uses these scenes to experiment with the wide range of feelings and ideas he discovers as his world grows bigger. He also uses words to indicate wishes and interests: “I want juice.”
6. Emotional Thinking; Representational Differentiation—After 36 months	<i>The ability to build bridges between ideas to make them reality-based and logical.</i> The child begins to express her ideas in play and in words, to describe her feelings instead of acting them out, and to string ideas together into logical, original thoughts: “I am mad because you took my toy!”

Greenspan et al.: Introduction, pgs 3 and 4; Chapter 4, pgs 70 to 90; and Appendix C, pg 455

Disabilities Syndromes

Pervasive Developmental Disorder (PDD) includes *Autistic Spectrum Disorder (ASD)* and *PDD Not Otherwise Specified (PDDNOS)*. The causes of these syndromes are not entirely known, but their primary presenting attributes are mild to severe relationship and/or communication problems. Individuals tagged with this diagnosis vary widely in individual functional profiles, but for many, development seems to have stopped and even regressed at the preverbal gesturing milestone. These children tend to be over or under reactive in one or more of the senses and experience sensory processing difficulties. Language stops developing and their understanding of communication directed at them diminishes. Varying degrees of challenge related to muscle tone, motor planning and sequencing also occur. Many children become withdrawn, and/or exhibit aimless and repetitive behaviors, sometimes called perseveration.

Mental Retardation is defined technically as cognitive delay or deficit greater than two standard deviations from average IQ—namely 75 or less. Greenspan et al find that this label, based on standard IQ testing, is misleading in that “intelligence” may well be masked by underlying lags in reaching developmental milestones related to language development, cognition, motor ability, auditory processing, and visual-spatial processing. Motor difficulties can mask strengths in other areas because of the difficulty the child experiences in converting an affect or intention into action.

Cerebral Palsy is a generalized diagnosis reflecting the origin of the attributes presenting themselves, i.e., brain damage from any source. The predominant difficulty ranging from mild to severe is spastic paralysis in various muscle groups. Muscle tone may be tight or loose, rendering control over bodily movement difficult to impossible. As with other syndromes, motor difficulties may be the barrier to recognizing strengths in other aspects of development; as a result, children with this diagnosis may also be judged mentally retarded and may exhibit ASD behaviors. Greenspan et al postulate that these secondary diagnoses in many cases are the result of developmental milestones not being achieved due to the barriers presented by the motor control issues.

Regulatory Disorders are characterized by differences from the norm in responsiveness to and processing of sensations, and in motor planning in response to sensations and the meanings created through processing. These difficulties are the underlying basis for learning disorders; behavioral problems; attention, focusing, or organizing problems; and sleep and eating disorders. Children with these disorders differ from those with autistic disorders because they *can* relate warmly to others; they are not mentally retarded because they exhibit no significant language or cognitive difficulties. Rather, children with regulatory difficulties may have difficulty sharing or cooperating, controlling tantrums or aggression, and processing information and learning. Greenspan et al sort out five types of regulatory disorder based on the presenting behavior: sensitive/fearful, defiant, self-absorbed, active/craving, and inattentive.

Attention Deficit Disorders are related to Regulatory Disorders in that they involve issues with taking in, processing, and organizing action in response to sensory input. Attention

difficulties of various types result depending upon the underlying biological factor. Under-reactivity to sensation may lead to over-activity and distractibility. Motor planning difficulties might manifest themselves in behavior which seems lost or is disorganized. Auditory or visual-spatial processing difficulty can result in fragmented behaviors and problems following rules. Over-reactivity to sensation may be the underlying reason for a child being reactive, distractible, overloaded or overwhelmed.

Other disabilities diagnoses or syndromes which stem from underlying biological factors that present developmental challenges include genetic syndromes, e.g., Fragile X Syndrome or Down syndrome; Fetal Alcohol Syndrome; symptoms resulting from maternal drug abuse and other cognitive or perceptual deficits. Visual impairment/blindness and auditory impairment/deafness create their own challenges to achieving developmental milestones.

Special Education Definitions and Parameters

Special education and related services are provided in accordance with the principle of free appropriate public education (FAPE). This principle means that persons with disabilities have a right to pre-school, elementary, and secondary education, appropriate to their individual needs and potential as described in a formal individualized plan, at public cost, and under public supervision.

Instructional services are defined as “services provided by teaching personnel that are specially designed to meet the unique needs of a student with a disability.” Related services include “...transportation and such developmental, corrective, and other supportive services as are required to assist a child with a disability to benefit from special education, and includes speech language pathology and audiology services, interpreting services, psychological services, physical and occupational therapy, recreation including therapeutic recreation, early identification and assessment of disabilities in children, counseling services, including rehabilitation counseling, orientation and mobility services, and medical services for diagnostic or evaluation purposes. Related services also include school health services and school nurse services, social work services in schools, and parent counseling and training.”

According to federal law, special education services are to be available as of the age of three to children who are determined to have a disability. Michigan rules define a student with a disability as “a person who is determined by an individualized education program team or a hearing officer to have one or more of the impairments...that necessitates special education or related services, or both, who is not more than 25 years of age as of September 1 of the school year of enrollment, who has not completed a normal course of study, and who has not graduated from high school. A student who reaches the age of 26 years after September 1 is a ‘student with a disability’ and entitled to continue a special education program or service until the end of that school year.”

Definitions of Disabilities Qualifying for Special Education under Michigan Rules*

Table 2. DEFINITIONS OF DISABILITIES QUALIFYING FOR SPECIAL EDUCATION UNDER MICHIGAN RULES

Disability Category & Required Evaluation Team Members	Disability Definition for Eligibility Determination
<p>Cognitive Impairment</p> <p>Psychologist</p>	<p>Cognitive impairment shall be manifested during the developmental period and be determined through the demonstration of all of the following behavioral characteristics:</p> <p>(a) Development at a rate at or below approximately 2 standard deviations below the mean as determined through intellectual assessment.</p> <p>(b) Scores approximately within the lowest 6 percentiles on a standardized test in reading and arithmetic. This requirement will not apply if the student is not of an age, grade, or mental age appropriate for formal or standardized achievement tests.</p> <p>(c) Lack of development primarily in the cognitive domain.</p> <p>(d) Impairment of adaptive behavior.</p> <p>(e) Adversely affects a student's educational performance.</p>
<p>Emotional Impairment</p> <p>Psychologist or psychiatrist, School social worker</p>	<p>Emotional impairment shall be determined through manifestation of behavioral problems primarily in the affective domain, over an extended period of time, which adversely affects the student's education to the extent that the student cannot profit from learning experiences without special education support. The problems result in behaviors manifested by 1 or more of the following characteristics:</p> <p>(a) Inability to build or maintain satisfactory interpersonal relationships within the school environment.</p> <p>(b) Inappropriate types of behavior or feelings under normal circumstances.</p> <p>(c) General pervasive mood of unhappiness or depression.</p> <p>(d) Tendency to develop physical symptoms or fears associated with personal or school problems.</p> <p>Emotional impairment also includes students who, in addition, exhibit maladaptive behaviors related to schizophrenia or similar disorders. Emotional impairment does not include students whose behaviors are primarily the result of intellectual, sensory, or health factors.</p>

<p>Disability Category & Required Evaluation Team Members</p>	<p>Disability Definition for Eligibility Determination</p>
<p>Learning Disability</p> <p>General education teacher; at least 1 qualified diagnostic examiner of children, e.g., school psychologist, speech & language specialist, or a teacher consultant.</p>	<p>“Specific learning disability” means a disorder in 1 or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations, including conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Specific learning disability does not include learning problems that are primarily the result of visual, hearing, or motor disabilities, of cognitive impairment, of emotional impairment, of autism spectrum disorder, or of environmental, cultural, or economic disadvantage.</p>
<p>Hearing Impairment</p> <p>Otolaryngologist or otologist, audiologist</p>	<p>The term “hearing impairment” is a generic term which includes both students who are deaf and those who are hard of hearing and refers to students with any type or degree of hearing loss that interferes with development or adversely affects educational performance. “Deafness” means a hearing impairment that is so severe that the student is impaired in processing linguistic information through hearing, with or without amplification. The term “hard of hearing” refers to students with hearing impairment who have permanent or fluctuating hearing loss which is less severe than the hearing loss of students who are deaf and which generally permits the use of the auditory channel as the primary means of developing speech and language skills.</p>
<p>Visual Impairment</p> <p>Ophthalmologist or optometrist, teacher certified in visual impairment (if student cannot be tested accurately for acuity), orientation and mobility specialist</p>	<p>A visual impairment shall be determined through the manifestation of both of the following:</p> <p>(a) A visual impairment which, even with correction, interferes with development or which adversely affects educational performance. Visual impairment includes both partial sight and blindness.</p> <p>(b) One or more of the following:</p> <p>(i) A central visual acuity for near or far point vision of 20/70 or less in the better eye after routine refractive correction.</p> <p>(ii) A peripheral field of vision restricted to not more than 20 degrees.</p> <p>(iii) A diagnosed progressively deteriorating eye condition.</p>
<p>Physical and Other Health Impairment</p> <p>Orthopedic surgeon, internist, neurologist, pediatrician, or family physician</p>	<p>“Physical impairment” means severe orthopedic impairment that adversely affects a student’s educational performance. “Other health impairment” means having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, which results in limited alertness with respect to the educational environment and to which both of the following provisions apply:</p> <p>(a) Is due to chronic or acute health problems such as any of the</p>

Disability Category & Required Evaluation Team Members	Disability Definition for Eligibility Determination
	<p>following: asthma, attention deficit disorder, attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia.</p> <p>(b) Adversely affects a student’s educational performance.</p>
<p>Severe Multiple Impairment</p> <p>Psychologist, and representative(s) of physical disability domain(s) involved</p>	<p>Students with severe multiple impairments shall be determined through the manifestation of either of the following:</p> <p>(a) Development at a rate of two to three standard deviations below the mean and two or more of the...conditions [listed below] or</p> <p>(b) development at a rate of three or more standard deviations below the mean or...for whom evaluation instruments do not provide a valid measure of cognitive ability and one or more of the following conditions:</p> <p>(i) A hearing impairment so severe that the auditory channel is not the primary means of developing speech and language skills.</p> <p>(ii) A visual impairment so severe that the visual channel is not sufficient to guide independent mobility.</p> <p>(iii) A physical impairment so severe that activities of daily living cannot be achieved without assistance.</p> <p>(iv) A health impairment so severe that the student is medically at risk.</p>
<p>Early Childhood Developmental Delay</p>	<p>“Early childhood developmental delay” means a child through 7 years of age whose primary delay cannot be differentiated through existing criteria [from other disability categories] and who manifests a delay in 1 or more areas of development equal to or greater than 1/2 of the expected development.</p>
<p>Autistic Spectrum Disorder</p> <p>Psychologist or psychiatrist, speech and language specialist, school social worker</p>	<p>Autism spectrum disorder is considered a lifelong developmental disability that adversely affects a student’s educational performance in 1 or more of the following performance areas: academic, behavioral, social. Autism spectrum disorder is characterized by qualitative impairments in reciprocal social interactions, qualitative impairments in communication, and restricted range of interests/repetitive behavior. Determination of this disability depends upon all of the following:</p> <p>Qualitative impairments in reciprocal social interactions including at least 2 of the following areas:</p> <p>(i) Marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction.</p> <p>(ii) Failure to develop peer relationships appropriate to developmental level.</p> <p>(iii) Marked impairment in spontaneous seeking to share enjoyment,</p>

Disability Category & Required Evaluation Team Members	Disability Definition for Eligibility Determination
	<p>interests, or achievements with other people, for example, by a lack of showing, bringing, or pointing out objects of interest. (iv) Marked impairment in the areas of social or emotional reciprocity.</p> <p>Qualitative impairments in communication (may include unusual or inconsistent response to sensory stimuli) including at least 1 of the following: (i) Delay in, or total lack of, the development of spoken language not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime. (ii) Marked impairment in pragmatics or in the ability to initiate, sustain, or engage in reciprocal conversation with others. (iii) Stereotyped and repetitive use of language or idiosyncratic language. (iv) Lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level.</p> <p>Restricted, repetitive, and stereotyped behaviors including at least 1 of the following: (i) Encompassing preoccupation with 1 or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus. (ii) Apparently inflexible adherence to specific, nonfunctional routines or rituals. (iii) Stereotyped and repetitive motor mannerisms, for example, hand or finger flapping or twisting, or complex whole body movements. (iv) Persistent preoccupation with parts of objects.</p>
<p>Traumatic Brain Injured Family physician</p>	<p>“Traumatic brain injury” means an acquired injury to the brain which is caused by an external physical force and which results in total or partial functional disability or psychosocial impairment, or both, that adversely affects a student’s educational performance. The term applies to open or closed head injuries resulting in impairment in 1 or more of the following areas: cognition, language, memory, attention, reasoning, behavior, physical functions, information processing, and speech. The term does not apply to brain injuries that are congenital or degenerative or induced by birth trauma.</p>
<p>Speech and Language Impaired Teacher of students with speech/language</p>	<p>A “speech and language impairment” means a communication disorder that adversely affects educational performance, such as a language impairment, articulation impairment, fluency impairment, or voice impairment. A communication disorder shall be determined through the manifestation of 1 or more of the following...:</p>

Disability Category & Required Evaluation Team Members	Disability Definition for Eligibility Determination
impairment, or a speech and language pathologist	<p>(a) A language impairment which interferes with the student’s ability to understand and use language effectively and which includes one or more of the following: phonology, morphology, syntax, semantics, or pragmatics.</p> <p>(b) Articulation impairment, including omissions, substitutions, or distortions of sound, persisting beyond the age at which maturation alone might be expected to correct the deviation.</p> <p>(c) Fluency impairment, including an abnormal rate of speaking, speech interruptions, and repetition of sounds, words, phrases, or sentences, that interferes with effective communication.</p> <p>(d) Voice impairment, including inappropriate pitch, loudness, or voice quality.</p>
<p>Deaf/Blind</p> <p>Relevant medical specialists, e.g., ophthalmologist, optometrist, audiologist, otolaryngologist, otologist, family physician; teacher of students with visual impairment; teacher of students with hearing impairment</p>	<p>Deaf-blindness means concomitant hearing impairment and visual impairment, the combination of which causes severe communication and other developmental and educational needs that cannot be accommodated in special education programs without additional supports to address the unique needs specific to deaf-blindness.</p> <p>Deaf-blindness also means both of the following: (a) Documented hearing and visual losses that, if considered individually, may not meet the requirements for visual impairment or hearing impairment, but the combination of the losses affects educational performance; and (b) functioning consistent with the presence of both a hearing and visual loss, based upon responses to auditory and visual stimuli in the environment, or during vision and hearing evaluations.</p>

* Compiled from Michigan Department of Education, Michigan Special Education Rules Supplemented with IDEA Federal Regulations, (Lansing, Michigan: April, 2009)

Michigan's Special Education Recipients

Students in Michigan who received special education services during the 2006-2007 school year (the most recent year for which data is available) totaled 249,006. Special education students represent roughly 15 percent of the total student population in Michigan. Table 2 provides the distribution of these students among the eligible disability categories. The table also portrays this data as a percentage of total special education students.

It can be seen from the table that almost three quarters of special education students fall into the top three categories—learning disabilities, speech and language impairments, and cognitive impairments. It will be seen later in this discussion, that while variation in severity may be great within each of these diagnoses, a substantial proportion are able to participate in typical SRTS programs with the accommodations and assistance already provided them as special education students.

**Table 3. MICHIGAN STUDENTS RECEIVING SPECIAL EDUCATION
NUMBER AND PERCENTAGE BY ELIGIBILITY CATEGORY**

2006-2007 School Year—December 1, 2006 Federal Pupil Count

Disability Category	Count	Percentage
Learning Disability	92,635	37.2
Speech and Language Impaired	61,208	24.6
Cognitive Impairment	26,560	10.7
Physical & Other Health Impairment	23,552	9.5
Emotional Impairment	18,128	7.3
Autistic Impairment	11,366	4.6
Early Childhood Special Education Program	6,433	2.6
Severe Multiple Impairment	4,123	1.6
Hearing Impairment	3,375	1.3
Visual Impairment	992	0.4
Traumatic Brain Injured	626	0.2
Deaf-Blind	8	0.0
Total	249,006	100.0

Special Education Count Data in Michigan-1968 to 2007; Dianne Easterling, Michigan Department of Education, Office of Special Education and Early Intervention Services, March 2007

Special Education Settings Distribution of Placements in Michigan

Special education is provided in a variety of settings; placement in one of these settings is based upon the unique profile for each student. In terms of the Least Restrictive Environment (LRE) principle, these settings range from least restrictive to most restrictive in relation to the overall general education environment. Setting placement will generally correlate with the severity of the disability of the child being placed. Under the LRE principle, children with milder forms or levels of disability are likely to be accommodated in the general education classroom, affording them access to the general education curriculum and the opportunity to learn in the company of their peers. At the other extreme, children whose disability(s) result in IEPs focused on learning basic life skills using special techniques would be ill served in the general education classroom for their age group. According to regulation, LRE must be balanced against the need to provide the optimum setting for education which meets the individual special education student's unique functional profile and potential.

Statistics on Michigan's special education population for the 2006-2007 school year suggest that a substantial majority of special education students spend at least some of their school hours in the general education classroom. Table 3 shows the percentage of students with IEPs in each of four categories based on the percentage of hours spent in the general education classroom.

Table 4. PERCENTAGE OF SCHOOL TIME SPECIAL EDUCATION STUDENTS SPENT IN GENERAL EDUCATION CLASSROOMS*

% Time in General Education Classroom	>=80 %	40 to 79 %	< 40 %	Separate Facility
2006-2007 Percentages	50.3 %	26.2 %	18.5 %	5.0 %

* Observed in Michigan in 2006-2007 for students age 6 through 21 with IEPs.

Ideally, for the purposes of this paper it would be useful for this data to be detailed by eligible disability category, the IEP classroom placement type, and the specific school setting types discussed in the next section. With that level of detail, the ramifications of school setting type on SRTS programs could be more precisely described in relation to the specific disabilities and their severity typically found in each.

Lack of detailed data notwithstanding, a reasonable conceptual understanding of the probable distribution of placement types among the four "general education classroom time" categories is possible. Such a hypothetical distribution is shown in Table 4. The table demonstrates a reasonable expectation that at least 50 percent of the special education population is placed in the *general education classroom* (the group spending 80 percent of their time in the general education classroom), and perhaps up to another 26 percent are placed there (the 40 to 79 percent group). The middle and lower classroom percentage categories likely contain the majority of *special education classroom*

placements. Obviously, the fourth category contains all of the placements in *special education schools*. It can be concluded that general education schools accommodate most students eligible for special education, either in general education classrooms or in special education classrooms.

Table 5. HYPOTHETICAL DISTRIBUTION OF SPECIAL EDUCATION PLACEMENT TYPES BY GENERAL EDUCATION CLASSROOM TIME

Percentage of Time Spent in General Education Classroom	>=80 %	40 to 79 %	< 40 %	Separate Facility
2006-2007	50.3 %	26.2 %	18.5 %	5.0 %

Placement Types Likely Distribution of Placements within Each General Education Classroom Percentage Category

Placement Types	Likely Distribution of Placements within Each General Education Classroom Percentage Category			
General Education Classrooms	ALL			
Itinerant/Special Instruction in General Ed. Classrooms	MOST	FEW		
Resource Rooms	SOME	SOME	FEW	
Special Education Classrooms		FEW	MOST	
Special Education Schools				ALL

Hypothetical Distribution of Eligible Disability Category by General Education Classroom Time

Using the same general education classroom percentage categories presented in Appendix G, Table 6 (below) shows a hypothetical distribution of general education classroom time for mild, moderate, and severe manifestations of the various eligible disability categories. Again, based on the percentages of the total disabilities population represented by each eligible disability category and the relative severity of disability within and among these categories, it is likely that the significant majority of students with disabilities are placed in general education classrooms.

Table 6. HYPOTHETICAL DISTRIBUTION OF ELIGIBLE DISABILITY CATEGORY BY GENERAL EDUCATION CLASSROOM TIME

% Time in General Education Classroom	>=80 %	40 to 79 %	< 40 %	Separate Facility
2006-2007	50.3 %	26.2 %	18.5 %	5.0 %
Eligible Disability Category*	Likely Distribution of Placements within Each General Education Classroom Percentage Category			
Cognitive Impairment** (11)	Mild (52)	Moderate (38)	Moderate (38)	Severe (10)
Emotional Impairment (7)	Mild	Moderate	Severe	
Learning Disability (37)	Mild	Moderate	Severe	
Hearing Impairment (1)	Mild	Moderate	Moderate	Severe
Visual Impairment (>1)	Mild	Moderate	Moderate	Severe
Physical and Other Health Impairment (9)	Mild	Moderate	Severe	Severe
Severe Multiple Impairment (2)			Severe	Severe
Early Childhood Development Delay (3)	Preschool	Preschool	Preschool	Preschool
Autistic Spectrum Disorder (5)	Mild	Moderate	Moderate	Severe
Traumatic Brain Injury (>1)	Mild	Moderate	Moderate	Severe
Speech and Language Impaired (25)	Mild	Moderate	Severe	
Deaf/Blind (0)			Severe	Severe

*“(25)” indicates the percent of the total eligible population with this diagnosis. ** Michigan sorts cognitive disability into mild, moderate, and severe categories; the percentages shown are the total for cognitive disability.

Life in the Family Having a Child with Disabilities

Families, no matter what their form, move through stages of development just as children do. One of the most significant changes in the family occurs when a child is added. Most parents go through a period of adjustment as the reality of having a new child dependent upon them for survival and well-being sinks in. Even though it is sometimes uncomfortable and even painful, for many families this shift is one that while not well understood until it happens, was nevertheless intended, and even planned for. As the child or children grow and mature, the family evolves, ever shifting to accommodate the emerging new needs, demands, and pressures. As children complete school and move out into the world on their own, the care-giving demands on parents greatly diminish even as the caring parents feel for their children remains for life.

All along this family evolutionary path, parents anticipate and address the new demands, and manage, for the most part, to cope with what comes along. This is primarily based on the unconscious expectations and understandings accumulated about how child rearing works, the “normal” difficulties to expect, the ways to deal with them appropriately and effectively, and the points at which the task of parenting becomes less and less demanding. Ultimately the will to surmount the endless parade of challenges and demands that come with parenting is built upon the parents’ love and hope for a happy and satisfying life for the child. While parents may have differences which are occasionally exacerbated by the challenges children pose, they often survive these differences precisely because of the strength of their mutual commitment to succeeding in the overall mission of raising children.

The experience and challenge of parenting a child with disabilities is an additional and heavy layer on top of the “normal” family and parenting stresses touched upon above. Every aspect of parenting is magnified in its impact both on the child and on the family. In the beginning, in addition to the adjustment always required when a new child arrives on the scene, there is the process of suspecting there is something amiss, having a diagnosis pronounced, and coping with the news that your beloved child has challenges that perhaps permanently alter his/her prospects in life. All of the emotions associated with the grieving process are experienced and re-experienced, even long after acceptance and resignation have been achieved.

Along with this natural and ongoing emotional reaction to having a child diagnosed with disabilities, parents enter a world of even more demands on their time and resources. Depending on the type and severity of the child’s disabilities, there is a greater and longer lasting care-giving burden. Delayed or arrested development may mean independent toileting, for example, takes a decade to achieve, or perhaps is never reliably accomplished. There are more doctors and specialist appointments. There may be hospitalizations, medicines or procedures to administer, and quite likely the necessity of increased vigilance and attentiveness.

Prior to the inception of school or preschool, these stresses are experienced primarily at home. Excursions for even the simplest purposes—buying groceries—require more preparation and are more taxing due to the child’s needs. Once school begins, parents are confronted daily with the growing difference in development between their child and other children. Significant time is devoted to planning and carrying out, with special educators and specialists, various therapies and interventions, painstakingly designed to achieve what appears to be the smallest increment of growth in comparison to the leaps “normal” children are making as a matter of course. Parents come to live with a perpetual sense of uncertainty regarding their child’s prospects for a life approaching “normal.” They ride a roller coaster of small successes followed by setbacks, optimism followed by despair.

The time and emotion inevitably invested in a child with disabilities is borrowed from time previously spent in the marital relationship or with their other children. Significant effort must be made to carve out time to nurture and sustain these other relationships while doing what is essential to the well-being of the child with disabilities. Respite is required but not easily achieved as the needs of the child make it difficult to find respite care that will be viewed by the parents as adequate. For many children with disabilities, any change in routine or environment, physical or human, is upsetting. New environments and people take a long time to become accepted by and comfortable to the child; and conversely, respite caregivers need time to come to know and understand the child’s behaviors, communication, daily routine, and health and safety needs.

On top of these not surprising pressures are the quantum leaps in paperwork and interaction associated with managing special education, medical insurance, and assistance available from government programs. For many families having a child with disabilities, there can be conflicts with school officials over instructional and related services warranted by their child’s condition and needs; discussions with insurance companies over fine points of coverage for the essential yet often unusual procedures and prescriptions required by their child; issues with Medicaid, Social Security, and other federal or state bureaucracies over record keeping and reporting, eligibility, and benefits issues; and/or conflicts with specialists over payments from the sources listed above. The stress is even greater for bearing the treatment and care expenses without support from insurance or government programs.

These rarely pleasant tasks are added to the buzzing background of unavoidable tasks required every day in order to maintain and sustain the child with disabilities and the family unit. For many families the world becomes smaller and narrower, as more activities and diversions are abandoned in order to keep things going. Less time is spent in public places and the number of people in the family’s social circle can erode to a very few. This situation can be compounded by the lack of play opportunities with “peers” experienced by the child with disabilities, especially if his educational placement is in a special education classroom or center-based-program school. The role usually played by neighborhood kids is taken on by the parents who inevitably fail at being fun and interesting to their child every minute of every day.

Finally, there is the experience of venturing into public places. For most people, there is an internal comfort zone that allows for a range of attributes and behaviors associated with children of various ages. To some extent, these expectations are reflective of the norms of our society, regardless of whether they are evolutionary or cultural. When attributes depart from the general concept of “normal” people are judged to be “abnormal,” and emotional discomfort is felt. This unfortunate reaction is automatic, not thoughtful, and not necessarily malicious. Unless a person is very self aware, the emotional discomfort is expressed through facial expressions, eyes, and body language.

Not all people react with discomfort to a child with disabilities. Some are embracing and friendly and seem to know or intuitively recognize the basic humanity all people have in common. These are the restaurant proprietors who engage the child and his/her family in cordial conversation, which has the result of creating regular customers out of a family that has a child with disabilities. There are the children who, once their initial curiosity about the difference has been satisfied, are happy to spontaneously explore ways to engage a child with disabilities as just another person.

Unfortunately, there are total strangers who mean no harm, but are drawn to stare at the “different” child, or to avert their eyes as if to deny that such humans exist. There are also those who for whatever reason can not tolerate or do not accept the rights of “different” people in their world. They often convey apparent contempt with a glare, side comment, or direct comment to the family. There are also those whose reaction is obvious pity, which is expressed as sympathy for the child’s or the family’s plight, but by its very nature is devaluing and demeaning. It takes little imagination to figure out the impact these reactions have on the family and the child, and on their inclination to engage in society.

The portrayal presented above is more typical of a family whose child with disability faces some of the most severe challenges. However, some level of this picture is experienced by any family having a child with disabilities. As dismal as the circumstances described above may appear, many families having a child with disabilities weather the pressures and demands and lead happy, contented lives. These families have made peace with the demons that threaten the sustainability of the relationships within the family. In these families, SRTS may be taken at face value and an SRTS overture may be understood at the outset to represent an opportunity to enrich the life of their child.

For SRTS to successfully engage a family having a child with disabilities, the nature of their family life must be acknowledged and understood. For many families, requests to engage voluntarily in any additional activity, much less one that by the sound of it doesn’t even apply to their child, are rejected out of hand. Some families will be suspicious or resentful about being singled out on the basis of being labeled. Others will assume that because they have a child with disabilities, they are likely to be left out. Parental reactions to SRTS may vary depending upon the special education school setting into which their child was placed.

From an SRTS perspective, these potential reactions are an extension of the potential attitudes and beliefs about travel to and from school that SRTS will encounter in the families of the general student population. All of the SRTS education and encouragement activities already in use to alter attitudes and behavior will apply to families with members who have disabilities. Successful engagement of families having a child with disabilities may depend upon showing the relationship between SRTS participation and the other efforts already being made on behalf of the child to empower him/her to realize his full potential.

Benefits of Safe Routes to School

The Report of the National Safe Routes to School Task Force (the Task Force was established in the federal legislation which created the federal SRTS funding program, to recommend a national SRTS strategy to Congress) sets forth the benefits of the program. While the report documents broad social and environmental benefits, the excerpts cited below focus on the benefits to participating children.

Physical Activity and Health ...It is commonly known that the vast majority of children today are not getting enough physical activity and as a result are experiencing a number of health problems, such as childhood obesity, Type 2 diabetes, heart disease and high blood pressure. From 1971 to 2004, the prevalence of overweight in school-aged children (6-19 years) more than tripled, with the highest increases seen in the 6-11 age group. Overweight children and teens have been found to have risk factors for cardiovascular disease, blood pressure, and abnormal glucose tolerance. In a study of 5-17 year olds, almost 60 percent of overweight children had at least one CVD [cardio-vascular disease] risk factor, while 25 percent had two or more CVD risk factors. The prevalence of overweight is so great that, due to compounding health effects, today's generation of children may be the first in over 200 years to live less healthy and have a shorter life span than their parents.

There are many benefits to having an active childhood. According to the Centers For Disease Control and Prevention, "regular physical activity in childhood and adolescence improves strength and endurance, helps build healthy bones and muscles, helps control weight, reduces anxiety and stress, increases self-esteem, and may improve blood pressure and cholesterol levels." Additionally, research suggests a positive relationship between physical activity and academic performance... Walking and bicycling to and from school are both great means for children to work towards increasing physical activity levels and to combat the increased health risk associated with not getting enough exercise.

Quality of Life Walking and bicycling to and from school can help improve the quality of life for students and their parents. Students who walk and bicycle to school acquire and practice important skills such as social skills and an understanding of the rules of the road, which they will use for the rest of their lives. Walkers and bicyclists can also attain a sense of self-sufficiency, responsibility, and independence they will not gain while passengers in their parents' cars. Students who walk and bicycle are able to engage the world around them and have fun, all while traveling to and from school.*

*National Center for Safe Routes to School, "Report of the National Safe Routes to School Task Force", July, 2008, pgs 19-21

About Co-author Michael Eberlein

Michael Eberlein completed his 41-year career with the Michigan Department of Transportation (MDOT) in December 2007. During his career, he was engaged in transportation planning and modeling, public transportation programs, freight transportation programs, and non-motorized transportation. In each of these areas his role was program and policy development, and eventually program management. In many different capacities he was involved in transportation for persons with disabilities. During the 1970s he participated in the development of state legislation requiring Michigan public transportation vehicles to be accessible. He was also Michigan manager for a federally sponsored six-state project to determine the feasibility, economy, and efficacy of channeling client transportation spending from a dozen or more human service programs to public transportation providers who in turn would provide needed transportation to program clients.

During the last 14 years of his career, he held positions with responsibility for the development and promotion of non-motorized transportation. He served as MDOT's non-motorized transportation coordinator for seven years and the federal Transportation Enhancement funding program manager for four years. He was responsible for securing funding that was used to develop Michigan's award-winning (National James Oberstar Safe Routes to School Award) handbook planning process and to implement SR2S in 11 pilot schools. In 2005 he became MDOT's first program manager for the newly enacted federal Safe Routes to School Program. He worked together with a team of colleagues to develop the SRTS program design adopted by MDOT. From the initial program development work with the Michigan Fitness Foundation and a steering committee and coalition of stakeholders, Mr. Eberlein recognized the need to ensure that the benefits of SRTS were available to students with disabilities as well as general education students. He was instrumental in engaging the participation of Programs to Educate all Cyclists (PEAC) in the development of Michigan's program. PEAC is a private nonprofit organization working with schools in southeast Michigan to help children with disabilities achieve their individual mobility skills potential, primarily through the use of standard and/or modified bicycles and a systematic training regimen.

For the first national SRTS State DOT Managers Meeting Mr. Eberlein proposed and was asked to prepare four presentations on Michigan's program. One of these presentations was a primer on accommodating students with disabilities in designing state programs and approving funding applications. Figuring prominently in this presentation was material prepared and provided courtesy of PEAC.

Aside from his career credentials, Mr. Eberlein brings personal experience to the discussion of students with disabilities. Since 1993, he has been the stepfather of a special needs child who has attended a center-based-program school for all but his first year of education.

About Co-author John Waterman and Programs to Educate All Cyclists (PEAC)

John Waterman is a special education teacher specializing in helping students with emotional and cognitive impairments. He started teaching cycling to people with disabilities after a student in his class was hit by a car while riding his bike. The community felt that the best way to protect the student was to not let him ride anymore, but Mr. Waterman felt that with the right training, people with disabilities could gain the skills needed to safely bike in the community and see great benefit in their lives. After running cycling programs for people with disabilities in Southeast Michigan for over 15 years, Mr. Waterman founded Programs to Educate all Cyclists (PEAC) in 2004.

PEAC's cycling programs teach people with all abilities how to ride bikes, ranging from pedaling a tricycle to learning to ride a bike as a person's main source of transportation. These programs have won numerous awards for integrating the sport of cycling with the improvement of the lives of people with disabilities. Over the years, PEAC has seen thousands of students reach their goals and beyond. Some of these students are children who learned to ride 2-wheel bikes and can ride with their peers, some are people with significant physical disabilities who have gained or regained mobility, and some are people who simply use their bikes to get from place to place in an affordable, safe manner. For illustration, two case examples are described below.

Jamie, a young lady of the age of 13, is a great example of how PEAC's bicycling training programs can help children with disabilities adopt a more active lifestyle. Jamie faces the challenge of cerebral palsy. She is a cheerful, energetic, and happy teenager whose flexibility is limited by tightening ligaments, tendons, and muscles. During the spring prior to entering PEAC's cycling program, she was scheduled for a traditional surgery to increase the flexibility of her legs and improve her gait in the fall. The flexibility in her legs increased after a summer of cycling and learning to ride a tandem with her mother. Cycling was a social activity that was a highlight of her summer. Jamie's family has yet to schedule her surgery due to the increased flexibility gained from regularly riding her bicycle.

James is a 16-year-old boy with mild to moderate cognitive impairments and cerebral palsy. After numerous surgeries and intensive physical therapy James is now able to walk independently. He began walking 1 mile to and from school, and wanted to be able to ride his bike to school and to community activities. James has been receiving bicycle training through PEAC. During supervised community rides, he has learned to ride on the right side of the road and on a bike path in a park; he can now pace his speed in a group setting, and stop safely. As his instruction continues, PEAC helps him learn safe travel routes to school and other destinations. He will learn how to travel on low traffic roads, obey traffic laws, lock his bike in a safe place, and store his helmet. The mobility training James is receiving is especially valuable because it is not yet clear if he will ever be able to drive a car. If PEAC mobility training prepares James to use non-motorized transportation means to meet his mobility needs as an adult, he will not only reap the

physical and social benefits of self-powered transportation, but will also contribute to reducing traffic congestion and pollution around his community both now and in the future.

PEAC's Programs and Services Related to Safe Routes to School

In addition to its core cycling training program described above, PEAC is able to provide a variety of services to Safe Routes to School initiatives attempting to bring the benefits of SRTS to students with disabilities. A sampling is provided below of potential offerings in the domains of two of the five Es: Education and Encouragement.

Education

Regional Training Programs In these training programs PEAC trainers work with students and parents to develop basic cycling and walking skills. The parent and student are trained together to help them become comfortable walking or biking together to school. PEAC is able to provide special equipment and equipment adaptations for students when it is determined that they would facilitate their mobility. One- to 2-week training programs can be arranged during the summer in a camp format, or as extracurricular activity during the school year.

Cycling Instructor Training Programs These training programs can help instructors develop techniques to teach students with disabilities cycling and walking skills. Students in these programs first learn effective personal cycling skills. Once grounded in effective cycling technique, students learn how to instruct special needs children and to manage group rides used in that instruction.

Individual Lessons A few students may have skills and abilities so unique they may benefit from one-on-one lessons. Private lessons can be arranged through the school in collaboration with special education staff in such a way that cycling training and ongoing special education complement each other in achieving individual education plan goals for the student.

Encouragement

Presentation to the School/District Special Education Advisory Committees, SRTS Planning Teams, Local Disability Groups, and Other Potential SRTS Stakeholders PEAC can develop presentations tailored to each particular audience. The focus of these presentations can range from encouraging special needs families to become involved in SRTS, educating audiences regarding students with disabilities and special education programs, or on the benefits of SRTS programs for students with disabilities, or on how to accomplish SRTS interventions of particular relevance to these students.

Direct Consultation Direct consultation can provide schools the extra support they may need to get started working with students with disabilities in SRTS. PEAC can facilitate discussion in planning teams and serve as a bridge between the team and the special education staff at the school.

You can find more information about PEAC at www.bikeprogram.org.