

# ACTION mAPPING PROJECT

MAPPING YOUTH EXPERIENCES IN TACOMA



# ACTION MAPPING PROJECT II TACOMA YOUTH

amp



# CONTENTS

PURPOSE .....	4
AMP TACOMA .....	5
FLOW AND TIMELINE .....	6
OUTCOMES.....	7
LOCAL BACKGROUND .....	12
ACADEMIC BACKGROUND	13
PILOT STUDY RESULTS .....	14

## DEFINITIONS

### AMP CENTER:

A hub of youth-led community mapping and geographic information system (GIS) activities. AMP Centers produce annual sets of data that detail youth experience and perception of neighborhoods within high school catchment areas. AMP Centers are housed in public high schools and staffed by teams of community mappers.

### GIS:

Geographic Information Systems are composed of the software, hardware, and data that are used to produce maps and perform analyses of spatial data.

### CATCHMENT AREA:

Catchment areas reflect the regions served by a particular high school. Most students at a given high school will reside in the school's catchment area.

### COMMUNITY MAPPER:

Community mapping teams at AMP Centers include one undergraduate mapping mentor from UW Tacoma and 5-10 high school student community mappers. Community mappers conduct all capacity building, data collection, and mapping activities.

## AMP PURPOSE

*The Action Mapping Project empowers communities to transform their everyday experience and neighborhood knowledge into information that can be used to advocate for change. By partnering with local groups and using participatory tools AMP aims to motivate action that reflects the interests, culture, and priorities of the residents.*

*Youth-oriented AMP initiatives are equally committed to educational outcomes for youth who participate. To this end, AMP prioritizes STEAM training and pathways to higher education for high-school community mappers.*

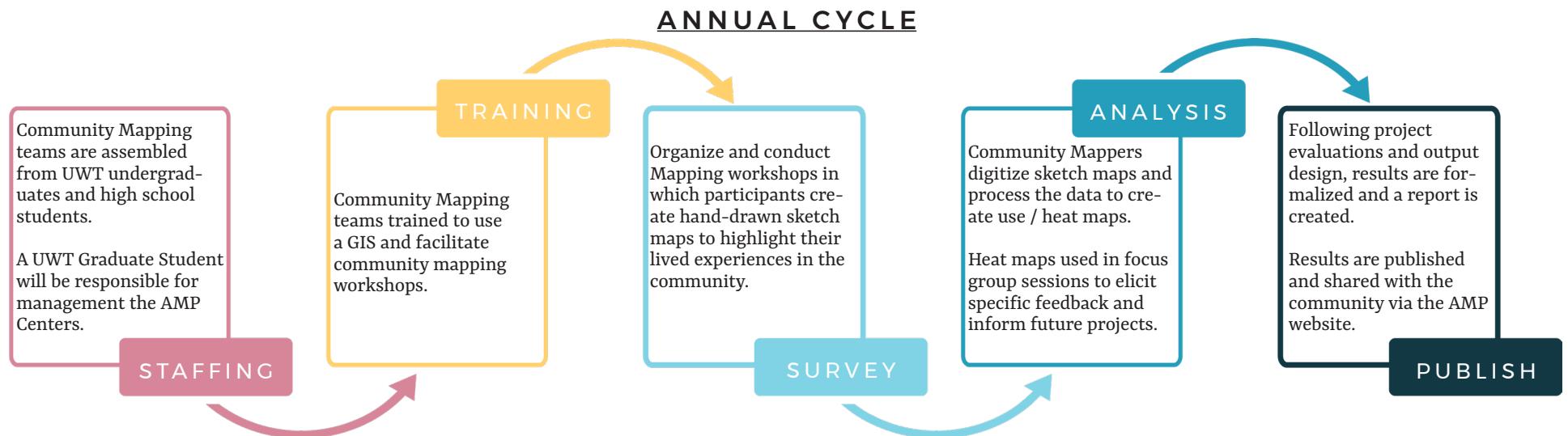
## AMP TACOMA

The Action Mapping Project establishes youth-led mapping and GIS centers (AMP Centers) in each of the five primary high schools in the Tacoma School District and one ‘floating’ center to serve SAMI, SOTA, Oakland, and IDEA high schools. AMP Centers will be established during a three year period beginning in 2017-2018 with the development stage complete by the Autumn of 2021. Once in place, AMP Centers will continue to train new teams of community mappers and continue to produce annual updates for their catchment areas. All data produced by AMP Centers will be released to the public via the project website.

Each AMP Center is staffed by a community mapping team comprised of undergraduate community mapping mentors from UW Tacoma and high school student community mappers. Community Mappers are charged with producing an annual set of maps and data that reflect how middle and high-school aged youth experience, perceive, and utilize spaces and pathways within their school’s catchment area.



## FLOW AND TIMELINE



### YEAR 1 HIGHLIGHTS

- Establish 1st set of AMP Centers
- Develop process for recruiting HS and Undergraduate students
- Develop participatory mapping workshop and GIS training curriculum

### YEAR 2 HIGHLIGHTS

- Establish 2nd set of AMP Centers
- Publish results from 1st year and identify improvement projects with partners
- Conduct project evaluation via survey and small group interview

### YEAR 3 HIGHLIGHTS

- Establish 3rd set of AMP Centers
- Conduct management processes for 6 AMP Centers simultaneously
- Evaluate possibility of project expansion beyond Tacoma School District

## FLOW AND TIMELINE

OUTCOMES

## OUTCOMES

1. DATA COLLECTION
2. STEAM EDUCATION
3. COLLEGE PATHWAYS
4. PARTNERSHIPS



## DATA COLLECTION

# DATA COLLECTION

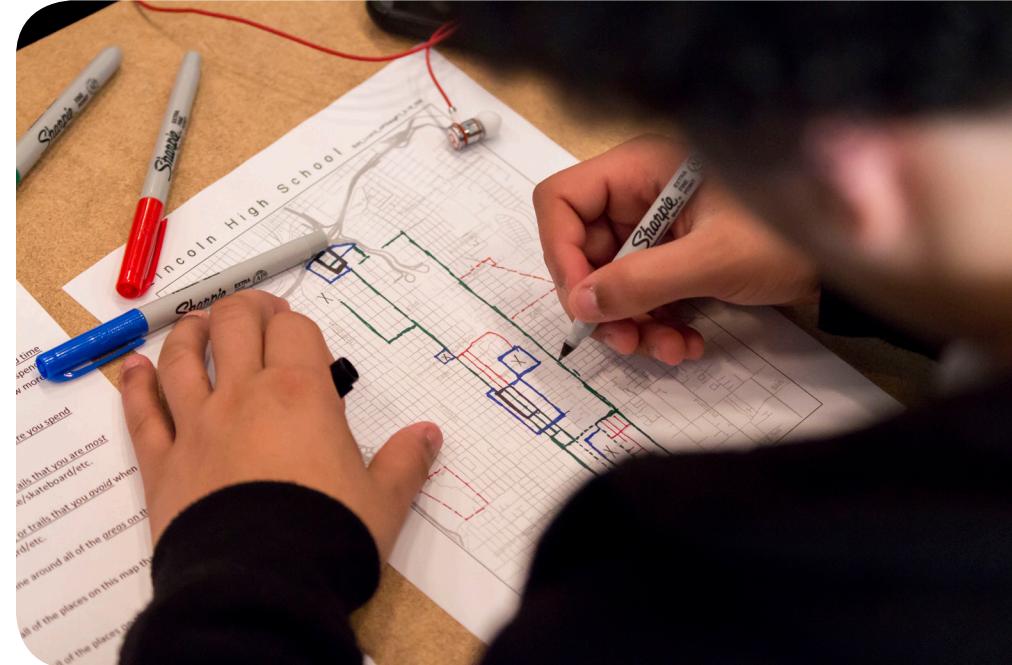
*Annual data collection of how youth aged 11-18 use, experience, and perceive spaces and pathways within high school catchment areas.*

Each academic year, AMP Centers collect and analyze data to measure the improvements and changes to neighborhood space.

These data are produced during participatory mapping workshops facilitated by Community Mappers. At workshops, middle- and high-school youth are guided through a series of questions, which are answered by drawing on a blank map. At least 75% of middle-and high-school students from each catchment area are expected to participate in workshops.

Sketch maps produced at workshops are analyzed using GIS by each school's Community Mapping team, creating a series of 'heat maps' that represent youth activity spaces and perceptions of neighborhoods.

The results are publicly available, via the project website, and are intended to inform local placemaking initiatives that aim to improve the livability of Tacoma neighborhoods.



## STEAM EDUCATION

*Community Mappers will be engaged in the science, technology, and mathematics of spatial analysis and the art of cartography and visual design.*

AMP Centers provide extracurricular educational opportunities for high school students to earn a credit while gaining experience with GIS and helping to facilitate the production of participatory data about their own communities.

The educational outcomes of the Action Mapping Project are woven tightly with current emphases to improve STEAM (science, technology, engineering, arts, and mathematics) education.

The Action Mapping Project provides, in other words, a unique opportunity for Tacoma's high school students to become involved in an aspect of STEAM education within a context – GIS for community improvement – which has countless career pathways.



## COLLEGE PATHWAYS

# COLLEGE PATHWAYS

*Community Mappers will make connections with college students and professors, while building skills necessary for admission to Urban Studies at UW Tacoma.*

The high school students who serve as AMP Center Community Mappers have the opportunity to gain direct admission to the UW Tacoma Urban Studies degree program in GIS and Spatial Planning as well as the UW Tacoma GIS Certificate Program upon graduation from high school.

For particularly ambitious Community Mappers, there is a pathway to post-baccalaureate Graduate-level GIS education in the Urban Studies Program at UW Tacoma following completion of the undergraduate GIS curriculum.

Undergraduate and graduate students from these programs at UW Tacoma have had great success in the local and regional employment markets.



## PARTNERSHIPS

*This project will frame research questions and create and analyze geographic data, while using geographic information to create positive community change.*

UW Tacoma undergraduate GIS students serve as mentors in the AMP Centers by providing training, support, and instruction to high school students who participate.

Undergraduate mentors benefit from their experience working with a diverse array of local high school students while helping to facilitate a community engagement project that is designed to manifest real change in local neighborhoods.

For students in a highly technical program at the university, this is an opportunity to better understand the outcomes that science and data can have in real-world scenarios – something that is often studied, but less-so observed or experienced while in the classroom.



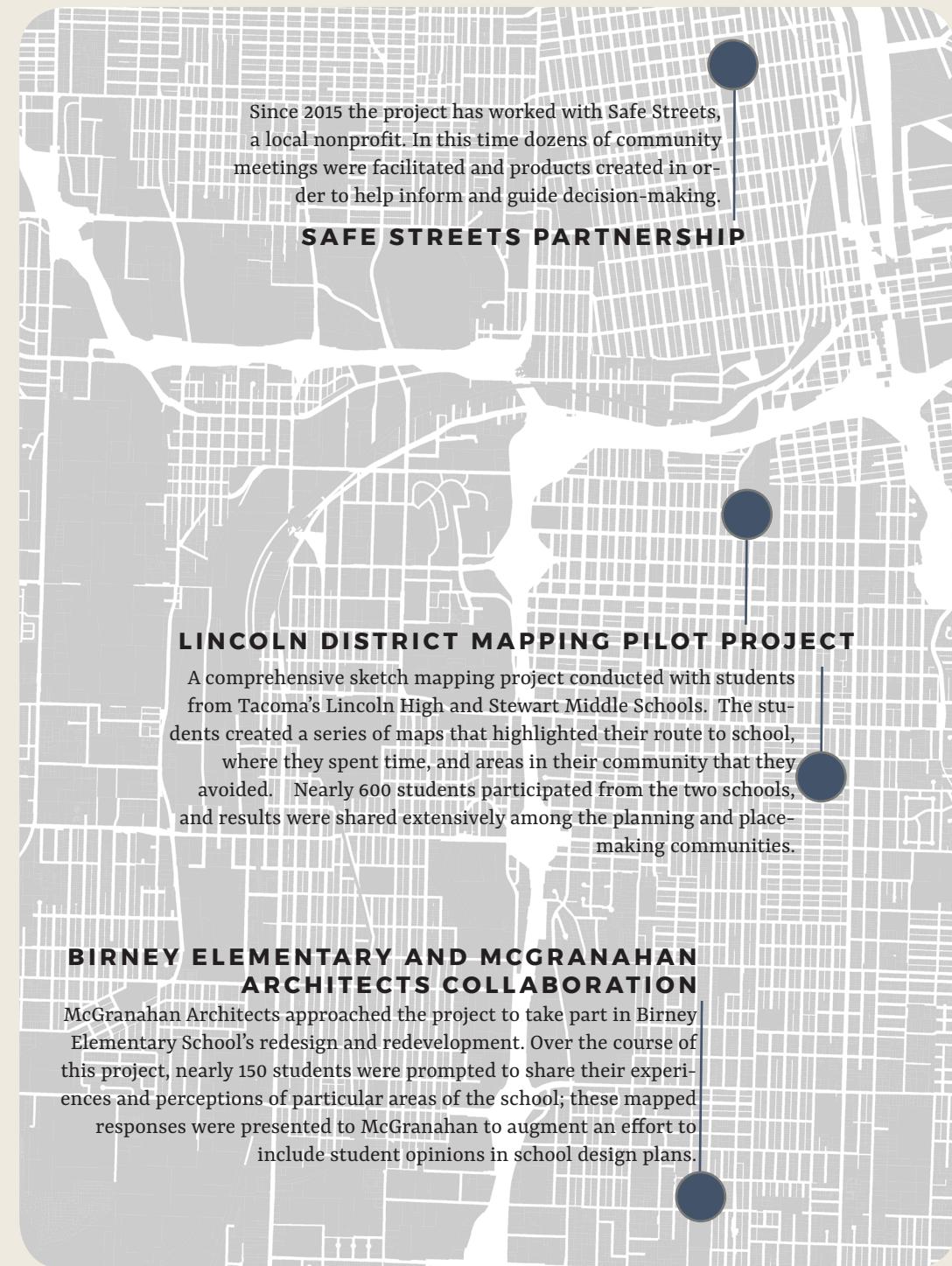
## LOCAL BACKGROUND

# LOCAL BACKGROUND

The participatory methods and analytical processes used by the Action Mapping Project were developed and refined over a two year pilot phase.

**The current Action Mapping Project project expands and improves on that foundational work in three ways:**

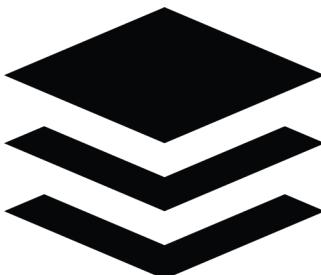
1. Formalizes existing informal partnerships between multiple agencies by establishing spaces where youth-led community mapping can be an ongoing effort.
2. Adds an educational focus to the project by involving high school students and training them in the necessary technical / GIS skills to understand the data and produce results.
3. Enhances UWT undergraduates' experiences by placing them into AMP Centers as mentors, teachers, and researchers.



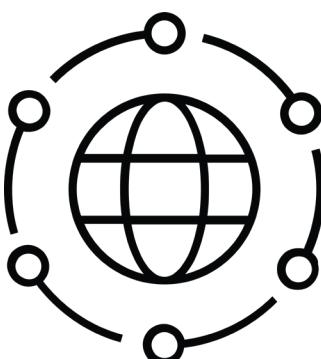
## ACADEMIC BACKGROUND



Undergraduate and Graduate community mapping mentors and project managers are products of the University of Washington Tacoma's Urban Studies and GIS Programs. The GIS curriculum at UW Tacoma is community-based and has fostered countless long-term connections with local and regional agencies. Students who complete these programs are steeped in the technical and theoretical training to make them ideal mentors for high school youth.



The participatory research design utilized in AMP centers is based on long-standing academic GIS, community development, and participatory research scholarship. The Action Mapping Project draws on this foundational work in the design of its community mapping programs and in its mission to document, understand, and operationalize the unseen aspects of youth experience and perception in urban space.



While there are countless examples of university-community GIS and mapping partnerships in the U.S. and abroad, the Action Mapping Project is unique in both its approach and scope. By partnering with the Tacoma Public Schools, AMP Centers represent a new approach to drawing youth into the production of knowledge about neighborhoods. And with long-term commitments from project partners, AMP Centers promise to produce an unprecedented set of longitudinal neighborhood-scale data about youth experience and perception.

## ACADEMIC BACKGROUND

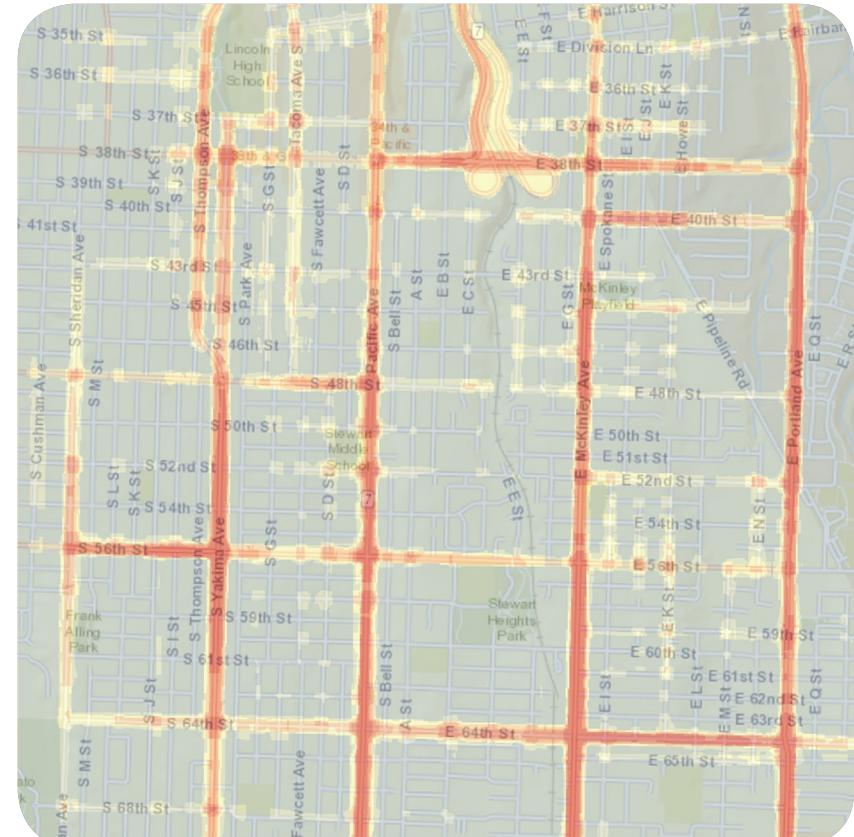


## PILOT STUDY RESULTS

# PILOT STUDY RESULTS



WHAT ROUTES DO YOU USE WHEN WALKING OR BIKING?



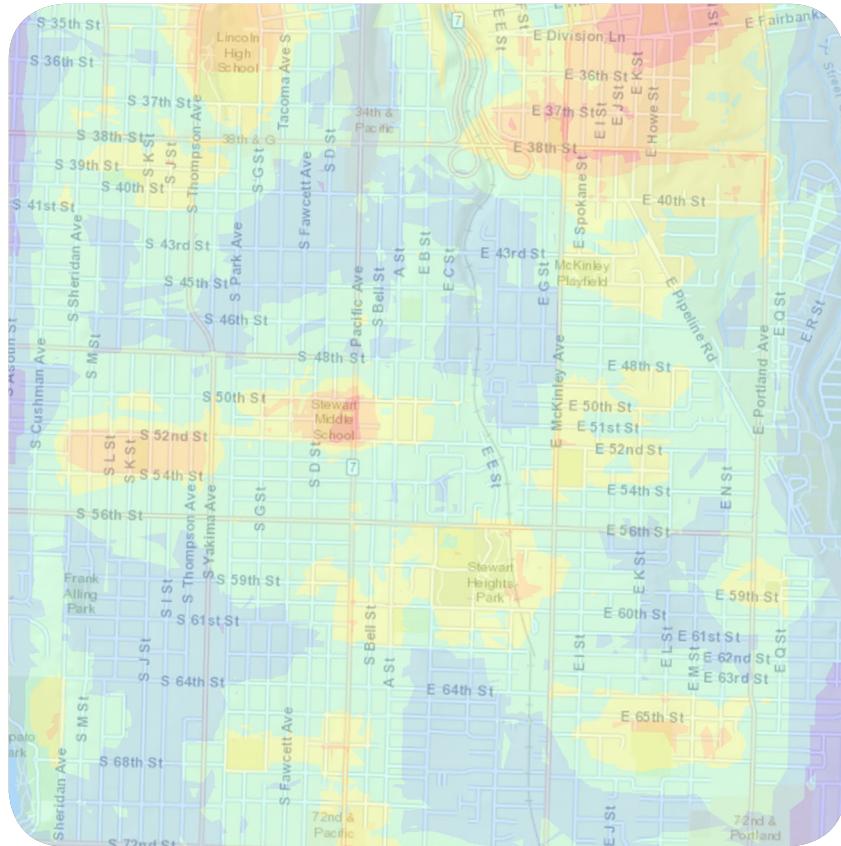
WHAT ROUTES DO YOU AVOID WHEN WALKING OR BIKING?

Maps reflect data generated by approximately 400 Stewart Middle School and 200 Lincoln High School Students in the Spring of 2016.

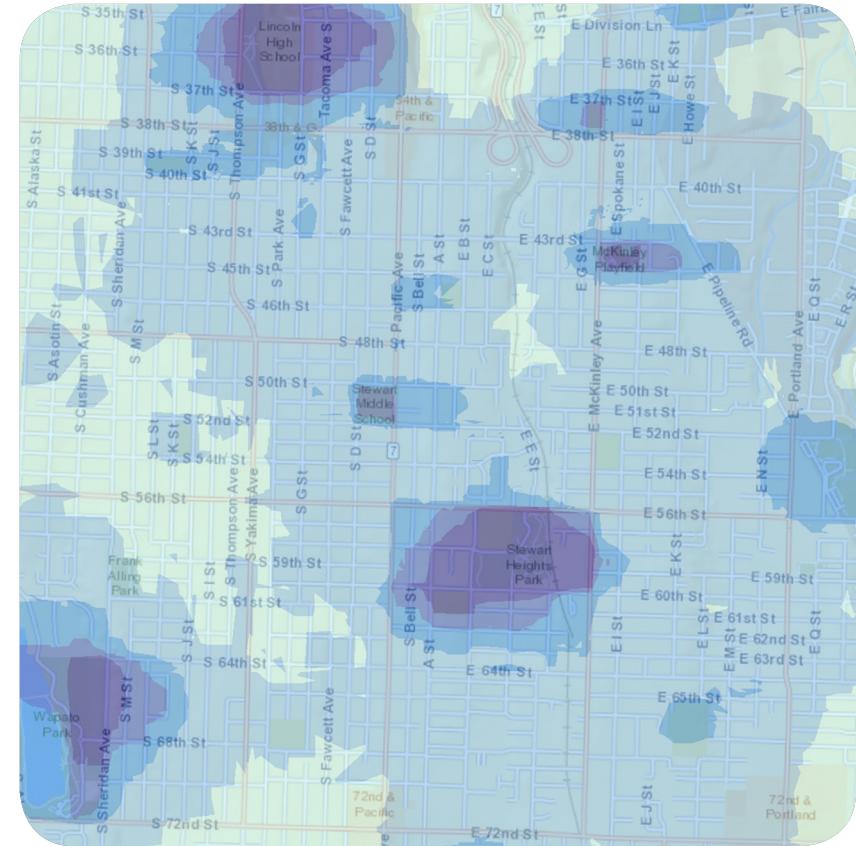
Darker areas represent a higher rate of response for each question.

## PILOT STUDY RESULTS

# PILOT STUDY RESULTS



**WHAT AREAS DO YOU AVOID WHEN NOT AT HOME OR SCHOOL?**



**WHEN NOT AT HOME, WHERE DO YOU SPEND YOUR TIME?**

Maps reflect data generated by approximately 400 Stewart Middle School and 200 Lincoln High School Students in the Spring of 2016.

Darker areas represent a higher rate of response for each question.



