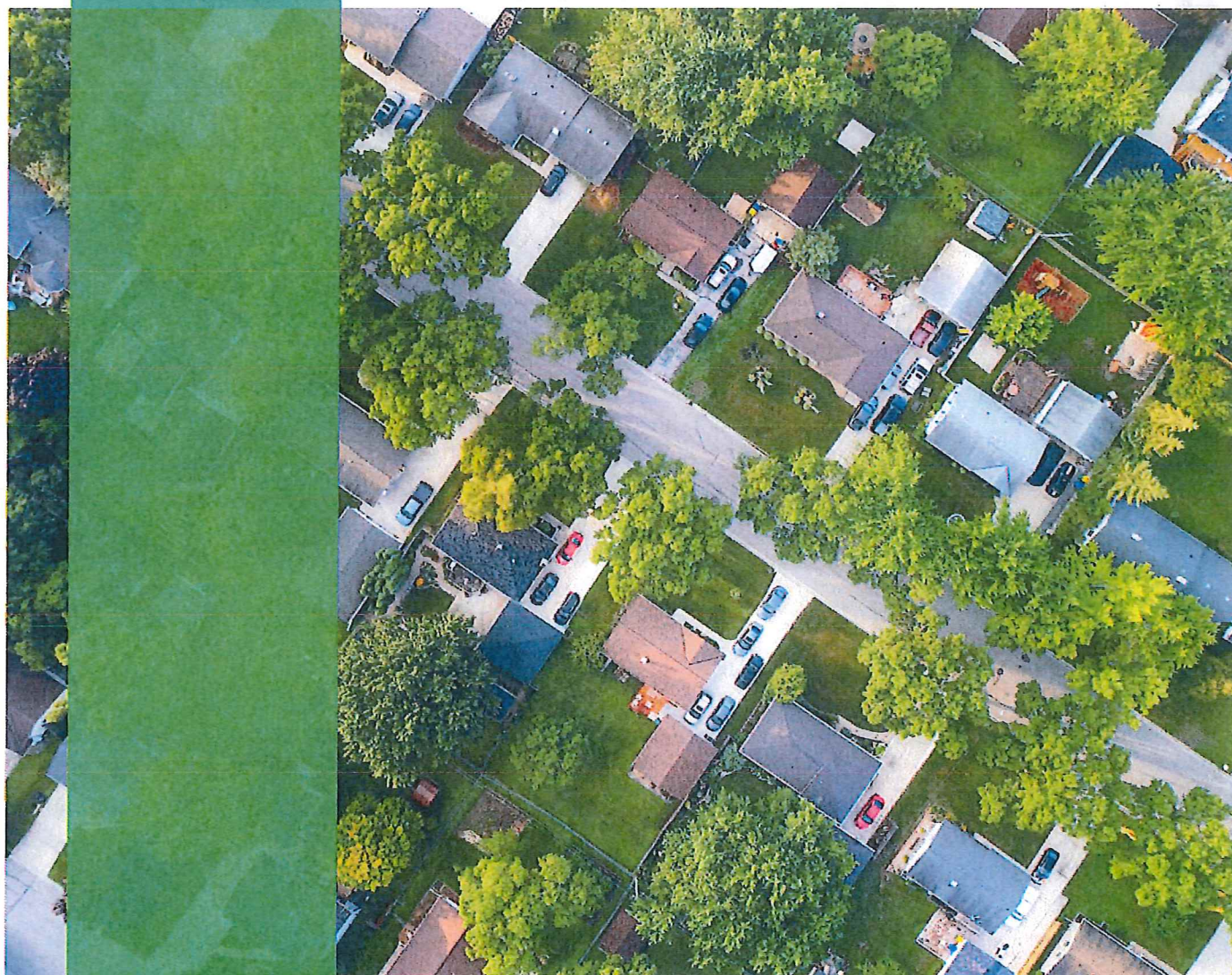


Communicating More Effectively about Urban Forestry

Outreach and messaging strategies to motivate urban
landowners to manage their trees and green space,
based on Wisconsin survey findings



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EXECUTIVE SUMMARY

In Wisconsin, private urban landowners play an important role in promoting the health and resilience of our urban forests. A majority of Wisconsin's urban trees (69%) grow in residential areas and are under private ownership, providing tens of millions of dollars in ecosystem services for the people who live and work in Wisconsin's cities.

To better understand the values, attitudes and behaviors of Wisconsin's private residential urban landowners, the Wisconsin Urban Landowner Survey was sent in early 2017 to 6,000 landowners across four cities and their suburbs: Milwaukee, Madison, Green Bay and Wausau. The questionnaire was developed in close collaboration with the U.S. Forest Service Forest Inventory and Analysis (FIA) program to inform the design of a national survey of urban landowners modeled after the National Woodland Owner Survey (NWOS). Insights gathered from survey responses inform how urban forestry professionals can motivate landowners to support urban forestry programs and to become active stewards of their trees.

Key findings and marketing recommendations based on the survey results are highlighted below, with a focus on respondents who are single-family homeowners (88% of our sample). This report addresses key social marketing components in the design of effective outreach campaigns, such as the relative importance of perceived benefits and barriers of planting trees, preferred sources of information and how these perceptions differ across audiences. This research serves as the first step in the outreach process for professionals who are asking questions about motivating homeowners, such as:

- Who is best positioned to deliver a message to homeowners in my area?
- Which tree benefits should I feature as part of my messaging?
- What are homeowners most concerned about when deciding to plant trees?
- Who is most willing to volunteer in my community?

Key Findings And Recommendations

PEOPLE VALUE BOTH THE PERSONAL & COMMUNITY BENEFITS FROM TREES ON THEIR PROPERTIES [PG. 7]

Key finding: Respondents' satisfaction with the trees in their community and neighborhood is generally quite high. The benefits Wisconsin urban homeowners most value from the trees on their properties are: improving the look of their properties, providing shade/cooling, making their neighborhood a better place to live and improving air quality. Valuing the community-level tree benefits (such as neighborhood improvement) was more strongly correlated with supporting urban forestry programs, while valuing personal tree benefits (such as improving the look of a property) was more correlated with intention to plant trees on the property they own.

Recommendation: Messaging to homeowners can build on the most important perceived benefits of urban trees, as most Wisconsin homeowners already generally have positive attitudes toward trees. Framing messages around the benefits that are most important to a target audience can help tip the balance as the target audience weighs these benefits against concerns.

THERE IS A NEED TO ADDRESS LANDOWNERS' CONCERNS ABOUT PROPERTY DAMAGE [PG. 8]

Key finding: Almost half of the respondents reported being strongly concerned about the potential for trees and branches to break and damage their properties. Both city landowners (those who own property within the city limits rather than in the suburban area) and those with smaller properties have greater levels of concern about trees and perceive fewer benefits from the trees on their properties.

Recommendation: Marketing about tree planting and care should address these concerns and could promote actionable tree care options as a way to avoid such risks – for example from storm events – for those whom have smaller properties in the city.

INTERPERSONAL COMMUNICATION IS MOST PREFERRED WAY TO LEARN ABOUT URBAN TREE CARE [PG. 9]

Key finding: Respondents prefer to receive information about caring for their trees through “talking to someone” more than any other mode of communication. However, there were generational differences in communication preferences. Receiving information about caring for trees through social media and online information was relatively more popular among younger urban landowners.

Recommendation: Identifying strategic opportunities for sharing urban forestry-related messages in-person should be a priority, while messages targeting younger homeowners should make use of social media and online channels.

PRIVATE COMPANIES AND PERSONAL NETWORKS ARE GENERALLY MORE TRUSTED THAN GOVERNMENT FOR INFORMATION ABOUT TREE CARE [PG. 9]

Key finding: More respondents reported trusting professionals from the private sector and their families or friends as sources of information about tree care, while fewer reported trust for state or municipal government employees and non-profit staff. However, levels of trust for Extension educators were significantly higher than for other government employees.

Recommendation: Extension is poised to be one source of public information about tree care, as it is currently a source for other types of information in urban communities. Partnerships with the private sector and with community opinion leaders also have the potential to be highly effective marketing strategies that are built upon interpersonal communication.

PROMOTING TREE PLANTING REQUIRES DIFFERENT STRATEGIES FOR LANDOWNERS IN CITIES VERSUS SUBURBS [PG. 11]

Key finding: On average, respondents were “very likely” to prune their trees in the next five years, but only “somewhat likely” to plant trees, remove whole trees or fertilize trees. Suburban landowners and those with larger properties were significantly more likely to plant trees and felt more confident about their physical ability, knowledge and financial resources pertaining to tree care.

Recommendation: Since many respondents already intend to carry out beneficial behaviors, using marketing to help build their capacity to follow through on these intentions would be a valuable first step. Landowners who have smaller properties and live in more densely populated areas may need additional support to overcome real and perceived barriers to tree planting and care.

PEOPLE ARE NOT CURRENTLY WILLING TO SUPPORT TREE PLANTING & CARE INITIATIVES [PG. 12]

Key finding: Respondents were generally unwilling to invest their time or money to support urban tree initiatives, such as volunteering to plant trees, donating money or paying a tax or fee to support local government programs. However, more study is needed to fully understand landowners’ motivations to support urban tree initiatives.

Recommendation: Urban forestry managers would likely need to market these programs strategically to increase interest and perceived benefits of participating in such programs and/or actively engage with those most supportive of such programs on a voluntary basis. Communicating the need for such tree care programs may be critical, especially if trees are at-risk but that risk is not visually apparent.

Expanding Engagement To Key Audiences

WOMEN MAY PLAY A CRUCIAL ROLE IN FOSTERING URBAN FORESTS [PG. 13]

Key finding: Women respondents saw trees as more important to their properties compared to the men in our survey. Women also tended to do less of the tree and yard work on their properties.

Recommendation: Marketing to target women’s engagement in tree care and planting should leverage their positive attitudes about urban trees to connect them to trusted service providers, and marketing efforts might be geared toward getting women more involved with tree care.

MILLENNIALS OWN FEWER TREES BUT ARE MORE WILLING TO VOLUNTEER FOR TREES [PG. 14]

Key finding: Millennials (age 36 and under) stand out from other generations in several ways. They tend to have smaller properties and fewer trees than older generations, but they are more willing to volunteer their time toward tree initiatives, have greater intentions to plant trees on their properties and are less aware of volunteer groups in their area.

Recommendation: Immediate marketing and communication approaches can focus on encouraging Millennials to become stewards of trees in their communities and connecting them to existing resources and volunteer opportunities.

BABY BOOMERS (AGES 53-71) HAVE MORE CONCERNS WITH EXISTING TREES [PG. 14]

Key finding: Baby Boomers were more concerned about trees growing too big, making a mess or blocking scenic views than people in younger generations.

Recommendation: Messaging to expand this group’s engagement in tree care and planting should focus on addressing these particular concerns and the benefits of proper tree selection (i.e., choosing smaller varieties and trees that are considered less “messy”), placement and care.

REACHING NEW AUDIENCES REQUIRES FOCUSING ON LANDOWNERS WITH LOWER EDUCATION AND INCOME LEVELS [PG. 14]

Key finding: Urban landowners with more education show more support for tree care programs, and urban landowners who have higher incomes are more likely to intend to plant a tree in the next 5 years.

Recommendation: While this audience may represent current tree supporters, it is a reminder that to expand tree support, messages might need to be more relevant to those with lower levels of income or education.

PROJECT BACKGROUND

Introduction

Wisconsin's urban forests encompass all the trees that grow within the state's urban areas, from an individual tree growing in a homeowner's yard or a shade tree along the street, to the forested areas of urban parks. Wisconsin is home to an estimated 42 million trees growing in non-forested urban areas, providing significant social and economic benefits for those living and working in Wisconsin's cities (Nowak et al., 2017). Among many other benefits, these trees provide an estimated \$47 million statewide in pollution removal, \$78 million in reduced annual residential energy costs and \$26 million in carbon sequestration (Nowak et al., 2017). To maintain these benefits and build resilience against exotic pests and disease, pressures from a changing climate and land development, urban foresters are working to expand and diversify the urban forest canopy.

Private residential landowners play a particularly important role in promoting the health and resilience of urban forests. In Wisconsin, a majority of urban trees grow in residential areas (69%) and are under private ownership (Nowak et al., 2017). Urban residents overwhelmingly agree that the trees near where they live are important to their quality of life and provide many personal and community-level benefits (Baur, 2016; Gorman, 2004; Lohr, 2004; Summit and McPherson, 1998), yet these shared positive attitudes do not necessarily motivate private landowners to plant trees on their properties or to participate in municipal tree care programs. Factors such as age, income, level of education and age of the neighborhood have been shown to affect tree planting behavior, as homeowners' perceived concerns about trees and the costs to maintain them vary within these segments (Conway and Bang, 2014; Donovan and Mills, 2014).

Urban foresters and communities that aim to protect and expand the urban forest canopy will need to develop different outreach strategies to effectively motivate urban landowners. This begins with a comprehensive understanding of their perceptions, attitudes and behaviors around tree management. Using behavioral theory, including the Theory of Planned Behavior (Fishbein and Ajzen, 1975), as a lens for understanding factors that influence behavior, we developed a survey of Wisconsin's private residential landowners to explore:

- Who owns and manages the urban forest on private residential land?
- What are their perceived benefits of and concerns about the trees on their properties?
- What factors predict their intention to plant and care for their trees?
- What factors predict their intention to support urban forestry programs?



Figure 1. Residential property owners in four Wisconsin urban areas were sampled in the survey.

Wisconsin Urban Landowner Survey

The 16-page questionnaire was developed in close collaboration with the U.S. Forest Service Forest Inventory and Analysis (FIA) Program and adapted from the National Woodland Owner Survey of rural landowners. To test the questionnaire, six focus groups were held in Madison and Wausau. Two focus groups of randomly selected urban residential landowners and one focus group of urban forestry professionals were held in each city.

Urban residential landowners across four cities and their suburbs in Wisconsin – Madison, Milwaukee, Green Bay and Wausau – were selected to receive the survey (Figure 1). These urban areas were chosen to compare landowners who lived in different geographic regions of the state, assuming landowners living in distinct communities may have different perspectives on urban tree care and urban forestry programs. The U.S. Forest Service FIA program used its parcel ownership database to randomly select 1,500 landowners per urban area. Records were pulled for landowners living within the official city limits and surrounding suburban areas. Assignments to city versus suburban areas were made according to U.S. Census Bureau definitions of the urban boundary, which is based on population density. A probability proportional-to-size sampling method was used to ensure at least 200 responses from each area's respective city and suburban area.

A three-wave mailing was sent to landowners in January and February of 2017, inviting the primary decision-maker for each property to complete the survey. Landowners received a cover letter with a link to the web survey and a reminder letter two weeks later. For those who didn't respond, a final letter with a web link was sent three weeks later, accompanied by a printed paper copy

of the questionnaire and a postage-paid reply envelope. We received 1,768 usable surveys, with an adjusted 32% response rate that is consistent with similar surveys mailed to urban residents.

Analysis of the Survey

The analysis focused on the 88% of respondents who are single-family homeowners, who live on their property (either seasonally or year-round and do not rent to others). Several comparisons were made:

- Responses from four different urban areas in Wisconsin (Green Bay, Madison, Milwaukee and Wausau)
- Responses from people with different property sizes ($\leq .25$ acres, $> .25$ to $< .5$ acres, $.5$ to 1 acre, > 1 acre)
- Responses from people who owned property within the official city limits compared to the surrounding suburban area (city, suburb)
- Responses based on demographic differences such as age, gender and income

In general, results were considered statistically significant at $p < .05$ and specific p values have been provided in the footnotes where applicable. Additionally, a regression model was run to predict intention to support urban forestry programs and intention to plant a tree in the next 5 years using the Theory of Planned Behavior as a framework. Composite variables represented attitudes, social norms and perceived behavior control. Several background predictors including demographics were also part of the model.

URBAN LANDOWNER SURVEY RESPONDENTS

Demographics

The respondents of this survey, single-family homeowners in city and suburban areas, were predominately male (68%), which may be the result of asking that the “owner who makes most of the decisions about your property” complete the survey. The respondents’ median age was 60. Comparing respondents by generational life-stage, the majority of respondents were Baby Boomers ages 53-71 (52%), followed by Gen Xers ages 37-52 (24%), people of ages 72 and over (17%), and Millennials under the age of 36 (8%).

More than a quarter (28%) of respondents completed a bachelor’s degree, with another quarter (24%) having also completed an advanced degree. Respondents were moderately wealthy, with a third (34%) reporting an annual household income of over \$100,000. They were also predominately white (85%), while people of other racial or ethnic backgrounds each represented less than 2% of all respondents. More research is needed before generalizing these results to Wisconsin’s minority and low-income homeowners, who often live in areas that lack urban trees and could benefit from efforts to expand the tree canopy.

Respondents were evenly divided between those owning a home in the city (48%) and those in the broader suburban area (52%). Respondents’ properties were typically less than 1 acre (68%), though there were regional differences (Figure 2). Green Bay and Wausau respondents commonly owned more than 1 acre of property and had more than 35 trees, whereas Madison and Milwaukee respondents more commonly owned less than .25 acres and had 1-4 trees.¹ As we will see later in this report, these

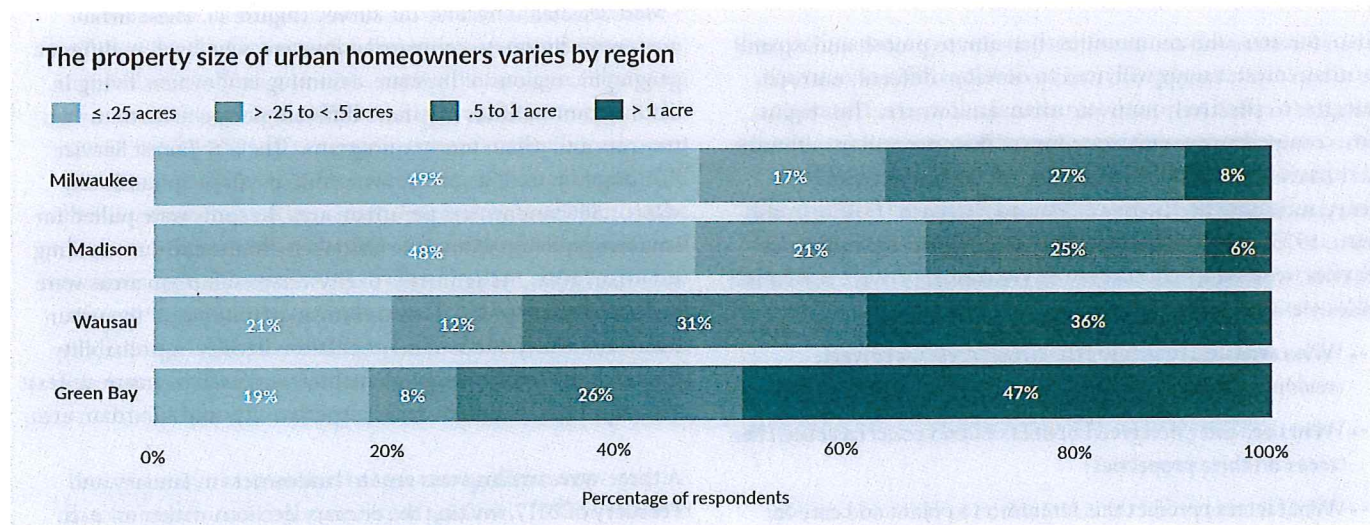


Figure 2. Percentage of respondents from each city by property size (in acres).

¹ ANOVA results indicate that Green Bay and Wausau respondents owned significantly more property and trees than Madison and Milwaukee respondents ($p < .05$). See Tables 1 and 2 in the appendix.

regional differences have implications for homeowners' attitudes and intentions around tree care and support for urban forestry programs.

Reasons for Owning Property

Across Wisconsin, the four most important reasons why respondents owned property were:

1. Quality of the neighborhood (e.g. peaceful, attractive, walkable)
2. Safety of the area
3. To raise their family
4. Convenient location

One important regional difference to note is that Green Bay respondents rated "convenient location" as less important on average than those in other cities. In addition, they placed greater importance on "enjoying beauty and scenery" and, along with Wausau homeowners, also placed greater importance on "privacy" than Madison homeowners.² Given that homeowners with larger properties (>1 acre), as well as suburban respondents, placed more importance on enjoying beauty and privacy, the regional difference in values could be partially explained by the larger properties and more suburban areas found in northern urban communities.³ Marketing messages may resonate more strongly with homeowners by making a connection between these values and the desired tree care behavior.

MESSAGES SHOULD EMPHASIZE TREE BENEFITS

Marketing to promote tree care and urban forestry is clearly needed, but there are many ways to go about this. Campaigns to encourage a specific behavior, such as pruning a tree, can emphasize social norms (i.e., perceptions of what others are doing or what they approve of), benefits of the behavior, how to address one's concerns about the behavior, behavioral control (i.e., perceptions of one's ability to do the behavior) or other aspects.

In this case, the survey results support that marketing ought to focus on homeowners' attitudes about the benefits of trees.⁴ The analysis found that respondents who saw the benefits of trees (i.e., they thought different aspects of trees on their property were important), both for their communities and for themselves, were

more likely to engage in positive urban forestry behaviors. Survey variables related to *community-level* benefits included trees improving air quality, providing habitat for wildlife, building a legacy for the future and making their neighborhood a better place to live. Respondents also saw *personal* benefits from having trees on their properties. Survey variables related to personal benefits included trees providing shade, privacy, noise reduction and stress relief while increasing property value and appearance. Though having positive attitudes about the community benefits of their trees was more strongly correlated with support for urban forestry programs, having positive attitudes about the personal benefits of their trees was more strongly correlated with intending to plant a tree on their property.⁵

Overall, survey respondents generally saw trees as beneficial. Framing messages around the benefits that are *most important* to a target audience can help tip the balance as they weigh these benefits against concerns.

Respondents' top five perceived benefits of trees:

1. Improve the look of my property
2. Provide shade and cooling
3. Improve air quality
4. Make my neighborhood a better place to live
5. Privacy

Social norms – or perceptions about how others feel about urban tree care and what they actually do to care for their trees – were also generally positive (Figure 3). However, respondents' perceived social norms were less predictive of their support for urban tree initiatives as compared to perceived community and personal benefits of urban trees. It is worth exploring if increasing the visibility around norms for tree care might increase the influence of social norms on a homeowners' behavior. In other words, active tree care or support for trees may be difficult for neighbors to see visually, reducing the power of social norms in this context.

Typical ways to make the norms more apparent include yard signs, stickers or local social media campaigns. With trees, there may also

² An ANOVA test comparing responses from the four cities indicates that Green Bay and Wausau responses were significantly different on these items ($p < .05$). See Table 3 in appendix.

³ ANOVA results indicated that respondents with more than one acre of property, as well as those who owned property in suburban areas, were significantly different ($p < .05$) on these items. See Tables 4 and 5 in appendix.

⁴ A regression model was run with a dependent variable being a composite of survey items related to support for urban forestry efforts. A composite variable related to social norms was significant ($\beta = .07, p < .05$), but the relationship between the dependent variable and attitudes related to community benefits of trees ($\beta = .25, p < .001$) and personal benefits of trees ($\beta = .14, p < .001$) was stronger.

⁵ A regression model was run with a dependent variable being a composite of survey items related to intention to plant trees. A composite variable of the personal benefits of trees under ownership was significant ($\beta = .18, p < .001$).

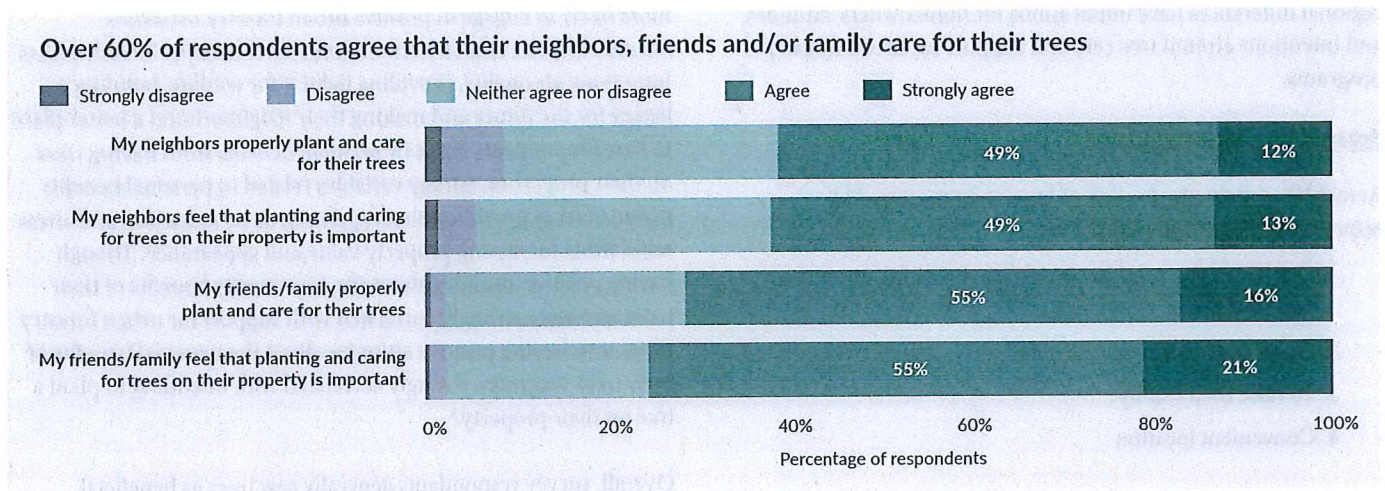


Figure 3. Social norms for tree care behavior are generally positive.

be an opportunity to put something physically on a tree that relates to a target behavior or program (e.g., a ribbon that says “I just got pruned!” or “This house supports the XYZ Tree Program”). For example, rural family forest owners can post the Certified Family Forest Tree Farm sign on their land to express their commitment to sustainable forestry behaviors for passersby.



Signs can help increase the visibility of tree care behaviors to enhance social norms.

ADDRESS CONCERNS ABOUT PROPERTY DAMAGE

The survey also found that respondents have clear concerns related to trees. Almost half of the respondents reported being strongly concerned about the potential for trees and branches breaking and damaging their property (49%) and the potential for tree roots interfering with building foundations, pipes or pavement (46%). It is noteworthy that city residents (and correspondingly

those with smaller properties) are more concerned about these possibilities than suburban residents, and inversely, perceive fewer benefits⁶ (Figure 4). This may be expected, as it is typical for individuals who believe a behavior to be more beneficial to also perceive it to be less risky, and vice versa. Thus, marketing about trees should address this and could promote specific tree care options (rather than tree removal) as a way to avoid such risks. If any kind of fear appeal is used (e.g., not caring for trees can lead to the trees dying or property damage from a storm event), it must be coupled with actionable advice. The message may backfire if people don't know how to address the risk.

Communicators should be aware that city residents perceive greater risks associated with trees. This is likely rooted in the reality that homes within cities are in closer proximity to each other and are therefore likely to be in closer proximity to trees surrounding homes. Thus, the likelihood of property damage from trees may be greater. Regionally, this is mirrored by the finding that respondents from Milwaukee (where a greater proportion of respondents were within the city limits and had smaller property sizes) averaged significantly higher on several tree concern items, whereas respondents in Green Bay and Wausau (where a greater proportion of respondents were in suburban areas and had larger property sizes) averaged significantly higher on several tree benefit items.⁷

Several respondents noted in their comments that they were specifically concerned with trees falling during storms, damage to sidewalks and the mess or litter associated with certain types of trees. One survey respondent shared concerns about expenses related to tree maintenance in an open text portion of the survey and noted:

⁶ T-test results indicated that responses differed significantly on seven of 13 survey items about tree benefits. In all cases, suburban respondents rated tree benefits as higher. There were significant differences on three of 12 items about tree concerns. In all cases, suburban respondents rated their concerns as lower. See Tables 6 and 7 in the appendix.

⁷ ANOVA results indicated that on eight of 12 items about the concerns of trees, averages from Milwaukee were significantly higher than those from Green Bay, Wausau, or both ($p < .05$). With tree benefits, Green Bay or Wausau (or both) averaged higher than Madison, Milwaukee, or both on six items ($p < .05$).

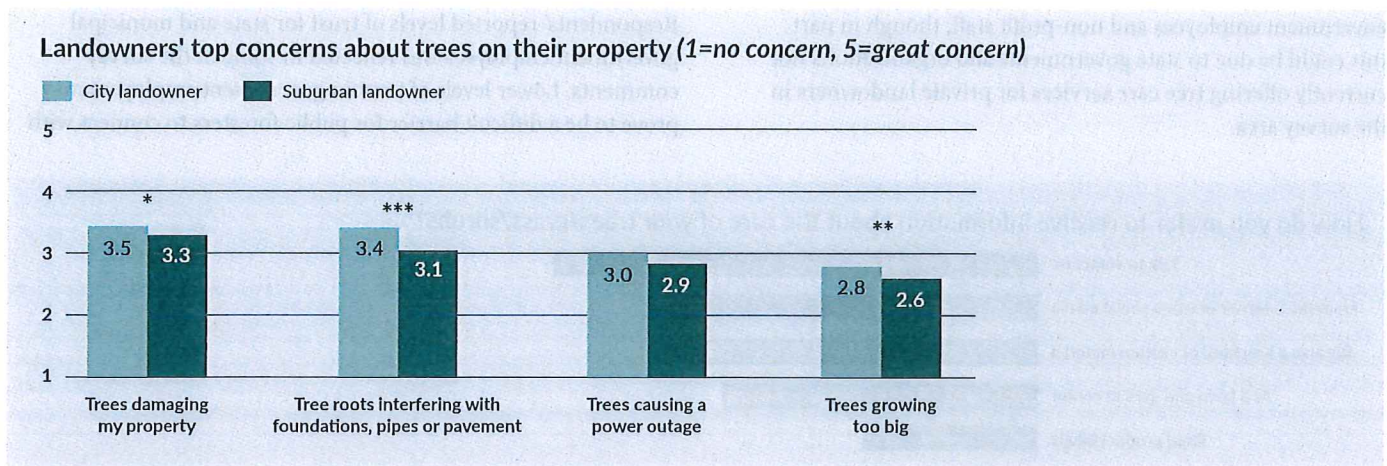


Figure 4. City and suburban landowners' perceived concerns about trees on their properties. * $p < .05$, ** $p < .01$, *** $p < .001$

"Trees have many valuable qualities but are also becoming very expensive for the city and homeowners to maintain.... especially as new insects and new virus[es] are causing more varieties to die. The cost of taking down large trees is becoming a reason for neighbors to not take any action and probably to avoid planting new trees."

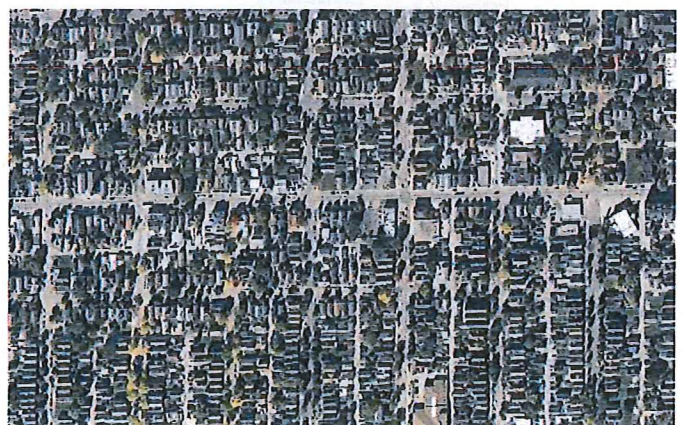
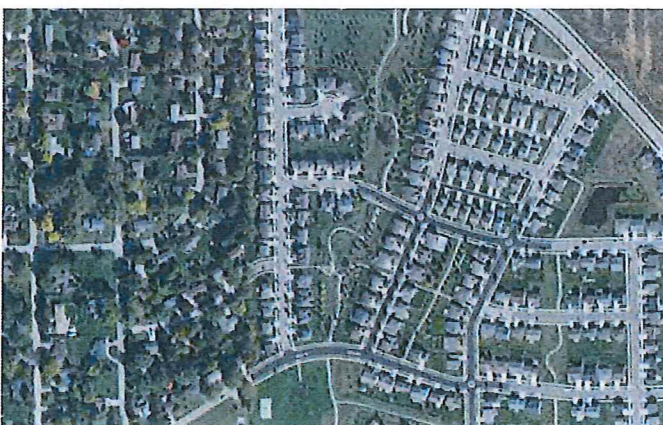
LET'S TALK TO LANDOWNERS ABOUT TREE CARE

More than any other mode, people prefer to receive information about caring for trees through talking to someone (Figure 5). Thus, encouraging interpersonal dissemination of high-quality urban forestry-related messages should be a priority. Interpersonal communication strategies could include collaborating with local community groups or opinion leaders to promote tree planting and awareness of resources to support landowners. Social media and online information was also rated highly as a way people prefer to get information about caring for trees. There are generational differences in communication preferences, with social media or online sources being more popular among younger respondents.

PURSUE PARTNERSHIPS WITH THE PRIVATE SECTOR

Another important consideration for successful tree-care communication is understanding trusted sources of information. Messengers can be as important as the message itself because the person or institution that delivers the message influences how the message is received. The source should depend on the target audience for a specific message. Good messengers should have both expertise and the trust of the audience. In this case, a greater proportion of respondents reported trusting professionals from the private sector and personal connections, such as family or friends (Figure 6). Fewer reported trust for state or municipal

To be most effective, campaigns might consider focusing more on engaging the private sector and community groups to disperse information and messages.



In cities, where homes are closer together and property sizes are smaller, respondents have greater concerns about tree damage. Marketing needs to address these concerns and could promote actionable tree care options as a way to avoid such risks.

government employees and non-profit staff, though in part this could be due to state governments and organizations not currently offering tree care services for private landowners in the survey area.

Respondents' reported levels of trust for state and municipal government employees was reflected in some of the survey comments. Lower levels of trust in government employees may prove to be a difficult barrier for public foresters to connect with

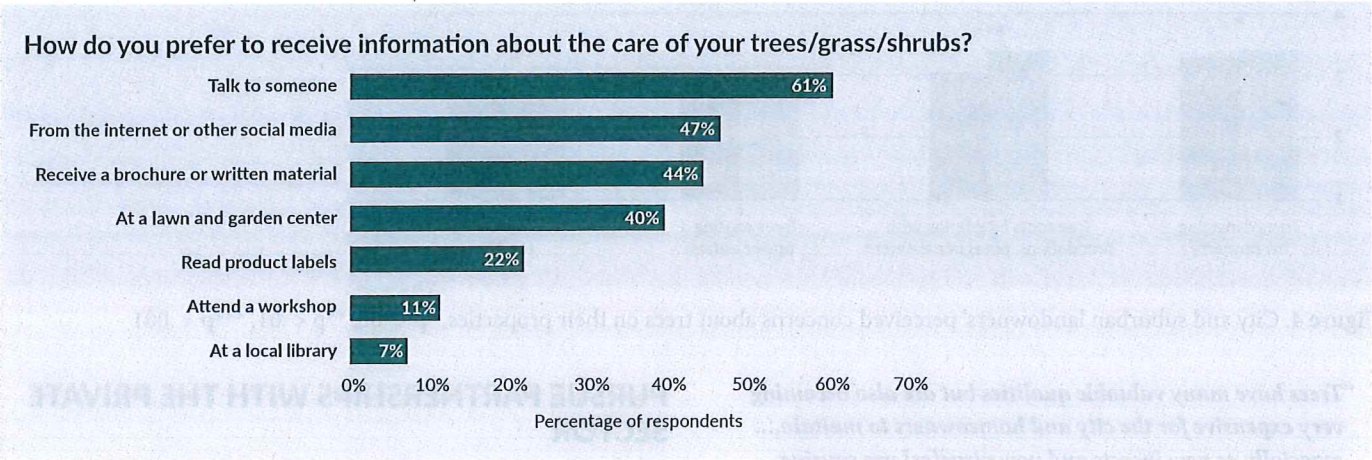


Figure 5. Preferred mode for receiving information about caring for trees, grass, shrubs.

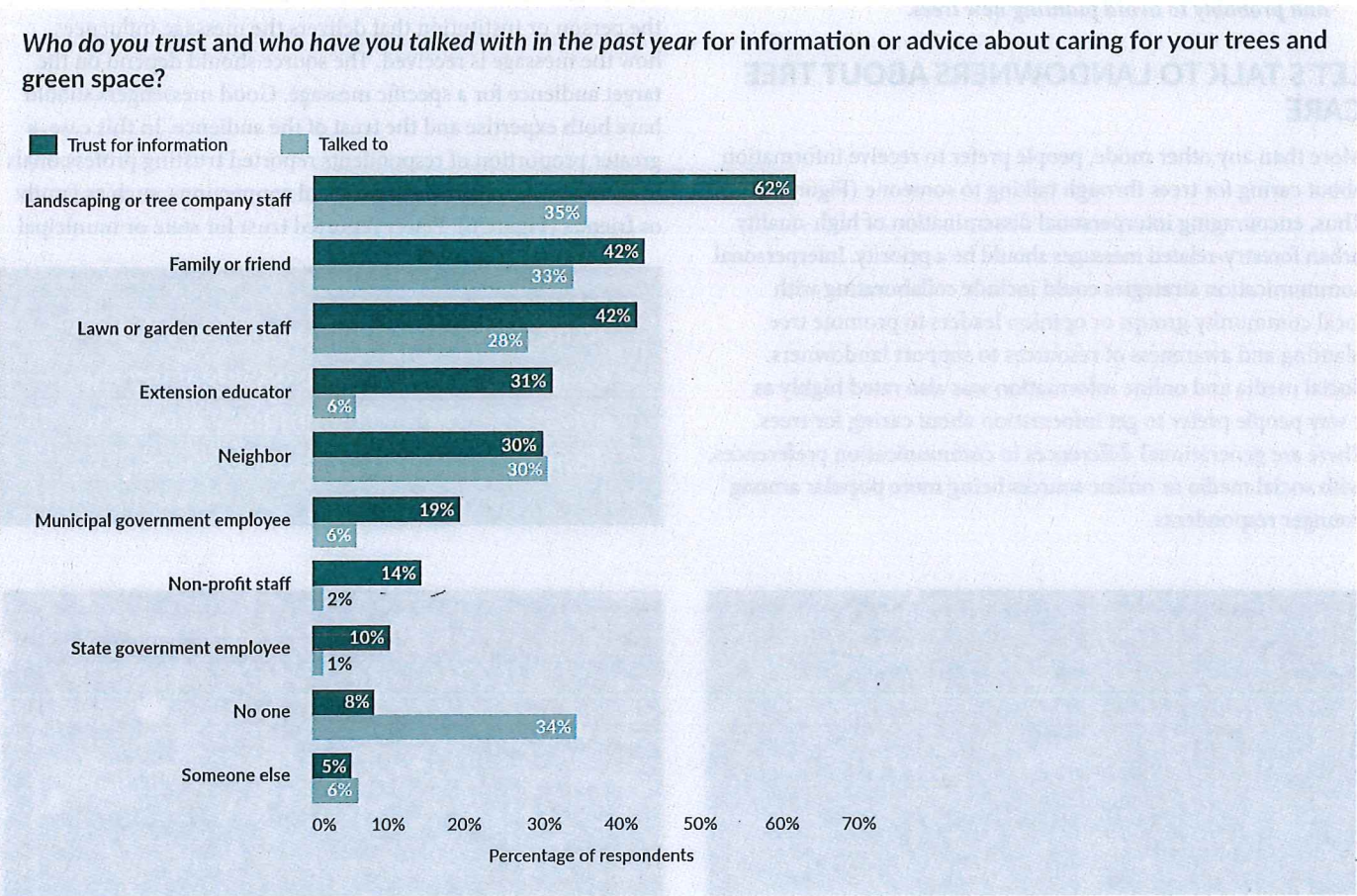


Figure 6. Sources that are more trusted and sources respondents talked to in the past for information about planting trees and caring for green space on their property.

respondents. To be most effective, campaigns might consider focusing more on engaging the private sector and community groups to disperse information and messages.

At the same time, some comments showed that respondents wanted unbiased information from government sources. Extension is poised to be this unbiased source of information. Extension is a current source of this kind of information, and trust among respondents for Extension educators was higher than for other government employees. Partnerships with the private sector could emphasize Extension's role as an unbiased source of information for landowners. It is important to note a few differences in urban landowners' trust in Extension. Fewer Milwaukee respondents trust Extension for tree care information (18%) compared to respondents in other cities (over 30%), and fewer Millennials trust Extension compared to older generations. This difference could be explained by the fact that rural landowners (who trend older and have larger properties) may interact with Extension on a more regular basis given the more visible presence of county Extension educators in rural areas.

Regionally, Wausau stands out in terms of communication. Respondents from Wausau reported lower levels of trust across sources. For example, landscaping or tree care companies were still the most trusted sources of information about trees for Wausau residents, but only 54% indicated that they trusted this source (compared to 70% of respondents from Madison). Correspondingly, fewer respondents from Wausau have talked with any sources related to tree care. It is unclear why Wausau residents are less trusting of and less connected with tree care professionals. Urban foresters may need to focus more on building trust with tree care professionals in particular communities.

START WITH BEHAVIORS OTHER THAN TREE PLANTING

On average, respondents rated themselves as "very likely" to prune their trees in the next five years but only "somewhat likely" to plant trees, remove whole trees or fertilize trees in the next five years. About one-third (38%) of landowners said they are "likely" or "extremely likely" to plant a tree in the next five years. For communicators, this is a reminder that pro-tree behaviors other than planting trees might be emphasized in marketing and could even be used as a gateway to motivating more challenging behaviors, such as removing whole dead or dying trees or planting new trees. This will be more effective for city landowners in particular, whose properties may have already reached their "tree capacity." How can city residents take action to promote the health of their trees or support urban forestry efforts, even though they don't have space to plant more trees? Messaging to landowners about behaviors to which they are more receptive, such as pruning trees to protect property, may provide the opportunity to open up dialogue about strategically planting additional trees where

Some respondents wanted help/info from government:

"I wish there was more information available to me from public sources regarding the proper management of the trees on my property. Specifically information on proper tree spacing to maximize growth, shade, shape, etc."

"The vast majority of trees on our property are native ash trees. We have great concern about the financial burden of dealing with the consequences of emerald ash borer prevention or removal of infested trees when that may occur in the future! Government assistance to urban property owners in this situation is crucial!!"

"We are concerned how to best address emerald ash borer in our trees, we would be interested in any municipal or state resources for guidance."

Others were less trusting toward government about urban forestry issues:

"I feel the current DNR and local government are not at all up to the task to protect and enhance our urban and suburban spaces."

"I look down my street and the sidewalks cracked or destroyed by the roots of trees planted by the city is unbelievable. They present a safety hazard. I have contacted the city and nothing was done. In time, the replacement [cost] of these sidewalks will be passed on to the homeowner."

"I think the planners of my community do not always make the wisest choices of trees being planted on city property. Too many similar trees in an area leave us vulnerable for disease."

relevant. This could be particularly effective given that the recommended means of outreach preferred by urban landowners is word-of-mouth communication.

Messages about planting trees might be more appropriate in suburban areas. These respondents were significantly more likely than city respondents to report the intention to plant trees.⁸ This may be because people living in suburban areas often have more property on which to plant trees. When examining respondents by property size (rather than suburban or city designation), people with larger properties also reported stronger intentions to plant trees.⁹

Suburban residents also felt more confident about their physical, technical and financial ability to plant and care for trees.¹⁰ It may be that for untrained individuals living in more densely populated areas, tree care would be physically harder (as there would be homes or buildings in close proximity) and consequently more expensive. This presents a particular challenge for city residents to which communicators should be sensitive. This may be one reason fewer respondents (55%) within the city limits have removed trees compared to those in suburban areas (64%), in addition to the logical reason that city residents own fewer trees on average and therefore remove them less often. However, the



Pruning is the most likely tree care behavior among respondents and could serve as an opening for encouraging other behaviors.



Homeowners in suburban areas, and similarly those with larger properties, have a stronger intention to plant trees.

extent to which city residents are not taking care of tree issues or problems that need to be addressed is unknown.

These trends are to an extent regional. Among respondents in Green Bay and Wausau, where property sizes averaged larger and a greater proportion of respondents were in suburban areas, respondents reported being more likely to plant trees than respondents in Milwaukee. Green Bay and Wausau respondents were also more likely to remove whole trees than respondents in Madison, with Wausau respondents also averaging higher than Milwaukee respondents on that item. Green Bay respondents averaged significantly higher than Madison and Milwaukee respondents regarding knowing who to ask for help, and Green Bay, Madison and Wausau averaged higher than Milwaukee regarding physical ability to care for trees. There were not significant differences in having the funds for tree care.¹¹

TARGETED MARKETING IS NEEDED: SUPPORT FOR TREE CARE AND PLANTING PROGRAMS IS LOW

Overall, respondents' enthusiasm was tepid for tree care and planting efforts in their communities, including volunteering to plant trees, donating money and paying a tax to support local governments' urban tree planting and care programs¹² (Figure 7). Relatedly, only 23% of respondents said they were strongly interested in participating in a program that would help them cover the expense of planting or caring for their own trees. These results indicate that urban forestry marketing efforts may be

⁸ In a t-test comparing urban and suburban respondents, suburban respondents averaged higher for intention to plant trees ($t = -6.9$, $p < .001$). See Table 8 in the appendix.

⁹ ANOVA results found that respondents with more than one acre of property were significantly different ($p < .05$) than respondents with smaller property sizes for intention to plant trees. See Table 9 in the appendix.

¹⁰ In a t-test comparing urban and suburban respondents, suburban respondents averaged higher for physical ability and tree care ($t = -2.2$, $p < .05$), knowing what to do ($t = -3.4$, $p < .01$), and financial resources to plant and care for trees on their property ($t = -3.6$, $p < .001$). See Table 10 in the appendix.

¹¹ These results were significant at the $p < .05$ level.

¹² This low level of support for urban forestry initiatives could partly be due to the broad language we used to describe the initiatives in the survey. People may be more willing to support tree programs with more specific objectives. More research is needed to fully understand urban landowners' support for tree care initiatives.

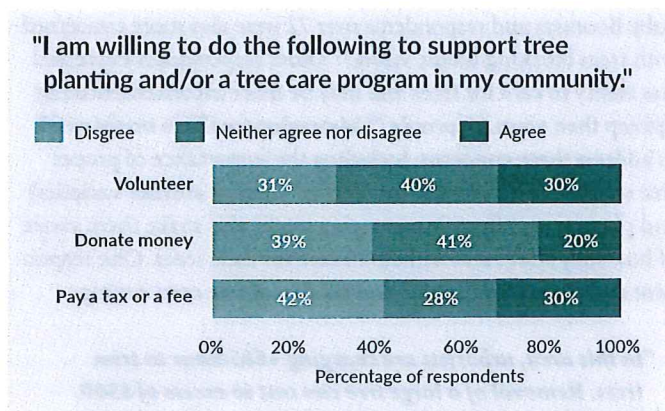


Figure 7. Willingness to support community urban forestry initiatives.

needed if increasing support for these initiatives is a priority. A **tax or fee** appears particularly polarizing, and should perhaps only be pursued at the local level in particular communities. Respondents with greater property acreage tend to be less supportive of donating money or supporting a tax related to urban forestry efforts.¹³ These groups are also less satisfied with parks or open spaces in their communities. It may be that given where they live, they feel urban forestry and tree planting projects are less applicable if there are fewer community spaces where they would encounter trees in public spaces. Language for marketing campaigns will need to be adapted to feel relevant to people who live in more suburban areas with fewer shared spaces.

Regarding **volunteering**, interest was low among older respondents (especially those 72 and over).¹⁴ This may reflect a perceived reduced ability to plant trees; however, we did not ask about barriers to participating in these programs. Nonetheless, marketing related to volunteering may be most productive if targeted toward a younger audiences.

While **donating money** garnered the least agreement (only 20%), this strategy might work if marketing efforts focused on specific projects or outcomes that financial donations would support while demonstrating a need. Furthermore, it may be helpful to obtain a more thorough understanding of this group of people who are willing to donate to such causes and target marketing initiatives to them. The fact that so many respondents were ambivalent about donations (nearly 40%) may be because people are unwilling to pledge support generally for trees without knowing how the money would be used.

Over 80% of respondents think the quality of trees and number of trees in their neighborhood are good or very good.

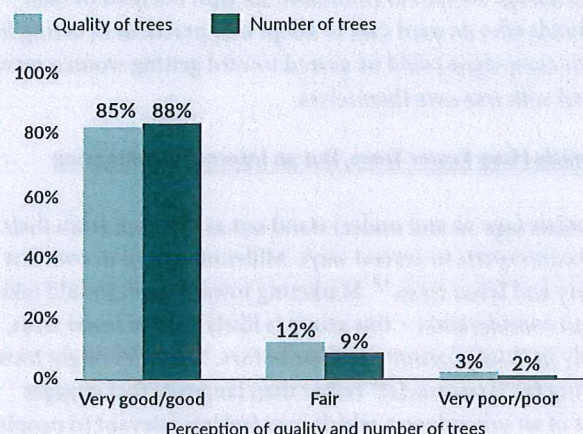


Figure 8. Respondent satisfaction with the trees in their neighborhood.

Relatedly, it may be that support for tree care programs is low because some people do not perceive a need for them, as satisfaction regarding trees in the community and neighborhood is quite high (Figure 8). Communicating the need for such tree care programs will be critical, especially if trees are at risk but that risk is not visually apparent. Overall, we recommend further studies to better understand the factors that most influence landowners' receptivity to these programs, which can help design more effective marketing and communication campaigns.

Regionally, it appears there is slightly more support in Madison for such programs than in other regions. Madison averaged significantly higher than Milwaukee or Green Bay when it comes to willingness to volunteer time to plant trees and averaged higher than all other regions for willingness to donate money or pay a tax to support tree programs.¹⁵

INSIGHTS FOR TARGETED COMMUNICATION

Women May Play a Crucial Role in Fostering Urban Forests

There are several noteworthy differences between the views of men and women on urban forestry. Women see trees as more important to their properties.¹⁶ While women perceive trees as more beneficial, more men reported carrying out tree and yard work on their properties (89% of men compared to 75% of women).

¹³ ANOVA results indicated that respondents with more than one acre of property were significantly different ($p < .05$) on this item than respondents with smaller property sizes. See Table 11 in the appendix.

¹⁴ An ANOVA test indicated that respondents over age 72 were significantly different ($p < .05$) than all other younger life stage groups on this item. See Table 12 in the appendix.

¹⁵ An ANOVA test comparing responses from the four regions indicated that Madison responses were significantly different on these items ($p < .05$). See Table 13 in the appendix.

¹⁶ In a regression model, gender was a significant predictor of attitudes about trees having community-level benefits ($\beta = .12, p < .001$) and personal benefits ($\beta = .15, p < .001$).

Marketing to target women's engagement in tree care and planting should leverage their already positive attitudes about urban trees and connect them to trusted service providers. Marketing might also encourage women to communicate with the men in their households who do yard care to adopt best practices in caring for trees, or campaigns could be geared toward getting women more involved with tree care themselves.

Millennials Have Fewer Trees, But an Interest Volunteering

Millennials (age 36 and under) stand out as different from their older counterparts in several ways. Millennials tend to own less property and fewer trees.¹⁷ Marketing toward them should take this into consideration – this group is likely to have fewer trees, possibly in close proximity to their homes. Messages might focus on caring for “your tree(s)” rather than language that engages images of an urban forest, which may feel less relevant to people who are only responsible for one or two trees.

Awareness of volunteer groups focused on maintaining green spaces or fostering healthy urban forests was also lower among some Millennials, particularly those with children.¹⁸ This could be the result of the demographic having less flexibility or time to volunteer. Another possibility is that Millennials are younger and may have had less time to become familiar with community organizations focused on tree care. Regardless, these respondents also reported being *more willing* to volunteer their time. Perhaps current resources and opportunities are not reaching Millennials, even though they are the most likely age group to intend to volunteer.

Baby Boomers Have More Concerns with Existing Trees

Retired Baby Boomers (ages 53-71) expressed greater concern about trees growing too big or making a mess. One respondent put it this way:

“3/4 of the trees on the property are very old thus dropping sticks, needles, and pine cones. At my age, it is annoying to keep the yard area clean. A white pine died and there was a concern about it coming down on the house in a storm... So my relationship with these old trees is troublesome. Two younger trees on the property provide much more pleasure.”

Baby Boomers and respondents over 72 were also more concerned with trees blocking scenic views.¹⁹ Older respondents expressed less ability to care for trees and may be more inconvenienced by upkeep than younger people.²⁰ Messaging for them might need to address these concerns, including the importance of proper tree selection (i.e., choose less “messy” trees or smaller varieties) and placement. Effective messaging might also make them aware of how they could receive help to care for their trees. One respondent also discussed the cost and burden of tree care, noting:

“In this area, arborists are charging +\$85/hour to trim trees. Removal of a large tree can cost in excess of \$500. We will be soon living on a fixed income, substantially less than we now enjoy, and I don't know if we can afford to maintain all the trees we have. In truth, I am enjoying them less and less as I age, even though I am well aware of their benefits, I see them as a liability.”

Reaching New Audiences Requires Focusing on Those with Lower Education and Income Levels

Respondents with more education and higher incomes are more aware of forestry-related service providers. Those with more education also show more support for tree care programs.²¹ While this audience may represent current tree supporters, it is a reminder that to expand tree support, messages might need to be crafted in a way that is more relevant to those with lower levels of income or education.

CONCLUSION

This report explores some major trends in the values, attitudes and behaviors of Wisconsin's private residential, urban landowners related to urban trees. Important regional differences were found, as well as differences based on property size and differences between city and suburban respondents. These differences confirm that messages promoting urban forestry programs and tree care should be tailored to more effectively reach and motivate different target audiences within a region. Messages should also address landowners' most important perceived benefits and concerns about urban tree care and then be tested through social media, direct-mail or other platforms to learn which messages most appeal to different types of urban landowners.

¹⁷ ANOVA results indicated that respondents age 36 and under had smaller property sizes than several other life stage groups ($p < .05$). See Table 14 in the appendix.

¹⁸ Respondents age 36 and under with children were less aware of such volunteer groups than several other life stage groups but more interested ($p < .05$). See Table 15 in the appendix. Millennials with children also rated themselves more willing to volunteer to plant trees than three other life stage groups (Table 12).

¹⁹ Baby Boomers who were retired were more concerned about trees making a mess and growing too big than respondents aged 37-52 ($p < .05$), while both the Baby Boomers and individuals 72 and over were more concerned about the blockage of scenic views than the group aged 37-52 without children ($p < .05$). See Table 16 in the appendix.

²⁰ Respondents over the age of 72 rated themselves as less physically able to care for trees than all other life stage groups ($p < .05$), and those who were 53-71 rated themselves as less physically able to care for trees than several other life stage groups ($p < .05$). See Table 17 in the appendix.

²¹ In a regression model, education ($\beta = .13, p < .001$) and income ($\beta = .18, p < .001$) were significant predictors of familiarity with tree service providers. Familiarity was in turn a predictor of support for urban forestry efforts ($\beta = .09, p < .01$). Education ($\beta = .22, p < .001$) was also a direct predictor of support for urban forestry efforts (the dependent variable).

There are some important limitations to this report, most notably the focus on single-family homeowners. To fully understand how tree attitudes and behaviors differ among Wisconsin's urban residents, future work should focus on other types of urban residents, such as people who rent their homes or who live in apartments. Additionally, respondents represented in this report tend to be older, male and white, and future work should seek the perspectives and behaviors of a more diverse audience.

Unsurprisingly, urban trees appear to be greatly valued by Wisconsin's residents. Strategic marketing efforts built on strong partnerships with the private sector and local community groups have the potential to increase landowners' support for urban forestry programs and motivate landowners to take a more active role in caring for their trees and green space.

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Appendix

Table 1. ANOVA results for property size, by urban area

Urban area	N	Mean
Madison	377	1.9 ^c
Milwaukee	256	2.0 ^c
Wausau	359	2.9 ^b
Green Bay	372	3.1 ^a
Total	1364	2.5

Note: This variable was recoded to be on a 1-4 scale, where 1 = ≤ .25 acres, 2 = > .25 to < .5 acres, 3 = .5 to 1 acre, and 4 = > 1 acre. Groups with matching superscript letters did not differ ($p > .05$).

Table 2. ANOVA results for number of trees owned, by urban area

Urban area	N	Mean
Madison	408	2.9 ^b
Milwaukee	279	2.9 ^b
Wausau	364	3.8 ^a
Green Bay	388	3.8 ^a
Total	1439	3.4

Note: This variable was recoded to be on a 0-4 scale, where 0 = no trees, 1 = 1-4 trees, 2 = 5-10 trees, 3 = 11-34 trees, 4 = 35 or more trees. Groups with matching superscript letters did not differ ($p > .05$).

Table 3. ANOVA results for select reasons for owning property, by urban area

Reason for owning property	Urban area	N	Mean
To enjoy beauty or scenery	Madison	396	3.7 ^{bc}
	Milwaukee	266	3.6 ^c
	Wausau	370	3.9 ^{ab}
	Green Bay	387	4.0 ^a
Convenient location	Madison	407	4.2 ^a
	Milwaukee	276	4.2 ^a
	Wausau	375	4.2 ^a
	Green Bay	394	4.0 ^b
For privacy	Madison	397	3.7 ^b
	Milwaukee	277	3.9 ^{ab}
	Wausau	372	4.0 ^a
	Green Bay	394	4.1 ^a

Note: Scale was 1-5 (1 = Not important, 5 = Very important). Groups with matching superscript letters did not differ ($p > .05$).

Table 4. ANOVA results for select reasons for owning property, by property size

Reason for owning property	Property size	N	Mean
To enjoy beauty or scenery	≤ .25	392	3.3 ^d
	> .25 to < .5	203	3.6 ^c
	.5 to 1	378	3.9 ^b
	> 1	342	4.4 ^a
For privacy	≤ .25	405	3.5 ^d
	> .25 to < .5	203	3.7 ^c
	.5 to 1	378	4.0 ^b
	> 1	345	4.4 ^a
Convenient location	≤ .25	411	4.2 ^a
	> .25 to < .5	204	4.3 ^a
	.5 to 1	380	4.2 ^a
	> 1	342	4.0 ^b

Note: Scale was 1-5 (1 = Not important, 5 = Very important). Groups with matching superscript letters did not differ ($p > .05$).

Table 5. T-test results comparing city and suburban responses regarding reasons for owning property

Reason for owning property	City Mean	Suburban Mean	T test
Quality of the neighborhood	4.3	4.4	2.6*
Safety of the area	4.3	4.4	1.7
Convenient location	4.2	4.1	-3.2**
To raise my family	4.2	4.3	1.1
Other	4.1	4.2	.3
Cost of the property	3.9	3.7	-3.2**
Level of property tax	3.7	3.7	.77
For privacy	3.6	4.1	9.5***
The local school system	3.6	3.7	1.1
Services offered by my municipality	3.5	3.3	-4.1***
To enjoy beauty or scenery	3.5	4.0	9.9***
For property investment	3.3	3.4	1.0
For recreation	2.8	3.3	7.1***
To pass property to my heirs	2.4	2.6	2.7***

Note: Scale was 1-5 (1 = Not important, 5 = Very important). * $p < .05$, ** $p < .01$, *** $p < .001$

Table 6. T-test results comparing city and suburban responses regarding tree benefits

<i>Tree benefits</i>	<i>City Mean</i>	<i>Suburban Mean</i>	<i>T test</i>
Trees provide shade and cooling	4.3	4.2	.7
Trees improve the look of my property	4.2	4.3	-2.6*
Trees improve the quality of the air	4.2	4.2	.15
Trees on my property make my neighborhood a better place to live	4.1	4.2	-2.0*
Trees provide privacy	4.0	4.1	-2.4*
Trees increase the value of my property	3.8	3.9	-1.3
Trees provide energy savings for my home	3.8	3.8	-.1
Trees provide habitat for wildlife	3.8	4.0	-2.5*
Trees leave a legacy for future generations	3.8	3.9	-2.3*
Trees reduce noise from the road	3.1	3.2	-1.2
Trees reduce my stress level	3.1	3.2	-.44
Trees create opportunities for play and recreation for me/my family	2.7	3.0	-3.3**
Trees provide food for me (e.g. fruits, nuts, syrup)	2.3	2.4	-2.3*

Note: Scale was 1-5 (1 = Not important, 5 = Very important). * $p < .05$, ** $p < .01$, *** $p < .001$

Table 7. T-test results comparing city and suburban responses regarding tree concerns

<i>Tree concerns</i>	<i>City Mean</i>	<i>Suburban Mean</i>	<i>T test</i>
Trees or branches breaking and damaging my property	3.5	3.3	2.2*
Tree roots interfering with building foundations, pipes or pavement	3.4	3.1	5.6***
Trees or branches breaking and causing a power outage	3.0	2.9	1.8
Trees growing too big	2.8	2.6	3.0**
Trees creating a mess on my property	2.6	2.6	.22
Trees attracting pests (e.g. insects, animals)	2.4	2.4	-.55
Trees blocking open green space/sun	2.1	2.0	.57
Trees irritating allergies	2.0	2.0	1.2
Trees blocking scenic views	1.9	1.9	-.4
Trees creating a fire hazard	1.9	1.9	-.82
Trees requiring a lot of water	1.9	1.9	1.1
Trees blocking solar panels or wind turbines installed on my property	1.7	1.6	.79

Note: Scale was 1-5 (1 = No concern, 5 = Great concern). * $p < .05$, ** $p < .01$, *** $p < .001$

Table 8. T-test results comparing city and suburban responses regarding tree care

<i>Tree care intention in next 5 years</i>	<i>City Mean</i>	<i>Suburban Mean</i>	<i>T test</i>
Prune trees	4.1	4.3	-4.0***
Plant trees	2.8	3.3	-6.9***
Remove whole trees	2.6	3.1	-7.0***

Note: Scale was 1-5 (1 = Extremely unlikely, 5 = Extremely likely). * $p < .05$, ** $p < .01$, *** $p < .001$

Table 9. ANOVA results for intention to plant trees by property size

Tree concerns	Property size (acres)	N	Mean
Plant trees	≤ .25	395	2.7 ^c
	> .25 to < .5	201	3.0 ^{bc}
	.5 to 1	368	3.2 ^b
	> 1	340	3.6 ^a

Note: Scale was 1-5 (1 = Extremely unlikely, 5 = Extremely likely). Groups with matching superscript letters did not differ ($p > .05$).

Table 10. T-test results comparing city and suburban responses regarding the ability to care for trees

Tree care ability	City Mean	Suburban Mean	T test
I have the financial resources to properly plant and care for trees on my property	3.7	3.9	-3.6***
I know what to do to properly plant and care for trees on my property	3.5	3.7	-3.4**
I have the physical ability to properly plant and care for trees on my property	3.6	3.7	-2.2*
I know who to ask for help about how to properly plant and care for trees on my property	3.7	3.8	-2.0

Note: Scale was 1-5 (1 = Strongly disagree, 5 = Strongly agree). * $p < .05$, ** $p < .01$, *** $p < .001$

Table 11. ANOVA results for select urban forestry support items, by property size

Urban forestry support item	Property size (acres)	N	Mean
I am willing to donate money to support tree planting projects in my community	≤ .25	418	2.8 ^a
	> .25 to < .5	205	2.9 ^a
	.5 to 1	388	2.8 ^a
	> 1	348	2.6 ^b
I am willing to pay a tax or fee to support my local government's urban tree planting and care program	≤ .25	418	2.9 ^a
	> .25 to < .5	205	3.0 ^a
	.5 to 1	388	2.8 ^a
	> 1	348	2.4 ^b

Note: Scale was 1-5 (1 = Strongly disagree, 5 = Strongly agree). Groups with similar superscript letters did not differ ($p > .05$).

Table 12. ANOVA results for willingness to volunteer, by life stage

Urban forestry support item	Life stage group	N	Mean
I am willing to volunteer time to plant trees in my community	Under 36, no kids	41	3.1 ^{abc}
	Under 36, kids	76	3.4 ^a
	37 - 52, no kids	122	3.1 ^{abc}
	37 - 52, kids	220	3.2 ^{ab}
	53-71, not retired	383	3.0 ^{bc}
	53-71, retired	322	2.9 ^c
	72+	231	2.6 ^d

Note: Scale was 1-5 (1 = Strongly disagree, 5 = Strongly agree). Groups with matching superscript letters did not differ ($p > .05$).

Table 13. ANOVA results for urban forestry support items, by urban area

<i>Urban forestry support item</i>	<i>Urban area</i>	<i>N</i>	<i>Mean</i>
I am willing to volunteer time to plant trees in my community	Madison	409	3.1 ^a
	Milwaukee	284	2.8 ^b
	Wausau	383	3.0 ^{ab}
	Green Bay	399	2.9 ^b
I am willing to donate money to support tree planting projects in my community	Madison	409	2.9 ^a
	Milwaukee	285	2.7 ^b
	Wausau	383	2.7 ^b
	Green Bay	399	2.6 ^b
I am willing to pay a tax or fee to support my local government's urban tree planting and care program	Madison	410	3.1 ^a
	Milwaukee	285	2.7 ^b
	Wausau	383	2.6 ^b
	Green Bay	398	2.5 ^b

Note: Scale was 1-5 (1 = Strongly disagree, 5 = Strongly agree). Groups with matching superscript letters did not differ ($p > .05$).

Table 14. ANOVA results for property size, by life stage

<i>Life stage group</i>	<i>N</i>	<i>Mean</i>
Under 36, no kids	41	2.0 ^{bc}
Under 36, kids	71	2.1 ^c
37 - 52, no kids	114	2.5 ^{abc}
37 - 52, kids	207	2.5 ^{abc}
53-71, not retired	351	2.6 ^a
53-71, retired	303	2.5 ^{abc}
72+	209	2.5 ^{ab}

Note: This variable was recoded to be on a 1-4 scale, where 1 = $\leq .25$ acres, 2 = $> .25$ to $< .5$ acres, 3 = $.5$ to 1 acre, and 4 = > 1 acre. Groups with matching superscript letters did not differ ($p > .05$).

Table 15. ANOVA results for awareness/interest by life stage

<i>Program awareness/interest</i>	<i>Life stage group</i>	<i>N</i>	
Awareness of volunteer groups	Under 36, no kids	41	2.0 ^{ab}
	Under 36, kids	76	1.6 ^b
	37 - 52, no kids	122	2.0 ^{ab}
	37 - 52, kids	220	2.1 ^a
	53-71, not retired	384	2.1 ^a
	53-71, retired	322	2.1 ^a
	72+	233	2.2 ^a
Familiarity with tree care programs	Under 36, no kids	41	1.4 ^{ab}
	Under 36, kids	76	1.2 ^b
	37 - 52, no kids	122	1.5 ^{ab}
	37 - 52, kids	220	1.4 ^{ab}
	53-71, not retired	384	1.5 ^a
	53-71, retired	322	1.4 ^{ab}
	72+	233	1.5 ^a
Interest in tree care programs	Under 36, no kids	41	3.1 ^{ab}
	Under 36, kids	76	3.2 ^a
	37 - 52, no kids	122	2.7 ^{abc}
	37 - 52, kids	220	2.9 ^{ab}
	53-71, not retired	385	2.6 ^{bc}
	53-71, retired	322	2.4 ^c
	72+	231	2.0 ^d

Note: Scale was 1-5 (1 = Not at all aware/familiar/interested, 5 = Extremely aware/familiar/interested). Groups with matching superscript letters did not differ ($p > .05$).

Table 16. ANOVA results for select tree concern survey items, by life stage

<i>Tree concerns</i>	<i>Life stage group</i>	<i>N</i>	<i>Mean</i>
Trees blocking scenic views	Under 36, no kids	38	1.9 ^{ab}
	Under 36, kids	70	1.9 ^{ab}
	37 - 52, no kids	106	1.6 ^b
	37 - 52, kids	203	1.9 ^{ab}
	53-71, not retired	344	1.9 ^{ab}
	53-71, retired	269	1.9 ^a
	72+	183	2.0 ^a
Trees growing too big	Under 36, no kids	39	2.6 ^{ab}
	Under 36, kids	73	2.5 ^{ab}
	37 - 52, no kids	120	2.5 ^b
	37 - 52, kids	213	2.5 ^b
	53-71, not retired	370	2.7 ^{ab}
	53-71, retired	306	2.9 ^a
	72+	216	2.8 ^{ab}
Trees creating a mess on my property	Under 36, no kids	40	2.9 ^{ab}
	Under 36, kids	73	2.6 ^{ab}
	37 - 52, no kids	120	2.6 ^{ab}
	37 - 52, kids	215	2.4 ^b
	53-71, not retired	369	2.5 ^{ab}
	53-71, retired	304	2.7 ^a
	72+	211	2.5 ^{ab}

Note: Scale was 1-5 (1 = No concern, 5 = Great concern). Groups with matching superscript letters did not differ ($p > .05$).

Table 17. ANOVA results for physical ability to care for trees, by life stage

<i>Life stage group</i>	<i>N</i>	<i>Mean</i>
Under 36, no kids	40	4.2 ^{ab}
Under 36, kids	75	4.2 ^a
37 - 52, no kids	120	4.0 ^{ab}
37 - 52, kids	216	4.1 ^a
53-71, not retired	374	3.8 ^b
53-71, retired	311	3.4 ^c
72+	216	3.0 ^d

Note: Scale was 1-5 (1 = Strongly disagree, 5 = Strongly agree). Groups with matching superscript letters did not differ ($p > .05$).