

## Green Worcester: Resident Priorities, Beliefs, and Actions

*City resident survey explores public opinion on the Green Worcester initiative*

### Residents are on board with the concepts behind Green Worcester

Residents of the City of Worcester are supportive of the aims of making Worcester a greener and more sustainable place. In all, 64% called Worcester becoming a green and sustainable place “very important,” while another 25% called it “somewhat important” (Figure 1). That level of priority carries over to policy. Worcester residents support a variety of potential measures which would contribute to making the city a more sustainable place. Many of the activities that could be included in the Green Worcester initiative are prioritized by large majorities of residents.

Respondents were asked to about their priorities for measures to improve the city. Topping the list was cleaning up toxic chemicals at industrial sites - 77% called that a major priority. Tied for second at 73% were reducing air and water pollution along with reducing natural gas leaks. Reducing greenhouse gas production was somewhat lower, with 61% calling it a major priority. This echoes a theme that comes up often in climate change opinion polling, where issues around “pollution” generate more engagement than explicit ties to greenhouse gases or climate change.

At the bottom of the list was creating a home energy rating system, which 31% called a major priority. None of the demographic groups we examined reached a majority calling this issue a major priority. Still, nearly one third of the city call this a major priority, so if undertaken, such a system may draw interest. But there are many other ideas which more residents prioritize.

### KEY FINDINGS

The survey finds residents feel favorably toward the idea of Worcester as a green and sustainable city, with 64% calling it very important that the city become a “green and sustainable place” and another 25% calling it “somewhat important”.

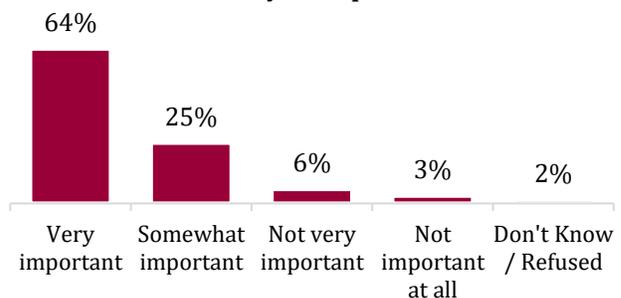
In terms of specific programs, residents would endorse many as “major priorities” for the city. This includes both current programs such as clean up, pollution reduction, and tree planting, as well as ideas for how to make Worcester a more sustainable place in the future.

Concern about climate change is widespread and includes anticipation of a variety of localized impacts in the greater Worcester region.

Residents are already engaging in many green activities on their own, though not motivated by climate change concerns. These activities vary widely by demographic groups in the city.

Residents are less aware of environmental programs the city is currently undertaking, and many seemed not to understand what it would mean for Worcester to be “green” or a “sustainable city”. Both suggest a need for educating the public on the issue.

**Figure 1: Residents view becoming a green and sustainable city as important**



Q: How important is it to you that Worcester works on becoming a city that is “green” and sustainable?

Some of the items showed interesting and useful demographic variation in terms of interest levels. Bicycle and pedestrian infrastructure fell in the middle of the list overall, with 61% calling it a major priority. But among certain groups, it was closer to the top of the list. Lower-income residents (73%), residents in households without cars (71%) and households with children (69%) were particularly likely to rate this item highly. This variation highlights the fact that different activities and policies will be of great interest to certain segments of the city's population and that moving toward greater sustainability will mean different things to different people.

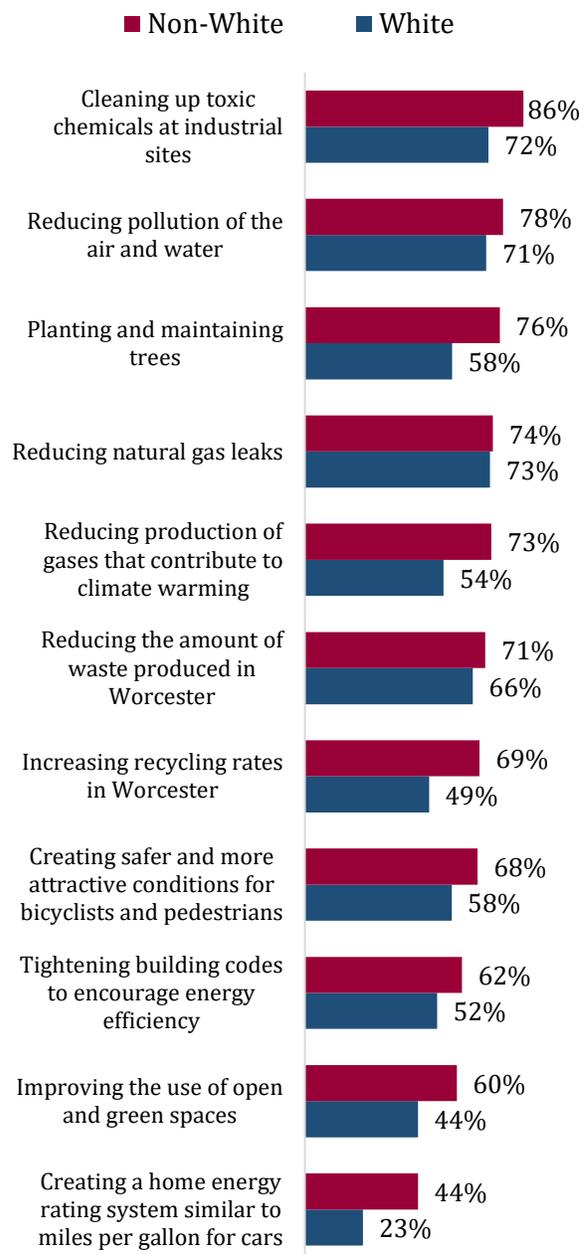
### Priority of many Green Worcester issues varies by race and ethnicity

Consistent with much other polling on climate and environmental policy, Worcester's communities of color place a higher level of importance on making the city a green and sustainable place. Among non-white residents, 74% thought this was "very important," compared to 59% of white residents.

Black and Hispanic residents were also more likely to prioritize some (but not all) of the policies included in the poll (Figure 2). For example, 66% of Black residents and 61% of Hispanic residents call improving the use of green and open space a major priority, compared to 44% of white residents. Planting and maintaining trees shows a similar gap, with 58% of white residents calling it a major priority, less than Hispanic residents (80%) or Black residents (77%). Among non-white residents, 73% consider reducing greenhouse gases a major priority; a little more than half (54%) of white resident think similarly.

The finding that non-white residents are more concerned about climate change and more

**Figure 2: Variation in priorities, by race / ethnicity of residents**  
*% calling each a major priority, by race*



supportive of action is echoed in other polling from across Massachusetts and nationwide. MPG has been conducting polling on climate change since 2011, and has observed similar

dynamics throughout that period.<sup>1</sup> This phenomenon also bears out in national polling and polling in other states<sup>2</sup> specific to climate change. As a report on a survey focusing on Latino opinion from the Yale Program on Climate Change Communication put it, “Overall, we find a very consistent pattern: Latinos are much more engaged with the issue of global warming than are non-Latinos.”<sup>3</sup> Lake Research Partners reported on a national poll in April 2018, writing, “The strongest awareness and concern comes from those who are the most affected— Latinos and African Americans. They report the highest levels of personal and health effects from climate impacts.”<sup>4</sup>

### **Climate change concern tied to support for environmental policy**

Residents are concerned about local impacts of climate change, with 74% of residents saying Worcester and Central Massachusetts will suffer impacts from climate change in the next 2 decades. Just 19% believe the region will not feel any impact. Those concerned about local impacts includes 61% or more of each of the demographic groups examined as a part of survey analysis, so concern is widespread. Looking at demographic variation, residents under 30 (82%) and Hispanic residents (80%) are the most likely to see climate change coming to Worcester.

Among those who see local impacts as likely, the most common change residents anticipate is more severe storms throughout the year (78%) as well as extreme heat waves (78%). Also in the

top tier of anticipated consequences is more ice and freezing rain storms (70%). In other words, those who see climate change as likely anticipate impacts during both hot and cold times of year.

Other surveys have found those concerned about climate change are often more supportive of environmental policy options. This is true in this survey as well. Those who anticipate the impacts of climate change coming to Worcester are more supportive of the ideas behind Green Worcester. For example, among those who anticipate local climate impacts, 63% prioritize non-polluting transportation options, compared to 31% of those who do not see local impacts. On all but one of the priorities questions (planting trees), those concerned about local impacts are at least nominally more supportive of environmental policies. Given the high percentage of residents who believe climate change is coming, this is encouraging for city leaders looking to advance the cause of Green Worcester.

This support comes with a caveat. In much of our survey work here at MPG, we find that residents are more likely to *support* policies put forth by leaders, but they are unlikely to *demand* them. Climate change and environmental issues more broadly tend not to be at the top of voter priority lists. Even as more and more people express alarm about climate change, other issues continue to be seen as higher priorities. Gallup, who has been polling on the nation’s most important problem for decades, finds just 4% of

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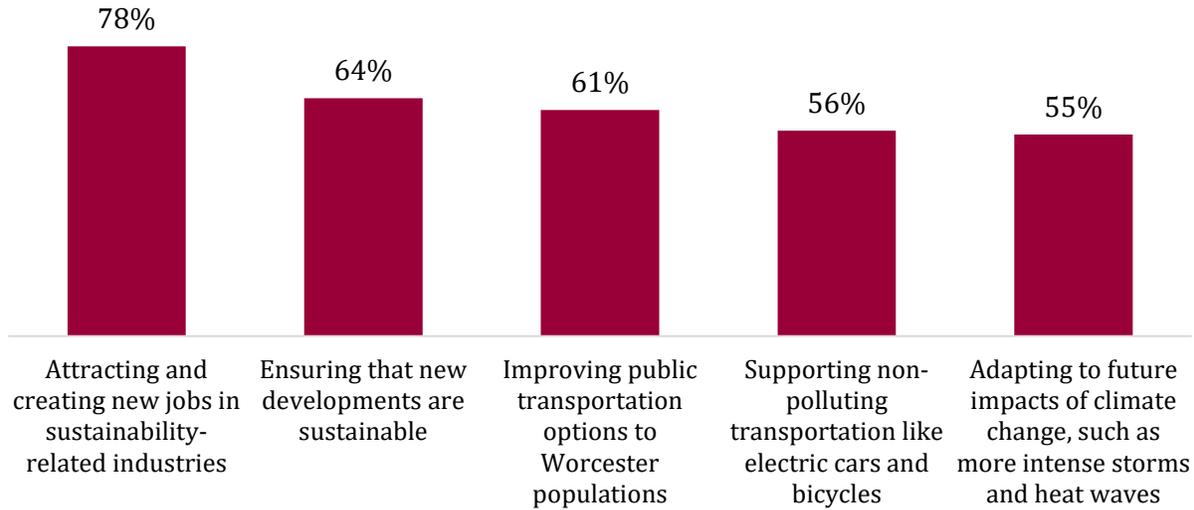
<sup>1</sup> “Looking for Leadership: Public Opinion in Massachusetts on the Response to Global Warming.” Steve Koczela, Ben Forman, and Rich Parr. The Massachusetts Institute for a New Commonwealth, March 2015.

<sup>2</sup> “Californians’ Views on Climate Change.” Public Policy Institute of California, July 2018.

<sup>3</sup> “Climate Change in the Latino Mind.” Anthony Leiserowitz, Matthew Cutler and Seth Rosenthal, Yale Program on Climate Change Communication.

<sup>4</sup> “American Climate Perspectives.” Lake Research Partners, April 2018.

**Figure 3: Residents' future priorities for sustainability in Worcester**  
*% calling each major priority for making Worcester a more sustainable place in the future*



Americans cite an environmental issue of any kind as their top concern.<sup>5</sup>

For civic leaders looking to act on climate change, this means that the onus to act is on them. Residents and voters are not to the point of demanding action. But leaders can act with confidence, knowing residents are open to leaders taking the initiative on green activities and will support a variety of policy options to promote sustainability and fight climate change.

**Green jobs top residents’ wish list for future sustainability**

Residents support a variety of actions which would improve aspects of the city’s condition now. But they also want the city to look to its future sustainability as well. Attracting and creating new green jobs was at the top of the list of major priorities for making Worcester a more sustainable place in the future, with 78% calling it a major priority. This concept polls well across demographic groups, with 70% or more of each of the demographic groups calling this a major

priority. Green jobs and clean energy consistently poll highly in other surveys around the country as well as here in Massachusetts.

Growing green jobs is an example of a policy with multiple benefits. Some residents will focus on the environmental advantages, while others will prioritize the economic benefits such jobs could bring to Worcester. Indeed, there was little difference in response on this policy between residents who believed in climate change and those who did not. Other research has shown that concern over the environment is often not the only reason people engage in environmentally friendly actions or support environmentally friendly policies. Secondary benefits can be just as important a motivation.

Next on the list of future priorities are expanding access to healthy food and active lifestyles (65%). This was particularly important to residents with lower levels of income and education. Among the lowest income residents, 80% called this issue a “major priority”. Priority declined steadily to 55% among the highest

<sup>5</sup> “Most Important Problem.” Gallup, September 2018.

income group. Renters are more likely (74%) than homeowners (54%) to prioritize this as a policy goal, as are younger residents, and residents from households without cars.

The next three items on the list of future priorities are ensuring new developments are sustainable (64%), improving transit options (64%) for Worcester residents, and supporting non-polluting transportation options (56%). Last on the list is climate change adaptation, where 55% called it a major priority, although the difference between this and the next lowest item was not statistically significant.

### **Residents want benefits of sustainability spread around**

Worcester residents are not just concerned about what the city does on sustainability, but how those policies are rolled out across the city. The highest priority was ensuring benefits are shared by all populations of the city, including low income and minority populations, with 70% calling this a major priority.

The importance of equity as an overall goal is reflected in other issues throughout the survey. On many items, there was considerable variation by socioeconomic and race factors. Examining these differences in priorities, knowledge and experience will help city leaders ensure Green Worcester recognizes and benefits the full diversity of the city's population.

Other tools in this endeavor may be education and public information campaigns. In all, 67% place major priority on integrating sustainability into school curriculum, while 56% call public information campaigns a major priority.

Residents have all different levels of knowledge about the kinds of things Worcester is already

doing. Similarly, they are engaged in a widely varying set of sustainability activities themselves, so these kinds of communications activities could play an important role in encouraging residents to participate in the Green Worcester endeavor.

### **Residents are aware of some green actions the city is taking, others remain unfamiliar**

Residents want to prioritize green policies, but many are unfamiliar with what city government is currently doing in this area (Figure 4). Tree replanting is the top sustainability initiative residents say they are aware of, with 60% saying they know either a great deal or a fair amount about the restoration. Given the visible and long lasting changes to Worcester's landscape caused by the Asian Longhorn Beetle infestation, it is understandable this item is the most widely known.

There are considerable differences in knowledge levels between demographics on this and other items in this question set. The biggest gaps exist along the lines of education level and homeownership. Homeownership is often an indicator of tenure in a given location, since renters tend to move more frequently. They are also typically more closely woven into the

community fabric, and more likely to have heard about the kinds of municipal endeavors covered in this survey. Residents with higher levels of education have heard more about sustainability initiatives relative to those with less education.

Residents are relatively informed about open space in the city. Just over half (55%) report having heard at least a fair amount about the extensive parks and open space in Worcester, and 43% say the same of the Broad Meadow Brook Wildlife Sanctuary. For each of these items, there are also double-digit gaps in

**Figure 4: Residents know the most about the Longhorned Beetle infestation; knowledge of other initiatives varies considerably**

*% who say they have heard at least “a fair amount” about each item*

Over 30,000 trees have been planted since Asian Longhorned Beetle infestation destroyed many trees in northern Worcester in 2009.	60%
Worcester has 60 parks, 20 lakes and ponds, and about 17% of its area is designated as open space.	55%
Mass Audubon's Broad Meadow Brook Wildlife Sanctuary in Worcester is the largest urban wildlife sanctuary in Massachusetts.	43%
The City replaced 14,000 of its streetlights with LED lights to save energy.	39%
Worcester DPW has been developing an Integrated Plan for long term maintenance of water and sewer infrastructure.	31%
Worcester has over five active watershed groups that work with city government to improve water quality in streams and ponds.	29%
The City has the largest municipally owned solar farm in New England on top of a capped landfill.	26%
In 2018-2019, the City has been working on a plan for adaptation to climate change impacts.	18%
Worcester has a new Blue Space program with a goal of identifying and reducing threats to the quality of city's 20 lakes and ponds.	14%

awareness between the highest and lowest education groupings.

Each of the other items was known by 39% or fewer of city residents, covering a range of activities from efficient streetlights (39%) to water and sewer planning (31%) and the city's Blue Space program (14%). Near the bottom of the list is the city's plan for adaptation to climate

change, with just 18% reporting at least a fair amount of knowledge. Even among those who expect local impacts of climate change, just 20% are informed about this plan. There is no pocket of the city's population where information on this initiative is particularly high.

**Residents are taking a variety of actions on their own, not only driven by climate change**

In addition to municipal initiatives, making Worcester a more green and sustainable place also relies on individual and household

behaviors (Figure 5). The most widely adopted behaviors are turning off lights to conserve energy (89% say they do so “most of the time”), recycling (78%), and using energy efficient bulbs (73%). Below these three, there is a sharp drop off to the next tier of activities. About half say they lower the thermostat at night, recycle electronics, avoid single use items, and choose

local foods. The least frequent activities are food related, with just 22% reporting composting food scraps, and 27% participating in home or community gardening. Residents may not link these activities with sustainability.

In many instances, these sustainability activities are not evenly distributed across the city's population. In particular, lower income residents are less likely to report engaging in many of the activities included in the survey. While 87% of those reporting household incomes over \$100,000 a year say they recycle

**Figure 5: Worcester residents on personal action related to sustainability**  
*% of respondents who said they take each action “most of the time”*

	Overall	< \$25k	\$25k to < \$50k	\$50k to < \$100k	\$100k +
Turn off lights when you leave a room	89%	84%	91%	93%	88%
Recycle paper, plastic, or glass	78%	64%	71%	87%	87%
Replace lightbulbs with energy efficient bulbs, such as LEDs	73%	62%	67%	77%	85%
Lower the thermostat at night in cold weather and raise it in warm weather	52%	41%	53%	52%	65%
Recycle electronics	51%	41%	43%	59%	62%
Avoid one-use/disposable items such as water bottles	50%	53%	46%	52%	48%
Choose locally-produced foods when possible	49%	54%	50%	51%	49%
Conserve water, such as by taking short showers and using rain barrels	42%	57%	38%	39%	43%
Visit Worcester's parks, beaches, or conservation land	33%	32%	32%	30%	38%
Walk or bike, when feasible, rather than drive	31%	35%	35%	31%	26%
Participate in community or home gardening	27%	14%	24%	36%	34%
Compost your food scraps	22%	18%	28%	23%	23%

paper, plastic, and glass “most of the time”, only 64% of the lowest income residents say the same. Similar gaps exist on other items in the survey, though not all. This serves as a reminder that gaining resident participation in green activities will involve targeted communications and outreach strategies designed to reach specific audiences.

In terms of green-friendly activities and opinion, this poll follows the contours of broader public opinion. Residents who believe in climate change are more supportive of policy interventions related to sustainability. However, their own actions are not necessarily affected by their beliefs. There are no consistent differences in the prevalence of environmentally friendly actions between those who anticipate impacts of climate change and those who do not. This suggests near-term gains in fighting climate change will come more from systemic policy change and individual behaviors driven by a

variety of motivations rather than individual choices driven by concern over the impacts of climate change.

**Open-ended question shows residents are not sure what it means to have a “green” or “sustainable” city**

The positive findings on the quantitative questions in the survey indicate that residents support many green policies when they are discussed in detail. But an open-ended question at the beginning of the survey offers a note of caution. Many responses to this initial open-ended question indicated that the terms “green” and “sustainable” don’t mean much to many residents, especially older residents and those with less education and income. Among others, there is some skepticism that the concepts of “green” or “sustainable” apply to Worcester. The rest of the survey suggests these problems can be overcome with more

**Figure 6: Worcester residents' reaction to Worcester as a "green city"**  
*% of respondents who cited each topic in response to open-ended question\**

No reaction / Don't know	32%
Negative comments (Worcester is not a green city, shouldn't be a goal)	15%
Recycling / waste / plastic	11%
Conserving energy / renewable energy	11%
Parks / trees / green space	9%
General positive (City doing good job / moving in right direction)	9%
Other types of sustainability (economic, etc)	9%
Other	8%
Greener transportation	7%
Cleanliness / pollution	7%
Food / agriculture / community gardens	2%
<i>*Totals add up to more than 100% since many comments covered more than one issue.</i>	

information, but it shouldn't be assumed that most residents know what is meant by "Green Worcester" or the term "sustainable" without context.

When asked for their initial reaction to what the terms "green city" and "sustainable city" might mean for the City of Worcester, many residents came up blank. The largest category of open ended comments (32%) were non-responsive: residents said they either had never heard those terms, didn't know what they meant or how they would relate to the city, or just repeated back the terms without any elaboration. "I don't understand what it means. I've never thought about it," said one resident. Older residents and those with the lowest levels of education and household income were most likely have no reaction to the opening question.

Another 9% interpreted "sustainable" broadly, rather than with an environmental focus, most commonly referring to jobs or economic sustainability. "We have manufacturing and

businesses to keep us alive," offered one resident. Once again, older residents were most likely to have non-environmental sense of sustainability. Taken together, 4 in 10 residents either were unfamiliar with the terms or thought they meant something other traditional environmental policy (energy-efficiency, recycling, etc). Public communications and education can help bridge these gaps.

Explaining the terms "green" and "sustainable" is one challenge; another is convincing residents that they are achievable goals for the cities. Some 15% of residents had a negative initial reaction to making Worcester green or sustainable. "I don't think of Worcester as a sustainable city," said one resident. Others seemed unaware of the green policies already in place. "Not very accurate. We recycle, but it's not a place where I see a lot of sustainable initiatives," said another. "We're not there yet. I don't see a lot of green stuff going on." Residents with a bachelor's or advanced degree were more likely to have a negative reaction, as did those with household incomes over \$50,000.

A common theme in these comments was that sustainability was worth reaching for, but that the city wasn't there yet. A few, however, rejected it as a goal for the city, calling it "crazy", "stupid", or "ridiculous". These naysayers are definitely a minority of residents. The bigger problem is many residents see Worcester as an old industrial city and have a hard time reconciling that with being a green or sustainable city.

That is not to say that all the comments were negative or off the mark: 11% mentioned conserving or shifting to green energy, most commonly solar. An equal number (11%) mentioned recycling, waste reduction, or reducing plastics, 9% mentioned the city's parks, trees, or green space, and 7% each

mentioned cleaning up the city generally or pursuing greener transportation. Residents under age 50 were more likely to mention clean energy and transportation than were older residents. And 9% offered a general positive comment without specifics. Some of these indicated the city was making progress. “It’s becoming a sustainable city and has become more cognizant of the environment,” said one resident. Growing that 9% to a larger share of the population could be a goal of a sustained communications efforts around sustainability.

policies and then nurture them with dedicated communications and education outreach.

## **Conclusion**

The open-ended responses highlight a communications challenge for city officials looking to advance sustainability in Worcester. The good news is that the rest of the survey suggests a broad openness, and even a level of importance, to making Worcester a green and sustainable place, and to the policies that would achieve those goals.

Overall, residents support the ideas behind the Green Worcester initiative, and many of the present and future policy priorities that could be contained in a new sustainability plan for the city. There is significant room to gain ground in terms of awareness, bringing residents on board with the aims of the initiative. Residents vary widely in what they already know about local sustainability, and even whether they know there is an organized local initiative. In terms of the personal sustainability, there is considerable variation in what actions residents are taking. Each of these represents areas where the Green Worcester initiative could potentially make a difference and help move Worcester toward a green future.

Worcester is fertile ground for green policies; city officials need to plant the seeds of specific

## Appendix – Methodology

As a part of the Green Worcester initiative, The MassINC Polling Group conducted a telephone survey of residents in June and July of 2019. The questionnaire was designed collaboratively by The MassINC Polling Group, Larissa Brown + Associates, and staff from the City of Worcester, with comment from the Green Worcester Working Group. Topics included resident priorities regarding improving conditions in Worcester, making it a sustainable city, and sustainability initiatives that could help the city continue to grow greener, as well as views of climate change and related issues. This report summarizes key themes of this telephone survey.

The survey was conducted in English and Spanish by live telephone interviewers in June and July 2019. A total of 606 residents of Worcester were interviewed by Braun Research, Inc. Results were weighted to represent the adult resident population of the city of Worcester based on known and estimated population parameters drawn from Census Bureau figures. Demographic parameters included gender, age, race / ethnicity, education and ZIP code. The margin of sampling error is approximately 4 percentage points with a 95 percent level of confidence. The geographic distribution of respondents relative to the general population is shown in the table below.

<b>Distribution of population, survey responses by ZIP code</b>			
<b>ZIP Code</b>	<b>Population</b>	<b>Pop. %</b>	<b>Weighted %</b>
01602	23,721	13%	13%
01603	20,722	11%	11%
01604	34,579	19%	18%
01605	25,910	14%	14%
01606	20,831	11%	11%
01607	8,742	5%	5%
01608	3,625	2%	2%
01609	23,886	13%	13%
01610	24,673	13%	13%

For Worcester residents who may wish to participate but who were not called as a part of conducting the initial survey, a copy of the survey will be made available at the City of Worcester’s website. Ongoing results of this online survey will be monitored by city staff to ensure all opinions and viewpoints are heard.



When it comes to improving conditions in Worcester, how much of a priority do you think each of the following issues *should be* for Worcester city government? How about **READ FIRST**? Would you say that it is a major priority, minor priority, or not a priority? How about **READ NEXT, RANDOMIZE ORDER**. *Note: order sorted for display.*

	Major priority	Minor priority	Not a priority	Don't Know / Refused
Cleaning up toxic chemicals at industrial sites	77%	16%	6%	2%
Reducing pollution of the air and water	73%	21%	5%	1%
Reducing natural gas leaks	73%	17%	7%	2%
Reducing the amount of waste produced in Worcester	67%	24%	7%	2%
Planting and maintaining trees	64%	27%	8%	1%
Reducing production of gases that contribute to climate warming	61%	25%	11%	3%
Creating safer and more attractive conditions for bicyclists and pedestrians	61%	29%	9%	<1%
Increasing recycling rates in Worcester	56%	27%	14%	3%
Tightening building codes to encourage energy efficiency	55%	32%	10%	3%
Improving the use of open and green spaces	50%	29%	15%	7%
Creating a home energy rating system similar to miles per gallon for cars	31%	45%	21%	4%

When it comes to making Worcester a more sustainable place in the future, how much of a priority do you think each of the following issues *should be* for Worcester city government? How about **READ FIRST**? Would you say that it is a major priority, minor priority, or not a priority? How about **READ NEXT, RANDOMIZE ORDER**. *Note: order sorted for display.*

	Major priority	Minor priority	Not a priority	Don't Know / Refused
Attracting and creating new jobs in sustainability-related industries	78%	15%	6%	1%
Expanding residents' access to healthy food and active lifestyles	65%	26%	8%	1%
Ensuring that new developments are sustainable	64%	26%	5%	4%
Improving public transportation options to Worcester populations	61%	29%	9%	2%
Supporting non-polluting transportation like electric cars and bicycles	56%	31%	12%	2%
Adapting to future impacts of climate change, such as more intense storms and heat waves	55%	32%	11%	2%

Thinking about sustainability initiatives in Worcester, how much of a priority do you think each of the following issues *should be* for Worcester city government? How about **READ FIRST**? Would you say that it is a major priority, minor priority, or not a priority? How about **READ NEXT, RANDOMIZE ORDER**. *Note: order sorted for display.*

	Major priority	Minor priority	Not a priority	Don't Know / Refused
Ensuring that sustainability initiatives provide benefits to all populations, including low-income and minority communities	70%	21%	7%	2%
Incorporating sustainability into the curriculum at the city's public schools	67%	20%	9%	3%
Implementing public information campaigns to educate residents about sustainability initiatives.	56%	33%	10%	1%

Do you think Worcester and Central Massachusetts are likely to experience impacts of climate change in the next twenty years?

Yes	74%
No	19%
Don't Know / Refused	7%

**ASK ONLY IF YES OR UNSURE TO PREVIOUS QUESTION**

Which of the following climate change impacts do you think that Worcester and Central Massachusetts is likely to experience in the next twenty years? **READ SLOWLY, SELECT ALL THAT APPLY.**

Heavy flooding	54%
Extreme heat waves	78%
Drought	54%
More powerful storms in all seasons	78%
More ice or freezing rain storms	70%
Losses to farmers and agriculture in our region	66%
None of the above	1%
Don't Know / Refused	3%

Thinking about your own household, how often do you do the following? **READ FIRST** Would you say you do this most of the time, some of the time, or hardly ever? How about **READ NEXT, RANDOMIZE ORDER**. *Note: order sorted for display.*

	Most of the time	Some of the time	Hardly ever	Not available to me (do not read)	Don't Know / Refused
Turn off lights when you leave a room	89%	7%	3%	<1%	0%
Recycle paper, plastic, or glass	78%	8%	13%	2%	0%
Replace lightbulbs with energy efficient bulbs, such as LEDs	73%	17%	9%	1%	0%
Lower the thermostat at night in cold weather and raise it in warm weather	52%	20%	25%	2%	1%
Recycle electronics	51%	21%	23%	4%	1%
Avoid one-use/disposable items such as water bottles	50%	24%	25%	1%	1%
Choose locally-produced foods when possible	49%	35%	14%	1%	1%
Conserve water, such as by taking short showers and using rain barrels	42%	27%	29%	1%	1%
Visit Worcester's parks, beaches, or conservation land	33%	37%	29%	<1%	0%
Walk or bike, when feasible, rather than drive	31%	29%	39%	2%	<1%
Participate in community or home gardening	27%	21%	45%	6%	0%
Compost your food scraps	22%	12%	59%	5%	2%

Other than what we just talked about, do you take any other actions that make your household more sustainable?

Nothing else	66%
Conserve energy at home	10%
Reuse items, reduce / eliminate waste	6%
Insulation / new windows / MassSave	6%
Conserve water	4%
Change energy source (solar panels, wood stove, natural gas instead of oil)	4%
Other	3%
Don't litter / pick up litter	2%
Smart or energy efficient thermostat / lights / appliances	2%
Use cleaner transportation	1%
Food (local, organic, less meat, grow own food)	1%
Plant or maintain trees / plants	<1%

How much have you heard about these sustainability projects and initiatives in the City of Worcester? How about **READ FIRST** Would you say you have heard a great deal, a fair amount, not very much, or nothing at all? How about **READ NEXT, RANDOMIZE ORDER**. *Note: order sorted for display.*

	A great deal	A fair amount	Not very much	Nothing at all	Don't Know / Refused
Over 30,000 trees have been planted since Asian Longhorned Beetle infestation destroyed many trees in northern Worcester in 2009.	41%	19%	16%	22%	2%
Worcester has 60 parks, 20 lakes and ponds, and about 17% of its area is designated as open space.	24%	30%	15%	30%	<1%
Mass Audubon's Broad Meadow Brook Wildlife Sanctuary in Worcester is the largest urban wildlife sanctuary in Massachusetts.	21%	22%	19%	36%	2%
The City replaced 14,000 of its streetlights with LED lights to save energy.	20%	19%	15%	45%	1%
Worcester DPW has been developing an Integrated Plan for long term maintenance of water and sewer infrastructure.	11%	20%	19%	48%	1%
The City has the largest municipally owned solar farm in New England on top of a capped landfill.	10%	17%	21%	51%	1%
Worcester has over five active watershed groups that work with city government to improve water quality in streams and ponds.	10%	18%	22%	48%	1%
In 2018-2019, the City has been working on a plan for adaptation to climate change impacts	6%	12%	21%	60%	2%
Worcester has a new Blue Space program with a goal of identifying and reducing threats to the quality of city's 20 lakes and ponds.	5%	9%	20%	65%	1%

How important is it to you that Worcester works on becoming a city that is "green" and sustainable?

Very important	64%
Somewhat important	25%
Not very important	6%
Not important at all	3%
Don't Know / Refused	2%

Which one of the following best describes your work situation—employed full time, employed part time, or not currently employed?

Employed full time	52%
Employed part time	12%
Not currently employed	36%
Don't Know / Refused	1%

If not currently employed, are you a student, a homemaker, retired, or temporarily unemployed?

A student	14%
A homemaker	10%
Retired	53%
Temporarily unemployed	19%
Don't Know / Refused	3%

Do you have any children under age 18 in your household?

Yes	31%
No	69%
Prefer not to say	<1%

Do you currently own your home, or rent?

Own	45%
Rent	42%
Live with parents	7%
Live in student housing	1%
Another arrangement	4%
Prefer not to say	1%

How many cars, if any, does your household own? \_\_\_\_\_

No cars	12%
1 car	36%
2 cars	32%
3 or more cars	19%
Don't Know / Refused	1%

## Demographics

### Race

White non-Hispanic	63%
Black	10%
Asian	7%
Other	1%
Hispanic	18%
Don't Know / Refused	1%

### Age

18 to 29	29%
30 to 49	33%
50 to 69	25%
70+	13%
Prefer not to say	<1%

### Gender

Male	48%
Female	52%
Other / prefer not to say	<1%

### Education

High School or less	42%
Some college, no degree	29%
College graduate (BA/BS)	17%
Advanced degree	11%
Don't Know / Refused	2%

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## About the Poll

These results are based on a survey of 606 residents of the City of Worcester, Massachusetts conducted as a part of the Green Worcester initiative. The questionnaire was designed collaboratively by The MassINC Polling Group, Larissa Brown and Associates, and City of Worcester staff. Live telephone interviews were conducted in English and Spanish June 26-July 8, 2019 via both landline and cell phone. Results were weighted to known population parameters for adult residents of Worcester based on age, gender, race and ethnicity, education, and 5 digit ZIP code. The margin of sampling error is approximately 4 percentage points with a 95 percent level of confidence. The poll was sponsored by the City of Worcester.