Pathways to Opportunity

A Moving to Opportunity Program for Harlem, NY

Proposed by: Lian Benz, Zoe Tziavragos, and Sophie Raglan

December 12, 2024

Dear NYCHA Councilmembers,

By way of this letter, we propose Pathways to Opportunity, a new Moving to Opportunity program working to move low-income families in Harlem to opportunity bargain census tracts scattered throughout Manhattan. Moving to Opportunity programs in the past have shown that when a low-income family from a neighborhood with high poverty rates moves to a neighborhood with low poverty rates and high opportunity, by way of an opportunity bargain, it improves their children's lives and outcomes in adulthood.[1] High-opportunity neighborhoods often have abundant employment opportunities, better school systems, vibrant after-school programs, increased safety, low crime rates, greater access to green spaces, and strong community support systems, among many other characteristics.[2] Opportunity bargains are neighborhoods with generally positive characteristics that produce elevated outcomes for children while still maintaining decently affordable rent prices.[3] An example of an existing opportunity bargain in New York City is "Breaking Ground" at 40 Riverside.[4] It's a 55-unit permanent affordable housing project for low-income families with children on the Upper West Side of Manhattan.[5] With a similar mission to Breaking Ground, Pathways to Opportunity proposes housing vouchers for 250 low-income families in Harlem with at least two

---

[1] "Moving to Opportunity." *Office of Policy Development and Research (PD&R)*, www.huduser.gov/portal/mto.html. Accessed 11 Dec. 2024.

[2] "Report: High-Opportunity Neighborhoods in New York City are Losing Affordable Housing in NYC." *NYU Furman Center*, 14 Jan. 2015, furmancenter.org/news/press-release/report-high-opportunity-neighborhoods-in-new-york-city-are-losing-affordabl. Accessed 11 Dec. 2024.

[3] Chetty, Raj. "The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility - Executive Summary." *Opportunity Insights*, Jan. 2020, opportunityinsights.org/wp-content/uploads/2021/12/atlas_summary.pdf.

[4] "40 Riverside." *Breaking Ground*, breakingground.org/our-housing/40-riverside. Accessed 11 Dec. 2024.

[5] Ibid.

children to move to opportunity bargain census tracts, which balance high outcomes with rent prices. Pathways to Opportunity will work to relocate these families to better neighborhoods, providing them, especially their children, with opportunities for better outcomes in adult life, thus increasing their chances of achieving upward mobility. Many of these moves will help provide a pathway to success with increased employment, educational, and recreational opportunities, as well as a safer neighborhood with better security, sanitation, and transportation, for example.[6] After all, it's been proven that neighborhoods significantly impact adult outcomes and that children from low-income families who move to high-opportunity neighborhoods while they're still young have dramatically improved outcomes once they reach adulthood.[7] Pathways to Opportunity strives to have the same effect of increasing the chances of upward mobility for low-income families in Harlem, NY.

Our proposal is broken down into the following sections: background information, methodology, the formal proposal, and a cost-benefit analysis. When discussing background information, we will provide a brief explanation of the history of Harlem, focusing on why Harlem is at its current socioeconomic position. In our methodology section, we'll identify opportunity bargains and target areas, specifying how we used R Studio and the Opportunity Atlas dataset to do so. Our formal proposal section gives a specific rundown of what our proposal is, who will be eligible for it, and how the housing vouchers provided may be used. Finally, in the cost-benefit analysis section, we'll

---

[6] "Report: High-Opportunity Neighborhoods in New York City are Losing Affordable Housing in NYC." *NYU Furman Center*, 14 Jan. 2015, furmancenter.org/news/press-release/report-high-opportunity-neighborhoods-in-new-york-city-are-losing-affordabl. Accessed 11 Dec. 2024.

[7] Chetty, Raj. "The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility - Executive Summary." *Opportunity Insights*, Jan. 2020, opportunityinsights.org/wp-content/uploads/2021/12/atlas_summary.pdf.

explore all of the projected costs of the program along with a break down of potential monetary benefits.

Historical Background

Harlem, a neighborhood in Manhattan, New York, known for its history, cultural significance, and contribution to African American identity has a complex history that's shaped its current socioeconomic standing. Experiencing significant demographic changes throughout the 19th and 20th centuries during the Great Migration, Harlem became a predominantly African American community, despite previously being a fashionable residential district.[8] Harlem thrived during the Harlem Renaissance of the 1920s and 1930s, a cultural, artistic, and intellectual movement that celebrated Black culture and identity.[9] However, Harlem was seriously impacted by the Great Depression and "by the 1930s, Harlem had higher levels of crowding, greater poverty, fewer parks and open spaces, higher illness and death rates, and higher rents for poorer quality housing than any other area of the city" said Cheryl Lynn Greenberg, a professor of history at Trinity College.[10] This economic decline was worsened by the loss of major industries and businesses that were traditionally Black, leading to limited job opportunities which had an impact for decades to come.[11] The unfavorable economic situation,

---

[8] "Harlem." *Encyclopædia Britannica*, Encyclopædia Britannica, inc., 9 Dec. 2024, www.britannica.com/place/Harlem-New-York.

[9] "Harlem Renaissance." *History.Com*, A&E Television Networks, 14 Feb. 2024, www.history.com/topics/1920s/harlem-renaissance.

[10] "Answers about Depression-Era Harlem." *The New York Times*, The New York Times, 18 Feb. 2009, archive.nytimes.com/cityroom.blogs.nytimes.com/2009/02/18/answers-about-depression-era-harlem/#:~:text=By%20the%201930s%2C%20Harlem%20had,other%20area%20of%20the%20city.

[11] "NYC Then/Now: Great Depression & Great Recession." *NYC ThenNow Great Depression Great Recession*, eportfolios.macaulay.cuny.edu/brooks12/then-125th-street/. Accessed 10 Dec. 2024.

along with other issues such as racial segregation and disinvestment, resulted in persistent poverty in Harlem. By the 1970s, many of the middle-class residents moved away, searching for better opportunities, which left a concentration of the poorest and least adept residents.[12] Despite various government efforts to improve Harlem's socioeconomic status, the neighborhood has struggled to push beyond its economic challenges, making it one of New York City's lowest-income neighborhoods, even now.[13]

More recently, gentrification brought wealthier residents to the area, resulting in significantly increased costs of living. Just housing prices alone have increased by 247% in the last decade.[14] This reality, along with Columbia University's expansion, which accelerated the gentrification even more, has displaced many low-income families in Harlem, forcing many to move to other boroughs or even out of state.[15] The serious impacts of gentrification have made it even more challenging for low-income families to not only afford housing in Harlem but also support their livelihoods there.[16]

Additionally, the socio-economic condition of Harlem is closely connected to crime rates in the area. High poverty, widespread unemployment, poor housing conditions, and low community

---

[12] Burrell, Kristopher B. "Harlem, New York." *CUNY Academic Works*, City University of New York (CUNY), 2007, academicworks.cuny.edu/cgi/viewcontent.cgi?article=1021&context=ho_pubs.

[13] Bleiwas, Kenneth B., and Thomas P. DiNapoli. "An Economic Snapshot of the East Harlem Neighborhood." *Office of the New York State Comptroller*, www.osc.ny.gov/files/reports/osdc/pdf/report-9-2018.pdf. Accessed 11 Dec. 2024.

[14] Gorrild, Marie, et al. "Gentrification and Displacement in Harlem: How the Harlem Community Lost Its Voice En Route to Progress." *Humanity in Action*, humanityinaction.org/knowledge_detail/gentrification-and-displacement-in-harlem-how-the-harlem-community-lost-its-voice-en-route-to-progress/. Accessed 10 Dec. 2024.

[15] Jones, David R. "Harlem Activists Aim to Tap the Brakes on Columbia Expansion." *Community Service Society of New York*, www.cssny.org/news/entry/harlem-activists-aim-to-tap-the-brakes-on-columbia-expansion. Accessed 10 Dec. 2024.

[16] "The Gentrification of Harlem." *Harlem 350: Harlem in the Past and Present*, harlem350.commons.gc.cuny.edu/gentrification/. Accessed 10 Dec. 2024.

participation all lead to increased criminal activity and higher incarceration rates, thus perpetuating the cycle of poverty.[17]

All in all, persistent poverty, high crime rates, limited access to important resources, and gentrification resulting in rising housing costs have made life for many low-income families in Harlem alarmingly difficult. This, in turn, continues to trap many low-income families in a cycle of poverty, making it challenging for both adults and children growing up in Harlem to achieve upward mobility.

Methodology

Data in this study is drawn from The Opportunity Atlas dataset, called atlas.dta, which was used when developing the Opportunity Atlas website. The Opportunity Atlas is a visual tool developed by Raj Chetty and other professionals at Harvard University that analyzes economic mobility in the US down to specific census tracts. It uses anonymous US Census data and federal income tax returns, linking children to parents by noting dependents listed on tax returns, where social security numbers are also included.[18] More specifically, the target sample consists of children born between 1979 and 1983, whose income was measured using tax returns from 2014 to 2015, while they were between the ages of 31 and 37. The parent household income was identified with income reported on Form 1040 tax returns from 1994 to 2000. With a 96% coverage of the entire target sample, around 20.5 million children, both US-born and authorized immigrants who arrived in the US

[17] Horning, Amber, et al. "Harlem Pimps' Accounts of Their Economic Pathways and Feelings of Insiderness and Outsiderness." *Journal of Qualitative Criminal Justice & Criminology*, PubPub, 1 Apr. 2019, www.qualitativecriminology.com/pub/v7i3p4/release/1.

[18] "The Opportunity Atlas." *Opportunity Insights*, 30 Sept. 2023, opportunityinsights.org/paper/the-opportunity-atlas/.

in childhood, were included.[19] Beyond exploring income, the Opportunity Atlas provides visualizations for various other variables specifying children's outcomes in adulthood and characteristics of neighborhoods where they were raised.

Identifying Opportunity Bargains

When identifying ideal opportunity bargains for residents in Harlem, New York, we used the Opportunity Atlas dataset, atlas.dta, to code visualizations in R Studio. When coding, we first started by installing all of the packages that would end up being necessary and setting the working directory to specify the folder where R will naturally read and save files.

```
install.packages("ggplot2")
library(ggplot2)

install.packages("tidyverse")
library(tidyverse)

install.packages("plotly")
library(plotly)

install.packages("haven")
library(haven)

setwd("/Users/lian.benz26/Documents/Data Science for Social Impact/Empirical Project #2")
atlas <- read_dta("atlas.dta")
```

Next, we narrowed down the data in the Opportunity Atlas data set by state and then by county. In this case, New York state was "36" and the county encompassing Manhattan was "061."

[19] Ibid.

```
#Subset observations to your chosen STATE
#The STATE code is the first two digits of the Tract Number on Opportunity Atlas
#The STATE code for New York is 36

new_york_state <- subset(atlas,state == 36)

#Subset observations to your chosen COUNTY
#The COUNTY code is digits 3-5 of the Tract Number on Opportunity Atlas
#The COUNTY codes for Manhattan (New York County) and the Bronx (Bronx County) are 061 and

manhattan_harlem <- subset(new_york_state, county == 061)
```

Once we narrowed down the data to include only our desired location, we also narrowed down the number of variables we wanted to account for when identifying opportunity bargains. Sticking with the definition of an opportunity bargain being a neighborhood with generally high outcomes for children who grew up there when they reach adulthood while still maintaining affordable prices for rent, we focused on variables that would help speak toward one of the two main factors. In terms of identifying neighborhoods with more affordable rent, we focused on the variable of the average rent for a two-bedroom apartment in 2015 (defined as rent_twobed2015 in the atlas.dta dataset). When thinking about neighborhoods that would create high opportunities for children, we focused on household income, poverty rates, employment rates, and college attendance, given that they can speak towards how generally positive or negative the environment of a neighborhood is. Overall, neighborhoods with high average household income, low poverty rates, high employment rates, and high college attendance rates are correlated with producing higher outcomes in adulthood for children from those neighborhoods. These four factors were specifically accounted for with the median household income in 2016 (med_hhinc2016), the poverty rate in 2010 (poor_share2010), the employment rate in 2000 (emp2000), and the fraction of residents with a college degree or more in 2010 (frac_coll_plus2010).

```r
#Select only the variables to be used in this analysis

trimmed_manhattan_harlem <- select(manhattan_harlem,
                                   tract,
                                   county,
                                   state,
                                   med_hhinc2016,
                                   poor_share2010,
                                   emp2000,
                                   frac_coll_plus2010,
                                   rent_twobed2015)
```

Next, we formally defined an opportunity bargain in R Studio based on what would genuinely benefit low-income families currently in Harlem while also being realistic based on general averages in Manhattan associated with rent for a two-bedroom apartment and median household income. Specifically, for the purpose of this housing proposal, we decided to define an opportunity bargain as a neighborhood with the median household income being above $100,000 in 2016 and the rent for a two-bedroom apartment being under $2,000 in 2016.

```r
#Create a new variable to identify opportunity bargains
#(in this case, I will identify bargains as neighborhoods with rent below $2000 and kfr_poo

trimmed_manhattan_harlem <- trimmed_manhattan_harlem |>
  mutate(opportunity_bargain = if_else(rent_twobed2015 < 2000 & med_hhinc2016 > 100000,
                               "yes",
                               "no")
  )

trimmed_manhattan_harlem |>
  count(opportunity_bargain)
```

Next, we generated a best-fit linear model for the scatter plot that we'd later use to identify specific opportunity bargains. For this linear model, we specified that it would compare the median household income in 2016 (med_hhinc2016) on the y-axis to the average rent for a two-bedroom apartment in 2015 (rent_twobed2015) on the x-axis. We also specified that the data used for this

comparison would be what we had previously trimmed the larger atlas.dta data set down to.

```
#Create a scatterplot that relates average rent (x-axis) to upward mobility (y-axis)
#Start by generating a best-fit linear model for the scatter plot

lm_model <- lm(med_hhinc2016 ~ rent_twobed2015, data = trimmed_manhattan_harlem)

lm_model
```

Once all of this was completed, we started with creating the actual scatter plots, the first one comparing median household income in 2016 (med_hhinc2016) on the y-axis with the average rent for a two-bedroom apartment in 2015 (rent_twobed2015) on the x-axis.

```
#Next, create the scatter plot and add the linear model (above) to the plot

#Scatter plot for income vs. rent
income_rent <- ggplot(data = trimmed_manhattan_harlem,
                      aes(x = rent_twobed2015,
                          y = med_hhinc2016,
                          color = opportunity_bargain,
                          text = paste("Census Tract: ", tract))) +
  geom_point() +
  geom_abline(intercept = coef(lm_model)[1], slope = coef(lm_model)[2], color = "black") +
  labs(title = "Identifying Opportunity Bargains",
       x = "Rent for Two-Bedroom (2015)",
       y = "Median Household Income (2016)") +
  theme_minimal()

income_rent
```

Then, we created three more scatter plots comparing the average rent for a two-bedroom apartment in 2015 (rent_twobed2015) on the x-axis with each of the three variables: the poverty rate in 2010 (poor_share2010), the employment rate in 2000 (emp2000), and the fraction of residents with a college degree or more in 2010 (frac_coll_plus2010) on the y-axis.

```r
#Scatter plot for poverty rate vs. rent
povertyrate_rent <- ggplot(data = trimmed_manhattan_harlem,
                      aes(x = rent_twobed2015,
                          y = poor_share2010,
                          color = opportunity_bargain,
                          text = paste("Census Tract: ", tract))) +
  geom_point() +
  geom_abline(intercept = coef(lm_model)[1], slope = coef(lm_model)[2], color = "black") +
  labs(title = "Identifying Opportunity Bargains",
       x = "Rent for Two-Bedroom (2015)",
       y = "Poverty Rate (2010)") +
  theme_minimal()

povertyrate_rent
```

```r
#Scatter plot for employment rate vs. rent
employmentrate_rent <- ggplot(data = trimmed_manhattan_harlem,
                              aes(x = rent_twobed2015,
                                  y = emp2000,
                                  color = opportunity_bargain,
                                  text = paste("Census Tract: ", tract))) +
  geom_point() +
  geom_abline(intercept = coef(lm_model)[1], slope = coef(lm_model)[2], color = "black") +
  labs(title = "Identifying Opportunity Bargains",
       x = "Rent for Two-Bedroom (2015)",
       y = "Employment Rate (2000)") +
  theme_minimal()

employmentrate_rent
```

```r
#Scatter plot for college education vs. rent
collegeeducation_rent <- ggplot(data = trimmed_manhattan_harlem,
                                aes(x = rent_twobed2015,
                                    y = frac_coll_plus2010,
                                    color = opportunity_bargain,
                                    text = paste("Census Tract: ", tract))) +
  geom_point() +
  geom_abline(intercept = coef(lm_model)[1], slope = coef(lm_model)[2], color = "black") +
  labs(title = "Identifying Opportunity Bargains",
       x = "Rent for Two-Bedroom (2015)",
       y = "Fraction of Residents with a College Degree or More (2010)") +
  theme_minimal()

collegeeducation_rent
```

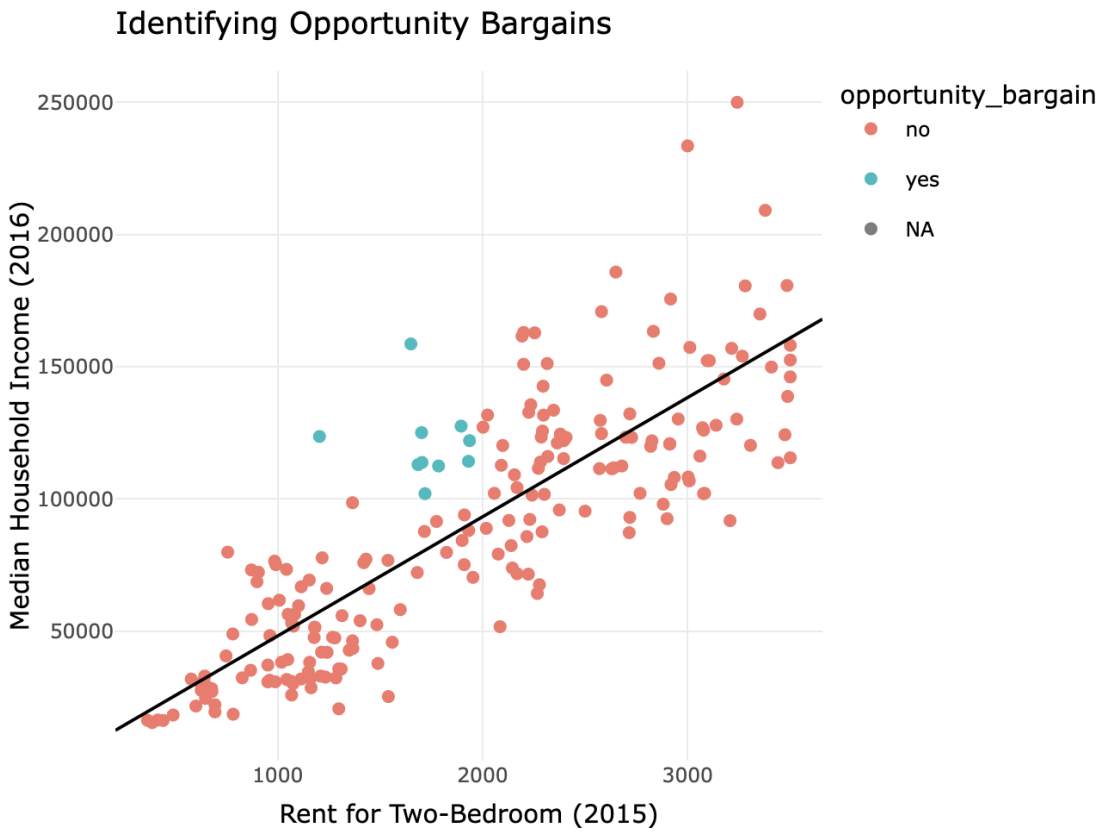
Once the specifics for each of the four scatter plots were written out, we individually converted each of the four ggplot objects into plotly objects. Given that ggplot visualizations are static, converting them into plotly visualizations and, therefore, making them interactive is greatly useful. After all, this is

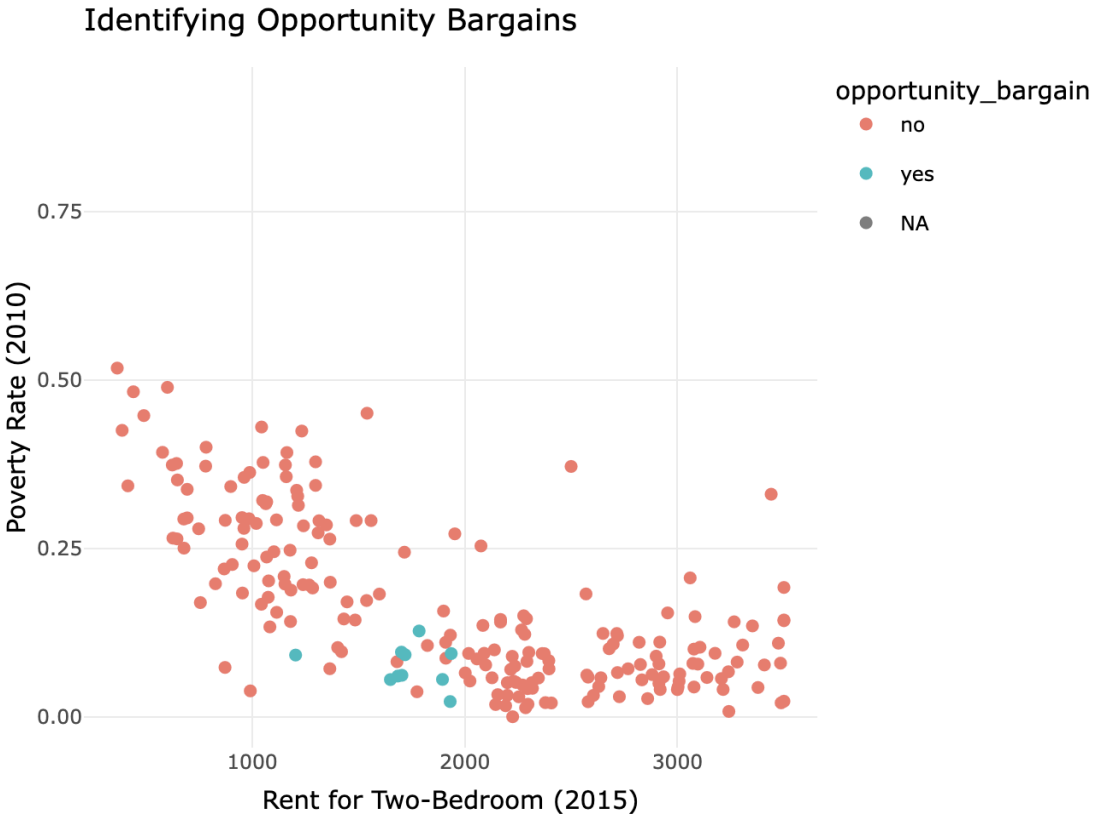
how we were able to quickly identify the specific census tracts of each of our opportunity bargains.

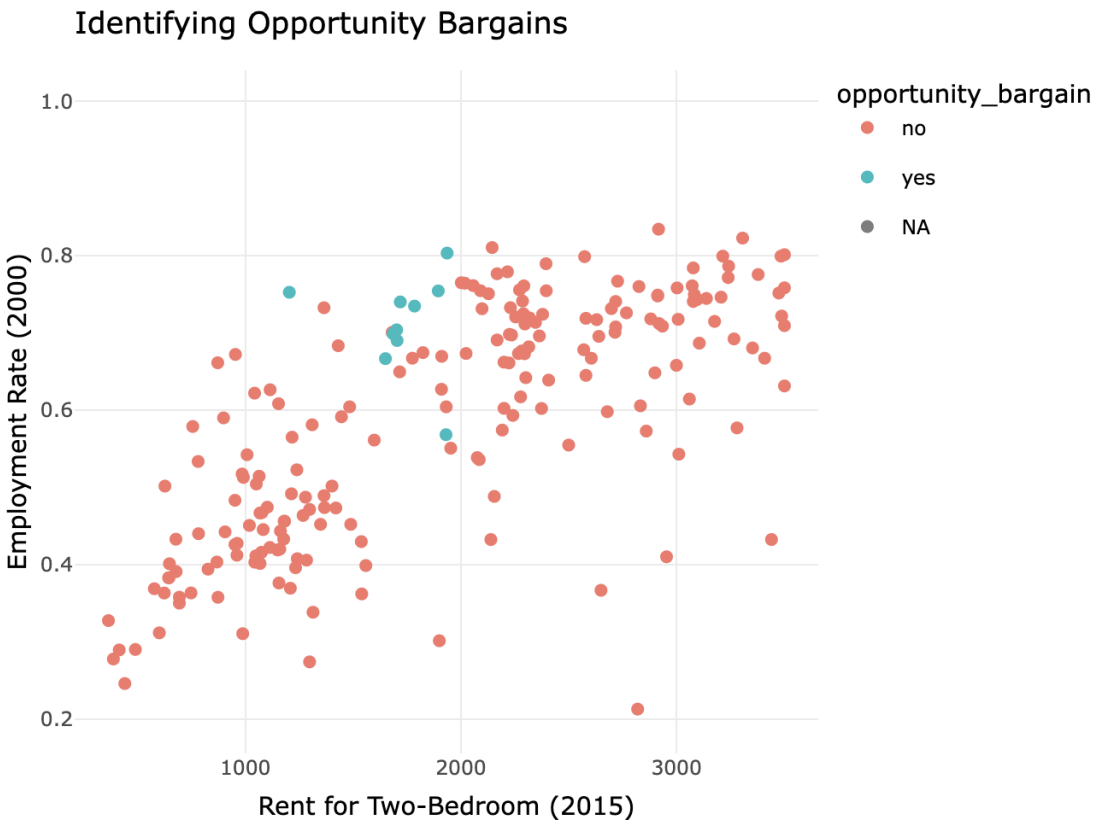
Lastly, we also wrote out the code to declare each of our four interactive plots.

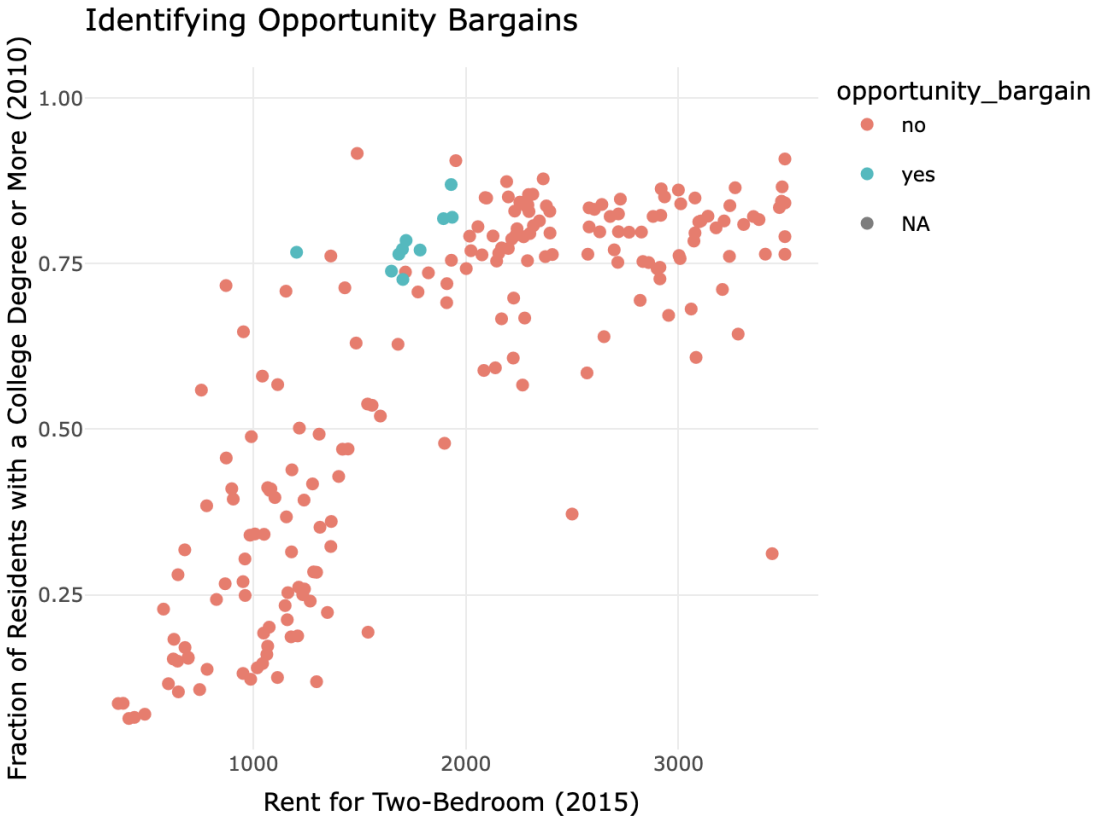
```
# Convert ggplot object to plotly object
interactive_income.rent <- ggplotly(income_rent, tooltip = "text")

interactive_povertyrate.rent <- ggplotly(povertyrate_rent, tooltip = "text")

interactive_employmentrate.rent <- ggplotly(employmentrate_rent, tooltip = "text")

interactive_collegeeducation.rent <- ggplotly(collegeeducation_rent, tooltip = "text")


# Display the interactive plot
interactive_income.rent

interactive_povertyrate.rent

interactive_employmentrate.rent

interactive_collegeeducation.rent
```

Once all of this coding in R Studio was complete, the result was the following four scatter plots:


Identifying Opportunity Bargains
Median Household Income (2016)
250000
200000
150000
100000
50000
1000
2000
3000
Rent for Two-Bedroom (2015)
opportunity_bargain
no
yes
NA

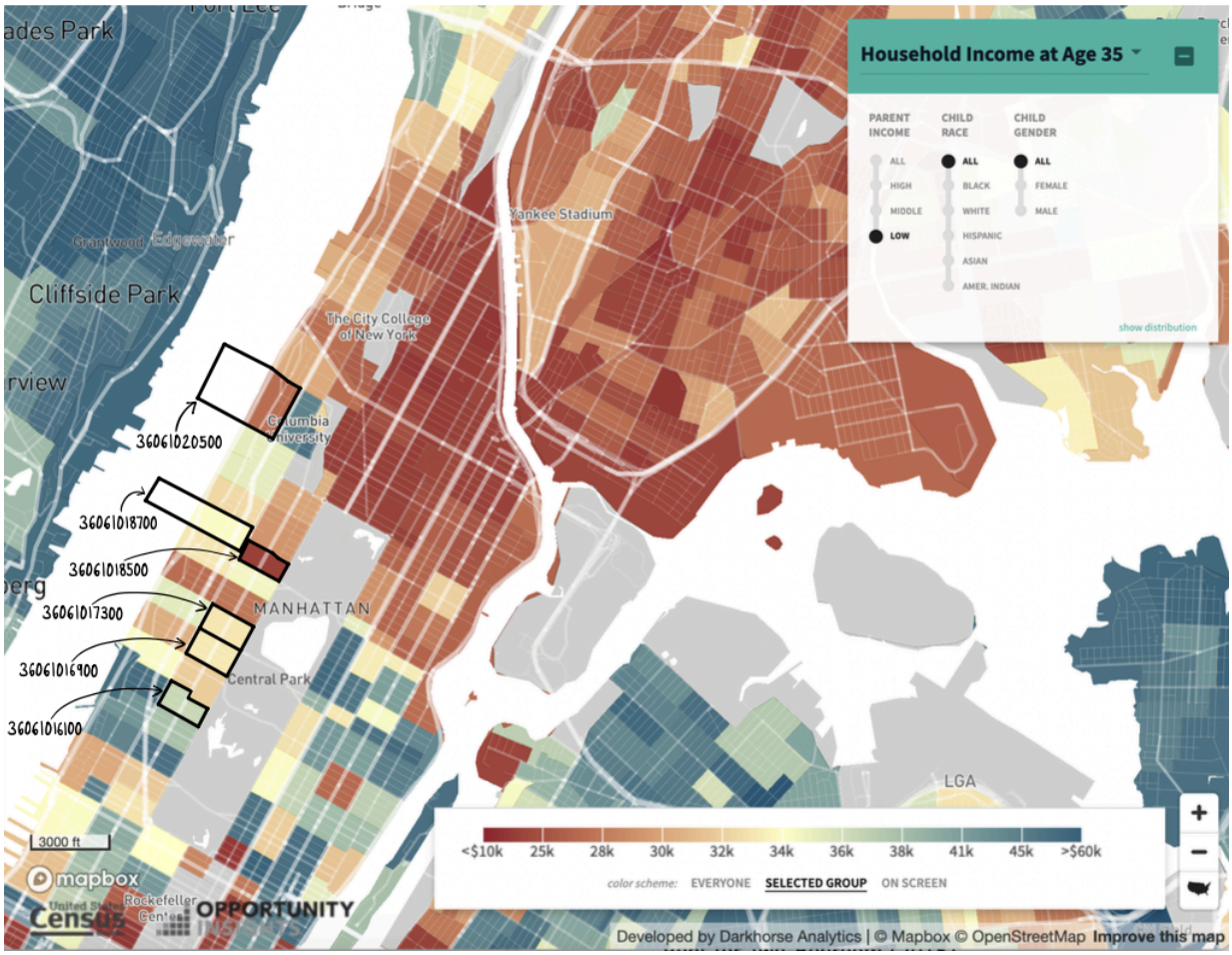

Identifying Opportunity Bargains
Poverty Rate (2010)
0.75
0.50
0.25
0.00
1000
2000
3000
Rent for Two-Bedroom (2015)
opportunity_bargain
no
yes
NA

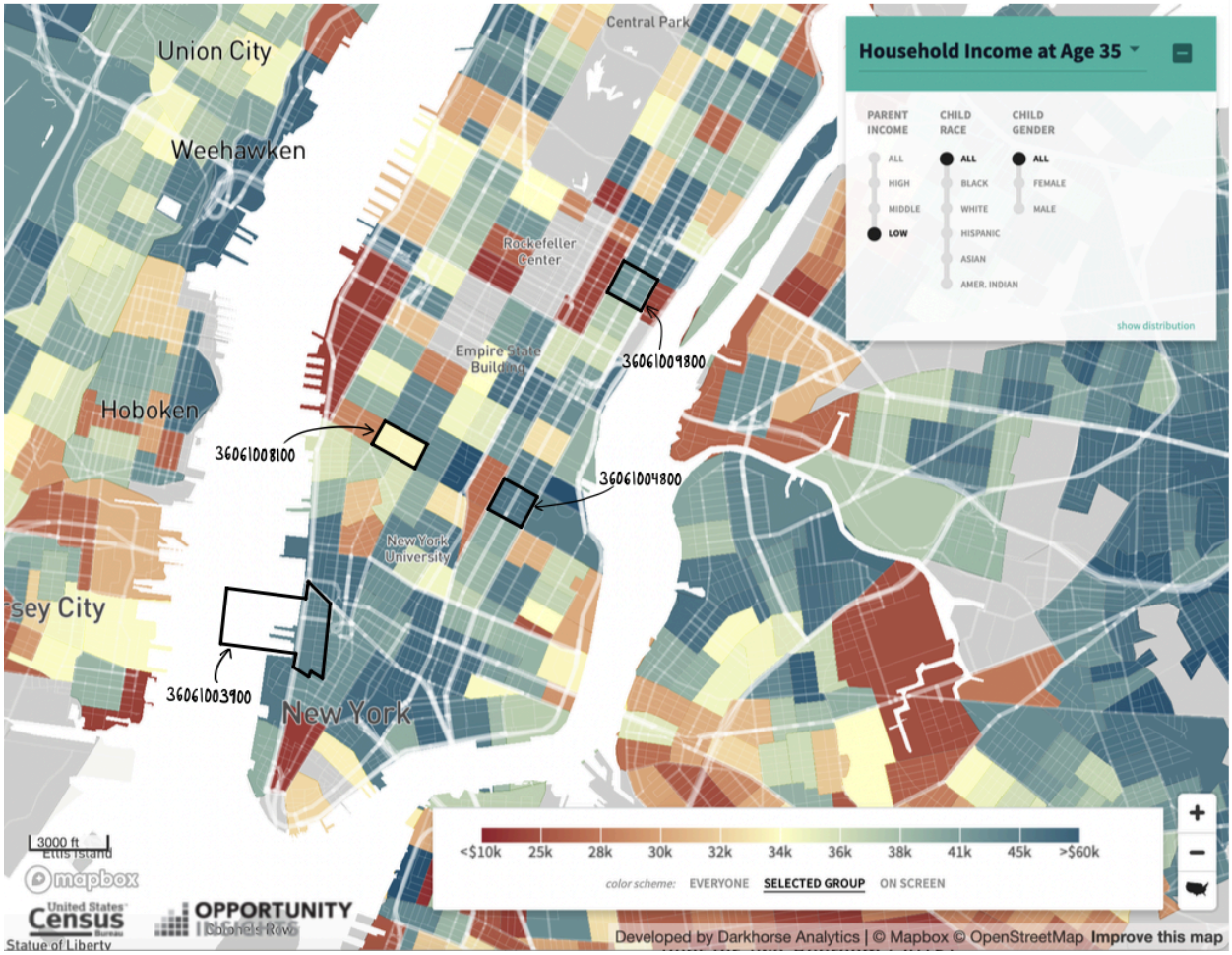

Identifying Opportunity Bargains
Employment Rate (2000)
1.0
0.8
0.6
0.4
0.2
1000
2000
3000
Rent for Two-Bedroom (2015)
opportunity_bargain
no
yes
NA


Identifying Opportunity Bargains
Fraction of Residents with a College Degree or More (2010)
1.00
0.75
0.50
0.25
1000
2000
3000
Rent for Two-Bedroom (2015)
opportunity_bargain
no
yes
NA

Here, the first scatter plot is the one that actually identifies the opportunity bargains, based on the parameters declared earlier, associated with median household income and average rent for a two-bedroom apartment. As shown, the small number of blue dots are the opportunity bargains, while all of the remaining red dots are not. Then, the following three graphs take the same blue dots, or the same census tracts that are opportunity bargains, and graphs them according to the different variables on the y-axis: poverty rate, employment rate, and the fraction of residents with a college degree or more. Essentially, the latter three graphs display how the opportunity bargains we identified hold up in terms of other variables that can be used to determine the potential status of the outcomes for a neighborhood. Overall, they hold up pretty well, generally also falling in ranges with low poverty rates, high employment rates, and high percentages of the population with college degrees.

The opportunity bargains we identified are census tracts 36061003900, 36061008100, 36061009800, 36061017300, 36061016100, 36061020500, 36061004800, 36061018700, 36061018500, and 36061016900. These census tracts are highlighted in the following two maps:


Household Income at Age 35
PARENT INCOME
ALL
HIGH
MIDDLE
LOW
CHILD RACE
ALL
BLACK
WHITE
HISPANIC
ASIAN
AMER. INDIAN
CHILD GENDER
ALL
FEMALE
MALE
show distribution
Yankee Stadium
Cliffside Park
The City College of New York
Columbia University
MANHATTAN
Central Park
LGA
36061020500
36061018700
36061018500
36061017300
36061016900
36061016100
3000 ft
<$10k 25k 28k 30k 32k 34k 36k 38k 41k 45k >$60k
color scheme: EVERYONE SELECTED GROUP ON SCREEN
mapbox
OPPORTUNITY
Developed by Darkhorse Analytics | © Mapbox © OpenStreetMap Improve this map



Zooming in to specific census tracts that would be good potential moves to opportunity, many of them are located in the Upper West Side. Beyond that, there are also a couple scattered throughout downtown Manhattan. Any of the census tracts shown above would serve as great locations for moves to opportunity for low-income families currently in Harlem.

Identifying Target Areas

Next, when identifying what areas in Harlem to target, we also used the Opportunity Atlas dataset, atlas.dta, to code visualizations in R Studio. Again, we started by installing all the packages

we'd use and setting the working directory to specify the folder where R will naturally read and save files.

```
install.packages("ggplot2")
library(ggplot2)

install.packages("tidyverse")
library(tidyverse)

install.packages("plotly")
library(plotly)

install.packages("haven")
library(haven)

setwd("/Users/lian.benz26/Documents/Data Science for Social Impact/Empirical Project
atlas <- read_dta("atlas.dta")
```

Next, we narrowed down the Opportunity Atlas data set in the same way, by state and county. Again, New York state was "36" and the county encompassing Manhattan was "061."

```
#Subset observations to your chosen STATE
#The STATE code is the first two digits of the Tract Number on Opportunity Atlas
#The STATE code for New York is 36

new_york_state <- subset(atlas,state == 36)

#Subset observations to your chosen COUNTY
#The COUNTY code is digits 3-5 of the Tract Number on Opportunity Atlas
#The COUNTY codes for Manhattan (New York County) and the Bronx (Bronx County) are 0

manhattan_harlem <- subset(new_york_state, county == 061)
```

Then, we narrowed down the number of variables we wanted to consider when identifying target areas. Here, we simply focused on the median household income in 2016 (med_hhinc2016) and the average rent for a two-bedroom apartment in 2015 (rent_twobed2015) since we're focusing on census tracts where residents generally have lower financial status, but the cost of housing is still somewhat high.

```r
#Select only the variables to be used in this analysis

trimmed_manhattan_harlem <- select(manhattan_harlem,
                                   tract,
                                   county,
                                   state,
                                   med_hhinc2016,
                                   rent_twobed2015)
```

Next, we formally defined a target area as a census tract with a median household income below $80,000 in 2016 and rent for a two-bedroom apartment above $1,000 in 2016. We decided on these parameters, given that they're representative of residents' generally low socioeconomic status and speak towards rent prices that aren't directly affordable.

```r
#Create a new variable to identify target areas
trimmed_manhattan_harlem <- trimmed_manhattan_harlem |>
  mutate(target_areas = if_else(rent_twobed2015 > 1000 & med_hhinc2016 < 80000,
                                "yes",
                                "no")
  )

trimmed_manhattan_harlem |>
  count(target_areas)
```

Next, we created a best-fit linear model for the scatter plot that we'd use to identify specific target areas. For this linear model, we specified that the data used for this comparison would be what we had previously trimmed the larger atlas.dta data set down to. We also specified that it would compare the median household income in 2016 (med_hhinc2016) on the y-axis to the average rent for a two-bedroom apartment in 2015 (rent_twobed2015) on the x-axis.

```r
#Create a scatterplot that relates average rent (x-axis) to upward mobility (y-axis)
#Start by generating a best-fit linear model for the scatter plot

lm_model <- lm(med_hhinc2016 ~ rent_twobed2015, data = trimmed_manhattan_harlem)

lm_model
```

Once we had completed all of the previous steps, we created the actual scatter plot itself and titled the scatter plot "Identifying Target Areas."

```
#Next, create the scatter plot and add the linear model (above) to the plot
target_areas <- ggplot(data = trimmed_manhattan_harlem,
                       aes(x = rent_twobed2015,
                           y = med_hhinc2016,
                           color = target_areas,
                           text = paste("Census Tract: ", tract))) +
  geom_point() +
  geom_abline(intercept = coef(lm_model)[1], slope = coef(lm_model)[2], color = "bla
  labs(title = "Identifying Target Areas",
       x = "Rent for Two-Bedroom (2015)",
       y = "Median Household Income (2016)") +
  theme_minimal()

target_areas
```

Lastly, we converted the ggplot object into a plotly object, which made the scatter plot interactive rather than static. This was useful for quickly identifying the specific census tracts of each target area we identified. Additionally, we wrote out the code to declare each of our four interactive plots.

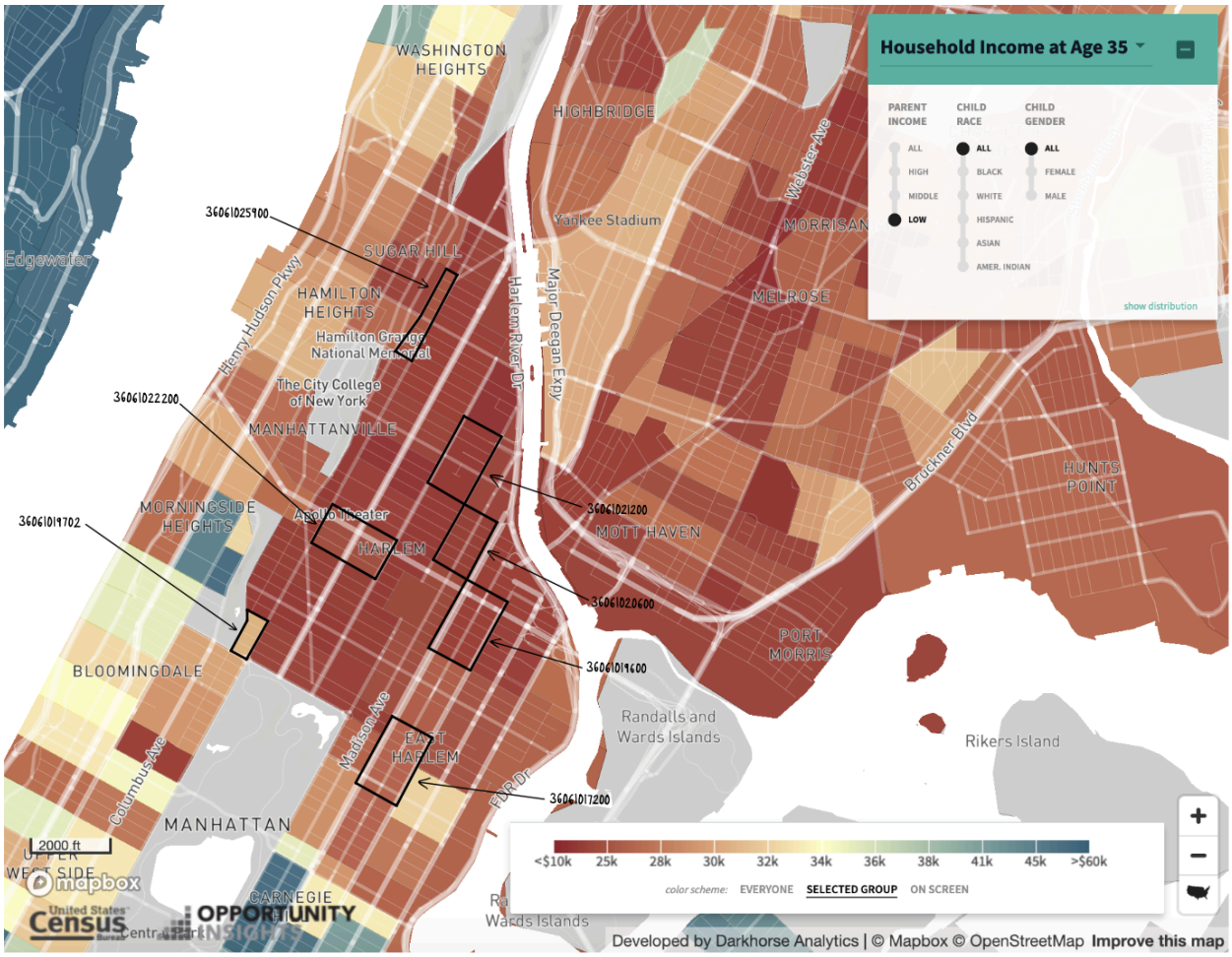
```
# Convert ggplot object to plotly object
interactive_target.areas <- ggplotly(target_areas, tooltip = "text")

# Display the interactive plot
interactive_target.areas
```

Once we completed the above steps in R Studio, we had a scatter plot that clearly identified various census tracts that would qualify as target areas, pictured below.

When examining this scatter plot, the line of best fit represents a certain adulthood income you'd expect for a given cost of living. The census tracts that fall below the line of best fit are, therefore, underperforming, according to the metrics relating household income to rent prices, with worse adulthood outcomes than there should be based on living costs. Our proposal will be targeting those census tracts, given that we're looking to optimize benefits and census tracts that are currently less favorable for residents, when comparing costs with outcomes, are most in need of additional support.

More specifically, all of these target areas, pictured as the blue dots, fit the previously stated requirements to qualify as a target area: median household income below $80,000 in 2016 and rent for a two-bedroom apartment above $1,000 in 2016. However, not all of these census tracts (blue dots) are in Harlem; they are simply all census tracts in Manhattan that met the requirements. Working with this

interactive scatter plot and the Opportunity Atlas, we were able to identify which of the blue dots represented a census tract in Harlem, therefore identifying what the target areas for our program would be. Specifically, the target areas we identified are census tracts 36061019600, 36061020600, 36061017200, 36061022200, 36061021200, 36061025900, and 36061019702. These seven census tracts are highlighted in the following map:



Formal Proposal

Our official housing voucher program proposal has been intentionally created to improve the living conditions of 250 families in Harlem, as well as the outcomes for children in said families once

they reach adulthood. Those eligible for this program must be below the USA's official poverty line, meaning that they earn less than $31,200 as a family of four, $36,580 as a family of five, $41,960 as a family of six, $47,340 as a family of seven, $52,720 as a family of eight, and so on.[20] This proposal targets families below the poverty line, given that it works to provide stable housing and a potential path to upward mobility, and therefore, should focus on those most in need of the two. Additionally, in order for families to qualify, they must have a minimum of two children, with the oldest child being under the age of five. The last qualification requirement is that families must currently reside in one of the census tracts previously determined as a target area, which includes census tracts 36061019600, 36061020600, 36061017200, 36061022200, 36061021200, 36061025900, and 36061019702. We're restricting our proposal to these target areas since we're working to maximize the benefits, and focusing on those most in need will help us accomplish this goal. More specifically, those living in the target area census tracts currently have the worst projected outcomes in adulthood for the highest rent prices and would, therefore, benefit most from our moving-to-opportunity program.

Given that the demand for this program will likely exceed the number of vouchers we're proposing to offer, a fully randomized lottery system will be used to determine which families will be selected.

Use of these housing vouchers will be restricted to specific census tracts. These specific census tracts will be the ones previously identified as "opportunity bargains." Our parameters for an opportunity bargain include census tracts with generally high outcomes for children who grew up there in adulthood while still maintaining affordable rent prices. Specifically, we defined an

[20] "Poverty Guidelines." *ASPE*, Office of the Assistant Secretary for Planning and Evaluation, aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines. Accessed 11 Dec. 2024.

opportunity bargain as a census tract with a median household income that was above $100,000 in 2016 and rent for a two-bedroom apartment that was under $2000 in 2016. The opportunity bargain census tracts we specifically identified with these parameters (36061003900, 36061008100, 36061009800, 36061017300, 36061016100, 36061020500, 36061004800, 36061018700, 36061018500, and 36061016900) will be the only census tracts families will be allowed to use their housing vouchers in. By way of this requirement, we ensure that families relocate to neighborhoods with more positive outcomes and, therefore, their children have a higher chance of upward mobility. We also still ensure that the rent these families would pay, even with the housing vouchers, is not excessively expensive.

Beyond the housing vouchers themselves, other services must be put in place to ensure the success of this moving-to-opportunity program. These services will include social workers who individually help families with both their finances and housing. Specifically, social workers involved with this program will identify adequate housing options, coordinate with landlords, and assist with the tedious legal process associated with rental contracts. They'll also assist families with integrating into the community by connecting them to education, after-school programs, childcare services, healthcare, employment opportunities, and local community events. The community integration aspect of the program will help promote the holistic well-being of the families participating, help them feel included, as well as encourage them to engage with and take advantage of different aspects of the neighborhood that are correlated with higher opportunities for kids later in life.

Overall, this program would serve as an approach to break down cyclical poverty and encourage upward mobility by giving families the tools and support needed to thrive in high outcome

neighborhoods. These high outcome neighborhoods can enhance educational and employment opportunities, as well as result in more positive health outcomes, all factors that will have a significant long-term impact. Stakeholders will help champion a solution to the pressing societal issue of cyclical poverty in Harlem, with a moving to opportunity proposal, whose framework has potential to spread all over the country.

Cost-Benefit Analysis

As discussed in our formal proposal we will be providing a housing voucher for 250 families covering the amount of years it takes for the youngest child in a family to turn 18 years old. Our program's housing voucher covers a minimum of 13 years (if the child is 5 years old) and a maximum of 18 years (if the child is an infant). Given the general consensus that spending more than 30% of household income on housing can cause serious financial strain, our program's housing vouchers will cover the difference between 30% of each of our families' household income and the price of rent for units in the opportunity bargain census tracts we identified.[21] For the purpose of our cost-benefit analysis, we'll zoom in on census tracts 36061008100 and 36061009800 as two examples of the opportunity bargains we identified. We selected these two census tracts as an example, given that out of all the opportunity bargain census tracts we identified, they had the lowest and highest median rent, representing opposite ends of the spectrum regarding the cost of living. Not only will our program provide financial support with affording housing through housing vouchers, but it will also provide

[21] Delouya, Samantha. "Nearly Half of Us Renters Spend More than 30% of Their Income on Housing Costs | CNN Business." *CNN*, Cable News Network, 12 Sept. 2024, www.cnn.com/2024/09/12/economy/us-housing-costs-survey/index.html.

social workers to support the 250 families throughout their time in the program. Below is the breakdown of specific costs associated with our program:

Example Census Tract 1: 36061008100 (Chelsea Area)

Firstly, the median household income (for section 8 housing in Harlem) is **$3000 a month**, meaning that 30% of their median household income is **$1,000**.[22] Next, median rent for two-bedroom apartments in census tract 36061008100 costs **$1,700 a month**.[23] Based on this data, our housing vouchers will cover **$700 a month** per family in census tract 36061008100, for 250 families.

Therefore, if the housing vouchers were to be used for 13 years, the minimum amount, the vouchers would cover a total of **$27,300,000**. Should the housing vouchers be used for 18 years, the maximum amount, the vouchers would cover a total of **$37,800,000**.

In addition to the cost of the housing vouchers, the cost of having a social worker meet with each family for one hour a month at a rate of $40 an hour, their average hourly rate, for the duration of our program will be a total **$120,000 a year** for the 250 families.[24] Therefore, the cost for social workers in this program will be between **$1.56 million** (for 13 years) to **$2.16 million** (for 18 years).

As a result, the total cost of our program will be between a minimum of **$28.86 million** (for 13 years) and a maximum of **$39.36 million** (for 18 years).

---

[22] RentHop. "Average Rent in Harlem, New York, NY." Renthop.com, https://www.renthop.com/average-rent-in/harlem-new-york-ny. Accessed 12 Dec. 2024.

[23] "The Opportunity Atlas." Opportunity Insights, 30 Sept. 2023, opportunityinsights.org/paper/the-opportunity-atlas/.

[24] Ziprecruiter.com, https://www.ziprecruiter.com/Salaries/Social-Worker-Salary--in-New-York#:~:text=How%20much%20does%20a%20Social,%2Fweek%20or%20%246%2C953%2Fmonth. Accessed 12 Dec. 2024.

Example Census Tract 2: 36061009800 (Midtown East Area)

For starters, the median household income (for section 8 housing in Harlem) is **$3000 a month**, making 30% of median household income: **$1,000**.[25] Then, median rent for two-bedroom apartments in census tract 36061009800 is **$2,400 a month**.[26] Based on this data, the housing voucher will cover **$1,400 a month** for 250 families.

Therefore, if the housing voucher were to be used for 13 years (the minimum amount) it would cost a total of **$54,600,000**. Should the housing voucher be used for 18 years (the maximum amount) it would cost a total of **$75,600,000.**

In addition to the housing voucher cost, the cost of having a social worker meet with each family for one hour a month at a rate of $40 an hour, their average hourly rate, for the duration of our program will cost a total of **120,000 a year** for the 250 families.[27] Therefore, the cost for social workers in this program will be between **$1.56 million** (for 13 years) to **$2.16 million** (for 18 years).

As a result the total cost of the voucher program will be between a minimum of **$56.16 million** (for 13 years) and a maximum of **$77.76 million** (for 18 years).

Long-Term Monetary Benefits

Despite high costs, there are countless long-term monetary benefits of our proposed moving to opportunity program. These long-term monetary benefits center around increased income for

---

[25] RentHop. "Average Rent in Harlem, New York, NY." Renthop.com, https://www.renthop.com/average-rent-in/harlem-new-york-ny. Accessed 12 Dec. 2024.

[26] "The Opportunity Atlas." Opportunity Insights, 30 Sept. 2023, opportunityinsights.org/paper/the-opportunity-atlas/.

[27] Ziprecruiter.com, https://www.ziprecruiter.com/Salaries/Social-Worker-Salary--in-New-York#:~:text=How%20much%20does%20a%20Social,%2Fweek%20or%20%246%2C953%2Fmonth. Accessed 12 Dec. 2024.

impacted children once they reach adulthood, which would result in an increase in the amount of income tax those individuals would pay, along with decreased unemployment rates, which would lessen government money spent on unemployment insurance. Additionally, decreased incarceration and teen birth rates are also significant factors to consider, given the costs of incarcerating people and teen moms' potential reliance on the government for financial support. Beyond this, there are essentially an infinite number of calculations that could be done to analyze the potential monetary benefits of our proposed program, involving less money spent on homeless services, mental health and addiction services, CPS involvement, food assistance programs, and other financial aid programs, for example. However, for this cost-benefit analysis we'll zoom in on increased income as well as decreased unemployment, incarceration, and teen birth rates.

For the sake of the specific calculations we'll be doing in this paper to determine the long-term monetary benefits of our program, we'll focus on two census tracts that are representative of all of the included census tracts as an example. For the opportunity bargains, we'll focus on census tract 36061008100, and for the target areas, census tract 36061017200.

First, we'll be comparing the individual income of those who grew up in census tract 36061008100, the opportunity bargain example (OBE), with those who grew up in census tract 36061017200, the target area example (TAE) in Harlem. Drawing upon the Opportunity Atlas, in terms of individual income (excluding spouse) at age 35, OBE had a value of *$27,000* while TAE had a value of *$23,000*, with OBE being *$4,000* greater in total. Looking at income tax rates for single filers in New York state, for the 2023 tax year (which was filed in 2024), those with an income between

$13,900-$80,000, the range in which both census tracts fall, were taxed *5.5%* of their income.[28] This means that the average income tax payment per person per year is *$1,485* for OBE and *$1,265* for TAE, with OBE being *$220* greater per year. Given that the average person in New York City works for *42* years, the increase in the amount of income taxes paid over a lifetime would be *$9,240* per person.[29] This means that the amount of income taxes paid when combining all participants of the program would be *$4,620,000* more if families moved to OBE, as opposed to staying in TAE. Furthermore, the value of *$4,620,000* was calculated under the assumption that each family only had 2 kids, meaning that it represents a minimum value when it comes to the increase in income tax payments. After all, out of the 250 families included in the program, many would be bound to have more than just 2 kids, while the exact percentage of families with more than 2 kids is unknown. The information above is also broken down more clearly in the table below:

	OBE Opportunity Bargain Example Census tract 36061008100	**TAE** Target Area Example Census tract 36061017200	**Difference**
Individual income (excluding spouse) at age 35	$27,000	$23,000	+ $4,000
Income tax rates for single filers in NY state for the 2023 tax year (filed in 2024), with an income between $13,900-$80,650, is **5.5%**[30]			

[28] "Personal Income Tax." *Department of Taxation and Finance*, www.tax.ny.gov/data/stats/taxfacts/personal-income-tax.htm. Accessed 11 Dec. 2024.

[29] Ghilarducci, Teresa. "How Many Years Do You Have to Work before You Retire?" *Forbes*, Forbes Magazine, 9 Nov. 2022, www.forbes.com/sites/teresaghilarducci/2021/05/28/how-many-years-do-you-have-to-work-before-you-retire/.

[30] "Personal Income Tax." *Department of Taxation and Finance*, www.tax.ny.gov/data/stats/taxfacts/personal-income-tax.htm. Accessed 10 Dec. 2024.

Average **income tax payment** (per person ***per year***)	$1,485	$1,265	+ $220
The average person in NYC spends **42 years working**[31]			
Average amount of **income taxes paid** (per person ***over a lifetime***)	$62,370	$53,130	+ $9,240
Average amount of **income taxes paid** (combining ***everyone*** in the program)	$31,189,000	$26,565,000	+$4,620,000
This is a **minimum value** (since it ***assumes*** that each family only has **2 kids**)			

Next, we'll look at employment rates in census tract 36061008100 (the opportunity bargain example, OBE) versus census tract 36061017200 (the target area example, TAE). Again, drawing from Opportunity Atlas data, OBE has an employment rate of *77%* and, therefore, an unemployment rate of *23%*. In contrast, TAE has an employment rate of *72%* and, therefore, an unemployment rate of *28%*, which is a *5%* increase from OBE's unemployment rate. Given the unemployment rates of *23%* and *28%*, it's reasonable to assume that everyone in OBE and TAE will be unemployed for *23%* and *28%* of the average *42* years they spend working, respectively.[32] This means that on average, residents of OBE

[31] Ghilarducci, Teresa. "How Many Years Do You Have to Work before You Retire?" *Forbes*, Forbes Magazine, 9 Nov. 2022, www.forbes.com/sites/teresaghilarducci/2021/05/28/how-many-years-do-you-have-to-work-before-you-retire/.

[32] Ghilarducci, Teresa. "How Many Years Do You Have to Work before You Retire?" *Forbes*, Forbes Magazine, 9 Nov. 2022, www.forbes.com/sites/teresaghilarducci/2021/05/28/how-many-years-do-you-have-to-work-before-you-retire/.

spend *9.66* years (*503.7* weeks) unemployed, while residents of TAE spend *11.76* years (*613.2* weeks) unemployed, meaning that those growing up in TAE will be unemployed for *2.1* years (*109.5* weeks) more.

With unemployment comes unemployment insurance, meant to provide temporary financial assistance to eligible individuals, which is paid by the government and costs an average of *$318* per person, per week in New York state.[33] Given that the average amount of time people get paid unemployment insurance is *26* weeks, the average amount spent on unemployment insurance per person for each time they receive it is *$8,268*.[34] With the amount of weeks that people will be unemployed, and given that one can claim unemployment insurance an infinite number of times, so long as they continue to meet the qualification requirements, OBE residents are projected to rely on unemployment insurance *20* times and TAE residents *24* times, over the course of the average *42* years they spend working. This means that the total amount spent on unemployment insurance for someone over the course of their lifetime is *$165,360* in OBE and *$198,432* in TAE, with OBE being *$33,072* less. Lastly, the total cost of unemployment insurance for the 250 families if they move to OBE would be *$82,680,000*, compared to *$99,216,000* if they stay in TAE, marking a *$16,536,000* decrease in unemployment insurance costs if all 250 families moved from TAE to OBE. Again, *$16,536,000* represents a minimum value, given that it was calculated under the assumption that each of the 250 families only had 2 kids. In reality, many of the families would have 3 or more kids, meaning

---

[33] "How Your Weekly Unemployment Insurance Benefit Payment Is Calculated." *Department of Labor*, dol.ny.gov/system/files/documents/2024/01/p832-how-your-weekly-ui-benefits-are-calculated-1-24.pdf. Accessed 11 Dec. 2024.

[34] "Unemployment Insurance Benefits - An Employer's Guide." *Department of Labor*, dol.ny.gov/system/files/documents/2024/01/ia318.2.pdf. Accessed 11 Dec. 2024.

that the unemployment insurance costs that could be saved by moving the families from TAE to OBE would be even greater. The table below also represents the above information:

	OBE Opportunity Bargain Example Census tract 36061008100	**TAE** Target Area Example Census tract 36061017200	**Difference**
Employment rate at age 35	77%	72%	- 5%
Unemployment rate at age 35	23%	28%	- 5%
The average person in NYC spends **42 years working**[35]			
Average **amount of *years* spent unemployed** (per person ***over a lifetime***)	9.66 years	11.76 years	- 2.1 years
There are **2,190 weeks** in 42 years			
Average **amount of *weeks* spent unemployed** (per person ***over a lifetime***)	503.7 weeks	613.2 weeks	- 109.5 weeks
Average **amount of time** people get paid unemployment insurance is **26 weeks**[36]			

[35] Ghilarducci, Teresa. "How Many Years Do You Have to Work before You Retire?" *Forbes*, Forbes Magazine, 9 Nov. 2022, www.forbes.com/sites/teresaghilarducci/2021/05/28/how-many-years-do-you-have-to-work-before-you-retire/.

[36] "Unemployment Insurance Benefits - An Employer's Guide." *Department of Labor*, dol.ny.gov/system/files/documents/2024/01/ia318.2.pdf. Accessed 11 Dec. 2024.

Average **amount spent** on unemployment insurance per person in NY state is **$318** ***per week***[37]			
Average **amount spent** on unemployment insurance per person in NY state (for **each time** they receive unemployment insurance) is **$8,268**			
Average **amount of times** unemployment insurance would be **used** (per person ***over a lifetime***)	20 times	24 times	- 4 times
Total amount spent on **unemployment insurance** (per person ***over a lifetime***)	$165,360	$198,432	- $33,072
Total amount spent on **unemployment insurance** (combining ***everyone*** in the program)	$82,680,000	$99,216,000	- $16,536,000
This is a **minimum value** (since it ***assumes*** that each family only has **2 kids**)			

In terms of incarceration costs in census tract 36061008100 (OBE) versus census tract 36061017200 (TAE), Opportunity Atlas data provided that the incarceration rate is *1.9%* in OBE and *4.7%* in TAE, showing a *2.8%* decrease in incarceration rates from OBE to TAE. Given incarceration

[37] "How Your Weekly Unemployment Insurance Benefit Payment Is Calculated." *Department of Labor*, dol.ny.gov/system/files/documents/2024/01/p832-how-your-weekly-ui-benefits-are-calculated-1-24.pdf. Accessed 11 Dec. 2024.

rates of 1.9% and 4.7% and that New York's average life span is *79* years, it's reasonable to conclude that each person growing up in OBE and TAE will be incarcerated for *1.5* and *3.7* years, respectively.[38] This represents a total of *2.2* fewer years spent in incarceration for those belonging to OBE, as opposed to TAE.

Nowadays, keeping people incarcerated is a major government expense, costing *$556,539* to keep just one person incarcerated for a year in New York City.[39] With this, the total amount spent on incarceration per person over the course of their lifetime is *$834,809* for OBE and *$2,059,194* for TAE, with *$1,224,385* less being spent on incarceration in OBE compared to TAE. Lastly, when thinking about the total amount spent on incarceration for all of the 250 families in our program, OBE comes in at *$417,404,500* while TAE is a shocking *$1,029,597,000*. All in all, this means that if all 250 moved from OBE to TAE, *$612,192,500* worth of incarceration costs would be saved. Besides, *$612,192,500* is only a minimum value for the potential amount that could be saved if all families moved from OBE to TAE, given that *$612,192,500* was calculated in a context that each family only had 2 children, while in actuality many families would have more. Below is a table that also breaks down the information above:

	OBE Opportunity Bargain Example Census tract 36061008100	**TAE** Target Area Example Census tract 36061017200	**Difference**

[38] "New York." *National Center for Health Statistics*, Centers for Disease Control and Prevention, 3 Oct. 2024, www.cdc.gov/nchs/pressroom/states/newyork/ny.htm.

[39] "Comptroller Stringer: Cost of Incarceration per Person in New York City Skyrockets to All-Time High." *New York City Comptroller*, 6 Dec. 2021, comptroller.nyc.gov/newsroom/comptroller-stringer-cost-of-incarceration-per-person-in-new-york-city-skyrockets-to-all-time-high-2/.

Incarceration rate	1.9%	4.7%	- 2.8%
Average **life span** in New York is **79 years**[40]			
Average **amount of *years* spent incarcerated** (per person ***over a lifetime***)	1.5 years	3.7 years	- 2.2 years
Average **cost to incarcerate** someone for ***a year*** in NYC is **$556,539**[41]			
Total amount spent on **incarceration** (per person ***over a lifetime***)	$834,809	$2,059,194	- $1,224,385
Total amount spent on **incarceration** (combining ***everyone*** in the program)	$417,404,500	$1,029,597,000	- $612,192,500
This is a **minimum value** (since it ***assumes*** that each family only has **2 kids**)			

[40] "New York." *National Center for Health Statistics*, Centers for Disease Control and Prevention, 3 Oct. 2024, www.cdc.gov/nchs/pressroom/states/newyork/ny.htm.

[41] "Comptroller Stringer: Cost of Incarceration per Person in New York City Skyrockets to All-Time High." *New York City Comptroller*, 6 Dec. 2021, comptroller.nyc.gov/newsroom/comptroller-stringer-cost-of-incarceration-per-person-in-new-york-city-skyrockets-to-all-time-high-2/.

Regarding teen births, Harlem's teen birth rate is 23 per 1,000 teen girls, equalling *2.3%*.[42] In comparison, two of the opportunity bargain census tracts, 36061008100 and 36061009800, with the lowest and highest rent prices out of the ones we've identified, therefore serving as good examples of opposite sides of the spectrum, both have teen birth rates of zero from 2016 to 2020.[43] Looking at the costs of birth and raising a child for just the first three years of the child's life, the total could range from *$75,000* to *$100,000* or more, depending on various individual circumstances.[44] This stems from the medical costs for childbirth ranging from *$4,500* all the way to *$43,000*.[45] Beyond this, childcare costs an average of *$21,112* per year (*$406* weekly) for infants (under 1.5 years), *$19,240* per year (*$370* weekly) for toddlers (1.5 to 2 years), and *$16,900* per year (*$325* weekly) for children (3 and up).[46] This would add up to approximately *$57,252* spent on just the first 3 years of childcare. Beyond this, there are countless additional expenses such as diapers and wipes (around *$1,500* per year, totaling *$4,500* for 3 years), formula if not breastfeeding (around *$1,500*), food after the first year (around *$1,000* per year, totaling *$2,000* for years 2 and 3), as well as closing and basic equipment (a minimum of *$1,500* for 3 years).[47] Furthermore, assuming no health insurance and minimal healthcare needs, it's reasonable

---

[42] "Central Harlem Neighborhood Profile." *NYU Furman Center*, furmancenter.org/neighborhoods/view/central-harlem. Accessed 9 Dec. 2024.

[43] "Public Use Birth Datasets." *Public Use Birth Datasets - NYC Health*, www.nyc.gov/site/doh/data/data-sets/public-use-birth-datasets.page. Accessed 9 Dec. 2024.

[44] Praneshganesh. "Understanding Childcare Costs in New York (2024): Prices, Assistance, and Grant." *Illumine Childcare Software*, 17 Oct. 2024, https://illumine.app/blog/how-much-childcare-costs-in-new-york/.

[45] Hofferth, Sandra L., and Cheryl D. Hayes. "ESTIMATES OF PUBLIC COSTS FOR TEENAGE CHILDBEARING: A REVIEW OF RECENT STUDIES AND ESTIMATES OF 1985 PUBLIC COSTS." *Risking the Future - NCBI Bookshelf*, 1987, www.ncbi.nlm.nih.gov/books/NBK219230.

[46] "Market Rates." *Day Care Council of New York*, www.dccnyinc.org/families/what-to-look-for-in-a-program-provider/market-rates/. Accessed 11 Dec. 2024.

[47] Cutler, Eric. *Cost of Child Care in New York (Updated: December 2023)*, 22 Jan. 2024, tootris.com/edu/blog/parents/the-cost-of-child-care-in-new-york-a-breakdown-for-2021/.

to assume that at least *$1,000* a year is spent on check-ups and various minor illnesses, totaling *$3,000* for 3 years.[48] Overall, different costs for childbirth, childcare, essential supplies, and healthcare would total approximately *$76,494* at an absolute bare minimum. Actual costs could often be decently higher depending on unexpected expenses that may arise and other individual situations.

Through various social programs accessible to teen moms, the government may end up covering a significant portion of the costs associated with childcare. Some of these social programs include Medicaid (covering delivery as well as prenatal and postnatal care for mothers and their children), Child Care Assistance (providing low-cost or even free early childhood education), Room to Grow (supplying essential supplies, connections to community resources, and parental education), and much more.[49]

When comparing the different aspects of our cost-benefit analysis, the monetary benefits of our proposed program are immense. Namely, if all 250 families moved from TAE to OBE, *$4,620,000* would be gained from income taxes, *$16,536,000* would be saved from money spent on unemployment insurance, and *$612,192,500* would be saved from money spent on incarcerating people. In total, this makes for *633,348,500* additional dollars that could be added to the city budget and redistributed in various ways.

---

[48] Hofferth, Sandra L., and Cheryl D. Hayes. "ESTIMATES OF PUBLIC COSTS FOR TEENAGE CHILDBEARING: A REVIEW OF RECENT STUDIES AND ESTIMATES OF 1985 PUBLIC COSTS." *Risking the Future - NCBI Bookshelf*, 1987, www.ncbi.nlm.nih.gov/books/NBK219230.

[49] "Expectant & Parenting Youth Resources." *NYC Administration for Children's Services* , www.nyc.gov:443/assets/acs/pdf/about/2017/ResourceGuideExpectantParentingYouth.pdf. Accessed 12 Dec. 2024.

	OBE Opportunity Bargain Example Census tract 36061008100	**TAE** Target Area Example Census tract 36061017200	**Difference**
Average amount of **income taxes paid** (combining ***everyone*** in the program)	$31,189,000	$26,565,000	+$4,620,000
Total amount spent on **unemployment insurance** (combining ***everyone*** in the program)	$82,680,000	$99,216,000	- $16,536,000
Total amount spent on **incarceration** (combining ***everyone*** in the program)	$417,404,500	$1,029,597,000	- $612,192,500

Conclusion

Overall, through our proposed program, we hope to uplift struggling families in Harlem and help increase their children's chances of success and achieving upward mobility. As stated in our proposal, we intend to do so by providing housing vouchers to be used in neighborhoods that are generally high opportunity while still maintaining somewhat reasonable rent prices. Many studies support that a housing voucher program such as ours will greatly improve the lives and financial outcomes of youth born in neighborhoods with generally poor outcomes. Providing better living

conditions for these young children and their families in neighborhoods with improved education and employment opportunities, clean and healthy parks, and safer streets, for example, will build better, happier, and healthier lives for these individual families and the city as a whole.

Bibliography

"Affordable Housing Plan for 40 Riverside Boulevard." *Holland & Knight*, www.nyc.gov/assets/manhattancb7/downloads/pdf/projects/riverside-south/rsc-affordable-housing-plan.pdf. Accessed 11 Dec. 2024.

"Answers about Depression-Era Harlem." *The New York Times*, The New York Times, 18 Feb. 2009, archive.nytimes.com/cityroom.blogs.nytimes.com/2009/02/18/answers-about-depression-era-harlem/#:~:text=By%20the%201930s%2C%20Harlem%20had,other%20area%20of%20the%20city.

"Average Rent in Hudson Yards, New York, NY." *RentHop*, www.renthop.com/average-rent-in/hudson-yards-new-york-ny. Accessed 11 Dec. 2024.

Bleiwas, Kenneth B., and Thomas P. DiNapoli. "An Economic Snapshot of the East Harlem Neighborhood." *Office of the New York State Comptroller*, www.osc.ny.gov/files/reports/osdc/pdf/report-9-2018.pdf. Accessed 11 Dec. 2024.

Burrell, Kristopher B. "Harlem, New York." *CUNY Academic Works*, City University of New York (CUNY), 2007, academicworks.cuny.edu/cgi/viewcontent.cgi?article=1021&context=ho_pubs.

"Central Harlem Neighborhood Profile." *NYU Furman Center*, furmancenter.org/neighborhoods/view/central-harlem#:~:text=Median%20household%20income%20in%202022,2022%20compared%20to%2018.3%25%20citywide. Accessed 11 Dec. 2024.

Chetty, Raj, et al. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Project." *American Economic Review*, scholar.harvard.edu/hendren/publications/effects-exposure-better-neighborhoods-children-new-evidence-moving-opportunity. Accessed 11 Dec. 2024.

Chetty, Raj. "The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility - Executive Summary." *Opportunity Insights*, Jan. 2020, opportunityinsights.org/wp-content/uploads/2021/12/atlas_summary.pdf.

"Comptroller Stringer: Cost of Incarceration per Person in New York City Skyrockets to All-Time High." *New York City Comptroller*, 6 Dec. 2021, comptroller.nyc.gov/newsroom/comptroller-stringer-cost-of-incarceration-per-person-in-new-york-city-skyrockets-to-all-time-high-2/.

Cutler, Eric. *Cost of Child Care in New York (Updated: December 2023)*, 22 Jan. 2024, tootris.com/edu/blog/parents/the-cost-of-child-care-in-new-york-a-breakdown-for-2021/.

Delouya, Samantha. "Nearly Half of Us Renters Spend More than 30% of Their Income on Housing Costs | CNN Business." *CNN*, Cable News Network, 12 Sept. 2024, www.cnn.com/2024/09/12/economy/us-housing-costs-survey/index.html.

"Expectant & Parenting Youth Resources." *NYC Administration for Children's Services* , www.nyc.gov:443/assets/acs/pdf/about/2017/ResourceGuideExpectantParentingYouth.pdf. Accessed 12 Dec. 2024.

Ghilarducci, Teresa. "How Many Years Do You Have to Work before You Retire?" *Forbes*, Forbes Magazine, 9 Nov. 2022, www.forbes.com/sites/teresaghilarducci/2021/05/28/how-many-years-do-you-have-to-work-before-you-retire/.

Gorrild, Marie, et al. "Gentrification and Displacement in Harlem: How the Harlem Community Lost Its Voice En Route to Progress." *Humanity in Action*, humanityinaction.org/knowledge_detail/gentrification-and-displacement-in-harlem-how-the-harlem-community-lost-its-voice-en-route-to-progress/. Accessed 10 Dec. 2024.

"Harlem Demographics and Statistics." *Niche*, www.niche.com/places-to-live/n/harlem-new-york-city-ny/residents/. Accessed 9 Dec. 2024.

"Harlem." *Encyclopædia Britannica*, Encyclopædia Britannica, inc., 9 Dec. 2024, www.britannica.com/place/Harlem-New-York.

"Harlem Renaissance." *History.Com*, A&E Television Networks, 14 Feb. 2024, www.history.com/topics/1920s/harlem-renaissance.

Hofferth, Sandra L., and Cheryl D. Hayes. "ESTIMATES OF PUBLIC COSTS FOR TEENAGE CHILDBEARING: A REVIEW OF RECENT STUDIES AND ESTIMATES OF 1985 PUBLIC COSTS." *Risking the Future - NCBI Bookshelf*, 1987, www.ncbi.nlm.nih.gov/books/NBK219230.

Horning, Amber, et al. "Harlem Pimps' Accounts of Their Economic Pathways and Feelings of Insiderness and Outsiderness." *Journal of Qualitative Criminal Justice & Criminology*, PubPub, 1 Apr. 2019, www.qualitativecriminology.com/pub/v7i3p4/release/1.

"How Your Weekly Unemployment Insurance Benefit Payment Is Calculated." *Department of Labor*, dol.ny.gov/system/files/documents/2024/01/p832-how-your-weekly-ui-benefits-are-calculated-1-24.pdf. Accessed 11 Dec. 2024.

Jacobson, Michael, and Victoria Lawson. "How Long People Stay Is the Problem." *Vital City: New York City Policy, Culture and Data*, 12 Mar. 2024, www.vitalcitynyc.org/articles/how-long-people-stay-is-the-problem.

Jones, David R. "Harlem Activists Aim to Tap the Brakes on Columbia Expansion." *Community Service Society of New York*, www.cssny.org/news/entry/harlem-activists-aim-to-tap-the-brakes-on-columbia-expansion. Accessed 10 Dec. 2024.

"Market Rates." *Day Care Council of New York*, www.dccnyinc.org/families/what-to-look-for-in-a-program-provider/market-rates/. Accessed 11 Dec. 2024.

"Moving to Opportunity." *Office of Policy Development and Research (PD&R)*, www.huduser.gov/portal/mto.html. Accessed 11 Dec. 2024.

"New York." *National Center for Health Statistics*, Centers for Disease Control and Prevention, 3 Oct. 2024, www.cdc.gov/nchs/pressroom/states/newyork/ny.htm.

"NYC Then/Now: Great Depression & Great Recession." *NYC ThenNow Great Depression Great Recession*, eportfolios.macaulay.cuny.edu/brooks12/then-125th-street/. Accessed 10 Dec. 2024.

"Personal Income Tax." *Department of Taxation and Finance*, www.tax.ny.gov/data/stats/taxfacts/personal-income-tax.htm. Accessed 10 Dec. 2024.

"Poverty Guidelines." *ASPE*, Office of the Assistant Secretary for Planning and Evaluation, aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines. Accessed 11 Dec. 2024.

Praneshganesh. "Understanding Childcare Costs in New York (2024): Prices, Assistance, and Grant." *Illumine Childcare Software*, 17 Oct. 2024, https://illumine.app/blog/how-much-childcare-costs-in-new-york/.

"Public Use Birth Datasets." *Public Use Birth Datasets - NYC Health*, www.nyc.gov/site/doh/data/data-sets/public-use-birth-datasets.page. Accessed 9 Dec. 2024.

RentHop. "Average Rent in Harlem, New York, NY." Renthop.com, https://www.renthop.com/average-rent-in/harlem-new-york-ny.Accessed 12 Dec. 2024.

"Report: High-Opportunity Neighborhoods in New York City are Losing Affordable Housing in NYC." *NYU Furman Center*, 14 Jan. 2015, furmancenter.org/news/press-release/report-high-opportunity-neighborhoods-in-new-york-city-are-losing-affordabl. Accessed 11 Dec. 2024.

"The Gentrification of Harlem." *Harlem 350: Harlem in the Past and Present*, harlem350.commons.gc.cuny.edu/gentrification/. Accessed 10 Dec. 2024.

"The Opportunity Atlas." *Opportunity Insights*, 30 Sept. 2023, opportunityinsights.org/paper/the-opportunity-atlas/.

"Unemployment Insurance Benefits - An Employer's Guide." *Department of Labor*, dol.ny.gov/system/files/documents/2024/01/ia318.2.pdf. Accessed 11 Dec. 2024.

"Where People in Prison Come from: The Geography of Mass Incarceration in New York." *Prison Policy Initiative*, June 2022, www.prisonpolicy.org/origin/ny/2020/report.html.

Ziprecruiter.com, https://www.ziprecruiter.com/Salaries/Social-Worker-Salary--in-New-York#:~:text=How%20much%20does%20a%20Social,%2Fweek%20or%20%246%2C953%2Fmonth. Accessed 12 Dec. 2024.

"40 Riverside." *Breaking Ground*, breakingground.org/our-housing/40-riverside. Accessed 11 Dec. 2024.