Climate Justice Plan

Community Input: Survey Summary & Interview Data

In the summer of 2018, ten frontline community members of Providence participated in an Energy Democracy Community Leaders program hosted by the Racial and Environmental Justice Committee (REJC) with support from consultants to better understand how the energy system currently works, and what a more equitable, just, and carbon-free system could look like. REJC members and Community Leaders then conducted 40 interviews with community members of color to understand how they experience our current fossil fuel-based system in Providence. The City of Providence also conducted a digital citywide survey that included similar questions, along with demographic information. The City received 150 survey responses.

Interviewees and survey participants were asked four simple questions:

- How do you keep warm in the winter? What do you like about that and what would you change?
- How do you keep cool in the summer? What do you like about that and what would you change?
- How do you get around the city? What is good about that and what would you change?
- What in your community keeps you and/or your family healthy? What do you think makes you or your family sick?

Survey results and interview responses from 30 of the community-based interview were analyzed together and a summary of findings are provided below. While the results are not statistically significant given sample size and the population of Providence, they did shed light on certain trends related to energy use in the City of Providence.

Demographics

The three neighborhoods with the highest number of responses were the West End (27), Federal Hill (14), and Elmwood (11). The neighborhoods of South Elmwood, Valley, Olneyville, Manton, and Charles each accounted for just one or two responses. Full breakdowns of respondents by Zip Code and self-identified neighborhood are available in Tables D-1 and D-2, respectively.

The five most common racial or ethnic identities reported by respondents were:

Identity	Number of Respondents	Percentage of respondents
white	99	64.9%
Caucasian	20	13.1%
black	12	7.8%
Hispanic	7	4.6%
Latina	4	2.6%

44 unique identities were self-reported by respondents. A full breakdown can be found in Table D-3. Several respondents indicated multiple identities.

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Respondent ages ranged from below 18 to over 76. The largest subset reported is the 26-35 age group, of which there were 57 members. The online forum appears to have reached a more varied sample in terms of age, but the in-person interviews account for 100% of respondents under the age of 18. A full breakdown is available in Table D-4.

Housing

Overall, 57.7% of respondents reported that their household owned their home. A breakdown of ownership and rental counts and rates per neighborhood is available in Table H-1.

Table H-2 reports heating source by neighborhood. The three most common sources were natural gas, electricity, and heating oil. The sample size is too small to identify neighborhood specific trends relating to specific sources.

Tables H-3 and H-4 report methods and technologies used in respondents' homes to, respectively, keep warm in winter or cool in summer. Table H-3 finds that warm blankets and gas boilers are the most common tools for climate control in the winter, with other options used sparsely throughout the city. Table H-4 similarly finds that window-mounted air conditioning units, open windows, and fans are very common throughout the City, whereas other techniques are more sparsely used.

Respondents were asked to list their ideal winter heating solution (see Table H-5). **Of all concepts and technologies described, the most common was some expression of a desire to generate electricity through renewables**. **Many respondents, especially in the online form, would like to see their heating sources come from renewables, but questioned whether solar, wind, and geothermal infrastructure would be practical, possible, and affordable for heating.**

Improved insulation of homes was the second most popular improvement mentioned. Specific measures mentioned included window wrapping, caulking, and door draft stoppers. Other heating-related improvement measures included desires for wood burning stoves or fireplaces. 11 respondents indicated a desire to move away from natural gas, and nine reported they were happy with their home's current heating solution. Responses also indicated interest in passive heating, heat pump/mini-split installation, and radiant heating, amongst others. A summary of these concepts, ranked in order of respondent references, is available in Table H-5.

Similarly, Table H-6 reports respondents' desired changes to their summer cooling schemes. The most popular request was Central AC (33), but 20 respondents reported they would change nothing.

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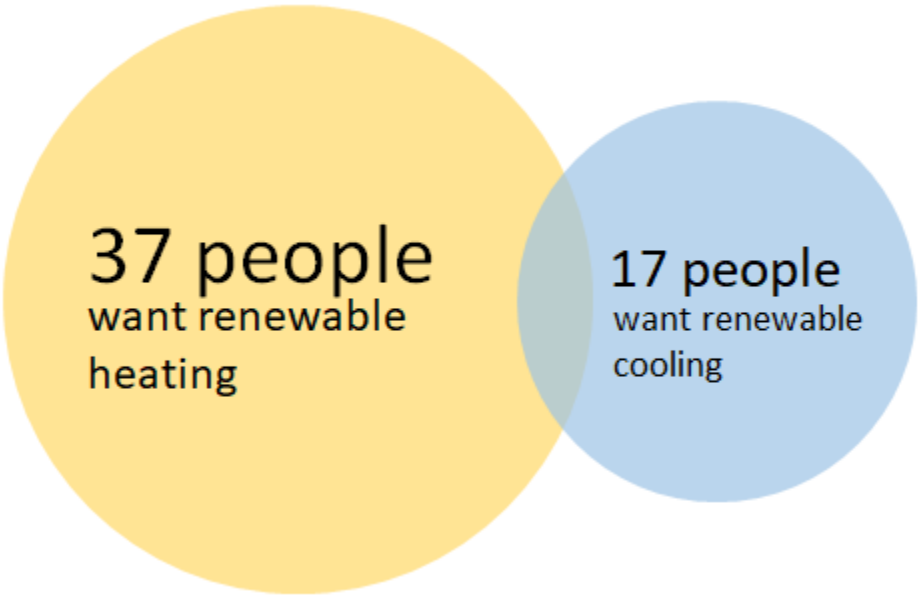


A 13-respondent subset indicated they would like to use less air conditioning. Other improvements indicated include the addition of trees and shade, use of a pool (some indicated a desire for longer public pool hours), installation of mini splits, and better access to potable water.

Transportation

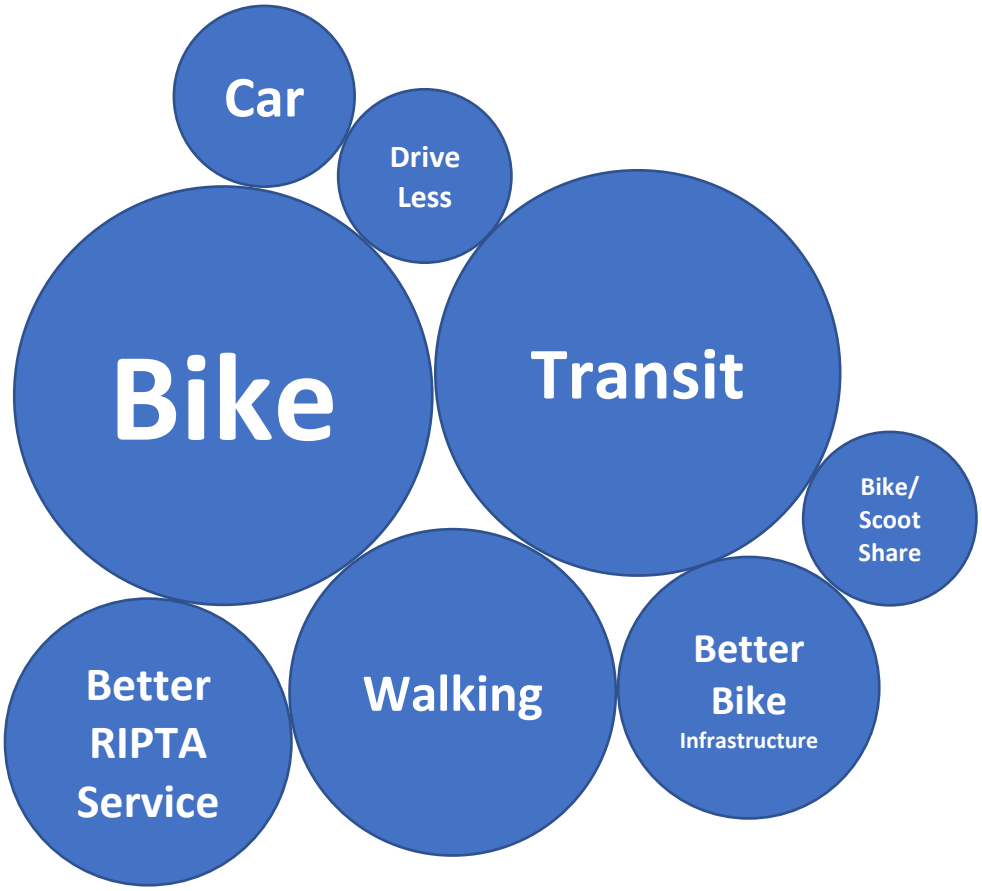
The survey asked respondents to indicate how often (always, often, sometimes, and never) they used various modes of transportation (walking, driving, RIPTA bus, personal bike, JUMP bike share, Uber/Lyft/taxi, and carpooling).

Table T-1 summarizes all responses. City-wide, driving is the most relied-upon mode of transportation, with bike share and ride share amongst the least. Tables T-2 through T-8 summarizes mode usage by neighborhood.

The survey asked respondents to describe their ideal way to get around, and what changes they'd like to see to enable that. Table T-9 reports the frequencies of these modes and improvements in respondents' replies.

The most desired modes reported were bicycle, transit, and walking. 11 respondents specifically indicated **bike shares or scooter shares. Combined, these modes were mentioned 163 times**. Comparatively, only 12 respondents indicated that they would like to own a car

(eight of which indicated that they would specifically like an electric or hybrid vehicle). 11 respondents specifically wanted to reduce the amount of driving they did.



Five respondents mentioned scooters, four mentioned carpooling, and a few respondents indicated interest in car shares or other alternative forms of transportation. **32 respondents combined asked for bicycle and pedestrian infrastructure improvements.** Seven indicated desire to drive less but believed that **the need to carry groceries or pick up children from school necessitated car ownership**. Others indicated **a need for shower facilities at work (for active transportation), and a desire to designate car-free zones in certain parts of the City.**

38 individuals specifically indicated that poor service, in terms of reliability, frequency, or coverage, was a barrier to using public transportation. Of those 38, 19 respondents never use public transportation, 13 sometimes use public transportation, and 6 use public transportation often. Two individuals reported that RIPTA's lack of crosstown routes that avoid downtown Providence and Kennedy Plaza, was a hindrance to their transit use. Seven respondents specifically wanted a form of rail-based transit to be implemented in Providence and the region, a subset of whom acknowledged a bias against busses. Four responses advocated for better transit infrastructure (two specifically for bus-only lanes), and four responses indicated that transit needed to be more affordable. Seven responses reported that

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bad past experiences with fellow riders on RIPTA's busses has prevented them from riding again. In some cases, this manifests as discrimination, while in others it manifests as a fear of or discomfort around others.

Community Health

Table M-1 summarizes reported respiratory disease by neighborhood. Approximately a third of respondents indicated that they or someone in their household was afflicted.

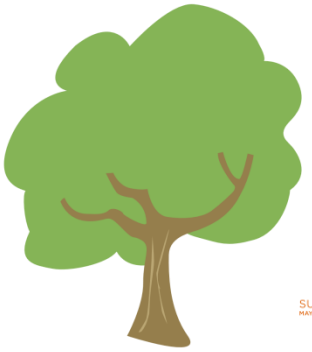
one in three

respondents indicated they or someone they know is afflicted with respiratory disease.

The sample size is too small to determine patterns in individual neighborhoods, though percentages are reported on that level.

Table M-2 summarizes respondent-reported sources and type of pollution that impacts them. Categorically, **vehicle exhaust, especially from respondents who said they lived near highways, was the most cited source**. Following this **were concerns over water quality, especially lead contamination.** The most concerning point sources of pollution according to respondents were the **Port of Providence and power generation plants, specifically Manchester Power Station**. A full list is reported.

Table M-3 summarizes desired changes relating to pollution and health. The introduction of more vegetation, especially more street trees, was the most popular suggestion. Additional public realm changes, including the removal of highway/roadway and reduction of car use, and improvements to pedestrian and bicycle infrastructure were popular as well. **Attention was drawn to a lack of access to healthy and affordable food, and numerous policy/enforcement changes were suggested especially concerning large institutions, specifically the Port of Providence.**



Respondents want more vegetation, specifically

street trees.

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Table D-1: Respondents by Zip Code

Zip Code	Respondents
02097	1
02809	1
02860	1
02903	21
02904	1
02905	8
02906	40
02907	27
02908	18
02909	31
02910	1
02912	1
02919	2
Unreported (Interviews)	29

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Table D-2: Respondents by Neighborhood

Neighborhood	Respondents		
	Online	Interview	Total
Blackstone	8	0	8
Charles	1	0	1
College Hill	9	0	9
Downtown	5	0	5
Elmhurst	10	1	11
Elmwood	14	0	14
Federal Hill	17	3	20
Fox Point	9	0	9
Hope	6	0	6
Lower South Providence	1	2	3
Manton	1	1	2
Mount Hope	8	0	8
Mount Pleasant	5	1	6
Olneyville	1	1	2
Reservoir	4	1	5
Smith Hill	1	1	2
South Elmwood	2	0	2
Upper South Providence	7	3	10
Valley	2	0	2
Wanskuck	1	0	1
Washington Park	6	4	10
Wayland	7	0	7
West End	23	4	27
Not a Resident	5	0	5
Unreported	0	7	7
Total	**153**	**29**	**182**

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Table D-3: Respondent Identities

Racial/Ethnic Identity	Respondents		
	Online	Interview	Total
African-American	1	4	5
Afro Latina	0	1	1
Afro Latino	0	1	1
American	1	0	1
American Indian	0	1	1
Arab	2	0	2
Asian	2	0	2
Asian Indian	1	0	1
Biracial	1	0	1
Black	6	6	12
Cape Verdean	0	2	2
Caribbean	0	1	1
Caucasian	20	0	20
Chamoru	1	0	1
Colombian	1	0	1
Cuban	0	1	1
Dominican	1	2	3
Dutch	1	0	1
Eastern European	1	0	1
European	1	0	1
Filipina Ashkenazi	1	0	1
Greek American	1	0	1
Guatemalan	0	1	1
Haitian American	0	1	1
Hispanic	5	2	7
Human/Ashkenazi	1	0	1
Indigenous	1	0	1
Irish	0	1	1
Jewish	6	0	6
Korean American	1	0	1
Latina	4	3	7
Latino	1	0	1
Latinx	2	0	2
Martian	1	0	1
Mixed	2	0	2
Native	1	1	2

Northern European	1	0	1
Other	3	0	3
Privileged	1	0	1
Providence	6	0	6
Puerto Rican	2	1	3
Scottish	1	0	1
Spanish	0	1	1
White	98	1	99

Table D-4: Respondent Age

Age Group	Respondents		
	Online	Interview	Total
Under 18	0	10	10
18-25	14	3	17
26-35	56	1	57
36-45	27	1	28
46-55	15	10	25
56-65	15	2	17
66-75	21	0	21
76+	4	0	4
Unreported	1	2	3

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Table H-1: Rentals/Ownership by Neighborhood

Neighborhood	Own	Rent	Lives with Family	Unreported	Ownership Rate	Rental Rate
Blackstone	7	1	0	0	87.5%	12.5%
Charles	1	0	0	0	100.0%	0.0%
College Hill	7	2	0	0	77.8%	22.2%
Downtown	3	2	0	0	60.0%	40.0%
Elmhurst	10	1	0	0	90.9%	9.1%
Elmwood	11	3	0	0	78.6%	21.4%
Federal Hill	8	11	0	1	40.0%	55.0%
Fox Point	4	5	0	0	44.4%	55.6%
Hope	6	0	0	0	100.0%	0.0%
Lower S. Providence	0	3	0	0	0.0%	100.0%
Manton	2	0	0	0	100.0%	0.0%
Mount Hope	2	6	0	0	25.0%	75.0%
Mount Pleasant	2	4	0	0	33.3%	66.7%
Olneyville	1	1	0	0	50.0%	50.0%
Reservoir	3	1	1	0	60.0%	20.0%
Smith Hill	0	2	0	0	0.0%	100.0%
South Elmwood	2	0	0	0	100.0%	0.0%
Upper S. Providence	7	3	0	0	70.0%	30.0%
Valley	0	2	0	0	0.0%	100.0%
Wanskuck	0	1	0	0	0.0%	100.0%
Washington Park	6	4	0	0	60.0%	40.0%
Wayland	6	1	0	0	85.7%	14.3%
West End	14	13	0	0	51.9%	48.1%
Not a Resident	2	1	2	0	40.0%	20.0%
Unreported	1	4	0	2	14.3%	57.1%
Total	**105**	**71**	**3**	**3**	**57.7%**	**39.0%**

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Table H-2: Heating Sources by Neighborhood

Neighborhood	Bioheat 20%	Electricity	Heat pump (air source)	Heating oil	Wood	Wood pellets	Natural gas	Unreported
Blackstone	0	0	0	1	0	0	7	0
Charles	0	0	0	0	0	0	1	0
College Hill	0	1	0	1	1	0	7	0
Downtown	0	2	1	0	0	0	3	0
Elmhurst	0	1	0	4	1	0	7	0
Elmwood	0	2	0	1	1	0	12	0
Federal Hill	0	2	1	2	0	0	16	1
Fox Point	0	1	0	0	0	0	8	0
Hope	0	0	0	1	0	0	5	0
Lower S. Providence	0	0	0	0	0	0	3	0
Manton	0	0	0	1	0	0	1	0
Mount Hope	0	2	0	1	0	0	5	0
Mount Pleasant	0	3	0	0	0	0	3	0
Olneyille	0	0	0	0	0	0	2	0
Reservoir	0	1	0	1	0	0	4	0
Smith Hill	0	0	0	0	0	0	2	0
South Elmwood	0	0	0	0	0	0	2	0
Upper S. Providence	0	1	0	0	1	0	8	0
Valley	0	1	0	0	0	0	1	0
Wanskuck	0	0	0	0	0	0	1	0
Washington Park	0	0	0	2	0	0	6	0
Wayland	0	0	0	1	0	0	6	0
West End	0	4	0	4	3	1	19	0
Not a Resident	1	1	0	1	1	0	0	0
Unreported	0	2	0	1	0	0	2	2
Total	**1**	**24**	**2**	**22**	**8**	**1**	**131**	**3**

Table H-3: Winter Heating Method by Neighborhood (1/3)

Neighborhood	Warm Clothing/ Blankets	Gas Baseboard	Gas fireplace insert	Gas furnace	Radiant heating	Electric Baseboard	Electric Heat Pumps	Electric Space Heaters
Blackstone	7	0	0	0	0	1	0	0
Charles	3	0	0	0	0	0	0	0
College Hill	6	0	0	0	0	2	0	3
Downtown	3	0	0	0	0	0	3	0
Elmhurst	9	0	0	1	0	0	0	5
Elmwood	12	0	0	0	0	1	0	6
Federal Hill	12	1	2	0	0	3	1	5
Fox Point	7	0	0	0	0	0	0	2
Hope	8	0	0	0	0	0	0	2
Lower S. Providence	1	1	0	1	0	0	0	1
Manton	4	1	0	0	0	0	0	2
Mount Hope	8	0	0	0	0	2	1	1
Mount Pleasant	3	0	0	0	0	3	0	2
Olneyville	1	0	0	1	0	0	0	0
Reservoir	2	0	0	1	0	0	0	2
Smith Hill	2	0	0	0	0	0	0	1
South Elmwood	5	0	0	0	0	0	0	0
Upper S. Providence	5	1	0	0	1	3	0	3
Valley	3	0	0	0	0	0	1	0
Wanskuck	2	0	0	0	0	1	0	0
Washington Park	6	1	0	1	0	1	0	5
Wayland	8	0	0	0	0	0	0	1
West End	10	0	0	1	1	5	0	9
Not a Resident	2	0	0	0	0	3	0	0
Unreported	5	1	1	1	0	1	0	1
Total	**134**	**6**	**3**	**7**	**2**	**26**	**6**	**51**

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Table H-3 (2/3)

Neighborhood	Burning wood/ Other organics	Gas Central Heat	Hot Water Baseboard	Window Film	Gas Boiler	Warm Beverages	Draft Blockers	Storm Window
Blackstone	0	0	0	0	7	0	0	0
Charles	0	0	0	0	1	0	0	0
College Hill	2	0	0	0	5	0	0	0
Downtown	0	0	0	0	3	0	0	0
Elmhurst	1	0	0	0	6	0	0	0
Elmwood	1	0	0	1	12	0	0	1
Federal Hill	0	1	0	1	9	0	1	0
Fox Point	0	0	0	0	9	0	0	0
Hope	0	0	0	0	5	0	0	0
Lower S. Providence	0	0	0	0	1	0	0	0
Manton	0	0	0	0	0	0	0	0
Mount Hope	0	0	0	1	2	0	0	0
Mount Pleasant	0	0	0	0	3	0	0	0
Olneyville	0	0	0	1	0	0	0	0
Reservoir	0	0	0	0	3	0	0	0
Smith Hill	0	0	0	0	0	0	0	0
South Elmwood	0	0	0	0	2	0	0	0
Upper S. Providence	0	1	1	0	3	0	1	0
Valley	0	0	0	0	1	0	0	0
Wanskuck	0	0	0	0	0	0	0	0
Washington Park	0	0	0	1	4	0	0	0
Wayland	1	0	0	0	4	0	0	0
West End	3	0	0	0	13	1	0	0
Not a Resident	1	0	0	0	1	0	0	0
Unreported	0	0	0	4	1	0	0	0
Total	**9**	**2**	**1**	**9**	**95**	**1**	**2**	**1**

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Table H-3 (3/3)

Neighborhood	Caulking on Windows	Passive Solar	Gas on Gas Room heaters	HVAC	Oil Heat	Wood Pellets	Water Heater
Blackstone	0	0	0	0	1	0	0
Charles	0	0	0	0	0	0	0
College Hill	0	0	0	0	1	0	0
Downtown	0	0	0	0	0	0	0
Elmhurst	0	0	0	0	4	0	0
Elmwood	1	1	0	0	1	0	0
Federal Hill	0	0	1	1	2	0	0
Fox Point	0	0	0	0	0	0	0
Hope	0	0	0	0	1	0	0
Lower S. Providence	0	0	0	0	0	0	0
Manton	0	0	0	0	1	0	0
Mount Hope	0	0	0	0	1	0	0
Mount Pleasant	0	0	0	0	0	0	0
Olneyville	0	0	0	0	0	0	0
Reservoir	0	0	0	0	1	0	0
Smith Hill	0	0	0	0	0	0	0
South Elmwood	0	0	0	0	0	0	0
Upper S. Providence	0	0	0	0	0	0	0
Valley	0	0	0	0	0	0	0
Wanskuck	0	0	0	0	0	0	0
Washington Park	0	0	0	0	3	0	0
Wayland	0	0	0	0	1	0	0
West End	0	0	0	0	4	1	1
Not a Resident	0	0	0	0	2	0	0
Unreported	0	0	0	0	2	0	0
Total	**1**	**1**	**1**	**1**	**25**	**1**	**1**

Table H-4: Summer Cooling Method by Neighborhood

Neighborhood	Beach	Sprinkler	Mall	City buildings	Priv. Pool	Pub. Pool	Window AC Unit	Heat pump	Open Windows	Central AC	Fans
Blackstone	1	0	0	0	1	0	4	0	6	3	6
Charles	1	0	0	0	0	0	1	0	0	0	1
College Hill	0	0	1	0	0	0	7	0	6	1	8
Downtown	0	0	0	0	0	0	0	1	2	5	0
Elmhurst	2	0	1	0	1	2	7	1	7	2	8
Elmwood	1	0	0	1	1		5	0	11	0	12
Federal Hill	1	1	3	6	1	2	9	1	12	5	13
Fox Point	0	0	0	0	0	0	5	0	6	3	6
Hope	0	0	0	0	0	0	3	2	4	0	4
Lower S. Providence	0	0	1	1	0	0	2	0	0	1	1
Manton	1	0	0	0	0	1	0	0	2	1	2
Mount Hope	2	0	3	3	0	2	5	0	7	1	7
Mount Pleasant	1	0	0	1	2	0	5	0	2	1	4
Olneyville	0	0	0	0	0	0	1	0	1	1	1
Reservoir	1	0	1	0	0	1	5	0	3	0	3
Smith Hill	1	0	1	0	0	1	2	0	0	0	0
South Elmwood	0	0	0	0	0	0	1	0	2	0	2
Upper S. Providence	1	0	0	1	0	0	5	0	5	0	4
Valley	0	0	0	0	0	0	0	0	2	1	2
Wanskuck	0	0	0	0	0	0	1	0	0	0	1
Washington Park	3	0	1	0	0	2	8	0	8	1	6
Wayland	0	1		0	0	1	4	0	5	1	4
West End	3	1	2	2	2	6	20	0	17	3	22
Not a Resident	0	0	1	1	0	1	5	0	2	1	2
Unreported	3	0	2	0	3	2	5	0	1	2	6
Total	**22**	**3**	**17**	**16**	**11**	**21**	**110**	**5**	**111**	**33**	**125**

Table H-5: Desired Winter Heating Changes

Concept/Technology	Mentions
Renewable electrical generation	37
Better insulation	34
Wood Stove/Fireplace	16
Decarbonizing	13
Natural Gas	11
No change	9
Passive heating	9
Heat Pump	8
More clothing	8
Radiant Heat	8
Electric	7
Central Heating	5
Electric baseboard	4
Not Sure	2
Space heater	2
Electric blanket	1
Forced air	1
Masonry heater	1
Minisplit	1
Thermostat Control	1

Table H-6: Desired Summer Cooling Changes

Concept/Technology	Mentions
Central AC	33
No Change	20
Open Windows	17
Renewables	17
Fans	15
Trees/Shade	14
AC	13
Less AC	13
Pool	11
Beach	9
Heat Pump	6
Greater building efficiency	5
Mini splits	5
Covered windows	4
Decarbonizing	4
Electric	3
Cheaper electricity	2
Longer Pool Hours	2
Passive cooling	2
Splash parks	2
Access to clean water	1
Better insulation	1
Move north	1
Public Buildings	1
Reverse climate change	1
Time Outside	1
Water retention/permeability	1
Window Shades	1

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Table T-1: Weekly Mode Share

Mode	City-Wide Respondent Use				
	Always	Often	Sometimes	Never	Unreported
Walking	26	55	76	22	3
Driving	51	63	39	26	3
Bus	2	18	65	94	3
Personal Bike	17	24	56	82	3
Bike Share	2	6	21	150	3
Ride Share/Taxi	0	12	82	85	3
Carpooling	3	14	75	86	3

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Table T-2: Weekly Mode Share (Walking) by Neighborhood

Neighborhood	Always	Often	Sometimes	Never	Unreported
Blackstone	2	3	3	0	0
Charles	0	0	1	0	0
College Hill	2	2	5	0	0
Downtown	2	3	0	0	0
Elmhurst	0	5	6	0	0
Elmwood	0	2	9	3	0
Federal Hill	6	6	6	1	1
Fox Point	3	5	1	0	0
Hope	2	2	2	0	0
Lower South Providence	0	1	1	1	0
Manton	0	0	1	1	0
Mount Hope	3	3	2	1	0
Mount Pleasant	0	0	3	2	0
Olneyville	0	0	1	1	0
Reservoir	0	3	2	0	0
Smith Hill	1	0	0	1	0
South Elmwood	0	0	2	0	0
Upper South Providence	0	3	5	2	0
Valley	0	1	1	0	0
Wanskuck	0	0	1	0	0
Washington Park	1	2	4	2	1
Wayland	0	3	4	0	0
West End	3	9	11	3	1
Not a Resident	1	2	2	0	0
Unreported	0	0	3	4	0
Total	**26**	**55**	**76**	**22**	**3**

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Table T-3: Weekly Mode Share (Driving) by Neighborhood

Neighborhood	Always	Often	Sometimes	Never	Unreported
Blackstone	2	3	2	1	0
Charles	0	1	0	0	0
College Hill	2	4	3	0	0
Downtown	0	1	4	0	0
Elmhurst	5	4	0	1	0
Elmwood	5	7	1	2	0
Federal Hill	4	3	7	5	1
Fox Point	2	2	4	1	0
Hope	3	2	1	0	0
Lower South Providence	2	1	0	0	0
Manton	1	0	1	0	0
Mount Hope	1	1	4	2	0
Mount Pleasant	5	0	0	1	0
Olneyville	1	0	1	0	0
Reservoir	1	3	0	1	0
Smith Hill	0	0	1	1	0
South Elmwood	0	2	0	0	0
Upper South Providence	2	6	1	1	0
Valley	1	1	0	0	0
Wanskuck	0	0	0	1	0
Washington Park	4	2	0	3	1
Wayland	0	7	0	0	0
West End	6	9	7	4	1
Not a Resident	2	1	2	0	0
Unreported	2	3	0	2	0
Total	**51**	**63**	**39**	**26**	**3**

Table T-4: Weekly Mode Share (Transit) by Neighborhood

Neighborhood	Always	Often	Sometimes	Never	Unreported
Blackstone	0	0	4	4	0
Charles	0	0	0	1	0
College Hill	0	0	3	6	0
Downtown	0	0	3	2	0
Elmhurst	0	2	5	4	0
Elmwood	0	0	8	6	0
Federal Hill	0	1	12	6	1
Fox Point	0	1	4	4	0
Hope	0	0	4	2	0
Lower South Providence	0	1	0	2	0
Manton	0	0	1	1	0
Mount Hope	1	1	3	3	0
Mount Pleasant	0	1	0	5	0
Olneyville	0	0	0	2	0
Reservoir	0	0	1	4	0
Smith Hill	0	1	0	1	0
South Elmwood	0	0	0	2	0
Upper South Providence	0	0	2	8	0
Valley	0	0	1	1	0
Wanskuck	1	0	0	0	0
Washington Park	0	3	1	5	1
Wayland	0	0	1	6	0
West End	0	4	8	14	1
Not a Resident	0	1	2	2	0
Unreported	0	2	2	3	0
Total	**2**	**18**	**65**	**94**	**3**

Table T-5: Weekly Mode Share (Personal Bike) by Neighborhood

Neighborhood	Always	Often	Sometimes	Never	Unreported
Blackstone	2	2	2	2	0
Charles	0	0	0	1	0
College Hill	1	1	0	7	0
Downtown	0	1	0	4	0
Elmhurst	1	0	5	5	0
Elmwood	1	2	6	5	0
Federal Hill	6	2	6	5	1
Fox Point	1	0	6	2	0
Hope	0	1	0	5	0
Lower South Providence	0	0	0	3	0
Manton	0	1	0	1	0
Mount Hope	1	2	3	2	0
Mount Pleasant	0	0	1	5	0
Olneyville	0	0	0	2	0
Reservoir	0	1	1	3	0
Smith Hill	0	0	0	2	0
South Elmwood	0	0	2	0	0
Upper South Providence	0	3	3	4	0
Valley	0	0	2	0	0
Wanskuck	0	0	0	1	0
Washington Park	0	1	5	3	1
Wayland	0	0	2	5	0
West End	4	6	9	7	1
Not a Resident	0	1	2	2	0
Unreported	0	0	1	6	0
Total	**17**	**24**	**56**	**82**	**3**

Table T-6: Weekly Mode Share (Bike Share) by Neighborhood

Neighborhood	Always	Often	Sometimes	Never	Unreported
Blackstone	0	0	2	6	0
Charles	0	0	0	1	0
College Hill	0	0	1	8	0
Downtown	0	1	0	4	0
Elmhurst	0	0	2	9	0
Elmwood	1	1	1	11	0
Federal Hill	1	1	3	14	1
Fox Point	0	0	1	8	0
Hope	0	0	1	5	0
Lower South Providence	0	0	0	3	0
Manton	0	0	0	2	0
Mount Hope	0	1	2	5	0
Mount Pleasant	0	0	0	6	0
Olneyville	0	0	0	2	0
Reservoir	0	0	1	4	0
Smith Hill	0	0	0	2	0
South Elmwood	0	0	0	2	0
Upper South Providence	0	0	1	9	0
Valley	0	0	1	1	0
Wanskuck	0	0	0	1	0
Washington Park	0	1	1	7	1
Wayland	0	0	0	7	0
West End	0	1	4	21	1
Not a Resident	0	0	0	5	0
Unreported	0	0	0	7	0
Total	**2**	**6**	**21**	**150**	**3**

Table T-7: Weekly Mode Share (Uber/Lyft/Taxi) by Neighborhood

Neighborhood	Always	Often	Sometimes	Never	Unreported
Blackstone	0	0	5	3	0
Charles	0	0	0	1	0
College Hill	0	1	4	4	0
Downtown	0	0	5	0	0
Elmhurst	0	1	7	3	0
Elmwood	0	3	3	8	0
Federal Hill	0	1	9	9	1
Fox Point	0	0	4	5	0
Hope	0	0	3	3	0
Lower South Providence	0	1	0	2	0
Manton	0	0	0	2	0
Mount Hope	0	0	4	4	0
Mount Pleasant	0	1	2	3	0
Olneyville	0	0	1	1	0
Reservoir	0	1	2	2	0
Smith Hill	0	0	1	1	0
South Elmwood	0	0	0	2	0
Upper South Providence	0	0	3	7	0
Valley	0	1	1	0	0
Wanskuck	0	0	1	0	0
Washington Park	0	1	4	4	1
Wayland	0	0	3	4	0
West End	0	0	16	10	1
Not a Resident	0	1	2	2	0
Unreported	0	0	2	5	0
Total	**0**	**12**	**82**	**85**	**3**

Table T-8: Weekly Mode Share (Carpool) by Neighborhood

Neighborhood	Always	Often	Sometimes	Never	Unreported
Blackstone	0	0	3	5	0
Charles	0	0	1	0	0
College Hill	1	0	3	5	0
Downtown	0	0	2	3	0
Elmhurst	1	1	5	4	0
Elmwood	0	0	6	8	0
Federal Hill	1	0	9	9	1
Fox Point	0	1	4	4	0
Hope	0	0	4	2	0
Lower South Providence	0	0	1	2	0
Manton	0	0	1	1	0
Mount Hope	0	0	6	2	0
Mount Pleasant	0	2	1	3	0
Olneyville	0	0	0	2	0
Reservoir	0	2	1	2	0
Smith Hill	0	1	0	1	0
South Elmwood	0	0	1	1	0
Upper South Providence	0	2	3	5	0
Valley	0	0	1	1	0
Wanskuck	0	1	0	0	0
Washington Park	0	0	2	7	1
Wayland	0	0	4	3	0
West End	0	2	14	9	1
Not a Resident	0	0	3	2	0
Unreported	0	2	0	5	0
Total	**3**	**14**	**75**	**86**	**3**

Table T-9: Ideal Mode of Transportation/Suggested Improvements

Desired Method/Improvement	Mentions
Bicycle	64
Transit/RIPTA	60
Walking	39
Better Bus Service	30
Improved Bicycle Infrastructure	25
Car ownership/Driving	12
Bike/Scooter Shares	11
Reduce Driving	11
Purchase and Drive an EV	8
Discrimination/Fear/Preference prevents bus use	7
Improved Pedestrian Infrastructure	7
Nothing	7
Use of Rail-based Transit	7
Scooter	5
Carpooling	4
Children Pickup/Drop Off at School necessitates a car	4
Improved Transit Infrastructure	4
More affordable transit	4
Need to Carry Groceries etc. Limit Bike Use	3
Purchase and Drive a smaller vehicle	3
Ban Cars from Specific Areas	2
Better Off-Peak Transit service	2
Bus Lanes	2
Car share	2
Crosstown RIPTA Service	2
Ride Share	2
Shower at work (for active transport)	2
Decarbonizing	1
Electric shuttles	1
Hybrid Vehicle	1
Moped	1
More local grocery options	1
Renewables	1
Roller skating	1
Traffic reduction	1

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Community Input: Survey Summary & Interview Data

Table M-1: Household Respiratory Disease by Neighborhood

Neighborhood	Yes	Respondents	Percent
Blackstone	2	8	25.0%
Charles	0	1	0.0%
College Hill	1	9	11.1%
Downtown	0	5	0.0%
Elmhurst	5	11	45.5%
Elmwood	1	14	7.1%
Federal Hill	5	20	25.0%
Fox Point	5	9	55.6%
Hope	2	6	33.3%
Lower South Providence	2	3	66.7%
Manton	2	2	100.0%
Mount Hope	2	8	25.0%
Mount Pleasant	3	6	50.0%
Olneyville	1	2	50.0%
Reservoir	4	5	80.0%
Smith Hill	1	2	50.0%
South Elmwood	0	2	0.0%
Upper South Providence	4	10	40.0%
Valley	1	2	50.0%
Wanskuck	0	1	0.0%
Washington Park	4	10	40.0%
Wayland	1	7	14.3%
West End	9	27	33.3%
I don't live in Providence	1	5	20.0%
Unreported	3	7	42.9%
Total	**59**	**182**	**32.4%**

Table M-2: Source and Types of Pollution causing Illness

Source/Type	Mentions
Vehicle Exhaust	22
Poor Water Quality	17
Port of Providence	12
Smog	8
Power Plant	7
Lack of access to healthy food	5
Pests/Rodents	5
Noise	4
Pollen/Allergies	4
Burning Trash	2
Factory	2
Gas leaks	2
Issues with Home Construction	2
Pesticides	2
Sewer odor	2
Waste Management	2
Yard work/leaf blowers/lawn mowers	2
Animal wildlife (Skunks, possums, etc.)	1
Central Landfill	1
Corruption	1
Easy to purchase drugs	1
Heat Islands/Parking Lots	1
Lack of affordable housing	1
Lack of green space and recreation	1
Lack of Trees	1
Lack of Trees	1
LED Streetlight	1
Litter	1
Marijuana scent on busses	1
Mashapaug Pond	1
Mold	1
Poor Drainage	1
Rail Lines (MBTA Diesel)	1
Secondhand Smoke	1
Stadium Lights at PC (too bright to sleep)	1

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Table M-3: Desired Changes

Desired Improvement/Change	Mentions
More Vegetation	24
Reduce car use/Remove or minimize highways	16
Bike improvements	15
Improve local access to healthy food and shopping	12
More green space	12
Improve water quality	8
Pedestrian improvements	8
Better regulate port	5
More Parks	5
Transportation alternatives	5
Relocation/Removal of large polluting institutions	4
Decarbonization	3
Litter reduction measures	3
More community gardens	3
More frequent/thorough street cleaning	3
Reduce paved area/encourage permeable area	3
Renewables	3
Require landlords to better insulate rentals	3
Require landlords to replace lead pipes	3
Better community engagement in parks	2
Better support homeless population	2
Better trash removal	2
Composting	2
Electrify all vehicles/equipment	2
Noise ordinance enforcement	2
Peruse utilities/contracts that use clean energy	2
Remediation of Mashapaug Pond	2
Zoning changes to encourage more complete neighborhoods	2
Access to affordable housing	1
Ban leaf blowers	1
Better regulate landfill	1
Create Superblocks (In the style of Barcelona)	1
Designate car-free or car-limited zones of the city	1
Eliminate interactions with City that involve racism	1
Enforce trash rules	1
Expansion of Bike Share to neighboring municipalities	1
Financially prosecute gas companies and other pollution-enablers	1

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Health code enforcement	1
Improve sewers	1
Improved street cleaning	1
Invest in better drainage	1
Make neighborhoods safer	1
More food corridors	1
More garbage cans	1
More recreation centers	1
More street lighting	1
Offer tax breaks to use bikes and scooters	1
Pet Waste Regulations	1
Policies to protect cyclists and pedestrians	1
Prevent feeding pigeons	1
Promote/support healthier restaurants	1
Rodent removal efforts	1
Soil remediation programs	1
Water main replacement	1