Research Report
KTC-07-15/PL11-06-1F

KENTUCKY TRANSPORTATION CENTER

USE OF REFLECTIVE ARMBANDS TO IMPROVE ADOLESCENT PEDESTRIAN AND PEDALCYCLIST SAFETY

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in cooperation with

Kentucky Transportation Cabinet
Commonwealth of Kentucky

June 2007

1. Report Number	2. Government Accession No.	3. Recipient's Catalog No.
KTC-07-15/PL11-06-01F		

4. Title and Subtitle	5. Report Date
USE OF REFLECTIVE ARMBANDS TO IMPROVE ADOLESCENT PEDESTRIAN AND PEDALCYCLIST SAFETY	June 2007
	6. Performing Organization Code

7. Author(s)	8. Performing Organization Report No.
Nancy Dunaway, Eric R. Green, Jerry G. Pigman, and Monica L. Barrett	KTC-07-15/PL11-06-01F

9. Performing Organization Name and Address	10. Work Unit No.
Kentucky Transportation Center College of Engineering University of Kentucky Lexington, Kentucky 40506-0281	11. Contract or Grant No. PL-11

12. Sponsoring Agency Name and Address	13. Type of Report and Period Covered
Kentucky Transportation Cabinet Transportation Office Building Frankfort, Kentucky 40622	Final
	14. Sponsoring Agency Code

15. Supplementary Notes

Prepared in cooperation with the Kentucky Transportation Cabinet and the Federal Highway Administration

16. Abstract

The objective of this effort was to determine if elementary and middle school students could be educated to use reflective armbands to increase their visibility to motorists while walking or bicycling to school. The number of armbands and surveys distributed totaled slightly over 7,000. Responses were received from approximately 12 percent (873) of the pre-surveys and slightly over 3 percent (119) of the post-surveys. Respondents to the survey indicated nearly 15 percent of schoolchildren receiving reflective armbands were wearing the armband "every day" or "most days". Of the parents responding, 21 percent indicated their children would continue to wear the armband on their travel to and from school. The armbands were generally well received by the students, with more enthusiasm by the younger students. The fact that the reflective armbands were removable was problematic to their effectiveness. Considering the necessity to remove and reapply the armband each time it is to be used, the device may be better suited for adults.

17. Key Words		18. Distribution Statement
Adolescent	Pedestrian	Unlimited, with approval of the Kentucky Transportation Cabinet
Pedalcyclist	Accidents	
Crashes	Safety	
Reflective	Armbands	
Elementary School		

19. Security Classification (report)	20. Security Classification (this page)	21. No. of Pages	22. Price
Unclassified	Unclassified		

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1.0 INTRODUCTION

1.1 Background

In 2005, pedestrian and bicyclist traffic crashes accounted for approximately one percent of all traffic crashes in Kentucky (1). However, these types of crashes accounted for nearly seven percent of all fatalities on our roadways. Of the 56 pedestrians killed and 832 injured, 17 percent of them were 14 years of age or younger. Elementary and middle school students that walk or bike to school are at risk of being involved in a crash. The potential to reduce these types of crashes could be increased if the children are educated on pedestrian and bicyclist safety. Students need to be educated about the importance of being visible to motorists. Reflective armbands can be used to increase the child's visibility to the motorist. It is anticipated that with an increased perception of personal safety, more students would walk or bike to school.

1.2 Objective

The objective of this effort was to determine if elementary and middle school students could be educated to use reflective armbands to increase their visibility to motorists while walking or bicycling to school.

1.3 Work Tasks

A literature search was performed and reference materials related to pedestrian and bicyclist safety were reviewed. Selected sources of pedestrian and bicyclist safety materials were incorporated into a presentation and teacher's curriculum. Efforts were made to ensure that the curriculum is consistent with the Kentucky Education Reform Act (KERA). Deliverables from the study efforts included a presentation suitable for use in pedestrian and bicyclist safety training and education of elementary and middle school students. As an integral part of this effort, reflective armbands were distributed to students at several schools. As a follow-up for those that received the armbands, a survey of parents (minor privacy issues would not permit surveys of students) was conducted to determine the frequency of use of the armbands and whether there was a perception of increased safety.

Efforts were made to distribute reflective armbands to as many schools as possible. As a follow-up for those that received the armbands, a survey of parents was conducted to determine the frequency of use of the armbands and whether there is a perception of increased safety. Information gathered from the pre- and post-surveys were summarized. Pedestrian and bicyclist crash statistics were reviewed and compared to previous years to determine if a relationship could be established between crashes and use of the armbands.

2.0 LITERATURE REVIEW

During the course of a literature review on the subject of retroreflective armband usage by school children walking or cycling to school, some 30 articles/reports were evaluated, as well as a half dozen websites visited. None of the sources reviewed found research information (projects completed or in progress) specifically pertaining to the research topic. The information below is an effort to collect relevant information related to the topic:

The Centers for Disease Control and Prevention website cites the number one reason parents do not allow their children to walk to school is a fear for their safety (2). This safety concern most likely encompasses both potentials for crash involvement as well as possible abduction. The CDC reports that less than 10 percent of children walk to school. Even the children who live less than a mile from their school do not walk. Nearly 70 percent take some other form of transportation. Safety for pedestrians, especially children, is a legitimate concern.

Data from annual traffic collision reports prepared by the Kentucky Transportation Center show 2,483 pedestrians injured or killed in the state from 2002-2004 (3). For this three-year period, 29 percent of those pedestrians were in the “14 years and under” age group. This statistic means that 720 children were hurt or killed while walking during this period. During the same time period of 2002-2004, there were1,057 bicyclists injured or killed in Kentucky. Forty-five (45) percent of those bicyclists were in the “14 years and under” age group. This means that 479 children were hurt or killed while riding a bike during this period in Kentucky.

Additionally, data for the National Highway Traffic Safety Administration (NHTSA) shows that one-fourth of children between the ages of 5 and 9 who were killed in traffic crashes in 1998 were pedestrians (4). The skill and experience necessary to navigate traffic safety and judge speed and distance have not been developed by children in this age group. Accordingly, much effort is being directed towards improving child pedestrian safety, most frequently through awareness and educational campaigns sponsored by schools.

In 2002, the Federal Highway Administration provided guidance and funding for the development of a Safe Routes to Schools Program as a means to reduce traffic congestion around schools and promote healthy alternatives (5). This comprehensive program utilizes a multifaceted approach, such as naming a champion for the program, mapping safe routes to schools, classroom instruction on basic pedestrian safety, engaging parents to support the effort, and emphasizing health benefits of walking. The use of reflective materials is noted in this program but is not a major feature of its focus.

Each year The Pedestrian and Bicycle Information Center sponsors the *Walk to School Week* (6). The goal of the walk varies from community to community. Some walks rally for safer and improved streets, some to promote healthier habits and some to conserve the environment. On October 8, 2003,

there were 29 countries and 3 million walkers who participated in *International Walk to School Day.* While the success of this program is impressive, with states in the U.S. participating such as Colorado, California, Florida, the use of reflective devices is not a major component. Some weight is given to the importance of establishing the safest route for walking to school.

The NHTSA website (7) reports the following statistics regarding preschool and elementary school children: Preschool children are quick and often unaware of danger. Each year, many children are injured or killed when they suddenly dart into the path of a car. Statistics show that:

- Most preschoolers are injured near their home or on their own street.
- Most crashes involving preschool children occur between 3 p.m. and 6 p.m.
- Most crashes involving preschoolers occur in fair and warm weather.
- Twice as many preschool boys are injured than preschool girls.

NHTSA countermeasures to avoid child pedestrian injuries are confined to educational/awareness efforts and do not mention reflective devices or clothing. Per this literature review, the retroreflective clothing/devises were only addressed by NHTSA when presenting safety information related to bicycling.

In 1990, the American Automobile Foundation for Road Safety Research conducted a study entitled “Accidents to Young Pedestrians: Distributions, Circumstances, Consequences, and Scope for Countermeasures” (8). The study, conducted in the city of Birmingham, United Kingdom, concluded that a large proportion of the accidents studied indicated that the young pedestrians’ unpredictable and impulsive behavior led directly to their injury or death. The study noted that there are severe limits to the extent in which the behavior of children can be changed, but opportunities do exist through road safety education.

As a result of these findings from the AAA Foundation for Road Safety Research, it was recommended that a campaign be aimed at drivers, especially those who use residential streets, to increase their awareness of the likelihood of poor pedestrian behavior (8). Additionally, other education and publicity would benefit young pedestrians as to the correct pedestrian behavior and severe consequences of inappropriate pedestrian behavior. This study confirms the need to utilize a multi-layered approach to increasing the safety level of child pedestrians through education and awareness campaigns for drivers and pedestrians alike, the engagement of parents in identifying ‘safe routes,’ and the relevance of reflective materials used.

Per a FHWA document, “*A 2004 Review of Pedestrian Safety Research in the US and Abroad,”* (9) in 1975, a survey of safety specialists identified reflectorization countermeasures as having the highest overall rating to reduce school children pedestrian crashes occurring during darkness. The key was

attaining proper usage. As far back as 1966, studies were showing that a person dressed in black wearing a thumb-sized retroreflective tag is detected at greater distances than a person completely dressed in white. A 1994 experiment was conducted placing retroreflective materials on different body parts. Pedestrians with retroreflective devices on knees, waist, and elbows and shoulders were seen more readily when placed on a pedestrian where no movement was evident. Authors noted that 'motion' was an important part of detection and recognition.

Though many years of research has proven the effectiveness of retroreflective materials, the number of school children using these devices is still probably quiet low. Ironically, those who are using these reflective devices are doing so unknowingly as most sneaker manufacturers use reflective materials on their products. More recently, a few school back packs are appearing on the market with reflective materials. However, greater emphasis is given to fashion and styling than safety features.

The *2004 Review* noted education as an essential ingredient of pedestrian safety along with engineering and enforcement. Cities that have had a low incident of pedestrian crashes have typically had active pedestrian-education programs. The report further stated that it seems reasonable to believe that many pedestrian crashes are the result of poor behavior on the part of the pedestrian and the driver. Though many public and education campaigns have been conducted to improve pedestrian and driver behavior, there clearly still exists a need for further development and widespread use of effective pedestrian safety targeted at children, parents, and drivers.

The Transportation Research Board's 2003 *Pedestrians and Bicycles* (10) report included some interesting research findings relating to children's ability to evaluate traffic conditions. From the report, it was noted that, Stina Sandels, founder and former Director of the Institute of Child Development Research of Sweden, conducted investigations of the behavior of children in traffic, up to the age of 10. Sandels concluded that it was impossible to adapt small children fully to the traffic environment. She identified 4 basic problems:

1. Children love to play and engage in games.
2. They have physiological problems.
3. They have difficulties in dividing their attention.
4. There are difficulties in instruction.

Sandels found that preschoolers had difficulties grasping basic concepts of right and left, and they had difficulty in determining from which side of them the car was approaching.

From his research, on child development, Piaget theorized that young children make hazardous decisions about vehicle approach time because they are unable to appreciate the interrelationship among duration, velocity, and distance until about the age of 11 (10). Research further showed that children

forgot basic instructions during time of impulsive behavior or confusing conditions. Additional studies have indicated that assumptions are made about children's cognitive abilities, based on their physical attributes. Parents assume that the children will use the knowledge they have imparted to resolve traffic situations. Actual study results indicated that parents believed that children could handle traffic at a much younger age than research in cognitive development suggests.

When examining the results of child development research, one could clearly conclude that the majority of the responsibility to behave safely rests on the adult driver, since the child pedestrian is at a limited capacity to ensure his/her own safety. Further, the above noted research strongly suggests that *multiple* measures should be taken to improve the safety of child pedestrians. Though not mentioned as a potential action, the use retroreflective materials would certainly have merit as it allows the *better enabled* driver to see the *less enabled* child pedestrian at greater distances and respond accordingly.

In 2002, Irene Kwan and James Mapstone of the London School of Health and Tropical Medicine, conducted a study (11) on the effect of visibility aids on the occurrence of pedestrian and cyclist-motor vehicle collisions and injuries, and the driver's responses in detection and recognition.

There were eight trials comparing difference retroreflective colors on visibility. Compared with other retroreflective colors, red and yellow were found to improve detection and recognition distance and time. For daytime, florescent materials in yellow, red, and orange colors improved driver's detection and recognition. Yellow was an effective non-florescent color. For night or darkening conditions, red and yellow retroreflective colors best enhanced detection and recognition.

The study noted that many factors influence conspicuity, such as contrast, road condition, weather, lighting, and background 'clutter'. However, detection of an object does not equate to its recognition as a hazard and subsequent evasion. The cognitive process of understanding and correct interpretation of visual information is complex, influenced by expectation, vigilance, attention, judgment, and experience.

Based on trials, the researchers concluded that visibility aids have the potential to increase conspicuity and may enable drivers to more quickly detect and recognize pedestrians and cyclists who use those aids. In addition, efforts to implement complementary measures such as traffic calming schemes (i.e. school crossing guards), speed limit, and continuous driver and pedestrian/cyclist education may also improve the safety of all vulnerable road users.

Based on the materials reviewed, all indications are that the use of retroreflective armbands can increase the safety of children while walking or biking. With proper and consistent use of such reflective devices, children will be more visible to drivers who will gain precious seconds of response time to avoid crashes with children walking and biking.

3.0 Documentation of Process

Preliminary work on the project began in the fall of 2005, including several planning meetings of research study team of the Kentucky Transportation Center. It was determined that a meeting with the project's Advisory Committee was warranted for the research staff to receive guidance and input for future work. Accordingly, Committee members were identified and invited to attend an Advisory Committee Meeting, hosted by the Kentucky Transportation Center. On December 15, 2005, the Committee met on University of Kentucky campus (Appendix 1). The collective expertise of the Advisory Committee was sought and documented regarding the approach to successful completion of the project's work plan. Specific discussions were directed to seek suggestions for the delivery method of the armbands (i.e. identifying and receiving invitations from participatory schools) as well as the goals and content of the educational component.

A follow-up activity based on the Advisory Committee's recommendations was to contact the coordinator for the state's Safe Routes to Schools program. A resultant action was to include a Reflective Armband Program Flyer (Appendix 2) in the postal and electronic mailing planned for late January 2006. This mailing specifically detailed the Safe Routes to Schools Program and the application process. The mailing, with the Reflective Armband Flyer, was distributed to the state's mayors, county judge executives, school board superintendents, etc. Additionally, it was agreed that Kentucky Transportation Center representatives would be allowed time on the agenda at the informational workshops to be held for those expressing interest in the Safe Routes to Schools Project.

The Safe Routes to Schools information workshops were held in February 2006. Representatives from the Kentucky Transportation Center gave brief presentations (Appendix 3) on the Reflective Armband Program and distributed forms to be completed and faxed back to the Center if parties present were interested in participating (Appendix 4). When the completed form was returned as required to the Center, a letter of invitation was faxed to the school to be completed by an authorized school representative (Appendix 5). The letter of invitation specifically set forth the purpose of the project and the requirement for pre- and post-surveys to be distributed following armband distribution.

The survey instruments, to be completed by the student's parent/guardian per University of Kentucky human subjects' requirements, were developed to be anonymous; postage paid and in a user friendly format (i.e. check the appropriate box). The pre-survey (Appendix 6), which was to be distributed at the same time as the armband, was attached to a letter addressed to the child's parent/guardian. The content of the letter included statistical information regarding pedestrian injuries in Kentucky, a brief explanation of the Reflective Armband Program and a request that the attached brief survey be completed and mailed back to the Kentucky Transportation Center, postage paid. The intent of the pre-survey was to collect information on the mode of the child's transportation

to school, the opinion of the parent on the child's level of safety traveling to/from school and if any safety devices were in use during this travel time.

It was determined that at least four weeks should pass prior to the distribution of the post-survey. The post-surveys (Appendix 7) were shipped to the participating schools and handed out by the designated school contact. An attached cover letter to the parent/guardian included a reminder of the need to make pedestrians, especially child pedestrians, more visible to motorists and asked the parent/guardian to complete the brief post-survey and return it to the Kentucky Transportation Center, postage paid. The information, again in check box form, included questions pertaining to whether or not the child wore the reflective armband, if the armband made the child feel safer and if the child would continue to wear the reflective armband.

Prior to any school visits, an educational component was addressed. A lesson plan was developed based on suggested requirements of the Kentucky Education Reform Act (Appendix 8). Procedures in this plan included a brainstorming activity (i.e. name/list the places you walk/bike), a listening exercise (i.e. safety tips for walker and bikers) and a hands-on activity (i.e. distribution of the reflective armbands). Additionally, a set of posters for visuals purposes were made for use by the Kentucky Transportation Center staff when visiting classrooms (Appendix 9).

In the spring of 2006, six schools participated in the Reflective Armband Project, with a total of 2,236 armbands and pre-surveys distributed during the educational presentation. Following are those schools with a date of visit and armbands distributed:

School	Date of Visit	Armbands Distributed
Eminence Elementary, Eminence	March 14, 2006	391
Saint Mary's School, Alexandria	April 6, 2006	225
South Oldham Middle, Crestwood	April 12, 2006	500
Miles Elementary, Erlanger	May 3, 2006	284
Caywood Elementary, Edgewood	May 3, 2006	570
Worthington Elementary, Ashland	May 9, 2006	266

Summer break disrupted the schools visits until early Fall 2006. However, two summer programs did allow for some distribution. On June 26, 2006, Kentucky Transportation Center staff attended the Benton Summer Camp (an event sponsored by the school system) in Benton, KY, where armbands were distributed to several small groups, following the educational component of the project. A total of 98 armbands and pre-surveys were distributed. (Post-surveys followed.) Students at this event represented the following schools:

Benton Elementary
Benton Middle
Calvert Elementary
Central Elementary
Jonathan Elementary
Sharpe Elementary
South Marshall Elementary

During July, a representative of the Kentucky Transportation Cabinet in District 3 contacted the Kentucky Transportation Center requesting information on the armband program. Accordingly, the Cabinet representative volunteered to distribute armbands at the upcoming Bowling Green School System Open House. On July 29, 2006, 275 armbands and pre-surveys were distributed at the event. Students at the open house represented the following schools:

Dishman McGinnis Elementary
Potter Gray Elementary
T.C. Cherry Elementary
W.R. McNeill Elementary

In fall of 2006, it was suggested that we again partner, this time with an existing program, KEEN (Kentucky Engineering Exposure Network). By contacting a KEEN representative and following discussions at the KEEN summer workshop in mid-July 2006, the new Reflective Armband Flyer (Appendix 10) was included in the KEEN materials released to the state's elementary schools in early fall. The Reflective Armband Flyer was adjusted to reflect additional required elements of the project, specifically that classroom time must be allocated for the educational component in order to qualify for the free reflective armbands. The pre- and post-survey instruments were adjusted to reflect additional non-motoring modes of transportation (i.e. skateboard) to/from school (Appendix 11).

An additional solicitation method for participating schools soon followed. Elementary and middle schools in the Central Kentucky area (excluding Fayette County) were targeted. A list of such schools in Clark, Scott, Jessamine, Bourbon, Madison, Woodford, Franklin was compiled along with mailing addresses and the principal's name (Appendix 12). Mailed to each of these schools was the new flyer along with a sample armband.

Additionally, schools which had been awarded Safe Routes to Schools grants (Appendix 13) and were in relative close proximity to central Kentucky were also sent the new flyer along with a sample armband to invite participation in the Reflective Armband Program.

During the fall of 2006, the following armband distributions were accomplished:

School	Date of Visit	Armbands Distributed
Arnett Elementary, Erlanger	October 2, 2006	388
Elkhorn Middle, Frankfort	October 5, 2006	350
Warner Elementary, Nicholasville	October 6, 2006	600
G.R. Hampton, Barbourville	October 12, 2006	130
Shearer Elementary, Winchester	October 19, 2006	517
Wilmore Elementary, Wilmore	October 25, 2006	620
Bridgeport Elementary, Frankfort	October 26, 2006	450
Silver Creek Elementary, Berea	October 26, 2006	600
Northern Elementary, Georgetown	October 31, 2006	435
Fannie Bush Elementary, Winchester	November 19, 2006	350

During these visits in the fall of 2006, approximately 4,440 armbands and pre-surveys were distributed. For the entire project activities, a total of 7,049 armbands and pre-surveys were distributed.

4.0 SURVEY QUESTIONNAIRE SUMMARY AND RESULTS

Table 1 is a summary of the number of armbands and surveys delivered and/or distributed. The information is organized by the date of the visit, the school, and the school's location. Notably, the bulk of armband distributions were made in northern and central parts of the state. The number of armbands and surveys distributed, over a nine month period, totaled slightly over 7,000. Responses were received from approximately 12 percent (873) of the pre-surveys and slightly over 3 percent (119) of the post-surveys. It should be noted that in the fall of 2006 only Shearer Elementary and Wilmore Elementary received post-surveys for distribution due to lack of participation versus the cost.

Table 2 is a summary of the pre-survey data. The first survey question deals with the mode of transportation each child uses to travel to and from school. Consistent with national trends, the percentage of school children who "most days", or "every day", walk or bike is very low (approximately 6 percent). The overwhelming mode of transportation is by car, at nearly 60 percent, followed by bus, around 34 percent. Information summarized in Table 4 also indicates that a very small number of school children who walk or bike to school, around 6 percent, are using a safety device.

Table 3 reflects information collected in the post-survey. These surveys were distributed one to two months following the initial school visit where armbands were distributed. Nearly 15 percent of schoolchildren receiving reflective armbands indicated that they were wearing the armband "every day" or "most days". The small number of school children continuing to wear the armband is inconsistent with the responses indicating that over 40 percent were wearing the armband while traveling to and from school and it made them feel safe or very safe. There were 21 percent of armband recipients stating that they would continue to wear the armband.

For the participating schools, Table 4 contains information collected on the age and grade of children who walk or bike. There was a wide range of walkers by school, with the range from 3.0 to 63.2 percent. A very small number of schoolchildren reported that they bike to school.

Table 5 summarizes the walkers and bikers by age. All of the bikers were in the 9 to11 age range. Walkers were predominantly ages 8 to10, representing over 35 percent of those who indicated that they walk most days or every day.

Table 6 summarizes walkers and bikers by school grade. Walkers were most likely to be in the third, fourth, or fifth grade with bikers in the fourth and sixth grades.

5.0 SUMMARY OF FINDINGS

Securing Participating Schools

Based on the fact that little or no response was generated by the armband flyer distribution in January 2006 to school superintendants/central offices, it was concluded that the information was simply lost, overlooked, and/or not reaching the decision makers. However, six schools were identified as a result of this initial process and over 2,200 armbands were distributed. The alternative was a targeted approach in the fall semester of 2006 that involved contacting eligible elementary or middle school principal directly in the central Kentucky area. By mailing a sample armband along with a detailed armband program flyer to area school principals, the success rate of response increased. During the fall semester of 2006, visits were made to 10 schools and over 4,400 armbands were distributed. However, issues with securing the school visit did arise. Per the research project's required elements, an educational component had to be included with the armband distribution. Some principals were willing to relinquish instructional minutes while others were not. It became imperative to be flexible in our educational component delivery methods according to the time the principal allotted. As a result, multiple approaches were used, including 1-2 classes at a time, one grade at a time, several grades at a time and larger assemblies as a last resort.

Additionally, it was originally thought that the armbands were to be distributed to only walker and bikers. However, it was required by the schools that we distribute armbands to all students so as not create the impression of favoritism and/or dissention among the students. This broad distribution of armbands to all students was based on the premise that all students start and end their trips to school as pedestrians.

Utilizing AV Materials

As the first school visits were secured, the decision was made to utilize posters as visual aids during the educational component. Doing so proved to be extremely effective. The ten posters tended to keep students of all age groups (within the targeted elementary and middle schools) engaged and provided a tool to redirect if the discussion strayed from topic.

Size of Armbands

Three sizes of armbands were utilized in this study. The 10-inch small was by far the most popular size. Approximately 3 out of every 4 students distributed an armband required a small. The 14-inch mediums were the next most popular size and were almost exclusively used by male students in the seventh and eighth grades. Lastly, the 16-inch large armbands were very rarely distributed. It should be noted that the failure rate (typically a detachment defect in the Velcro) of the armbands at initial distribution was very low, less than 2 percent.

Buy-in & Support of Teacher and Parents

For those schools participating, there was clear evidence of enthusiasm and support of the use of reflective armbands by school officials, teachers and parents. Many school officials expressed a real concern for the safety of their students when travelling to and from school.

The armbands were also generally well received by the students. As expected, the younger the student, the more excited he/she was to be receiving a reflective armband. Additionally, the younger students were more apt to listen intently to the educational component and participate freely in subsequent discussions. The review of general safety tips proved to be of value as an important reminder, resulting in questions and comments. Students of all ages were noted to be respectful during and welcoming of the presentation.

Lessons Learned

Removable reflective armbands were problematic to their effectiveness. Several teachers and principals noted that an alternative reflective device which permanently attaches (i.e., to a jacket zipper, backpack, shoe lace, etc.) would decrease the probability that the reflective device would be removed. Available on the marketplace today are a host of reflective devices, including a reflective 'sheet' which contained a wristband, stickers, zipper pulls, shoe lace tags etc. Alternative approaches using other reflective devices may increase the probability of usage by students.

It would also be most beneficial to encompass the program's educational component as part of the state's required instructional minutes of education. Making the educational component part of the approved curriculum would alleviate or eliminate the resistance of school principals to participate. Similarly, incorporating the survey into the curriculum would likely increase response rates. Certification by the Kentucky Department of Education would greatly expand the number of schools willing to take part in the program.

Additionally, long range planning would be most helpful. School calendars are planned well in advance. The earlier a school receives the request to participate, the more likely the request will be granted. PTO and PTA type organizations may prove to be useful for program support and parent /teacher awareness.

The survey tool should be tightly constructed to ask a minimum of questions in a very concise way (i.e., check appropriate box). A minimum of time and effort required to complete the survey should increase participation. The questions asked in the pre- and post-surveys should be directly comparable.

Survey Questionnaire Results

The number of armbands and surveys distributed over a nine month period totaled slightly over 7,000. Responses were received from approximately 12 percent (873) of the pre-surveys and slightly over 3 percent (119) of the post-surveys.

For the schools participating in the armband program, there was a wide range of walkers (varied from 3.0 to 63.2 percent). A very small number of schoolchildren reported that they bike to school.

Consistent with national trends, the percentage of school children who "most days", or "every day", walk or bike is very low (approximately 6 percent). The overwhelming mode of transportation is by car, at nearly 60 percent, followed by bus, around 34 percent.

Respondents to the survey indicated nearly 15 percent of schoolchildren receiving reflective armbands were wearing the armband "every day" or "most days". Of the parents responding, 21 percent indicated their children would continue to wear the armband on their travel to and from school.

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Table 1. Armband Delivery and Survey Response Summary

Visits	School	City	County	Pre-Survey Count	Post-Survey Count	Number of Armbands Distributed	
Spring 2006	Caywood Elementary	Edgewood	Kenton	47	8	570	
	Eminence Independent	Eminence	Henry	49	12	391	
	Miles Elementary	Erlanger	Kenton	24	13	284	
	South Oldham Middle	Crestwood	Oldham	47	0	500	
	St. Mary School	Alexandria	Campbell	91	31	225	
	Worthington	Ashland	Boyd	58	0	266	
							2,236
Summer 2006	Benton Elementary School	Ashland	Boyd	4	1		
(Benton Summer Camp)	Benton Middle School	Benton	Marshall	1	0		
	Calvert Elementary	Benton	Marshall	0	1		
	Central Elementary	Benton	Marshall	0	5		
	Jonathan Elem	Benton	Marshall	3	4		
	Sharpe Elem	Benton	Marshall	1	1		
	South Marshall Elem	Benton	Marshall	0	1		
							98
Summer 2006	Dishman McGinnis*	Bowling Green	Warren	19	N/A		
Bowling Green School	Potter Gray*	Bowling Green	Warren	12	N/A		
System Open House	TC Cherry*	Bowling Green	Warren	5	N/A		
	WR McNeill*	Bowling Green	Warren	28	N/A		
							275
Fall 2006	Arnett Elem*	Erlanger	Kenton	48	N/A	388	
	Bridgeport Elem*	Frankfort	Franklin	56	N/A	450	
	Elkhorn Middle*	Frankfort	Franklin	33	N/A	350	
	Fannie Bush*	Winchester	Clark	17	N/A	350	
	G.R. Hampton*	Barbourville	Knox	23	N/A	130	
	Northern Elem*	Georgetown	Scott	39	N/A	435	
	Shearer	Winchester	Clark	49	18	517	
	Silver Creek Elem*	Berea	Madison	45	N/A	600	
	Warner Elem*	Nicholasville	Jessamine	43	N/A	600	
	Wilmore Elem	Wilmore	Jessamine	115	19	620	
							4,440
	No school Listed			16	5		
*Post-surveys not distributed				873	119		7,049

Table 2. Summary of Pre-Survey Data*

How does your child get to school?

	Number of Responses				Percentage			
	Walk	**Bike**	**Bus**	**Car**	**Walk**	**Bike**	**Bus**	**Car**
never	309	343	181	38	35.4	39.3	20.7	4.4
very few days	37	17	59	140	4.2	1.9	6.8	16.0
most days	17	1	96	91	1.9	0.1	11.0	10.4
every day	33	2	207	432	3.8	0.2	23.7	49.5
*<Unchecked>***	477	510	330	172	54.6	58.4	37.8	19.7

If your child walks or bikes to school, how safe do they feel on their travel to/from school?**

	Number of Responses		Percentage	
	Walk	**Bike**	**Walk**	**Bike**
not safe at all	16	20	4.8	6.0
safe	31	15	9.3	4.5
very safe	27	15	8.1	4.5
*<Unchecked>****	260	284	77.8	85.0

If your child walks or bikes to school, how safe do they feel on their travel to/from school?***

	Number of Responses			Percentage		
		Walk to			**Walk to**	
	Walk	**Bus**	**Bike**	**Walk**	**Bus**	**Bike**
not safe at all	37	9	27	6.9	1.7	5.0
safe	24	73	5	4.5	13.5	0.9
very safe	0	118	3	0.0	21.9	0.6
*<Unchecked>****	478	339	504	88.7	62.9	93.5

If your child currently walks or bikes to school, do they use any safety device to make them more visible t motorists?

	Number of Responses	Percentage
Yes	53	6.1
No	258	29.6
<Blank>	562	64.4

Table 2. Summary of Pre-Survey Data (Continued)

Students Age?

	Number of Responses	Percentage
Under 6	87	10.0
6	112	12.8
7	104	11.9
8	107	12.3
9	103	11.8
10	106	12.1
11	72	8.2
12	84	9.6
Over 12	73	8.4
<Blank>	25	2.9

Students Grade?

	Number of Responses	Percentage
K or PK	115	13.2
1	106	12.1
2	120	13.7
3	100	11.5
4	129	14.8
5	74	8.5
6	118	13.5
7	57	6.5
8	32	3.7
<Blank>	22	2.5

*Data from 873 surveys.
**Data from 334 surveys that did not include the 'Walking to Bus' response.
***Data from 539 surveys that included the 'Walking to Bus' response.
****Multple responses were allowed for this question. Unchecked responses were tallied so that percentages will add up to 100%

NOTE: Statistical analyses were not performed due to the small sample sizes available from the survey results.

Table 3. Summary of Post-Survey Data*

Did your child receive a reflective armband?

	Number of Responses	Percentage
Yes	110	92.4
No	8	6.7
<Blank>	1	0.8

Did your child wear the reflective armband?

	Number of Responses	Percentage
never	50	42.4
very few days	24	20.5
most days	14	12.0
every day	3	2.8
<Blank>	27	22.3

While your child was wearing the armband, how safe did they feel while traveling to/from school?

	Number of Responses	Percentage
not safe at all	1	0.8
safe	40	33.6
very safe	8	6.7
<Blank>	70	58.8

Will your child continue to wear the armband on their travel to/from school?

	Number of Responses	Percentage
Yes	25	21.0
No	22	18.5
<Blank>	72	60.5

Students Age?

	Number of Responses	Percentage
Under 6	8	6.7
6	13	10.9
7	19	16.0
8	17	14.3
9	13	10.9
10	12	10.1
11	6	5.0
12	12	10.1
Over 12	15	12.6
<Blank>	4	3.4

Table 3. Summary of Post-Survey Data (Continued)

Students Grade?

	Number of Responses	Percentage
PK or K	13	10.9
1	16	13.4
2	26	21.8
3	12	10.1
4	10	8.4
5	10	8.4
6	14	11.8
7	9	7.6
8	6	5.0
<Blank>	3	2.5

*Data from 119 surveys.

Table 4. Summary of Pre-Survey Data by School of Children that Walk or Bike to School*

School	Total Survey Count**	Number of Responses		Percent	
		Walkers	Bikers	Walkers	Bikers
Arnett Elem	48	9	0	18.8	0.0
Dishman McGinnis	19	12	2	63.2	10.5
Elkhorn Middle	33	1	1	3.0	3.0
Eminence Independent	49	6	0	12.2	0.0
Fannie Bush	17	1	0	5.9	0.0
Miles Elementary	24	5	0	20.8	0.0
Shearer	49	6	0	12.2	0.0
Wilmore Elem	115	7	0	6.1	0.0
Worthington	58	2	0	3.4	0.0
WR McNeill	28	1	0	3.6	0.0

Table 5. Summary by Age of Children that Walk or Bike to School*

Age	Total Survey Count**	Number of Responses		Percent	
		Walkers	Bikers	Walkers	Bikers
5	82	3	0	3.7	0.0
6	112	4	0	3.6	0.0
7	104	1	0	1.0	0.0
8	107	11	0	10.3	0.0
9	103	15	2	14.6	1.9
10	106	11	0	10.4	0.0
11	72	3	1	4.2	1.4
12	84	1	0	1.2	0.0
14	19	1	0	5.3	0.0

Table 6. Summary by Grade of Children that Walk or Bike to School*

Grade	Total Survey Count**	Number of Responses		Percent	
		Walkers	Bikers	Walkers	Bikers
K	109	4	0	3.7	0.0
1	106	4	0	3.8	0.0
2	120	7	0	5.8	0.0
3	100	10	0	10.0	0.0
4	129	13	2	10.1	1.6
5	74	8	0	10.8	0.0
6	118	2	1	1.7	0.8
7	57	1	0	1.8	0.0

*Defined by a response of 'Every Day' or 'Most Days'

**All Surveys

Appendix 1

Pedestrian Study Advisory Committee Presentation

Adolescent Pedestrian and Bicyclist Safety

Study Advisory Committee Meeting
December 15, 2005

Welcome & Introductions

- Jerry Pigman

Meeting Agenda

- Problem Statement
- Background
- Project Objective
- Summary of Work Plan
- Other Issues

Problem Statement

- Elementary and middle school students that walk or bike to school are at risk of being involved in a crash.
- The potential to reduce these types of crashes could be increased if the children are educated on pedestrian and bicyclist safety.

Background

- There were 2,483 pedestrians injured or killed in Kentucky from 2002-2004.
- Twenty-nine (29) percent of those pedestrians were in the "14 years and under" age
- …meaning that **720 children were hurt or killed while walking!**

Background

- There were 1,057 bicyclists injured or killed in Kentucky from 2002-2004.
- Forty-five (45) percent of those bicyclists were in the "14 years and under" age
- …meaning that **479 children were hurt or killed while riding a bike!**

Project Objective

- Determine if elementary and middle school students can be educated to use reflective armbands to increase their visibility to motorists while walking or bicycling to school.

Project Work Plan

Task 1 – Literature Search and Review

- Identify and review relevant reference materials related to adolescent pedestrian and bicyclist safety

Task 1 – Status Report

Per review of various studies and websites, the following points are to be considered:

- According to the Centers for Disease Control and Prevention, the number one reason parents do not allow their children to walk to school is a fear for their safety.
- AA Foundation for Road Safety Research study indicated that the young pedestrian's unpredictable and impulsive behavior lead directly to their injury or death.
- Use of retroreflective colors worn on clothing were found to improve detection and recognition distance and time
- Efforts to implement complementary measures such as traffic calming schemes (ie school crossing guards), speed limit and continuous driver and pedestrian/cyclist education may also improve the safety of all vulnerable road users.

Task 2 – Develop a Presentation

- Selected sources of adolescent pedestrian and bicyclist safety materials will be incorporated into a presentation that will be presented to elementary and middle school students.
- A KERA-based teacher's curriculum will be developed from this information.

Task 2 – Status Report

Possible talking points:

- Intro of speaker by teacher
- List places people walk
- Q: Who walks to school?
- Give General Safety Instructions (with possible visual aids):
  - -Look both ways before crossing (left, right, left again)
  - -Walk, don't run across the street
  - -Obey traffic signs and signals
  - -Keep from walking between parked cars
  - -Refuse to ride with strangers
  - -Improve safety with reflective materials
- Explain armband program
- Demonstrate reflectivity and use with volunteers
- Distribute armbands to students
- Distribute coloring sheet, survey and letter of explanation for parents

Task 2 – Questions / Discussion

- Presentation for just students or others also such as PTAs, principals, etc.?
- KERA based curriculum for teachers?
- Ideas regarding the presentation of the armbands to children?
- Ways to convince the children to wear them ?

Task 3 – Share Material and Distribute Armbands

- The presentation (from Task 2) will be delivered to selected schools / classrooms, as well as parents, faculty, and PTAs.
- Retro-reflective armbands will be distributed to the students.

Task 3 – Status Report

- Armbands on order per KyTC
- Two Lexington Elementary Schools with largest numbers of walkers have been identified for trial run of armband presentation

Task 3 – Questions / Discussion

- What is the best way to deliver the presentation and armbands (classrooms, assemblies, etc.)?
- Is it best to distribute 1 or 2 armbands per student?

Task 4 – Surveys

- An initial survey will be distributed to the students / parents to determine if they currently walk or bike to school
- As a follow-up for those students that received the armbands, a survey will be conducted to determine the frequency of use of the armbands and whether there is actual evidence or perception of increased safety.

Task 4 – Status Report

- A pre- and post-survey has been developed.
- A pre- and post-letter to the parents has been developed.
- Self-addressed, pre-paid mailing

Task 4 – Questions / Discussion

- Best way to deliver to the parents?

Task 5 – Crash Analysis

- A pedestrian and bicyclist crash analysis will be conducted.

Task 5 – Questions / Discussion

- Pick the schools based on crash data?
- Pick the schools based on the number of walkers?

Task 6 – Final Report

- A final report will document the process and findings of the study.

Task 6 – Status Report

- An outline has been developed.

Other Issues / Closing

Appendix 2

Reflective Armband Program Flyer

The University of Kentucky Transportation Center, on behalf of The Kentucky Transportation Cabinet, is promoting a reflective armband program for elementary and middle school age children who bike or walk to school.

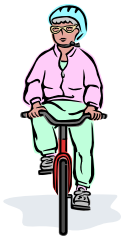
The goal of the program is to increase visibility, and therefore safety, of walkers and bikers through the use of retroreflective armband usage.

A limited number of armbands are available for distribution at no cost to elementary and middle schools. If your school has a high number of students who walk or bike to school and would like more information about this free program, please contact Monica Barrett or Nancy Dunaway at the University of Kentucky Transportation Center at (859) 257-4513.

Appendix 3

Safe Routes to School Presentation

Adolescent Pedestrian and Bicyclist Armband Program



Informational Session
February 16-17, 2006

Introduction

Kentucky Transportation Center
University of Kentucky

Monica Barrett	Nancy Dunaway
mbarrett@engr.uky.edu	ndunaway@engr.uky.edu
859-257-4513 x256	859-257-4513 x282

Project sponsored by the
Kentucky Transportation Cabinet

Problem Statement

- Elementary and middle school students that walk or bicycle to school are at risk of being involved in a crash.
- The potential to reduce these types of crashes could be increased if:
  - the children are educated on pedestrian and bicyclist safety
  - the children wear reflective clothing

Background

- There were 2,483 pedestrians injured or killed in Kentucky from 2002-2004.
- Twenty-nine (29) percent of those pedestrians were in the "14 years and under" age
- …meaning that 720 children were hurt or killed while walking!

Background

- There were 1,057 bicyclists injured or killed in Kentucky from 2002-2004.
- Forty-five (45) percent of those bicyclists were in the "14 years and under" age
- …meaning that 479 children were hurt or killed while riding a bicycle!

Objective

- Educate elementary and middle school students on pedestrian and bicyclists safety.
- Encourage use of reflective armbands to increase their visibility to motorists while walking or bicycling to school.

Work Plan

- A presentation will be delivered to selected schools / classrooms.
- Retro-reflective armbands will be distributed to the students.

Classroom Presentation

Presentation talking points (allotted 15-20 min):

- Introduction of speaker by teacher
- List places people walk
- Q: Who walks to school?
- Give General Safety Instructions (with possible visual aids)
- Explain armband program
- Demonstrate reflectivity and use with volunteers
- Distribute armbands to students
- Distribute coloring sheet and survey / letter of explanation for parents

Work Plan

- An initial survey will be sent to the parents to determine if their child currently walks or bicycles to school.
- A follow-up survey will be sent to the parents to determine the frequency of use of the armbands by their child.

Questions?

If interested, please sign up…

Pedestrian & Bicyclist Armband Program

Yes! My school is interested in participating in your armband program. Please contact me. My contact information is provided.

Name: _____
Position: _____
School: _____
Address: _____
_____
Phone: _____
Fax: _____
Email: _____

Return form / address questions to:
Monica Barrett
Kentucky Transportation Center
176 Raymond Building
Lexington, KY 40506
(859) 257-4513 x256
Fax: (859) 257-1815
mbarrett@engr.uky.edu

Next Steps

- KTC will contact you
- Letter of interest form signed
- Set date for school visit
- Revisit school – distribute post survey

Thank You.

Appendix 4

Armband Program Interest Form

Pedestrian & Bicyclist Armband Program

Yes! My school is interested in participating in your armband program. Please contact me. My contact information is provided below.

Name: _____
Position: _____
School: _____
Address: _____
_____
_____
Phone: _____
Fax: _____
Email: _____

Return form / address questions to:

Monica Barrett
Kentucky Transportation Center
176 Raymond Building
Lexington, KY 40506
(859) 257-4513 x256
Fax: (859) 257-1815
mbarrett@engr.uky.edu

Appendix 5

Letter of Interest From School

School
Address
City, State Zip
Phone

Date

Carla Crossfield
Kentucky Transportation Center
176 Raymond Building
Lexington, KY 40506-0281

Dear Ms. Crossfield,

As an authorized representative of School, located in City, KY, I would like to extend this letter of invitation to the University of Kentucky Transportation Center to visit our school as part of the Kentucky Transportation Cabinet's Retroreflective Armband Program.

I understand that this safety program is a statewide initiative to improve the safety of schoolchildren as they walk or bike to/from school by use of a yellow, retroreflective armband. I further understand that participation in this free program is strictly voluntary and that anonymous, pre and post event surveys will be distributed for parents to complete and return to the Kentucky Transportation Center.

Please have a project coordinator (Nancy Dunaway (859) 257-7517 or Carla Crossfield (859) 257-4022, (859) 257-1815 fax) contact me at phone, fax, or email information to schedule a school visit.

Sincerely,

Name

Title

Appendix 6

Pre Survey

UNIVERSITY OF KENTUCKY

KY Transportation Center
College of Engineering
Oliver H. Raymond Building
Lexington, Kentucky
40506-0281
(859) 257-4513
1-800-432-0719 in state
Fax: (859) 257-1815
T2 Fax: (859) 257-1061
www.uky.edu

Dear Parent,

During 2004, 899 pedestrians and 352 bicyclists were injured or killed in Kentucky. Twenty-five (25) percent of those pedestrians and 42 percent of those bicyclists were in the "14 years and under" age group. That means **372 children were hurt or killed while walking or riding a bike**.

The Kentucky Transportation Center at the University of Kentucky is conducting research on a new program for elementary and middle school aged children that walk or bike to school. This program discusses the dangers to pedestrians and bicyclists and demonstrates the correct way to cross a street. As a key component to improve the safety of the school age children who walk or bike to school, reflective arm bands were distributed to your child. While wearing these armbands, your child will be more visible to motorists, thereby improving the safety of your child while biking or crossing the street.

We ask that you encourage your child to wear the armband. Additionally, we ask that you please take a few moments to complete the attached postage paid survey. This program is strictly voluntary and anonymous, and you can discontinue use of the armband at any time. If you have any questions about our research, please contact us.

Thank you for your participation.

Sincerely,

Kentucky Transportation Center

UNIVERSITY OF KENTUCKY

_____
Student's Age

Student's Grade (circle):

K 1 2 3 4 5 6 7 8

_____
School

_____
Teacher

1. How does your child get to school?

	every day	most days	very few days	never
Walk to school	☐	☐	☐	☐
Walk to bus stop	☐	☐	☐	☐
Bike / skateboard to school	☐	☐	☐	☐
Driven by parent / adult	☐	☐	☐	☐

2. If your child walks to school, walks to bus stop, or bikes/skateboards to school, how safe do they feel on their travel to/from school?

	very safe	safe	not safe at all
Walk to school	☐	☐	☐
Walks to bus stop	☐	☐	☐
Bikes/skateboards	☐	☐	☐

3. If your child currently walks to school, walks to bus stop, or bikes/skateboards to school, do they use any safety device to make them more visible to motorists? (e.g. reflective armbands, shoelaces, vests)

Yes ☐ please list _____

No ☐

Please fold on dotted lines and drop in mailbox (see back of this page)

Fold Here

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 18 LEXINGTON KY

POSTAGE WILL BE PAID BY ADDRESSEE

UNIVERSITY OF KENTUCKY
KENTUCKY TRANSPORTATION CENTER
176 RAYMOND BUILDING - 0281
500 S LIMESTONE
LEXINGTON KY 40508-9964

Fold Here

Appendix 7

Post Survey

UNIVERSITY OF KENTUCKY

KY Transportation Center
College of Engineering
Oliver H. Raymond Building
Lexington, Kentucky
40506-0281
(859) 257-4513
1-800-432-0719 in state
Fax: (859) 257-1815
T2 Fax: (859) 257-1061
www.uky.edu

Dear Parent,

As you may recall, several weeks ago we notified you that we were conducting research on a new program for elementary and middle school aged children that walked or biked to school. This program discussed the dangers to pedestrians and bicyclists and demonstrated the correct way to cross a street. As a key component to improve the safety of the school age children who walk or bike to school, reflective arm bands were distributed to your child. If worn, these armbands made your child more visible to motorists, thereby improving the safety of your child while biking or crossing the street.

As a conclusion to our project, please take a few moments to complete the attached postage paid survey. This survey is strictly voluntary and anonymous. If you have any questions regarding our research, please contact me.

Thank you for your participation.

Sincerely,

Kentucky Transportation Center

_____
School

_____
Teacher

_____
Student's Age

Student's Grade (circle): K 1 2 3 4 5 6 7 8 9 10 11 12

1. Did your child receive a reflective armband?

Yes ☐ No ☐

2. Did your child wear the reflective armband?

every day ☐ most days ☐ very few days ☐ never ☐

If never, why not? _____

3. While your child was wearing the armband, how safe did they feel while traveling to/from school?

very safe ☐ safe ☐ not safe at all ☐

4. Will your child continue to wear the armband on their travel to/from school?

Yes ☐ No ☐

Please fold on dotted lines and drop in mailbox (see back of this page)

Fold Here

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 18 LEXINGTON KY

POSTAGE WILL BE PAID BY ADDRESSEE

UNIVERSITY OF KENTUCKY
KENTUCKY TRANSPORTATION CENTER
176 RAYMOND BUILDING - 0281
500 S LIMESTONE
LEXINGTON KY 40508-9964

Fold Here

Appendix 8

Sample Lesson Plan

Lesson Plan

Topic: Pedestrian and Bicycle Safety

Grade Level: 1st-5th

Background Information:
There were 2,483 pedestrians injured or killed in Kentucky from 2002-2004. Twenty-nine (29) percent of those pedestrians were in the “14 years and under” age, meaning that 720 children were hurt or killed while walking.

There were 1,057 bicyclists injured or killed in Kentucky from 2002-2004. Forty-five (45) percent of those bicyclists were in the “14 years and under” age, meaning that 479 children were hurt or killed while riding a bike.

From a literature review completed on the subject, the following information was collected from various studies and websites:

•American Automobile Foundation for Road Safety Research study indicated that the young pedestrian’s unpredictable and impulsive behavior lead directly to their injury or death.

•Use of retroreflective colors worn on clothing were found to improve detection and recognition distance and time

•Efforts to implement complementary measures such as traffic calming schemes (ie school crossing guards), speed limit and continuous driver and pedestrian/cyclist education may also improve the safety of all vulnerable road users.

Per the need to improve the safety of children who bike or walk to school, the Kentucky Transportation Cabinet funded a Retroreflective Armband Project in an effort to determine if elementary and middle school students can be educated to use reflective armbands to increase their visibility to motorists while walking or bicycling to school.

The University of Kentucky Transportation Center was contracted to implement and assess the program. The project plan included visiting state elementary and middle schools to make brief presentations on pedestrian and bicycle safety, followed by armband distribution. A initial survey will be distributed to the students for the parents to complete to determine if the student currently walks or bikes to school. As a follow-up for those students who received an armband, a survey of the student’s parent will be conducted to determine the frequency of use of the armband and whether there is actual evidence or perception of increased safety

Classroom/Assembly presentations will include a review of general safety instructions(with possible visual aids). Safety Tips for Pedestrians will include:

•Look both ways before crossing the street

•Always try to walk on sidewalks or paths

•Walk, do not run, when crossing the street

•When possible, dress in bright colors and/or wear retroreflective materials

•Obey traffic signs and signals

•Be very careful when (or even avoid) walking between parked cars

•Refuse to ride with strangers

Safety Tips for Cyclists:

•Wear a bicycle helmet on every ride

•Ride where drivers and other cyclists can see you

•Look both ways before turning and only go when it is clear

•Watch out for potholes, cracks, rocks, water etc. that could make you loose control of you bike

•Make sure the tires for inflated and check the brakes before riding

•Make sure you bike fits your height, weight, and age.

References:

Safekids.org
Centers for Disease Control and Prevention (www.cdc.gov)
AA Foundation for Road Safety Research

Time Allotment: 15-20 minutes

Resources:

List of Safety Tips
Retroreflective Armbands
Initial Surveys for distribution

Procedures:

Brainstorming: Students will be asked to list the places they walk

Listening: Students will receive basic safety tips on walking and biking

Hands-On: Students will be given a retroreflective armband (attaches with velcro) to wear when walking or biking to school

Assessment: A follow up survey for the participating student's parent will be conducted to determine the frequency of use of the armband and whether there is actual evidence or perception of increased safety

Appendix 9

School Presentation Posters

Kentucky Transportation Center
University of Kentucky

Project sponsored by the
Kentucky Transportation Cabinet

Why are we here today?

SAFETY...

...when you walk or ride your bike.

Where are some places you could walk or ride your bike?

How many of you walk or bike to school?


DONT
WALK

Safety Tips for Walkers…

- Look both ways before crossing the street **(LEFT – RIGHT – LEFT)**
- Always walk on sidewalks
- Dress in bright colors and/or wear reflective materials
- Obey traffic signs and signals
- Avoid walking between parked cars

REMEMBER...

Drivers may not always see you!

Safety Tips for Bikers...

Use proper hand signals when riding your bike.

Wear a bicycle helmet on every ride!

Make sure you have reflectors on your bike.

Look both ways before turning.

If you ride at night, have a headlight and taillight on your bike.

Appendix 10

New Reflective Armband Flyer

The University of Kentucky Transportation Center, on behalf of The Kentucky Transportation Cabinet, is promoting a reflective armband program for elementary and middle school age children who bike to school, walk to school or walk to a bus stop.

The goal of the program is to increase visibility, and therefore safety, of walkers and bikers through the use of retroreflective armband usage.

A limited number of armbands are available for distribution at no cost to elementary and middle schools. The program components include a 15 minute educational presentation on general safety guidelines for walkers and bikers. The presentations can be made in medium or large groups, depending on availability of time during the school day. Additionally, a survey is distributed to each student receiving the armband to be completed by the parent/guardian as well as a follow-up survey for the parent/guardian, approximately 4 weeks later. The surveys are postage paid back to the University of Kentucky and are anonymous. The survey questions pertain to how the student arrives at school, if any reflective devices are currently worn by the student, if the student has worn the armband, etc.

If your school has a number of students who walk to school, walk to a bus stop or bike to school and would like to book a date for a school presentation/armband distribution or if you would like more information about this free program, please contact Carla Crossfield at the University of Kentucky Transportation Center at (859) 257-4022 .

Appendix 11

Adjusted Pre Survey

UNIVERSITY OF KENTUCKY

KY Transportation Center
College of Engineering
Oliver H. Raymond Building
Lexington, Kentucky
40506-0281
(859) 257-4513
1-800-432-0719 in state
Fax: (859) 257-1815
T2 Fax: (859) 257-1061
www.uky.edu

Dear Parent,

During 2004, 899 pedestrians and 352 bicyclists were injured or killed in Kentucky. Twenty-five (25) percent of those pedestrians and 42 percent of those bicyclists were in the "14 years and under" age group. That means **372 children were hurt or killed while walking or riding a bike**.

The Kentucky Transportation Center at the University of Kentucky is conducting research on a new program for elementary and middle school aged children that walk or bike to school. This program discusses the dangers to pedestrians and bicyclists and demonstrates the correct way to cross a street. As a key component to improve the safety of the school age children who walk or bike to school, reflective arm bands were distributed to your child. While wearing these armbands, your child will be more visible to motorists, thereby improving the safety of your child while biking or crossing the street.

We ask that you encourage your child to wear the armband. Additionally, we ask that you please take a few moments to complete the attached postage paid survey. This program is strictly voluntary and anonymous, and you can discontinue use of the armband at any time. If you have any questions about our research, please contact us.

Thank you for your participation.

Sincerely,

Monica Barrett
Research Engineer

UNIVERSITY OF KENTUCKY

_____
Student's Age

Student's Grade (circle):

K 1 2 3 4 5 6 7 8

_____
School

_____
Teacher

1. How does your child get to school?

	every day	most days	very few days	never
Walk to school	☐	☐	☐	☐
Walk to bus stop	☐	☐	☐	☐
Bike / skateboard to school	☐	☐	☐	☐
Driven by parent / adult	☐	☐	☐	☐

2. If your child walks to school, walks to bus stop, or bikes/skateboards to school, how safe do they feel on their travel to/from school?

	very safe	safe	not safe at all
Walk to school	☐	☐	☐
Walks to bus stop	☐	☐	☐
Bikes/skateboards	☐	☐	☐

3. If your child currently walks to school, walks to bus stop, or bikes/skateboards to school, do they use any safety device to make them more visible to motorists? (e.g. reflective armbands, shoelaces, vests)

Yes ☐ please list _____

No ☐

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Appendix 12

Central KY Elementary and Middle Schools Contacted and Visited

Contacted Central KY Elementary & Middle Schools

(Not Visited)

Jessamine Co. Public Schools

Brookside Elementary School
District No. 281 School No. 070 Grades P-05
Est. Teachers 40 Est. Enrollment 575
Ned Slone, Principal
199 Brookside Dr., Nicholasville 40356
(859) 887-2012
Fax Number (859) 885-9934

East Jessamine Middle School
District No. 281 School No. 025 Grades 06-08
Est. Teachers 65 Est. Enrollment 900
William R. Pickett, Principal
851 Wilmore Rd., Nicholasville 40356
(859) 885-5561
Fax Number (859) 887-1797

Jessamine Early Learning Village
District No. 281 School No. 022 Grades PS-K
Est. Teachers 39 Est. Enrollment 750
Kelly E. Sampson, Principal
210 S. Lexington Ave., Wilmore 40390
(859) 858-0868
Fax Number (859) 858-0449

Nicholasville Elementary School
District No. 281 School No. 050 Grades P-05
Est. Teachers 46 Est. Enrollment 575
Kathy C. Tingle, Principal
414 W. Maple St., Nicholasville 40356
(859) 885-5351
Fax Number (859) 885-1011

Rosenwald Dunbar Elementary School
District No. 281 School No. 060 Grades P-05
Est. Teachers 42 Est. Enrollment 535
Beth A. Osborne, Interim Principal
1500 Wilmore Rd., Nicholasville 40356
(859) 885-6670
Fax Number (859) 887-2052

West Jessamine Middle School
District No. 281 School No. 026 Grades 06-08
Est. Teachers 55 Est. Enrollment 800
Terry L. Mackstroth, Principal
1400 Wilmore Rd., Nicholasville 40356
(859) 885-2244
Fax Number (859) 885-8078

Madison County Schools

Clark Moores Middle School
District No. 365 School No. 010 Grades 06-08
Est. Teachers 50 Est. Enrollment 730
Franklin Thomas, Principal
1143 Berea Rd., Richmond 40475
(859) 624-4545
Fax Number (859) 624-4534

Daniel Boone Elementary School
District No. 365 School No. 015 Grades PS-05
Est. Teachers 41 Est. Enrollment 590
Margaret P. Whitaker, Principal
710 N. Second St., Richmond 40475
(859) 624-4530
Fax Number (859) 624-4589

Foley Middle School
District No. 365 School No. 140 Grades 06-08
Est. Teachers 56 Est. Enrollment 750
Arno Norwell, Principal
211 Glades Rd., Berea 40403
(859) 986-8473
Fax Number (859) 986-3362

Kingston Elementary School
District No. 365 School No. 030 Grades PS-05
Est. Teachers 36 Est. Enrollment 475
Tolene H. Pitts, Principal
329 Kingston Big Hill Rd., Berea 40403
(859) 986-4668
Fax Number (859) 986-4653

Kirksville Elementary School
District No. 365 School No. 040 Grades PS-05
Est. Teachers 37 Est. Enrollment 500
Ann Burns, Principal
2399 Lancaster Rd., Richmond 40475
(859) 624-4582
Fax Number (859) 624-4595

Kit Carson Elementary School
District No. 365 School No. 045 Grades PS-05
Est. Teachers 38 Est. Enrollment 565
Beth Jones, Principal
450 Tates Creek Rd., Richmond 40475
(859) 624-4525
Fax Number (859) 624-4526

Madison Middle School
District No. 365 School No. 020 Grades 06-08
Est. Teachers 51 Est. Enrollment 630
Steve Tribble, Principal
101 Summitt St., Richmond 40475
(859) 624-4550
Fax Number (859) 624-4543

Mayfield Elementary School
District No. 365 School No. 005 Grades PS-05
Est. Teachers 33 Est. Enrollment 350
Richard Lowe, Principal
300 Bond St., Richmond 40475
(859) 624-4540
Fax Number (859) 624-4541

Model Laboratory Elementary School
District No. 365 School No. 450 Grades PS-05
Est. Teachers 12 Est. Enrollment 281
Debra B. Brown, Principal
Eastern Ky. University, 521 Lancaster Ave.,
Richmond 40475
(859) 622-3766
Fax Number (859) 622-6658

Model Laboratory Middle School
District No. 365 School No. 455 Grades 06-08
Est. Teachers 9 Est. Enrollment 166
Rose Skepple, Principal
Eastern Ky. University, 521 Lancaster Ave.,
Richmond 40475
(859) 622-3766
Fax Number (859) 622-6658

Shannon Johnson Elementary School
District No. 365 School No. 007 Grades PS-05
Est. Teachers 32 Est. Enrollment 400
Jim Hamm, Principal
109 Oakwood Drive, Berea 40403
(859) 986-8233
Fax Number (859) 986-8405

Waco Elementary School
District No. 365 School No. 120 Grades PS-05
Est. Teachers 38 Est. Enrollment 450
Rhonda Allen, Principal
359 Waco Loop, Waco 40385
(859) 369-5540
Fax Number (859) 369-3819

White Hall Elementary School
District No. 365 School No. 130 Grades PS-05
Est. Teachers 37 Est. Enrollment 550
Randy Neeley, Principal
2166 Lexington Rd., Richmond 40475
(859) 624-4510
Fax Number (859) 624-4512

Non-Public Schools
Saint Mark School
District No. 365 School No. 520 Grades PS-08
Est. Enrollment 209
Steve J. Lebrun, Principal
115 Parrish Ave., Richmond 40475
(859) 623-9112
Fax Number (859) 626-5492

Woodford Co Schools

Huntertown Elementary School
District No. 601 School No. 090 Grades K-06
Est. Teachers 34 Est. Enrollment 525
Kimberly Parker-Brown, Principal
120 Woodburn Hall, Versailles 40383
(859) 873-3731
Fax Number (859) 873-6292

Northside Elementary School
District No. 601 School No. 120 Grades K-06
Est. Teachers 30 Est. Enrollment 416
Ryan Asher, Principal
500 Northside Dr., Midway 40347
(859) 846-4415
Fax Number (859) 846-4716

Simmons Elementary School
District No. 601 School No. 075 Grades K-06
Est. Teachers 35 Est. Enrollment 475
Tammara Gilkison, Principal
830 Tyrone Pike, Versailles 40383
(859) 873-4889
Fax Number (859) 873-6914
Southside Elementary School
District No. 601 School No. 050 Grades K-06
Est. Teachers 25 Est. Enrollment 535
Michelle Cassady, Principal
1300 Troy Pk., Versailles 40383
(859) 873-4850
Fax Number (859) 873-4571

Woodford County Preschool
District No. 601 School No. 014 Grades PS
Est. Teachers 3 Est. Enrollment 85
Tracy Peddicord, Coordinator
299 S. Main St., Versailles 40383
(859) 873-2421
Fax Number (859) 873-1328

Non-Public Schools

Saint Leo Elementary School
District No. 601 School No. 490 Grades K-08
Est. Enrollment 175
Sr. Patrycia Sweeney, Principal
239 N. Main St., Versailles 40383
(859) 873-4591
Fax Number (859) 873-2244

Versailles Montessori School
District No. 601 School No. 011 Grades K-07
Est. Enrollment 74
Tony Guagliardo, Principal
480 Pinckard Pk., Versailles 40383
(859) 873-1998
Fax Number (859) 879-9462

Scott County Schools

Anne Mason Elementary School
District No. 525 School No. 012 Grades PS-05
Est. Teachers 36 Est. Enrollment 593
Carmen W. Doninger, Principal
350 Champion Way, Georgetown 40324
(502) 570-3050
Fax Number (502) 570-0391

Eastern Elementary School
District No. 525 School No. 010 Grades K-05
Est. Teachers 29 Est. Enrollment 454
Edwin L. Denney, Principal
3407 Newtown Rd., Georgetown 40324
(502) 863-0275
Fax Number (502) 863-0537

Garth Elementary School
District No. 525 School No. 015 Grades PS-05
Est. Teachers 37 Est. Enrollment 510
David R. Andes, Principal
501 S. Hamilton St., Georgetown 40324
(502) 863-1170
Fax Number (502) 867-0794

Georgetown Middle School
District No. 525 School No. 018 Grades 06-08
Est. Teachers 43 Est. Enrollment 549
Henry T. Hurt, Principal
730 S. Hamilton St., Georgetown 40324
(502) 863-3805
Fax Number (502) 867-1372

Scott County Middle School
District No. 525 School No. 060 Grades 06-08
Est. Teachers 60 Est. Enrollment 992
Jennifer Sutton, Principal
1036 Cardinal Dr., Georgetown 40324
(502) 863-7202
Fax Number (502) 863-7452

Southern Elementary School
District No. 525 School No. 070 Grades K-05
Est. Teachers 34 Est. Enrollment 445
Bryan K. Blankenship, Principal
1200 Fairfax Way, Georgetown 40324
(502) 863-0772
Fax Number (502) 863-3421

Stamping Ground Elementary School
District No. 525 School No. 050 Grades PS-05
Est. Teachers 25 Est. Enrollment 372
Paul Krueger, Principal
3233 Main St., Stamping Ground 40379
(502) 570-8800
Fax Number (502) 570-8804

Western Elementary School
District No. 525 School No. 080 Grades K-05
Est. Teachers 37 Est. Enrollment 550
Deborah Haddad, Principal
1901 Frankfort Rd., Georgetown 40324
(502) 863-1393
Fax Number (502) 867-0942

Non-Public Schools

Saint John Elementary School
District No. 525 School No. 300 Grades PS-07
Est. Enrollment 172
Kathy Boothe, Principal
106 Military St., Georgetown 40324
(502) 863-2607
Fax Number (502) 863-2259

Franklin County Schools

Public Schools

Bondurant Middle School
District No. 181 School No. 015 Grades 06-08
Est. Teachers 30 Est. Enrollment 630
Gregory L. Gaby, Principal
300 Bondurant Dr., Frankfort 40601
(502) 875-8440
Fax Number (502) 875-8442

Collins Lane Elementary School
District No. 181 School No. 025 Grades PS-05
Est. Teachers 25 Est. Enrollment 435
Jeffrey A. Castle, Principal
1 Cougar Ln., Frankfort 40601
(502) 875-8410
Fax Number (502) 875-8412

Elkhorn Elementary School
District No. 181 School No. 035 Grades PS-05
Est. Teachers 30 Est. Enrollment 470
Donnie Owens, Principal
928 E. Main St., Frankfort 40601
(502) 695-6730
Fax Number (502) 695-6731

Hearn Elementary School
District No. 181 School No. 045 Grades PS-05
Est. Teachers 28 Est. Enrollment 500
Kyle Sexton, Principal
200 Laralan Ave., Frankfort 40601
(502) 695-6760
Fax Number (502) 695-6762

Peaks Mill Elementary School
District No. 181 School No. 050 Grades PS-05
Est. Teachers 26 Est. Enrollment 530
Steve Evans, Principal
100 Peaks Mill Rd., Frankfort 40601
(502) 875-8450
Fax Number (502) 875-8452

Westridge Elementary School
District No. 181 School No. 013 Grades PS-05
Est. Teachers 25 Est. Enrollment 420
Charley Preston, Principal
Pebblebrook Way, Frankfort 40601
(502) 875-8420
Fax Number (502) 875-8422

Non-Public Schools

Capital Day School
District No. 181 School No. 410 Grades PS-08
Est. Enrollment 180
Faye McDonnough, Head of School
120 Deepwood Rd., Frankfort 40601
(502) 227-7121
Fax Number (502) 227-7558

Frankfort Christian Academy
District No. 181 School No. 200 Grades PS-10
Est. Enrollment 293
Robert Roach, Principal
1349A U.S. Highway 421 South, Frankfort 40601
(502) 695-0744
Fax Number (502) 695-8725

Bourbon County Schools

Bourbon Central Elementary School
District No. 041 School No. 010 Grades K-05
Est. Teachers 43 Est. Enrollment 626
Benjamin M. Rankin, Principal
367 Bethlehem Rd., Paris 40361
(859) 987-2195
Fax Number (859) 987-2104

Bourbon County Middle School
District No. 041 School No. 120 Grades 06-08
Est. Teachers 51 Est. Enrollment 604
Larry Tapp, Principal
3343 Lexington Rd., Paris 40361
(859) 987-2189
Fax Number (859) 987-5854

Bourbon County Preschool Center
District No. 041 School No. 011 Grade PS-HS
Est. Teachers 9 Est. Enrollment 285
Ann Stewart, Principal
369 Bethlehem Rd., Paris 40361
(859) 987-2183
Fax Number (859) 987-5867

Cane Ridge Elementary School
District No. 041 School No. 030 Grades K-05
Est. Teachers 29 Est. Enrollment 410
William S. Fooks, Principal
8000 Bypass Rd., Paris 40361
(859) 987-2106
Fax Number (859) 987-2107

North Middletown Elementary School
District No. 041 School No. 090 Grades PS-05
Est. Teachers 18 Est. Enrollment 196
Greg Ramey, Principal
P.O. Box 67, 301 College St., N. Middletown 40357
(859) 362-4523
Fax Number (859) 362-4047

Clark County Schools

Central Elementary School
District No. 121 School No. 020 Grades K-05
Est. Teachers 25 Est. Enrollment 370
Alan A. Biggers, Principal
330 Mt. Sterling St., Winchester 40391
(859) 744-2243
Fax Number (859) 737-4842

Clark Middle School
District No. 121 School No. 070 Grades 06-08
Est. Teachers 47 Est. Enrollment 750
Pamela Whitesides, Principal
1 Educational Plaza, Winchester 40391
(859) 744-0427
Fax Number (859) 745-3907

Hannah McClure Elementary School
District No. 121 School No. 050 Grades K-05
Est. Teachers 16 Est. Enrollment 280
Kathryn K. Howard, Principal
30 Beckner St., Winchester 40391
(859) 744-6922
Fax Number (859) 745-2147

Pilot View Elementary School
District No. 121 School No. 080 Grades K-05
Est. Teachers 8 Est. Enrollment 140
Stephen R. Jenkins, Principal
7501 Ironworks Rd., Winchester 40391
(859) 842-5231
Fax Number (859) 842-4238

Providence Elementary School
District No. 121 School No. 090 Grades K-05
Est. Teachers 15 Est. Enrollment 310
Brenda Considine, Principal
7076 Old Boonesboro Rd., Winchester 40391
(859) 527-3163
Fax Number (859) 527-6392

Strode Station Elementary School
District No. 121 School No. 120 Grades K-05
Est. Teachers 40 Est. Enrollment 620
Cynthia Powell, Principal
2 Educational Plaza, Winchester 40391
(859) 745-3915
Fax Number (859) 745-3094

Trapp Elementary School
District No. 121 School No. 100 Grades K-05
Est. Teachers 8 Est. Enrollment 120
Stephen R. Jenkins, Principal
11400 Irvine Rd., Winchester 40391
(859) 744-0027
Fax Number (859) 745-5801

William G. Conkwright Middle School
District No. 121 School No. 035 Grades 06-08
Est. Teachers 30 Est. Enrollment 520
Dr. Becke A. Cleaver, Principal
360 Mt. Sterling Rd., Winchester 40391
(859) 744-8433
Fax Number (859) 745-2027

Non-Public Schools
Clark County Christian School
District No. 121 School No. 011 Grades PS-12
Est. Enrollment 69
Dr. Gordon Carlisle, Principal
2450 Colby Rd., Winchester 40391
(859) 745-6555
Fax Number (859) 745-9502

Saint Agatha Academy
District No. 121 School No. 410 Grades PS-08
Est. Enrollment 241
Lee Cooner, Principal
244 S. Main St., Winchester 40391
(859) 744-6484
Fax Number (859) 744-0268

Visited Central KY Elementary & Middle Schools

Jessamine Co. Public Schools

Hattie C. Warner Elementary School
District No. 281 School No. 018 Grades PS-05
Est. Teachers 40 Est. Enrollment 550
Val Gallutia, Principal
821 Wilmore Rd., Nicholasville 40356
(859) 885-3085
Fax Number (859) 885-1851

Wilmore Elementary School
District No. 281 School No. 090 Grades P-05
Est. Teachers 44 Est. Enrollment 620
Andrea H. McNeal, Principal
150 Campground Ln., Wilmore 40390
(859) 858-3134
Fax Number (859) 858-3108

Madison County Schools

Silver Creek Elementary School
District No. 365 School No. 100 Grades PS-05
Est. Teachers 43 Est. Enrollment 550
Lisa D. Hutson, Principal
75 Old U.S. 25 N., Berea 40403
(859) 986-4991
Fax Number (859) 986-1932

Scott County Schools

Northern Elementary School
District No. 525 School No. 035 Grades PS-05
Est. Teachers 23 Est. Enrollment 291
Melodee M. Parker, Principal
3600 Cincinnati Rd., Georgetown 40324
(502) 868-5007
Fax Number (502) 863-6654

Franklin County Schools

Bridgeport Elementary School
District No. 181 School No. 014 Grades PS-05
Est. Teachers 27 Est. Enrollment 420
Martha A. Lail, Principal
411 Kings Daughters Drive, Frankfort 40601
(502) 875-8430
Fax Number (502) 875-8432

Elkhorn Middle School
District No. 181 School No. 030 Grades 06-08
Est. Teachers 35 Est. Enrollment 750
Robert Allen Bell, Principal
1060 E. Main St., Frankfort 40601
(502) 695-6740
Fax Number (502) 695-6745

Clark County Schools

Fannie Bush Elementary School
District No. 121 School No. 040 Grades K-05
Est. Teachers 19 Est. Enrollment 280
Angela Taylor, Principal
250 N. Main St., Winchester 40391
(859) 744-4834
Fax Number (859) 745-0109

Shearer Elementary School
District No. 121 School No. 095 Grades K-05
Est. Teachers 27 Est. Enrollment 410
Daniel Edward Sigmon, Principal
244 E. Broadway, Winchester 40391
(859) 744-4978
Fax Number (859) 745-3933

Appendix 13

Safe Routes to School Award Recipients

County	Project Name	School Name	Principal	Name	Address	City	State	Zip	Phone	Fax
Boone	Roger's Lane-Camp Ernst Middle School Neighborhood Connection	Camp Ernst Middle School	Principal	Eric McArtor	6515 Camp Ernst RD	Burlington	KY	41005	859-334-4141	859-334-4149
Calloway	Murray Independent Schools Safe Walk & Ride	Murray Elementary	Principal	Janet Caldwell	111 Broach Avenue	Murray	KY	42071	270-753-5022	270-753-3856
Calloway	Murray Independent Schools Safe Walk & Ride	Murray Middle	Principal	Lou Carter	801 Main Street	Murray	KY	42071	270-753-5125	270753-9039
Grant	Grant County Safe Routes to School Program	Crittenden Mt. Zion Elementary	Principal	Mark D. Hudson	270 Crittenden-Mt. Zio	Dry Ridge	KY	41035	859-428-2171	859-428-1890
Greenup	Russell Safe Routes to School Sidewalks and Multi-use Path and Education Prograi	Russell Primary School	Principal	Deborah J. Finley	710 Red Devil Lane	Russell	KY	41169	606-836-0007	606-834-9300
Greenup	Russell Safe Routes to School Sidewalks and Multi-use Path and Education Prograi	Russell Middle School	Principal	Shaun Horn	707 Red Devil Lane	Russell	KY	41169	606-836-8135	606-836-0614
Greenup	Russell Safe Routes to School Sidewalks and Multi-use Path and Education Prograi	Russell High School	Principal	Alan Thompson	709 Red Devil Lane	Russell	KY	41169	606-836-9658	606-836-9650
Greenup	Russell Safe Routes to School Sidewalks and Multi-use Path and Education Prograi	Russell-McDowell Intermediate School	Principal	Heather T. Aldridge	1900 Long Street	Flatwoods	KY	41139	606-836-8186	606-836-3547
Jefferson	City of Barbourmeade/Norton Elementary Safe Routes to School Project	Norton Elementary School	Principal	Ken Stites	8101 Brownsboro Roa	Louisville	KY	40241	502-485-8308	502-485-8600
Johnson	Paintsville Student Drop-off and Sidewalk Improvement Project	Paintsville Elementaty School	Principal	Teresa Petot	325 Second Street	Paintsville	KY	41240	606-789-2651	606-789-2575
Kenton	Edgewood Safe Routes to School	St.Pius Elementary	Principal	Elizabeth Trenkamp	348 Dudley Road	Edgewood	KY	41017	859-341-4900	859-341-3440
Kenton	Edgewood Safe Routes to School	James Caywood Elementary	Principal	Dwight L. Raleigh	3230 Turkeyfoot Road	Edgewood	KY	41017	859-341-7062	859-344-3151
Kenton	Edgewood Safe Routes to School	R.C. Hinsdale Elementary	Principal	Connie A. Ryle	440 Dudley Road	Edgewood	KY	41017	859-341-8226	859-341-0759
Kenton	Edgewood Safe Routes to School	Turkey Foot Middle School	Principal	Thomas Arnzen	3230 Turkeyfoot Road	Edgewood	KY	41017	859-341-0216	859-341-7217
Kenton	Erlanger Safe Routes to School Program	Arnett Elementary School	Principal	David R. Palmore	3552 Kimberly Drive	Erlanger	KY	41018	859-727-1488	859-342-2481
Logan	Safe (r) Routes to School for Russellville Schools	Russellville Middle School	Principal	Alan Marksberry	210 E. 7th Street	Russellville	KY	42276	270-726-8428	270-726-8888
Logan	Safe (r)Routes to School for Russellville Schools	Stevenson Elementary School	Principal	Claudia Crump	1000 N. Main Street	Russellville	KY	42276	270-726-8425	270-726-1109
Marion	Lebanon Elementary Safe Routes to School	Lebanon Elementary	Principal	Donna G. Royse	420 W. Main Street	Lebanon	KY	40033	270-692-3883	270-692-6028
Marion	Lebanon Elementary Safe Routes to School	21st Century Learning Center	Principal	Scott Spalding (Director)	214 N. Harrison Street	Lebanon	KY	40033	270-699-2504	270-699-2992
Trigg	Cadiz Safe Route to School	Trigg County Primary	Principal	Brian Frutell	250 Main Street	Cadiz	KY	40033	270-522-2220	270-522-2234

Trigg	Cadiz Safe Route to School	Trigg County Intermediate	Principal	Cassandra Ann Taylor	250 Main Street	Cadiz	KY	42211	270-522-2220	270-522-2234
Trigg	Cadiz Safe Route to School	Trigg County Middle School	Principal	James Mangels	206 Lafayette Street	Cadiz	KY	42211	270-522-2210	270-522-2203
Trigg	Cadiz Safe Route to School	Trigg County High School	Principal	Sharon B. Knight	203 Main Street	Cadiz	KY	42211	270-522-2200	270-522-2224
Warren	Safe Routes to School in Warren County, Kentucky	Dishman-McGinnis Elementary	Principal	Michael Wix	503 Old Morgantown I	Bowling Gre	KY	42101	270-746-2250	270-746-2255
Warren	Safe Routes to School in Warren County, Kentucky	Parker-Bennett-Curry Elementary	Principal	Ann P. Senter	165 Webb Drive	Bowling Gre	KY	42101	270-746-2270	270-746-2275
Warren	Safe Routes to School in Warren County, Kentucky	Potter-Gray Elementary	Principal	James A. Tinius	610 Wakefield Drive	Bowling Gre	KY	42101	270-746-2280	270-746-2285
Warren	Safe Routes to School in Warren County, Kentucky	T.C. Cherry Elementary	Principal	Judy Whitson	1001 Liberty Avenue	Bowling Gre	KY	42101	270-746-2230	270-746-2235
Warren	Safe Routes to School in Warren County, Kentucky	W.R. McNeil Elementary	Principal	Marsha Ingram	1800 Creason Drive	Bowling Gre	KY	42101	270-746-2260	270-746-2265
Whitley	City of Corbin Safe Routes to School Project	Central Elmentary	Principal	Amon Couch	710 W. 8th Street	Corbin	KY	40701	606-528-4367	
Whitley	City of Corbin Safe Routes to School Project	Corbin Middle School	Principal	Dave Cox	706 Kentucky Avenue	Corbin	KY	40701	606-523-3619	606-523-3621
Whitley	City of Corbin Safe Routes to School Project	South Elementary	Principal	William Daniel Jones	404 W. 17th Street	Corbin	KY	40701	606-528-1651	606-523-3615
Whitley	City of Corbin Safe Routes to School Project	Saint Camillus Academy Elementary Sc	Principal	St. Juanits Nadicksbernd	709 Roy Kidd Avenue	Corbin	KY	40701	606-528-5077	606-526-0106

For more information or a complete publication list, contact us at:

KENTUCKY TRANSPORTATION CENTER

176 Raymond Building
University of Kentucky
Lexington, Kentucky 40506-0281

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