

Non-Infrastructure



What is non-infrastructure?

- Education
- Encouragement
- Enforcement
- Evaluation



Education



Who needs educational messages?

1. Children
2. Parents
3. Neighbors



1. Educating children

- Pedestrian and bicyclist safety
- Personal safety
- Health benefits
- Environment

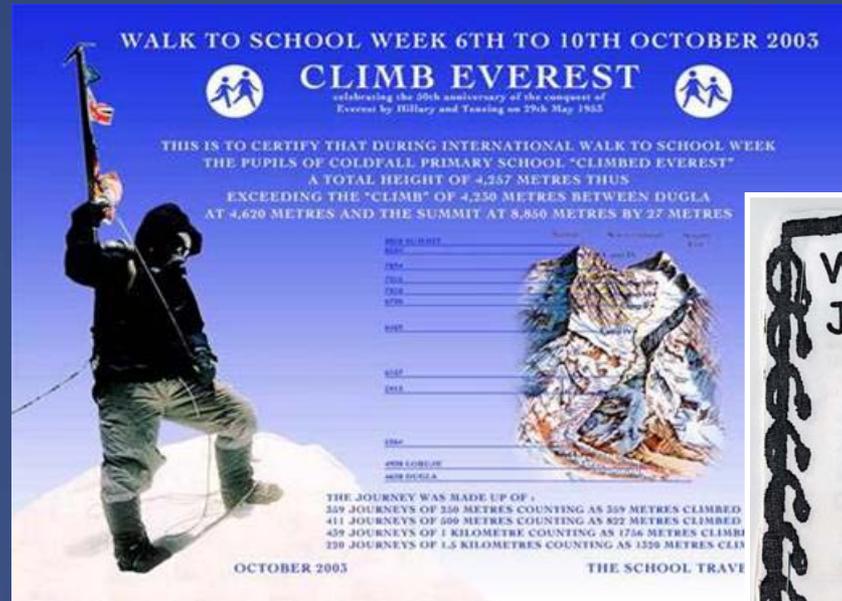


Strategies for teaching children



Integrate walking and bicycling education into traditional subjects

- Math
- Biology
- Reading
- Language arts
- Geography



2. Educating parents

- Pedestrian and bicyclist safety guidelines to reinforce with children
- Safe driving near the school
- School pick up and drop off procedures



Strategies for reaching parents

HOME ABOUT BOARD CONTACT HISTORY LINKS CRIME PREVENTION

HAND Hosford-Abernethy Neighborhood Development

A site for all who live, work and play in our inner-southeast Portland neighborhood.



« Abernethy School's first 'Tour de Ladd' » 7 Corners Workshop, Oct. 6 »

Int'l Walk and Bike to School Day, Wed., Oct. 8

From Abernethy Walk & Bike organizers:

International Walk and Bike to School Day is supported by Safe Routes To School (<http://www.walknbike.org>) which oversees a statewide effort to promote walking, biking, scooting, skating—any clean, green, and healthy way for kids to get to school. Safe Routes To



Pages

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Meta

- Log in
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HAND on Flickr

Categories

- Crime
- Events
- Land Use Issues
- Meeting Minutes
- Meetings
- Schools
- Transportation
- Uncategorized

HAND Group

- Division/Clinton Association
- Friends of Ladd Gardens

3. Educating neighbors

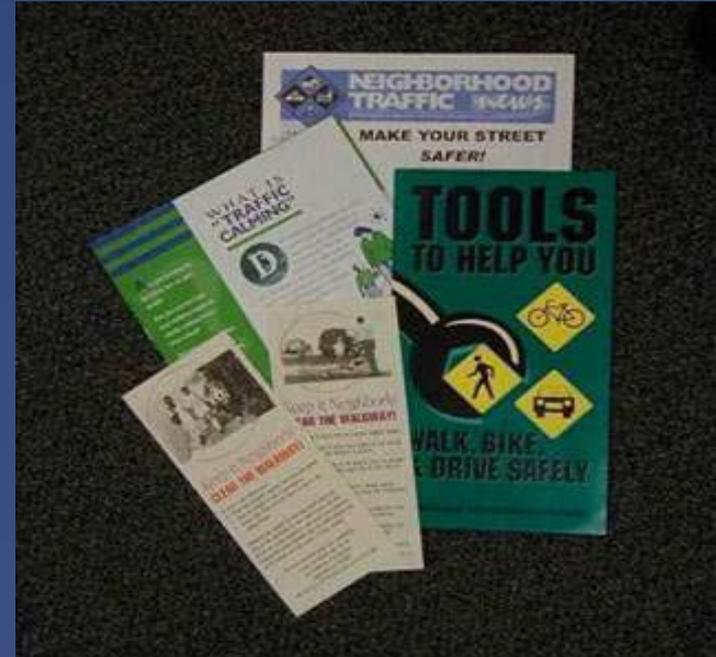
- Watch for / yield to pedestrians and cyclists
- Drive slowly
- Keep sidewalks clear
- Prune plants



Strategies for reaching neighbors



- Meetings
- Pace Cars



- Signs / Flyers
- Pruning Party

Encouragement



Encouragement programs

1. Events
2. Walking school buses
3. Individual competition
4. Contests
5. Park and walk sites
6. Route map promotion



1. Events



2. Walking school buses and bicycle trains



3. Individual competition



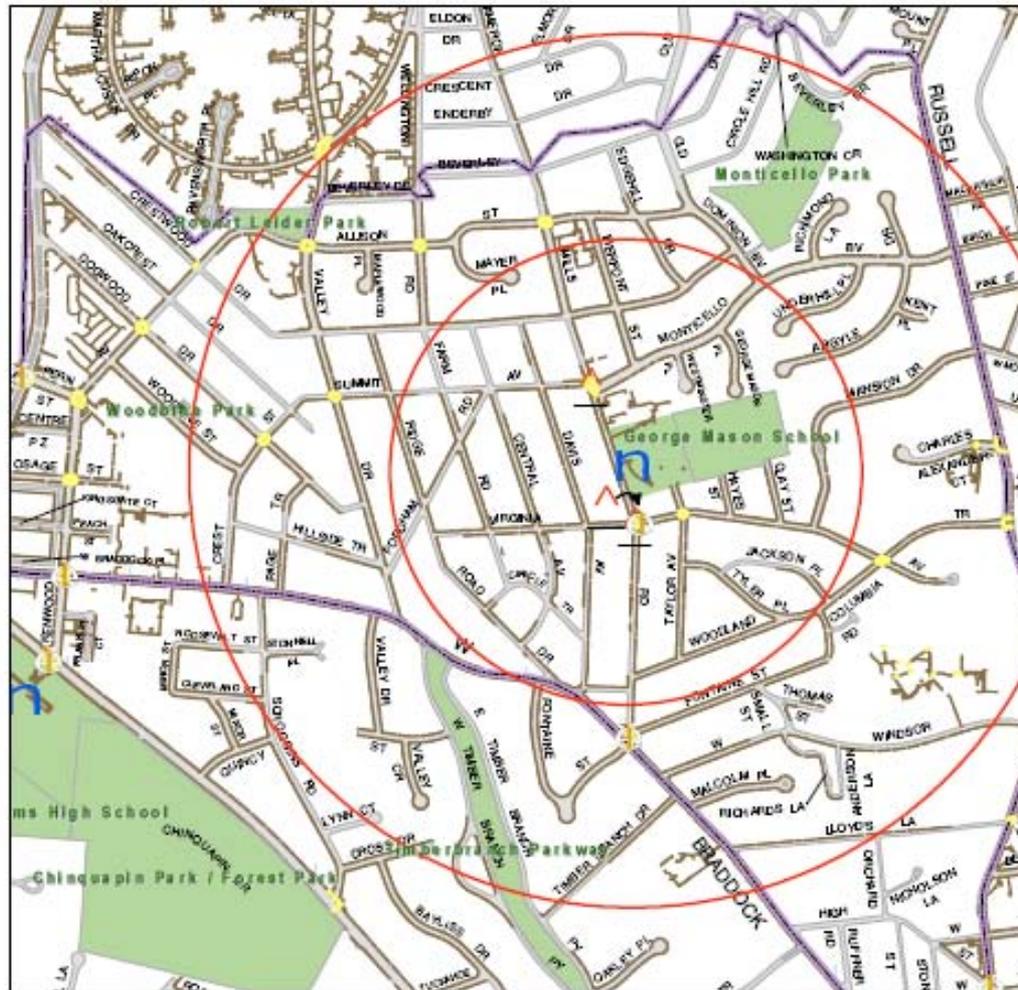
4. Contests



5. Park and walk sites



6. Route map promotion



Walking Map
1/4 Mile and 1/2 Mile
Radii

**George Mason
Elementary School**
2601 Cameron Mills Rd

Legend

- School
- Traffic Signal
- Crossing Guard
- DASH/MetroBus Stop
- Attendance Boundary
- Marked Crosswalk
- Sidewalk
- Park/School



April 2008

When it's too far or unsafe

- On-campus options
- Park and walk
- Safe Routes to Bus Stops



SRTS in middle schools

- Make it relevant
- Encourage students to take ownership
- Hold contests with cool prizes



Enforcement



SafeRoutes

Oklahoma Safe Routes to School



Role of enforcement

- Increase awareness
- Reduce traffic safety problems
- Improve behavior



Unsafe behaviors

- Pedestrian Behavior
- Bicyclist Behavior
- Motorist Behavior

A different way to look at enforcement

- Students
- Parents
- School administration
- Crossing guards
- Law enforcement officers



Enforcement strategies

- School and community
- Law enforcement



School and community efforts



- Safety patrol
- Driveway monitors
- Crossing guards
- Neighborhood speed watch programs

Crossing guard training/equipment



Neighborhood speed watch radar lending programs

Residents use radar units to record speed data in their neighborhood



Role of law enforcement officers

- Teach safety
- Evaluate traffic concerns
- Provide police presence
- Monitor guards and students



Law enforcement methods

- Speed trailers
- Active speed monitors
- Traffic complaint hotline
- Photo enforcement
- Pedestrian 'decoys'
- Progressive ticketing



Active speed monitors

- Permanent vs. Temporary
- Provides feedback and increases awareness



Photo enforcement



Mobile units provide city-wide coverage



Permanent units supplement police efforts

Evaluation



Benefits of Evaluation

- Identify the underlying problem
- Set reasonable expectations
- Identify changes that the public desires
- Determine results

Evaluation Options

1. Parent Survey
2. Student Talley
3. Walk-ability Checklist
4. Bike-ability Checklist
5. School Site Audit



Student Tally

- Multiple Day survey
- 1 page
- Completed by teachers
- Evaluated by National SRTS Clearinghouse
- www.saferoutesinfo.org

SAFE ROUTES TO SCHOOL
STUDENT ARRIVAL AND DEPARTURE TALLY SHEET

School Name: Zip Code: -

Teacher: Grade (K-8)

Monday's Date / / # of students enrolled in class
M M / D D / Y E A R

Teachers, here are simple instructions for using this form:

- Please conduct these counts **on any two days from Tuesday, Wednesday, or Thursday of the assigned week**. Only two days worth of counts are needed, but counting all 3 provides better data.
- **Please do not conduct these counts on Mondays or Fridays.**
- Before asking your students to raise their hands to indicate the **one answer** that is correct for them, read through all potential answers so they will know what the choices are.
- Ask your students as a group the question **"How did you arrive at school today?"**
- Read each answer and record the number of students that raised their hands for each.
- **Place just one character or number in each box.**
- Follow the same procedure for the question **"How do you plan to leave for home after school?"**
- Please conduct this count regardless of weather conditions (i.e., ask these questions on rainy days, too).

Step 1. Fill in the weather conditions and number of students in class each day.			Step 2. Ask students "How did you arrive at school today?" and "How do you plan to leave for home after school?" (record number of hands for each answer)							
Weather S= sunny R= rainy O= overcast Sn= snow	Number of Students (in class when count made)	Walk	Bike	School Bus	Family Vehicle (only with children from your family)	Carpool (riding with children from other families)	Transit (city bus, subway, etc.)	Other (skateboard, scooter, inline skates, etc.)		
SAMPLE	S 2 7	4	2	1 1	7	3	0	0		
Tues AM										
Tues PM										
Wed AM										
Wed PM										
Thur AM										
Thur PM										

Comments (List disruptions to counts or any unusual travel conditions to/from the school on the days of the tally):

Thank you for helping gather this information!

Walk-ability Checklist

Take a walk and use this checklist to rate your neighborhood's walkability.

How walkable is your community?

Location of walk **Rating Scale:** 1 2 3 4 5 6
awful many problems some problems good very good excellent

1. Did you have room to walk?
 Yes Some problems:
 Sidewalks or paths started and stopped
 Sidewalks were broken or cracked
 Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
 No sidewalks, paths, or shoulders
 Too much traffic
 Something else _____

Rating: (circle one) **Locations of problems:** _____
 1 2 3 4 5 6

2. Was it easy to cross streets?
 Yes Some problems:
 Road was too wide
 Traffic signals made us wait too long or did not give us enough time to cross
 Needed striped crosswalks or traffic signals
 Parked cars blocked our view of traffic
 Trees or plants blocked our view of traffic
 Needed curb ramps or ramps needed repair
 Something else _____

Rating: (circle one) **Locations of problems:** _____
 1 2 3 4 5 6

3. Did drivers behave well?
 Yes Some problems: Drivers ...
 Backed out of driveways without looking
 Did not yield to people crossing the street
 Turned into people crossing the street
 Drove too fast
 Sped up to make it through traffic lights or drove through traffic lights?
 Something else _____

Rating: (circle one) **Locations of problems:** _____
 1 2 3 4 5 6

4. Was it easy to follow safety rules? Could you and your child...
 Yes No Cross at crosswalks or where you could see and be seen by drivers?
 Yes No Stop and look left, right and then left again before crossing streets?
 Yes No Walk on sidewalks or shoulders facing traffic where there were no sidewalks?
 Yes No Cross with the light?

Rating: (circle one) **Locations of problems:** _____
 1 2 3 4 5 6

5. Was your walk pleasant?
 Yes Some problems:
 Needed more grass, flowers, or trees
 Scary dogs
 Scary people
 Not well lighted
 Dirty, lots of litter or trash
 Dirty air due to automobile exhaust
 Something else _____

Rating: (circle one) **Locations of problems:** _____
 1 2 3 4 5 6

How does your neighborhood stack up? Add up your ratings and decide.

1. _____	26-30	Celebrate! You have a great neighborhood for walking.
2. _____	21-25	Celebrate a little. Your neighborhood is pretty good.
3. _____	16-20	Okay, but it needs work.
4. _____	11-15	It needs lots of work. You deserve better than that.
5. _____	5-10	It's a disaster for walking!
Total: _____		

Now that you've identified the problems, go to the next page to find out how to fix them.

- Completed by:
 - Teachers
 - Parents
 - Students
 - Community Members
- 4 page survey
- www.saferoutesinfo.org

Possible Performance Measures

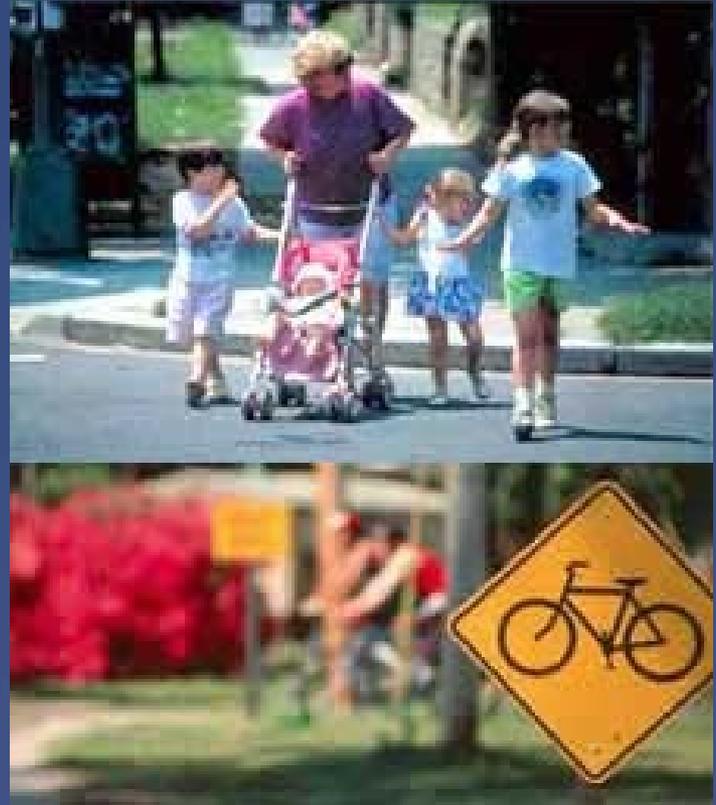
Outcome	Measure Before and After	Direction of Change
Behavior of Children	Number of children walking to and from school	More
	Number of children bicycling to and from school	Better
	Skills for walking and bicycle safety	More
Behavior of Drivers	Number of vehicles arriving and departing school at drop-off and pick-up times	Fewer
	Speed of vehicles in and around school area	Slower
	Number of driving trips by parents and length of morning and evening commute	Less
Community Facilities	Quality of walking environment: number and usefulness of sidewalks and bike lanes	Better
	Safety oriented intersections	More
Crashes and Injuries	Number of traffic crashes involving children walking or biking to and from school	Lower
	Severity of injuries	Less severe
Community buy-in	Number of different types of people involved in the SRTS effort	More
	Parent enthusiasm about SRTS and allowing their children to walk and bike to school	Higher
Environmental Quality	Level of air and noise pollution in school area	Lower
	Land devoted to parking and drop-off/pick-up areas	Less

Consultant Services



Preliminary Project Considerations

- Identify target Audience
- Identify Goals
- Identify Resources
 - People
 - Budget
 - Materials



Identify Target

- Parents
- Teachers
- Students
- Community Members



Identify Goals

- Increase
- Decrease
- Educate
- Improve
- Evaluate
- Complete



Remember
S.M.A.R.T.
Goals

Identify Resources

- Educational
- Personnel
- Financial



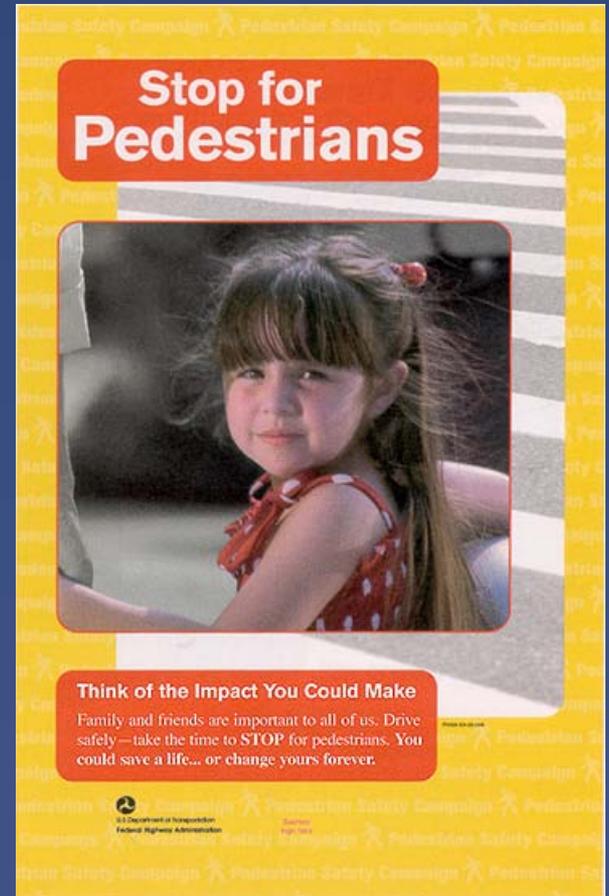
Educational Resources



- Injury Prevention Coalition
- Walk 2 School
- WalkSmart!
- NHTSA - Child Pedestrian Safety Curriculum
- Marin County Bicycle Coalition - SRTS

Free Resources

- www.safety.fhwa.dot.gov
- www.bicyclinginfo.org
- www.walkinginfo.org
- www.saferoutesinfo.org



Reduced Cost

- League of American Bicyclists
- Children-N-Safety Program
- Incentive programs



Personal Resources

- Volunteers
- Other Professionals
- Family Members
- Community Advocates

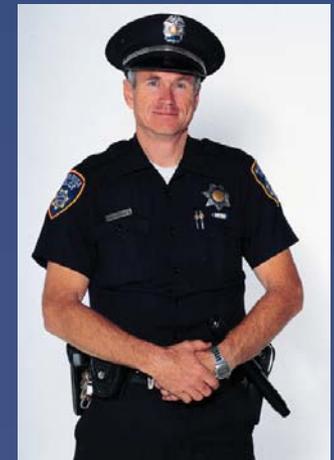
Volunteer Resources

- Churches
- Civic organizations
 - http://oklahoma.uscity.net/Civic_Organizations/
- Scout Troops
- Local Sports Teams
- Senior Citizen Center



Other Professionals

- Health Educators
- Engineers
- Fire Educators
- Police
 - SRO
 - Crossing Guards



Family Members

- Parents
 - PTA/PTO
 - D.O.G.S
- Grandparents
 - Bring A Grandparent to School
- Older Siblings
 - Walking Buddies



Community Advocates

- League of American Bicyclist
- Cherokee Challenge
- MS 150
- Nat'l Multiple Sclerosis
- Bicycle Clubs



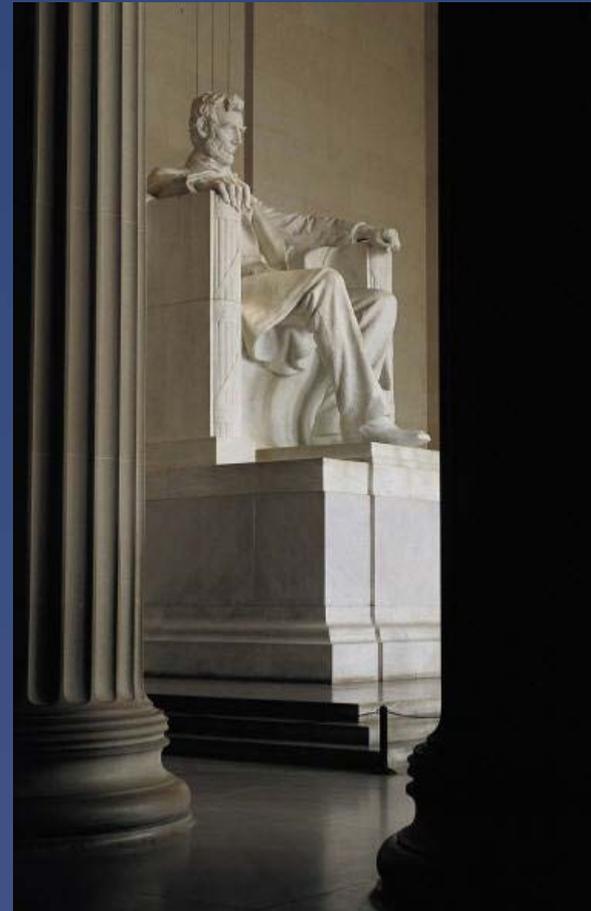
Financial Resources

- Federal
- State Funding
- Local Funding
- Private Funding



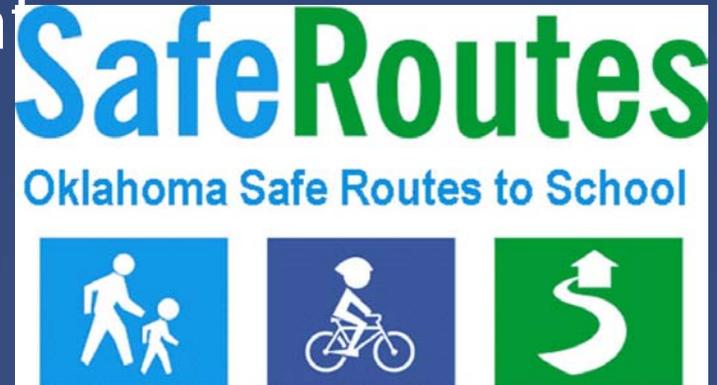
Federal Funding

- SRTS National Clearinghouse
- Federal Highway Administration



State Funding

- Community Development Block Grants (CDBG)
 - REAP Grants
- Department of Health
- SPR Grant
- DARS
- Safe Cyclist
- Oklahoma DOT



Local Funding

- Capital Improvement Projects (CIP)
- Unified Work Plan (UWP)
- Transportation Improvement Plan (TIP)
- Intelligent Transportation System (ITS)
- Special Traffic Enforcement Program (STEP)
- Congestion Mitigation and Air Quality Improvement (CMAC)
- Surface Transportation Program (STP)
- Existing Operating Budgets

Private Funding

- Corporations and businesses
- Foundations
- Individuals
- Chamber of Commerce
- EDC
- Hospitals



Best practices

Because the prescriptions of most success studies lack an empirical foundation, they should not be treated as how-to manuals, but as a source of inspiration and fuel for introspection. In short, their value is not what you read in them, but what you read into them.

Michael E. Raynor, Mumtaz Ahmed and Andrew D. Henderson

Enforcement

- Community
 - Parents
 - Crossing Guard
 - School Personnel
- Passive control
- Positive Rewards
- Provide Training



Safety patrol



Pedestrian 'decoys'



Caught Being Good



Wilmette, IL

Progressive ticketing

- First: educate
- Second: warn
- Third: ticket



Encouragement

- Low hanging fruit
- The more, the merrier
- Repetitive
- Focus on “Fun”
- Teachable Moments



Walking Wednesdays



Charlottesville, VA

Golden Sneaker Award

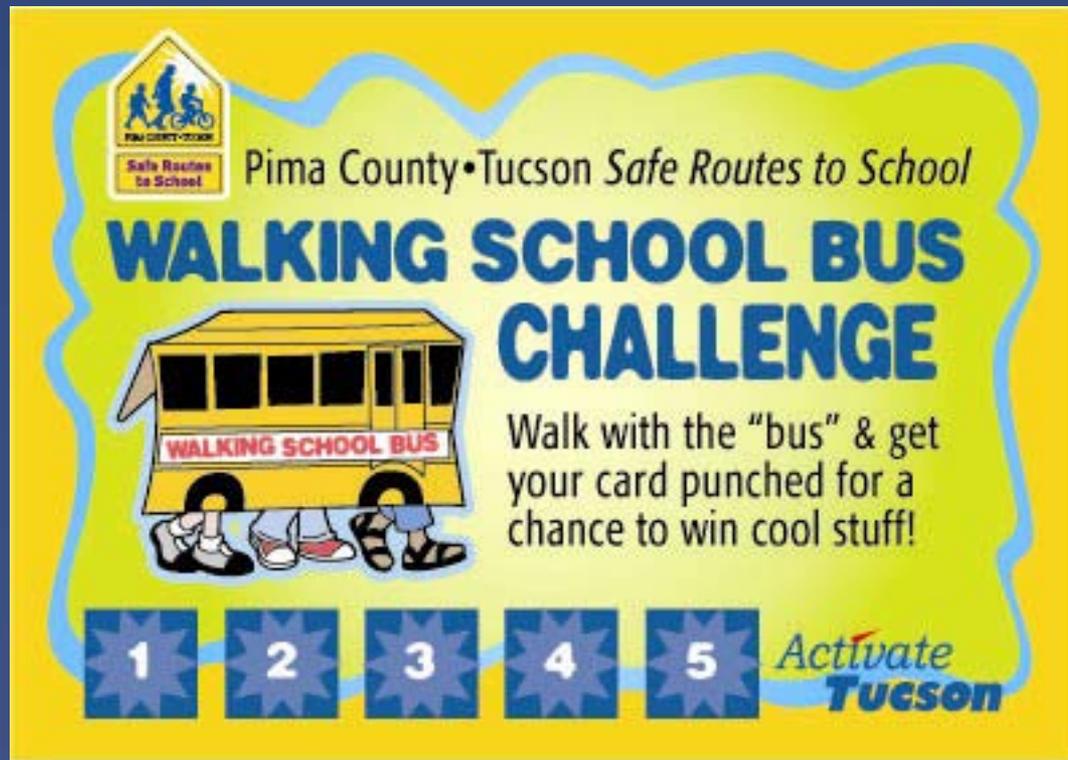


Larkspur, CA

Principals Leading the Way



Punch cards



Tucson, AZ

Go for Gold program

- Buckinghamshire County, UK
- Gold card, stamped when walk
- Car use reduced from 62% to 26% in ONE YEAR
- Still low (13%) in 2007



iWalk 2011

Elgin Schools

Blanchard Elementary



Choctaw Elementary

Education



- Who?
- When?
- Where?
- What?
- Why?

After School Bike Club



Charlottesville, VA

Institutionalized Safety Education



Rockville, MD

Bicycle Rodeos



Junior Ambassadors



Alexandria, VA



Chicago, IL

Evaluation

- Useful
- Feasible
- Accurate
- Fair

Item	Question	Response
<i>Ask the district transportation office for the following information. In most districts, this will not be readily available and will require some investigation or computation.</i>		
D	What number of the students live:	<input type="checkbox"/> Within the walk boundary <input type="checkbox"/> Within 1 mile of the school <input type="checkbox"/> Within 1.5 miles of the school <input type="checkbox"/> Yes <input type="checkbox"/> No (If no, skip to G)
E	Does the map designate walking routes to the school from the surrounding area?	<input type="checkbox"/> Yes <input type="checkbox"/> No (If no, skip to G)
F	If so, count lines leading to school at a one-block radius away from the school.	_____ walk routes at 1-block radius
G	How far is the farthest distance routes extend away from the school grounds?	_____ (circle: miles feet meters)
H	What is the shortest distance to the walk boundary?	_____ (circle: miles feet meters)
I	If the walk boundary is less than one mile in any direction, what defines the boundary? (e.g., natural barrier such as river or lake; built barrier such as divided highway or train tracks; hazard such as busy street)	North _____ East _____ South _____ West _____
Section 3 – Programs		
A	Is there a walk to school program at this school?	<input type="checkbox"/> Yes, staffed <input type="checkbox"/> Yes, PTA or parent volunteer <input type="checkbox"/> No <input type="checkbox"/> Teachers <input type="checkbox"/> 3 rd Party <input type="checkbox"/> No
B	Is pedestrian safety education incorporated into the school curriculum (by teachers) or provided by third party (e.g., police, public health, non-profit)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
C	Is bicycle safety education incorporated into the school curriculum? (e.g., in PE class, after school programs, etc.)	<input type="checkbox"/> Yes <input type="checkbox"/> No
D	Does the police department conduct a program of targeted traffic enforcement around the school? (related to speeding, motorists violating the crosswalk law, etc.)	<input type="checkbox"/> Yes <input type="checkbox"/> No
E	Does the school have an program that encourages families or children to walk to school (e.g., Walking School Bus, parents stationed along the walk routes)	<input type="checkbox"/> Yes <input type="checkbox"/> No
F	Is there a school safety patrol program?	<input type="checkbox"/> Yes <input type="checkbox"/> No
G	Are there paid school crossing guards at any crossings?	<input type="checkbox"/> Yes <input type="checkbox"/> No
H	Are there unpaid/volunteer school crossing guards at any crossings?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Section 4 – Policy & Planning		
A	Is there a plan for drop off and pick up that separates cars and buses from arriving foot traffic?	<input type="checkbox"/> Yes <input type="checkbox"/> No
B	Does the school discourage parents from driving their children to school?	<input type="checkbox"/> Yes <input type="checkbox"/> No
C	Does the school have any policies to minimize driving to school among parents and/or staff?	<input type="checkbox"/> No idling campaign <input type="checkbox"/> Limits parking <input type="checkbox"/> Air quality promotion <input type="checkbox"/> Assists with arranging carpools <input type="checkbox"/> Does not provide free parking <input type="checkbox"/> Requires parents to park a block away from school Other (please describe) _____ _____

Frequent walker/bicyclist program



Boulder, CO

