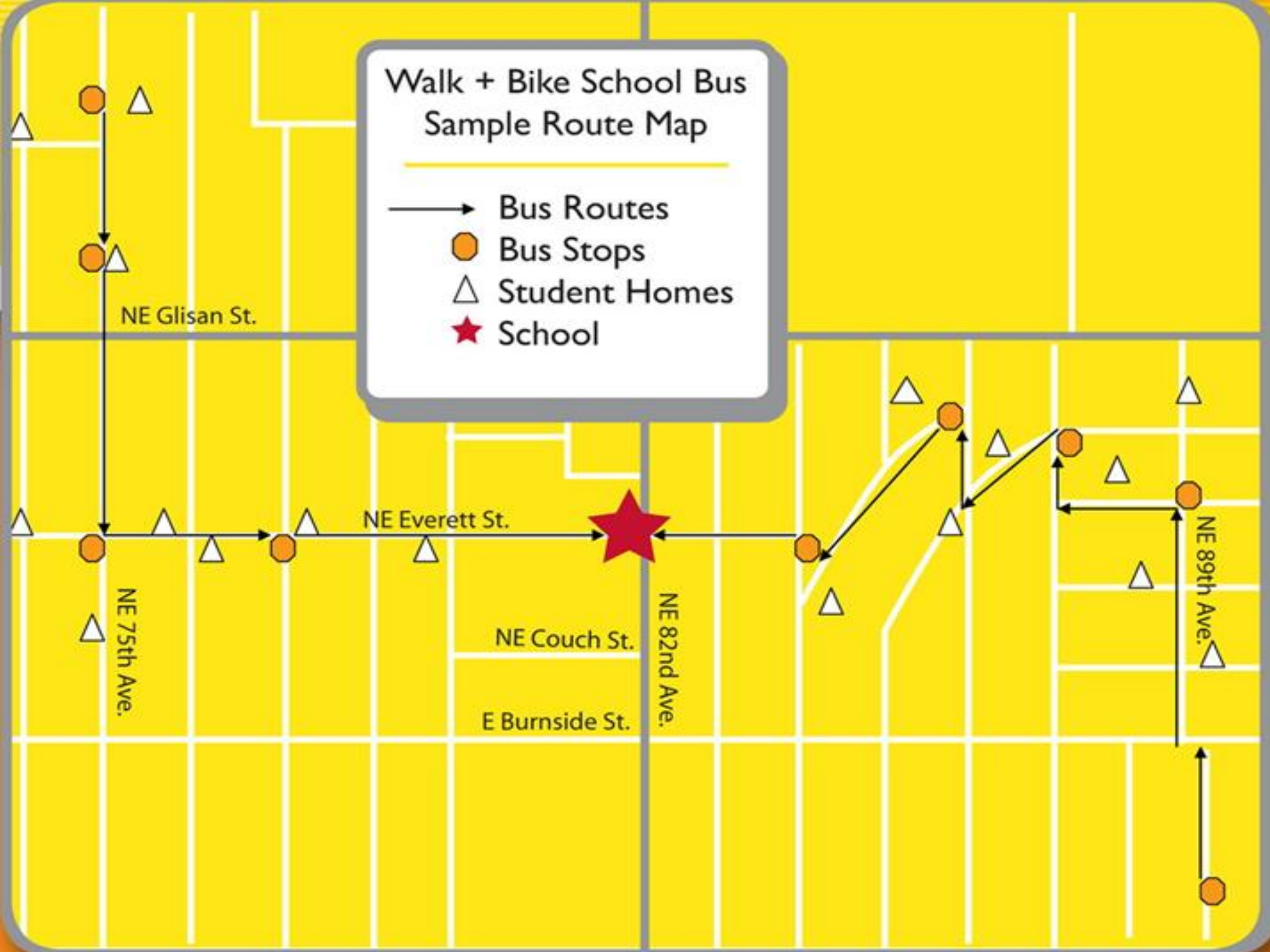
GIS and Safe Routes to School
Improving Data Collection and Usage

SAFE ROUTES to School
NATIONAL PARTNERSHIP


Safe Routes to School


Walk + Bike School Bus
Sample Route Map
Bus Routes
Bus Stops
Student Homes
School
NE Glisan St.
NE Everett St.
NE 75th Ave.
NE Couch St.
E Burnside St.
NE 82nd Ave.
NE 89th Ave.

GIS is a tool that can store, manage, analyze and display locational data in a way that allows the user to see correlations, patterns and a picture of their community that words, graphs and tables cannot communicate as well.

Austin, TX, April 22-23:

1. Obtaining data necessary for planning and implementation of Safe Routes to School, walking and bicycling

2. Creating standards for data collection, dissemination and storage

3. Storing collected data on a local and national level so that they are accessible to all people

4. Ensuring that accessible and standardized data tools will be open source in order to allow for future creation of new applications and uses

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Data Collection

Local Level
Many ways it is being collected and stored
Gov and private collection and use
Walkabouts, parent surveys, student tallies

National Level
Federal gov is primary collector:
Federal grants
FHWA/HHS/
US Census
NHTS
FARS
ACS
GTFS
HPMS
BRFSS

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Tools and Datasets

Federal	American Community Survey (ACS)	Federal Analysis Reporting System (FARS)	General Transit Fee Standard (GTFS)	Highway performance measure set (HPMS)
Non-profit/ Private	311 GIS app	Boltage Program	City Scan	Community Commons
Cycle Track	ESRI	ITO World	Google	NATVEQ
Open Street Map	Saris Racks	Spotify	STRAVA	TELE Atlas
URISA	Vertices	Walkscore		

Findings

- A Uniform Data Tool is Needed
- Protocols are Necessary
- Mobile Devices are Key
- Photos Provide Perspective
- Open Source and Open Data

DATASET	PRIMARY QUESTIONS	SECONDARY QUESTIONS
1. Standard Level of Comfort	Do you feel safe walking or riding a bicycle along this block?	
2. Presence of a Sidewalk	Does a sidewalk exist?	Condition of the sidewalk. Does the sidewalk have cracks? Is it uneven? How wide is the sidewalk?
3. Intersections	Are crosswalks Present?	Are there crossing signals at the intersection? Does the intersection have a stop sign of stop lights? Are crosswalks striped? Are crossing guards present before and after school? Does the street have medians? Are there mid-street crosswalks? Are the intersections near the school safe?
4. Bicycle Facilities	Are there places to safely ride a bicycle?	Are there places to park a bicycle securely?
5. School location and Student Catchment Areas	How many students live within a 1 to 2-mile radius of a school?	
6. Speed	What is the speed limit of the street?	
7. Collision Data	How many injuries and accidents have happened on this block?	
8. Health Indicators	Are there basic public health concerns in the neighborhood?	Do lower income areas have less access to walking and bicycle riding?
9. Existing patterns	Where are people currently walking? Are there goat paths?	Are children using a more direct path that lacks sidewalks?
10. Crime Data	Is crime a deterrent to walking and bicycle riding?	

Recommendations

- Show Economic Benefits with GIS
- Make the Health Connection with GIS
- Active Transportation Committee on GIS
- Local Assistance and Data Access
- Social Media

Safe Routes to School

- Increased Funding
- Where Students Live
- School Siting
- School Oriented Development
- Social Equity
- Remote Drop Off Locations
- Crash Data


NYC, MO, MT

http://saferoutespartnershp.org/resourcecenter/National-Partnership-Webinars

A Framework for GIS and Safe Routes to School

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