

Baltimore City Data Day Opening Session

07.12.2018

# GETTING TO H.S. IN BALTIMORE CITY

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ABC's of Successful Community Partnerships

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Transportation & Urban Infrastructure Studies



**Analyze issue systematically**

**Be open and transparent**

**Communicate with all stakeholders**

# Getting to High School in Baltimore



Transportation  
Alliance

BALTIMORE CITY  
PUBLIC SCHOOLS



B·E·R·C

Baltimore Education Research Consortium

HACK  
BALTIMORE

MTA   
*Maryland*

# **Analyze issue systematically**

## **Example:**

MTA provides poor service to H.S. students

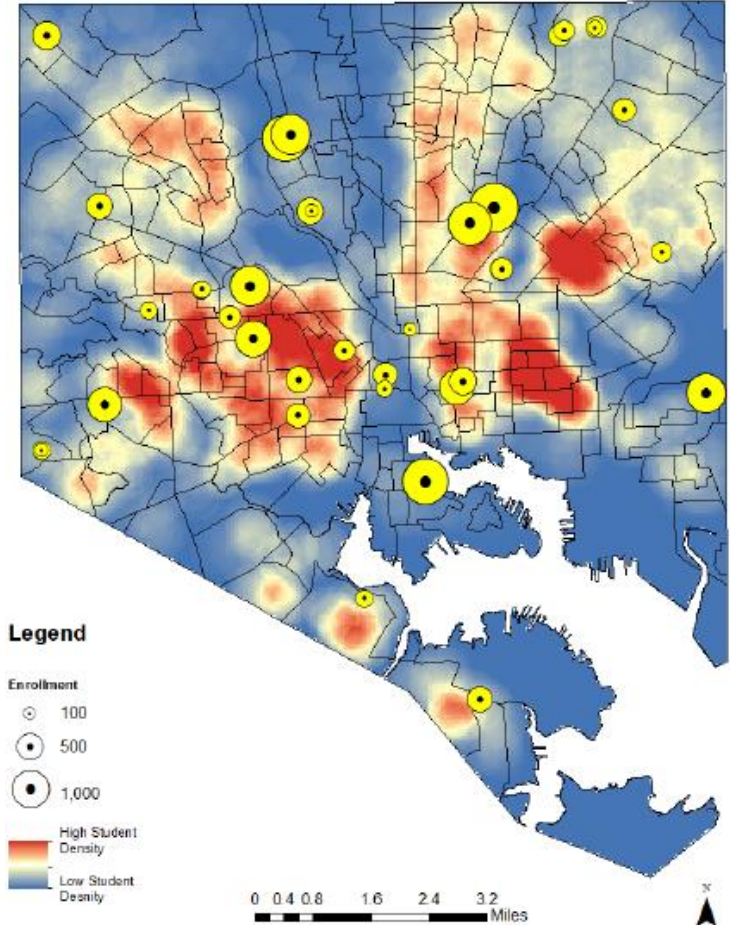
## **Research Questions:**

1. How long does it take H.S. students in Baltimore to get to school?
2. Does BaltimoreLink shorten travel times for H.S. students?
3. How can BaltimoreLink better serve students through improved tripper service?

**Experience driven scope of work. Data driven conclusion.**

# High School Location & Student Residence

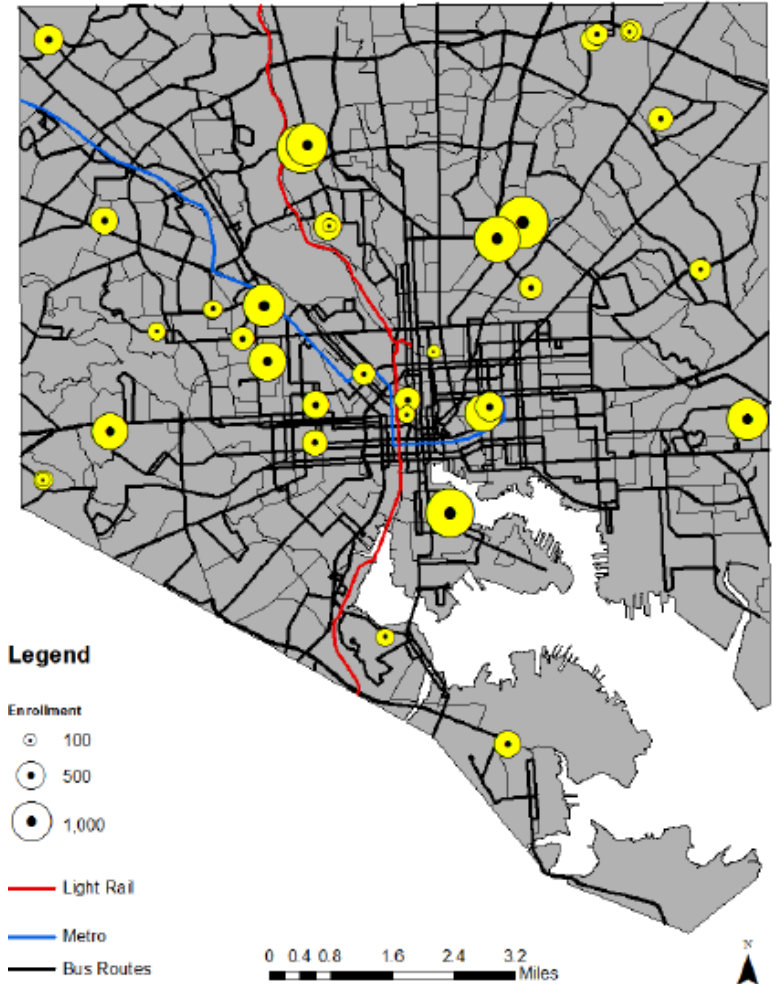
- High schools are not evenly distributed spatially across the city
- BCPSS students are concentrated in certain areas of the city
- Communities vary in the extent of high school and seat availability within close proximity.
- School types: choice lottery, specialized, academic entrance criteria



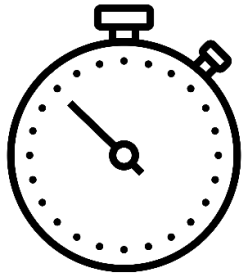
# High School Location & Public Transit

(2016 bus routes)

- MTA operates subway, light rail and bus service
- Rail is predominantly in the NW quadrant
- All schools are near at least one transit line
- Many trips require commutes in and out of downtown



# GTFS Travel Time Summary (2016)



- Mean travel time for students using public transit: **36.2 min**
- Mean travel time for adults to work using public transportation): **46.4 min**  
(Note: this includes Baltimore residents who commute outside of Baltimore)



Approximately 1 out of 8 MTA passenger trips is a high school student on his/her way to/from school



1 in 4 students' estimated commutes by public transit is **greater than 45 min**



**Students: 32%** of trips do not require a transfer

**Adults: 53%** of trips do not require a transfer

# Be open and transparent

## ... about challenges

Open Choice  
Schools



Use of  
public  
transit



Long &  
complicated  
commutes

*Communication barriers btw BCPSS & MTA*

*Restricted by Regulations*

*Lack of Funding*



# B Be open and transparent ... with data



- Publically available General transit feed specification (GTFS)
- PIA requests for disaggregate performance metric information

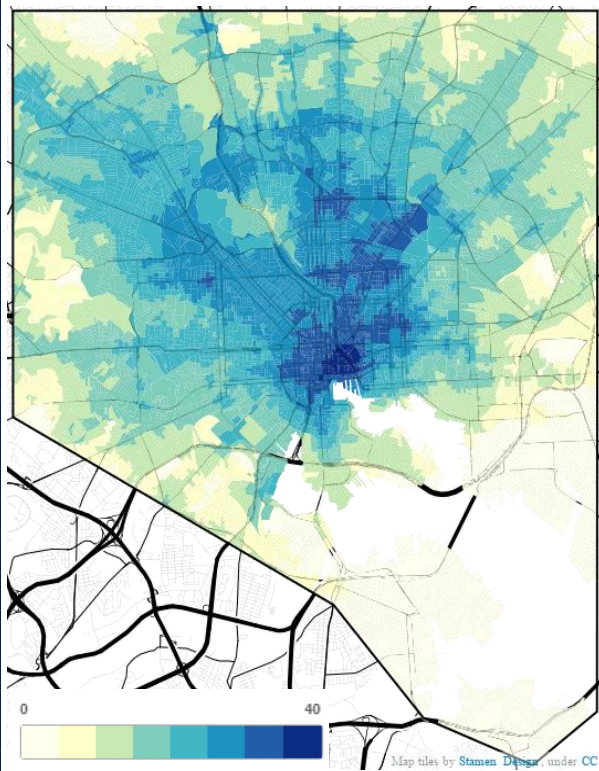
## BALTIMORE CITY PUBLIC SCHOOLS

- Most data required approval and IRB consideration due to sensitive nature of data (home location, school location, etc.)

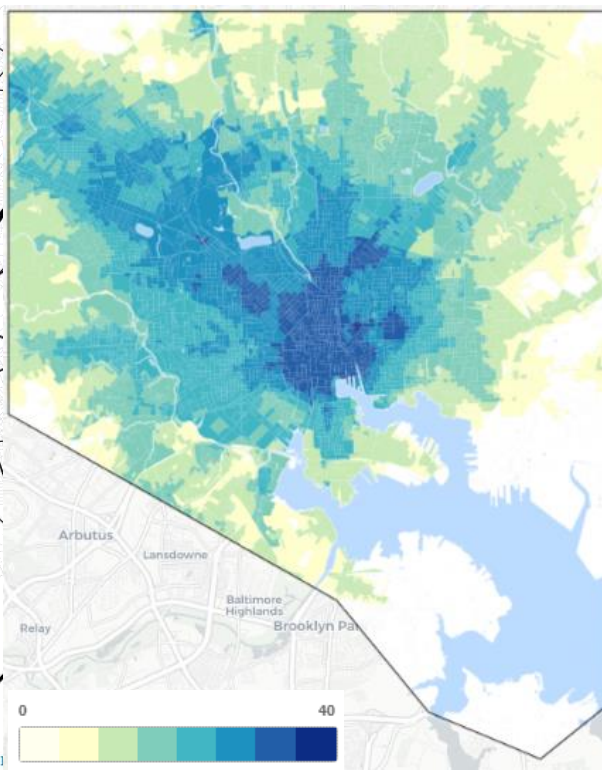
# # of H.S. Accessible in 45 mins



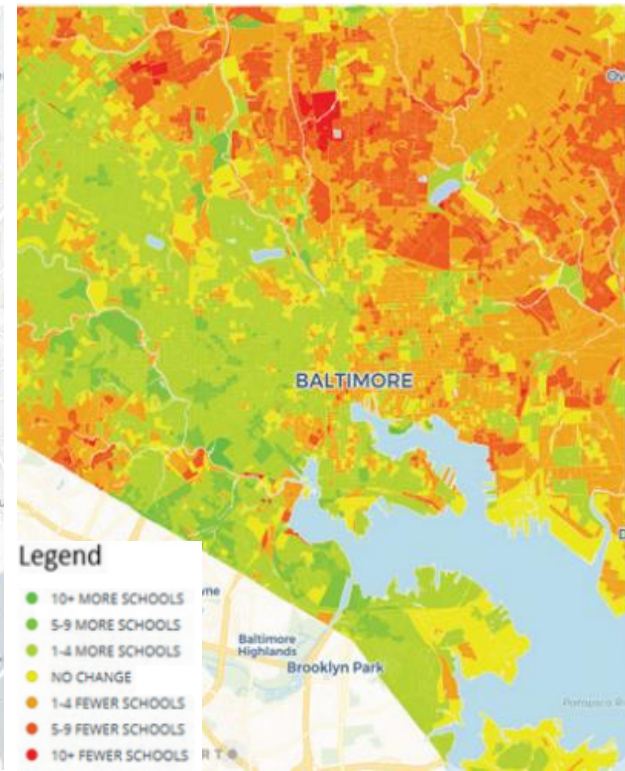
## Pre-BaltimoreLink



## Post-BaltimoreLink



## Difference in Service

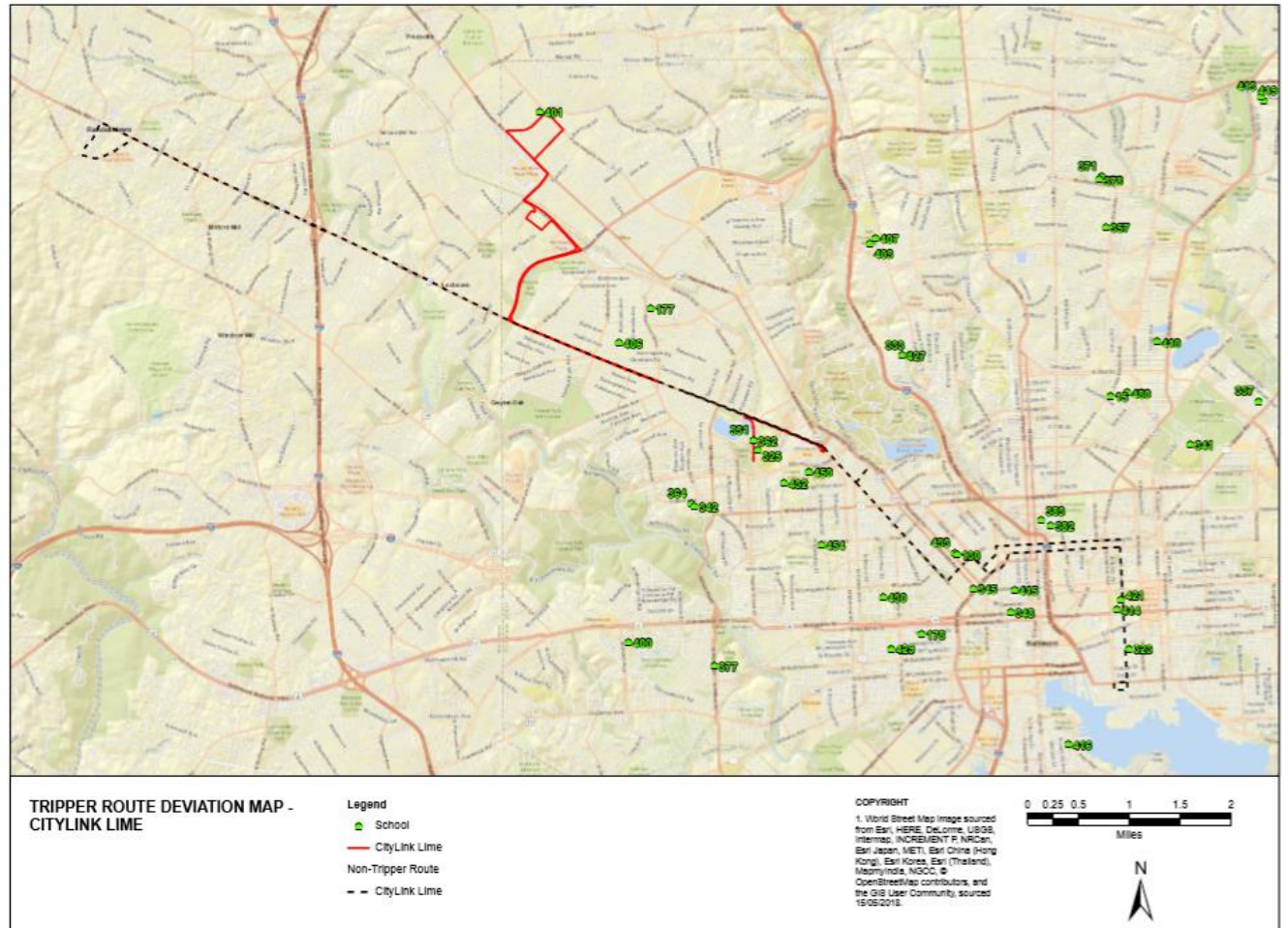




# Communicate with all stakeholder



# Next Step: Tripper Optimization





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# Access to Certain H.S. within 45 min

<b>Change in Number of Baltimore Residents that Can Access Certain High Schools within 45 Mins</b>				
High School	Pre-BaltimoreLink	Post-BaltimoreLink	Difference	% Change
Digital Harbor	266,848	271,789	4,941	2%
Douglass	399,795	399,050	-745	0%
Mergenthaler	324,926	347,119	22,193	7%
Patterson	114,849	115,765	916	1%
Polytechnic	376,672	312,894	-63,778	-17%