

# The Bronx Council for Environmental Quality 2021 Project Proposal

--Zi Fang

## *Opportunity*

Compared with other boroughs, the Bronx has not received enough attention given the severity of its intersecting problems.

The project goal is to gather current data to compare and review reasons why the health, wealth, education and environmental equity (air quality, waterfront access, park access) for Bronx residents is so different from the rest of the City, in order to identify and advocate for environmental justice policies for Bronx. The connection between demographic and environmental conditions needs to be documented and graphically represented in order for stakeholders and decision makers to make informed policy decisions.

Many decisions are reached by isolating measures of inequity. There is an opportunity and need to connect health indicators such as rates of asthma and diabetes with other indicators of equity, such as income, ability to carry insurance, employment opportunities, educational attainment, proximity to supermarkets with fresh food, green markets, and proximity to parkland, and waterfront access. Mapping technologies can connect these indicators and represent their interconnection.

## *Current State*

BCEQ has used the ESRI platform storyboard for a candidate forum, presentations for the City's Budget process, for local community boards, and for the organization's outreach to city and state agencies.

BCEQ has drawn attention to the following Bronx disparities relative to the city as a whole:

- Ranking of 62 out of 62 in health outcomes in NYS. Life expectancy here is 80.6 years, although there are differences by race/ethnicity.
- High number of people with no health insurance (and that was before COVID).
- Highest number of COVID hospitalization and death rates in the city.
- Highest number of people with income below the poverty level >26%
- Largest number of low-income community census with more incomes of less than \$29,000 per household
- Highest household income under \$75,000 of any borough
- Much higher rate for no schooling or less than high school

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## *People, roles, and contacts*

- Project Owner: Bronx Council for Environmental Quality  
Karen Argenti ([karen@bceq.org](mailto:karen@bceq.org)), Robert Fanuzzi ([robert@bceq.org](mailto:robert@bceq.org))
- Undergraduate Student Names:  
Ashe Lewis ([bal2175@barnard.edu](mailto:bal2175@barnard.edu)),  
Gabriel Fernandez ([gaf2145@columbia.edu](mailto:gaf2145@columbia.edu)),  
Eusebia Vazquez ([Eusebia.Vazquez@lc.cuny.edu](mailto:Eusebia.Vazquez@lc.cuny.edu)),  
Kayla Bernard ([kayla.bernard@lc.cuny.edu](mailto:kayla.bernard@lc.cuny.edu)).
- Primary data sources include US Census, NYC Open Data, and ESRI.

## *Requirements and metrics*

- Deliverable  
A report and presentation to the project owner with recognition by the project owner for further distribution. Students may not have time for exploring every single variable.
- Metrics  
For each data sources, can students find and download the data that could at least isolate Bronx from New York City or New York State?  
Can students explore the data visually and generate a report explains the interaction between the data sources that is reviewed by the project owner?  
Can students explore Bronx's severe condition compared with other boroughs?  
Can students calculate correlation to explore the relationships between indicators of health, wealth, environmental equity?  
Can students create a map using feature of data imposed?

## *Timeline and milestones*

Date	Description	People
6.14 – 6.21	Make familiar with the general idea of the project.  Explore different datasets.  Have the initial meeting with the project owner. (6.18)	Ashe Lewis, Gabriel Fernandez, Eusebia Vazquez, Kayla Bernard.  Project owner for the initial meeting.

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6.21 – 6.28	Review Data Specification (see below) and document and compare Bronx's health, wealth, education, and environmental equity with other boroughs.	Ashe Lewis, Gabriel Fernandez, Eusebia Vazquez, Kayla Bernard.
6.28 – 7.5	Compare data sets and propose analysis of underlying conditions.  Share data back to the project owner.	Ashe Lewis, Gabriel Fernandez, Eusebia Vazquez, Kayla Bernard.
7.5 – 7.12	Find the relationship between an environment equity and a health/wealth/education indicator; Part 1  Calculate correlation and make some explanations.	Ashe Lewis, Gabriel Fernandez, Eusebia Vazquez, Kayla Bernard.
7.12 – 7.19	Find the relationship between an environment equity and a health/wealth/education indicator; Part 2  Begin work on mapping or graphically representing data.	Ashe Lewis, Gabriel Fernandez, Eusebia Vazquez, Kayla Bernard.
7.19 – 7.26	Continue and explore correlations via data visualization.  Finalize visualization and analysis works.	Ashe Lewis, Gabriel Fernandez, Eusebia Vazquez, Kayla Bernard.
7.26 – 8.2	Prepare documentation and hand the results to the project owner that can be reproduced from the data sources or prepared datasets	Ashe Lewis, Gabriel Fernandez, Eusebia Vazquez, Kayla Bernard.
8.2 – 8.6	Present to project owner and open dialogue on further prospects.	Undergraduate students, Project owner and additional invitees to be announced (TBD).

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### *Data Specification*

Description	Specification and attributes	Purpose	Source	Contact
NYC Health Data Source	<a href="https://www1.nyc.gov/site/doh/data/tools.page">https://www1.nyc.gov/site/doh/data/tools.page</a>	Find Community Health Profile and Datasets.	NYC Department of Health	NYC Government
NYC Planning Data Source	<a href="https://communityprofiles.planning.nyc.gov/">https://communityprofiles.planning.nyc.gov/</a> <a href="https://www1.nyc.gov/site/planning/data-maps/open-data.page#other">https://www1.nyc.gov/site/planning/data-maps/open-data.page#other</a>	Find Community District Profiles & Open Data.	NYC Department of City Planning	NYC Government
NYC Residents Census Data Source	<a href="https://www.census.gov/programs-surveys/acs">https://www.census.gov/programs-surveys/acs</a>	Find detailed Information about NYC residents.	American Community Survey	The U.S. Census Bureau
Free Public Data with Different Categories	<a href="https://opendata.cityofnewyork.us/data/">https://opendata.cityofnewyork.us/data/</a>	Find all Kinds of Information about NYC.	NYC Open Data	NYC Government
The Social Indicators and Equity Report, Equity NYC	<a href="https://equity.nyc.gov/">https://equity.nyc.gov/</a>	Explore the economic, social, environmental, and physical health of New York City across race/ethnicity, gender, location, and income.	Equity NYC	NYC Government
Mayor's Management Report (MMR)	<a href="https://www1.nyc.gov/site/operations/performance/mmr.page">https://www1.nyc.gov/site/operations/performance/mmr.page</a>	Find mayor's reports about different categories.	NYC Mayor's Office of Operations	NYC Government

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		(eg. report on poverty)		
New Census Data release schedule	<a href="https://www.census.gov/programs-surveys/acs/news/data-releases/2020/release.html">https://www.census.gov/programs-surveys/acs/news/data-releases/2020/release.html</a>	2020 ACS 1-year estimates released on September 23, 2021.	2016-2020 ACS 5-year estimates released on December 9, 2021.	For more information, check 2020 Data Release schedule

### *Hand-off and maintenance*

The project is complete when the compiled dataset can be provided, appropriate visualization can be displayed. Since the new census numbers are not going to be available, the project will act as a template waiting for new data to be released.