



MAPPING YOUTH EXPERIENCE







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# CONTENTS

PURPOSE.....	4
AMP TACOMA.....	5
FLOW AND TIMELINE.....	6
OUTCOMES .....	7
ACADEMIC BACKGROUND .....	12
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 YOUTH TO TRANSFORM THEIR EVERYDAY EXPERIENCE AND NEIGHBORHOOD KNOWLEDGE INTO INFORMATION THAT CAN BE USED TO ADVOCATE FOR CHANGE.**

**AMP AIMS TO MOTIVATE ACTION THAT REFLECTS THE INTERESTS, CULTURE, AND PRIORITIES OF LOCAL YOUTH.**

**AMP PROVIDES STEAM TRAINING AND PATHWAYS TO HIGHER EDUCATION FOR HIGH-SCHOOL COMMUNITY MAPPERS.**



## AMP TACOMA

AMP Centers in each of the five primary high schools in Tacoma Public School District.

AMP Centers are youth led. Staffed by Community Mapping Teams of graduate, undergraduate and high school students.

Annual sketch mapping data collection, analysis, and release for each high school catchment area in Tacoma.

At least 75% of middle and high school aged youth represented in data for each high school catchment area in Tacoma.

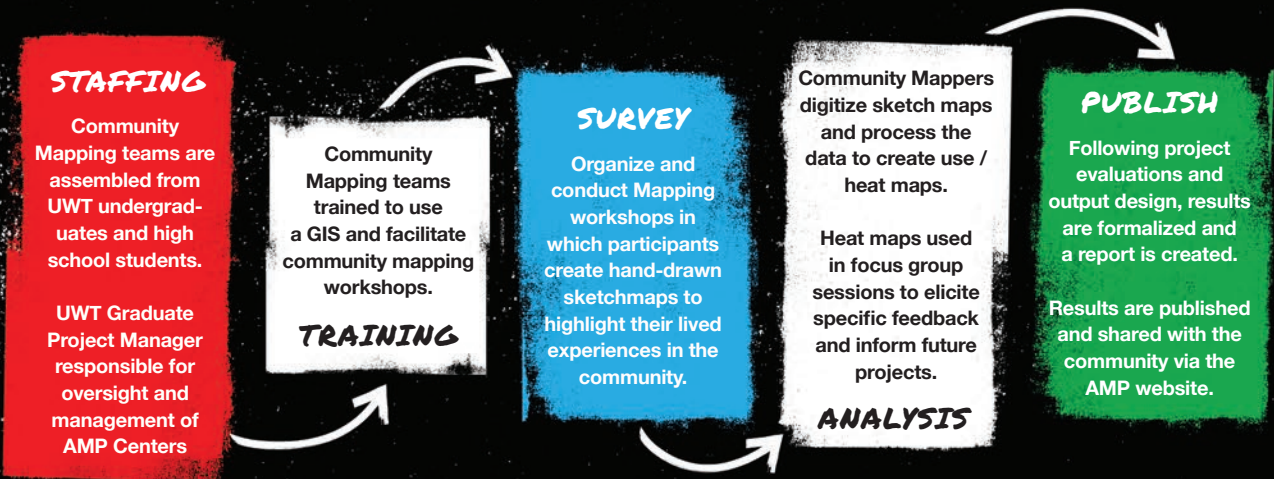
Annual map reports released to reflect how middle and high-school aged youth experience, perceive, and utilize space for each catchment area in Tacoma.

Annual opportunities for community improvement projects identified and planned during collaborative summer workshops.



# FLOW AND TIMELINE

## ANNUAL CYCLE



## TACOMA HIGHLIGHTS

### PHASE 1

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

### PHASE 2

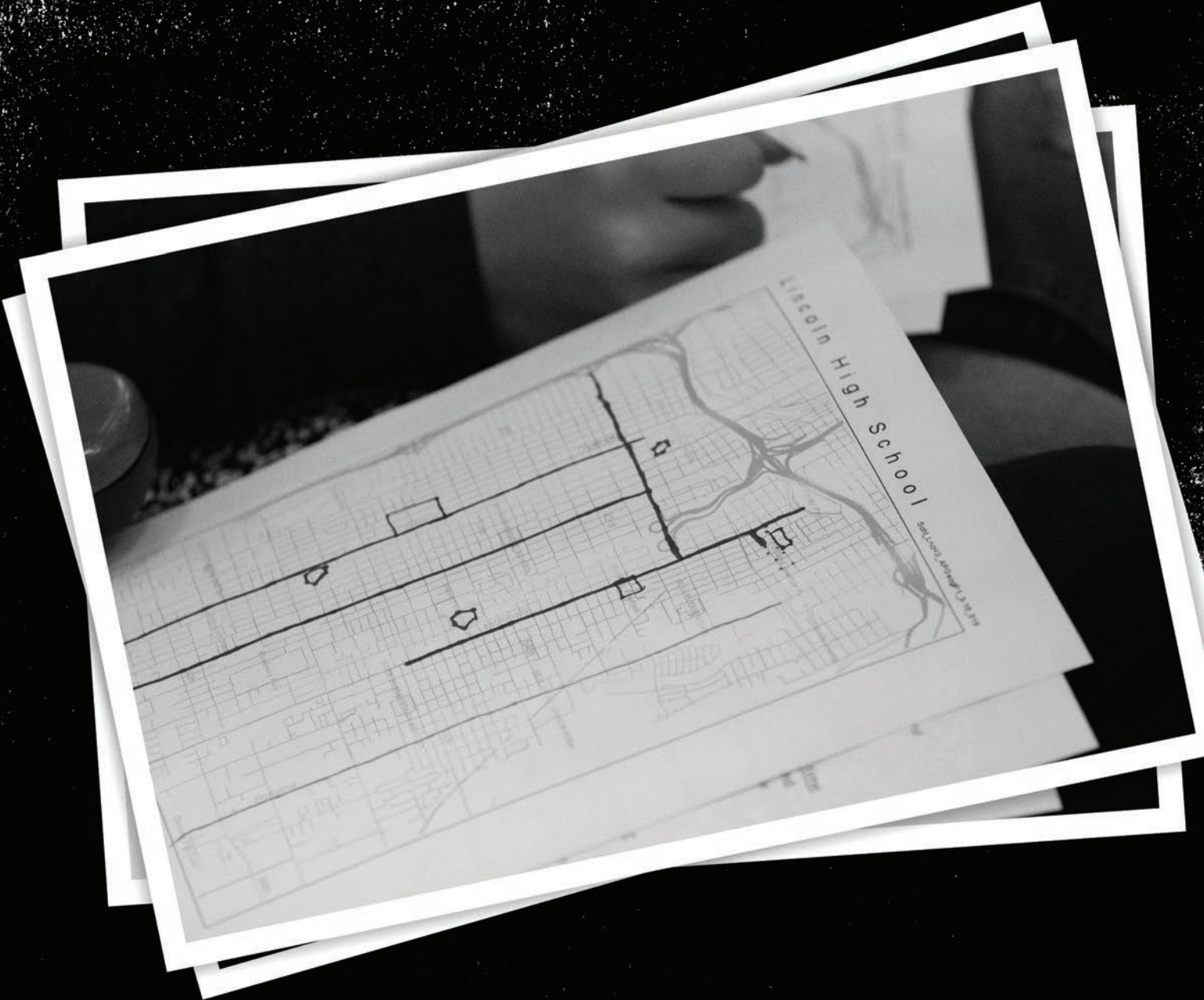
- Establish 2nd set of AMP Centers
- Publish results from 1st year and identify improvement projects with partners
- Conduct project evaluation via survey and small group interview

### PHASE 3

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

# OUTCOMES

1. DATA COLLECTION
2. STEAM EDUCATION
3. COLLEGE PATHWAYS
4. COMMUNITY CHANGE







## OUTCOMES

# STEAM EDUCATION

**ENGAGING YOUTH 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 high school 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 a unique opportunity for Tacoma's high school students. By joining a community mapping team, students are introduced to an aspect of STEAM education – GIS for community improvement – that has countless career pathways.



## OUTCOMES

# DATA COLLECTION

**DATA COLLECTED AND RELEASED ANNUALLY TO REPRESENT YOUTH EXPERIENCE, PERCEPTION, AND UTILIZATION OF URBAN NEIGHBORHOODS.**

Each academic year, AMP Centers collect and analyze data that represent youth experience, perceptions, and utilization of neighborhood space. 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 that are answered by drawing on a blank map. At least 75% of middle-and high-school students from each catchment area are represented by these data.

Sketch maps produced at workshops are analyzed using GIS by each school's Community Mapping Team to generate a series of maps that represent the everyday lives of youth.

Data are publicly available in raw form or via reports on the project website. Data and reports are intended to inform local placemaking initiatives that aim to improve the livability of Tacoma neighborhoods.



## OUTCOMES

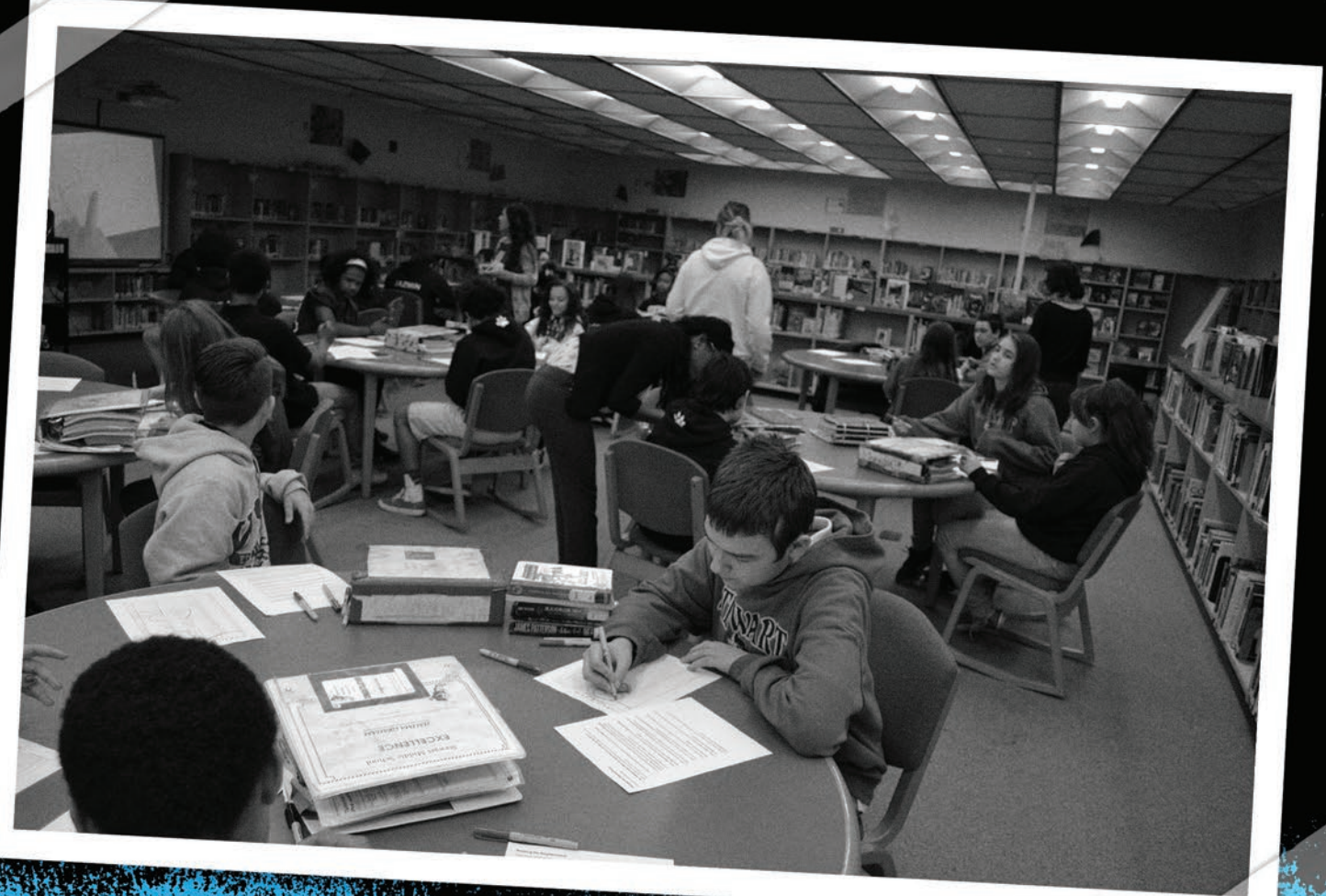
# COLLEGE PATHWAYS

**CONNECTING YOUTH 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.



## OUTCOMES

# COMMUNITY CHANGE

**FRAMING RESEARCH QUESTIONS AND GENERATING GEOGRAPHIC DATA TO MANIFEST 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.





# 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 myriad 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 numerous 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.

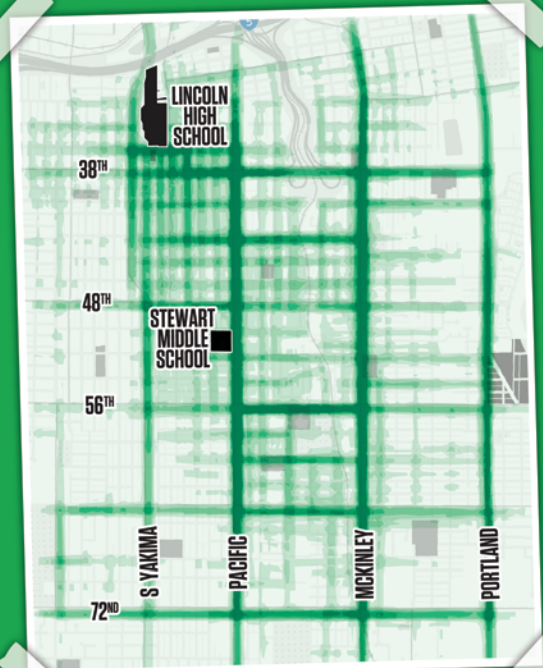




# PILOT STUDY RESULTS

Maps reflect data generated by approximately 600 middle-school and high-school students from the Lincoln catchment area in Spring of 2016.

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

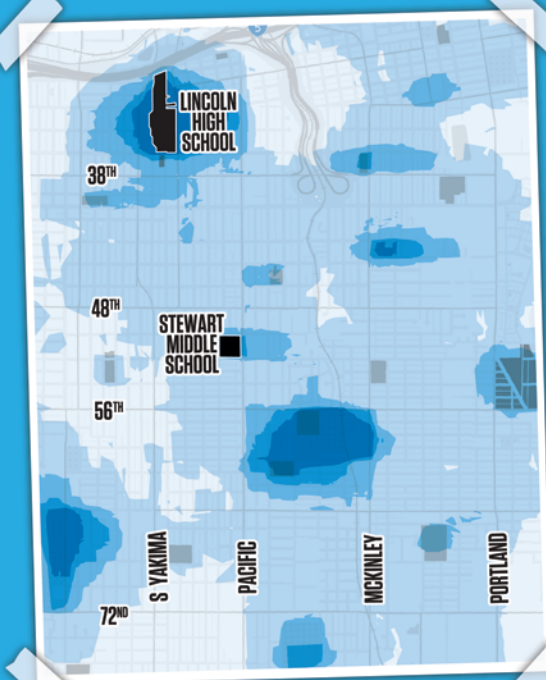
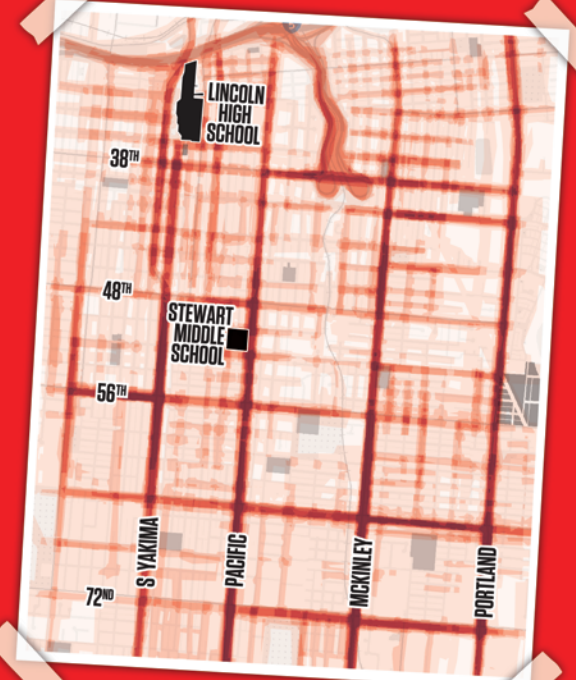


**WHAT ROUTES  
DO YOU USE  
WHEN WALKING  
OR BIKING?**

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



**WHAT ROUTES  
DO YOU AVOID  
WHEN WALKING  
OR BIKING?**



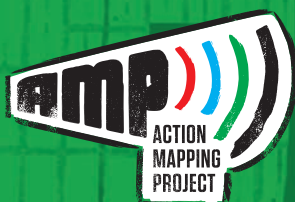
**WHEN NOT AT  
HOME, WHERE  
DO YOU SPEND  
YOUR TIME?**





I FEEL UNSAFE / SCARED  
BIG THINGS HAPPENING  
IN THE WORLD HONESTLY

# AMPLIFY



For more information about the project, or to find out how you might become involved,  
please contact Matt Kelley, PhD. [MJK3LL3Y@uw.edu](mailto:MJK3LL3Y@uw.edu) | [ACTIONMAPPINGPROJECT.COM](http://ACTIONMAPPINGPROJECT.COM)