

FYI



FRONT YARD INITIATIVE

Remove paving. Reduce flooding.
Inspire water-smart landscaping.

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Green Stormwater Infrastructure in New Orleans

2020 Residential Survey Results



EXECUTIVE SUMMARY

New Orleans has a water problem. We get a great deal of rain (over 64 inches/year), and it's coming with increasingly intense rainfalls due to warming conditions. As yet, we haven't assigned enough places in our built urban landscape for it to soak in and spread out rather than overwhelm our pumping system.

In 2015, the Urban Conservancy developed the Front Yard Initiative (FYI) to incentivize residential Green Stormwater Infrastructure (GSI) as a complement to stormwater management mandates for large commercial and other redevelopments required by the City in its updated Comprehensive Zoning Ordinance. Since then, FYI has incentivized property owners to remove paving to reduce flooding and subsidence by incorporating GSI into their yards to hold water where it falls. We have provided financial assistance (a taxable incentive) to 85 property owners, and technical assistance to thousands more through the distribution of educational materials, workshops, and presentations to catalyze the use of GSI on residential properties in New Orleans.

To date, FYI has provided a total of \$85,646 in financial incentives ranging in amounts from \$105 to \$1250 each, based on square feet of paving removed, resulting in the removal of over 52,000 square feet of paving resulting in approximately 2 million gallons annually being diverted from our pumping systems. These projects have provided \$475,000 in economic stimulus to the green sector for goods and services procured. Most projects are a combination of sweat equity and contract labor, keeping average project costs between \$5000 and \$6000 (although project costs range from \$120 to \$35,244). This translates into an investment of between \$5 and \$6 dollars per gallon of storage capacity created. Philanthropic funding sources for the program include the Greater New Orleans Foundation, the Wisner Fund, the Southeastern Sustainable Communities Fund, the Azby Fund and the Allianz Foundation.

METHODOLOGY

In May 2020, the Urban Conservancy surveyed our Front Yard Initiative participants who installed GSI on their properties between 2015 and December 2019. Eighty-seven percent, or 68 of 78 eligible participants, responded.

Because we were interested in seeing how FYI projects do over time, surveys (see Appendix A) were emailed in May to 78 participants. We surveyed only those with established GSI, whose projects had been completed since December 2019 or before. We received 68 completed surveys, representing 86% of all eligible respondents. We only collect detailed data on those projects that receive financial incentives as part of FYI; there are countless property owners who install GSI and receive technical assistance from the UC (e.g. call our technical advisor with questions, attend our workshops, use our Green Sector Directory to find contractors and vendors, or our Homeowner Toolkit to design their project). Those projects are not included here.

KEY FINDINGS

The findings have enormous implications for the future of the green sector. For example,

- Homeowners are enthusiastic and increasingly knowledgeable about green stormwater infrastructure with much to contribute to the expansion of adoption of distributed green infrastructure in New Orleans.
- An overwhelming majority of respondents have seen dramatic improvement in localized flooding on their properties, and those improvements increase over time as the plants are established and soil conditions improve. However, area flooding remains a problem.
- Participating in programs like FYI that combine implementation with education changes how New Orleanians feel about the importance of “living with water” principles.
- Sector-specific expertise is critical. Whether projects are largely DIY or handled by professional contractors, proper installation is critical to the continued effectiveness of the installation.

RECOMMENDATIONS

- Include a diverse array of residential property owners, GSI builders and designers, and native plant specialists in policy discussions to inform coordinated residential GSI strategy around community education and implementation.
- Incorporate GSI into street and other public infrastructure redesigns to complement investments on private property and to reduce area flooding.
- Identify financial products/subsidies needed to put GSI within reach of all New Orleanians, including ways to build GSI into affordable developments from the outset (in addition to retrofit-ting existing properties).
- Identify and address gaps in supply chains for products and services.
- Invest in robust, specialized green sector training that creates pathways into the sector for minority- and women-owned businesses.
- Invest in ongoing learning opportunities so homeowners can contribute to their GSI installation to the extent they want to and are able to.
- Collect comprehensive data and develop data-driven community benchmarks with shared specific, measurable, achievable, realistic and timely sector-wide goals identified (e.g. amount of residential water storage created, number or percentage of residential properties with GSI, ensuring equitable access to residential GSI and contracting opportunities).

ABOUT THE URBAN CONSERVANCY

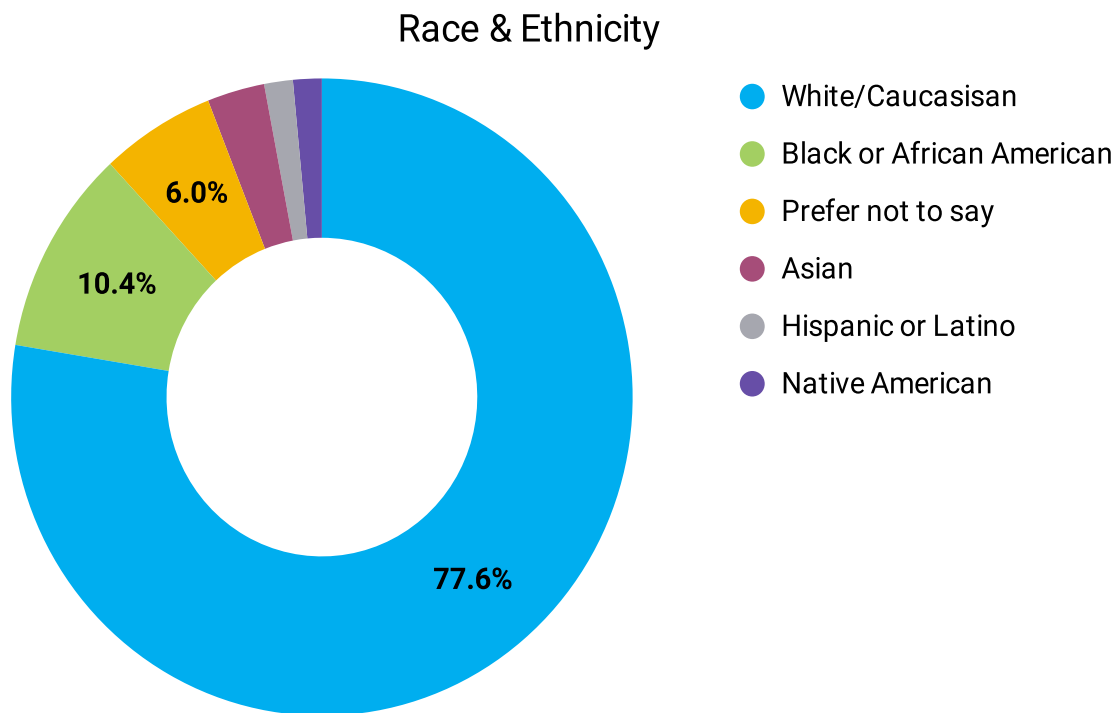
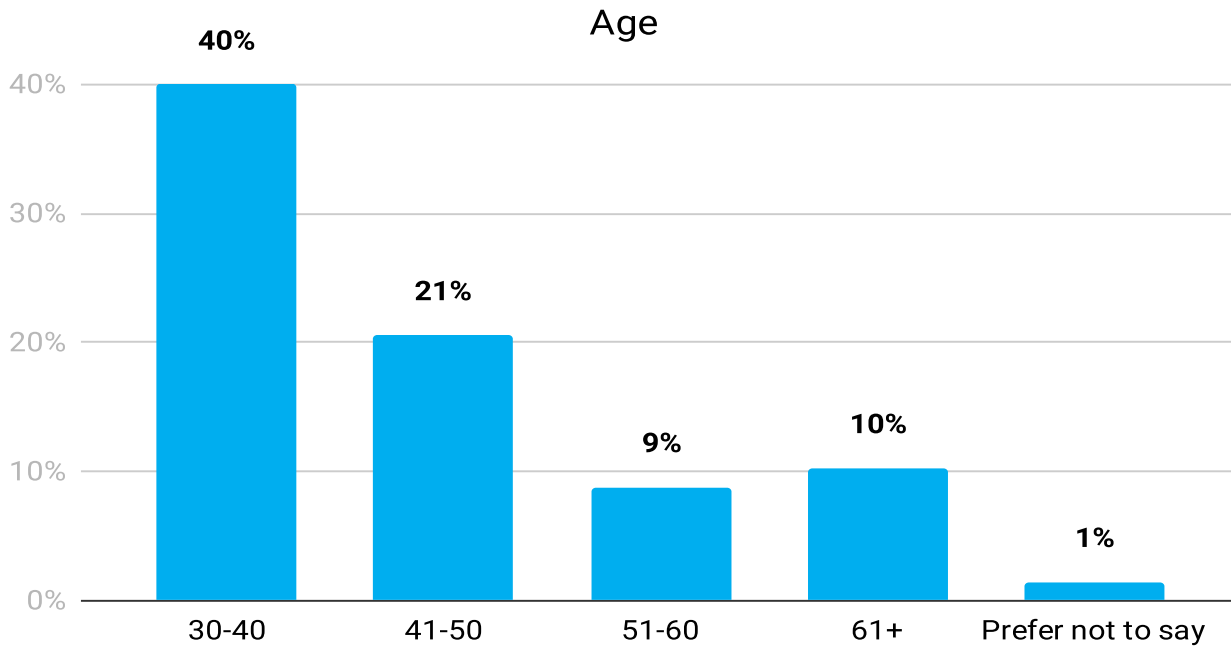
The Urban Conservancy is a non-profit organization leading and collaborating to strengthen New Orleans' urban environment and local economy through equitable practices, policies and programs. We engage in hands-on programming to alleviate neighborhood flooding and create green sector job opportunities through our Front Yard Initiative. Learn more at urbanconservancy.org/fyi

2020 Homeowner Survey Results



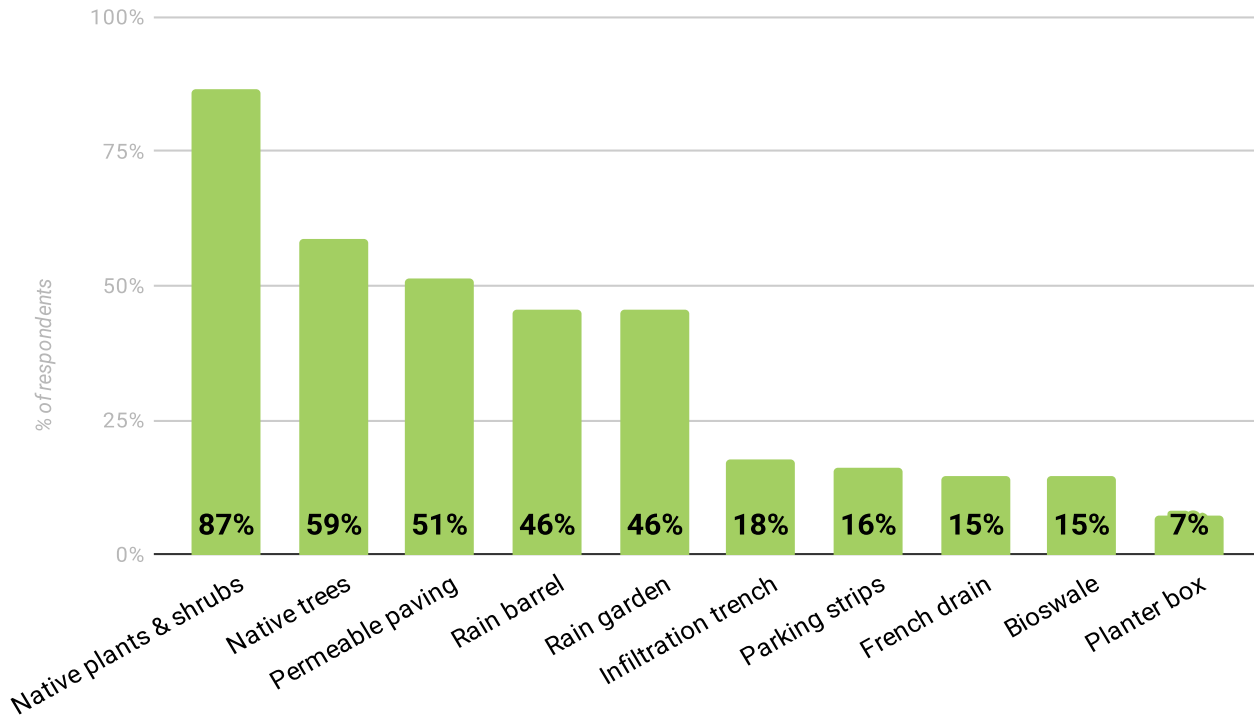
DEMOGRAPHICS

Most of the residents that we serve are between 30 and 50 years old and predominantly White. Given that New Orleans has a 60% Black population, we have work to do to make sure the participation in FYI reflects the racial makeup of New Orleans. It also tells us that partial, after-the-fact incentives are not helpful for all households. We need to create more access points to high functioning, low-maintenance residential GSI that combines do-it-yourself, practical, affordable solutions with sufficient support from professional green sector specialists.



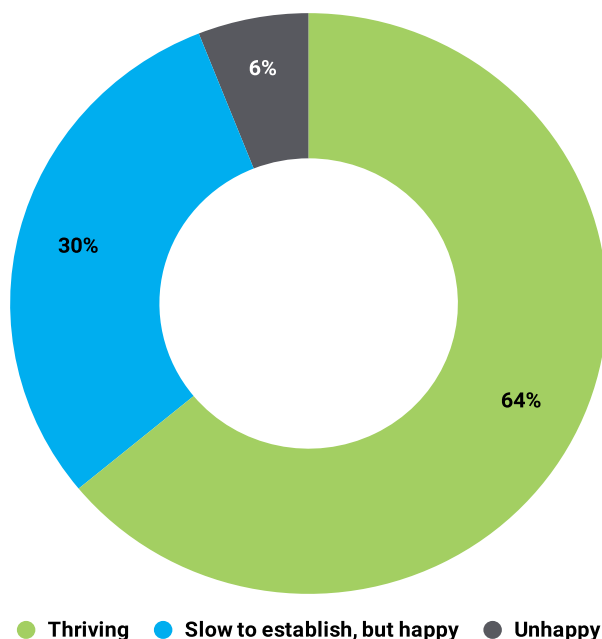
GREEN INFRASTRUCTURE MEASURES

Native plants & shrubs are by far the most popular green infrastructure feature. FYI participants have used a variety of interventions, and most went with the less cost intensive options.

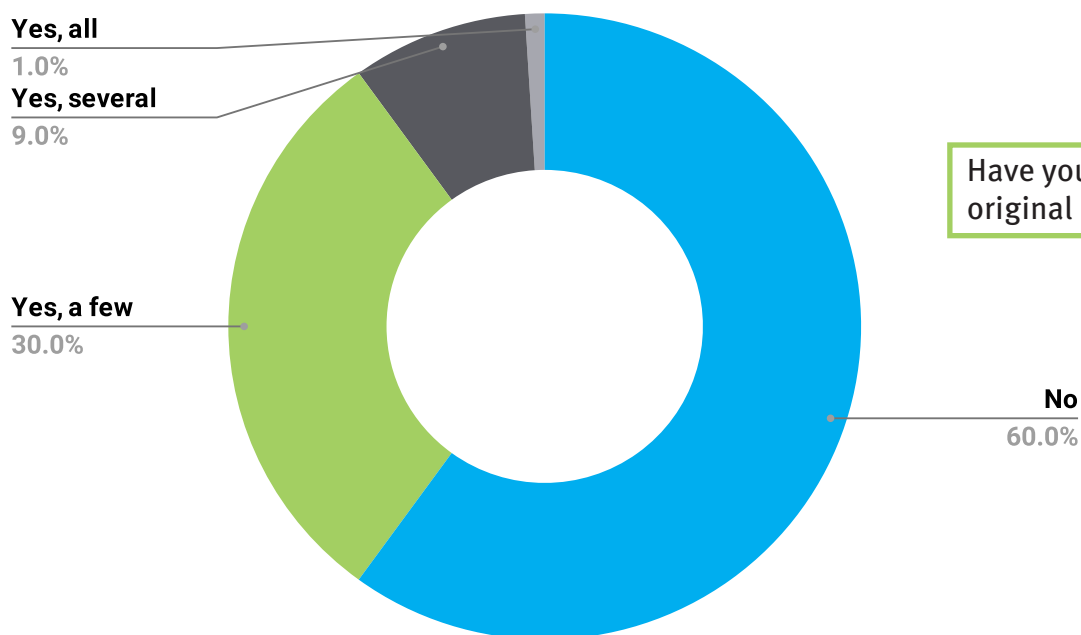


NATIVE PLANT HEALTH

94% of our participants reported that their native (or naturalized) plants are "happy" since being planted. Native irises, in particular, have been thriving in our FYlers' native plant gardens.



How have your native (or non-invasive naturalized) plants done since being planted?



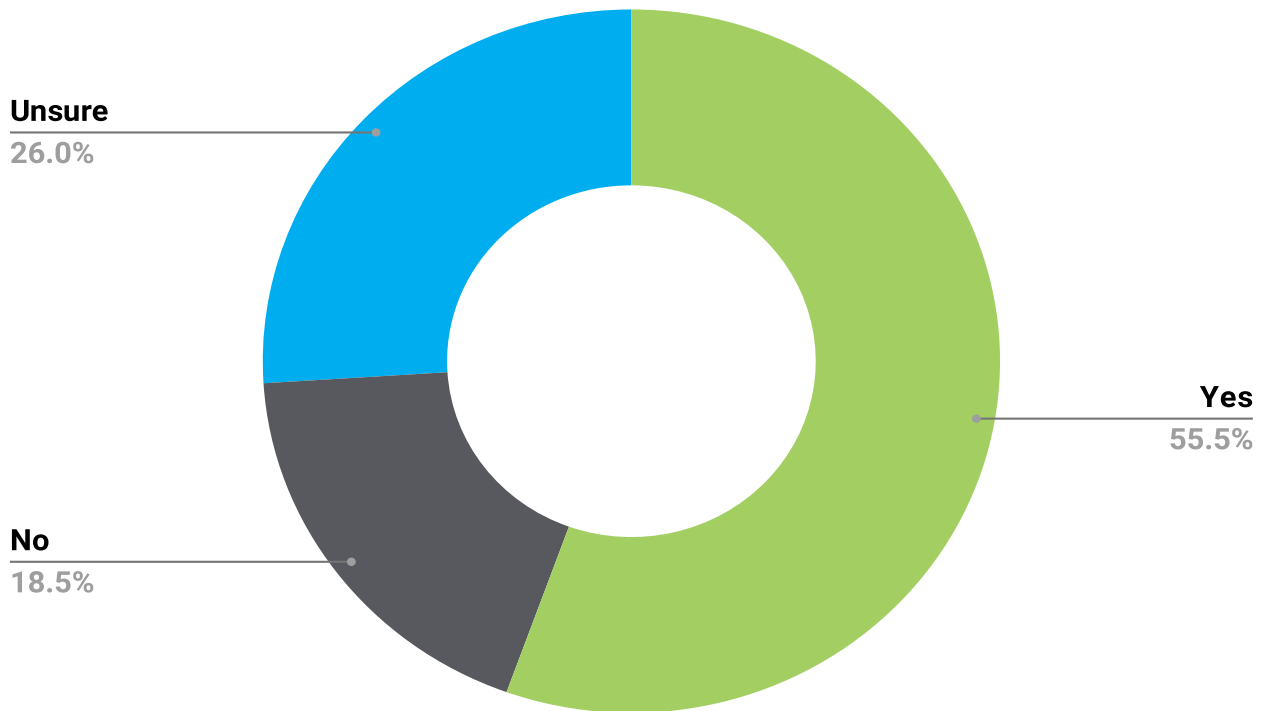
Have you had to replace any original plantings?

While most FYI participants have not needed to replace plants in their native plant gardens, sometimes unanticipated circumstances cause plants to die. This reflects the dynamic nature of residential GSI as it matures.

REPLANTING

Of those who have had to replace plants, most respondents know whether they're replanting with native plants and the majority elected to use native plants.

If so, did you replace your original plants with more native plants?



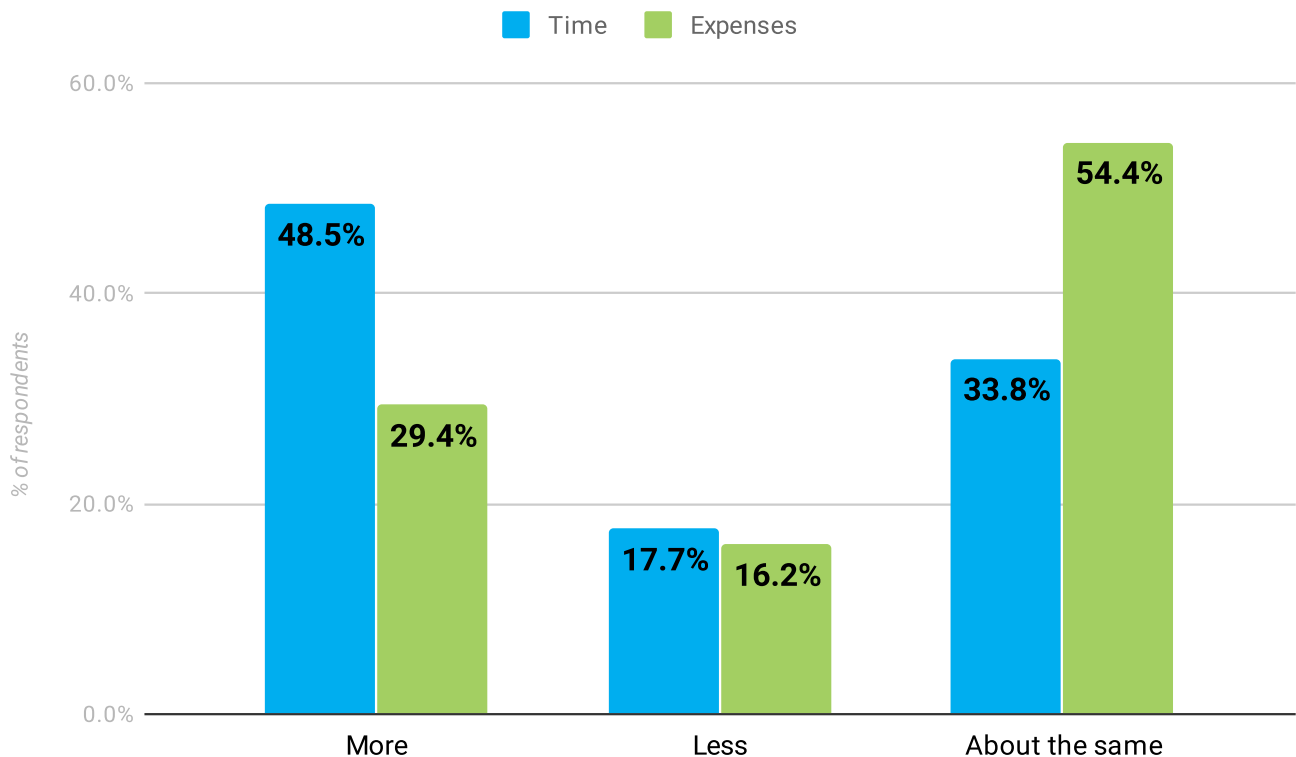
One quarter of those who had to replace plants don't know whether or not their replacements are native. This suggests additional education for participants on native plants may be welcome and warranted.

PROPERTY MAINTENANCE

Almost half of our participants say their time spent on regular maintenance has increased since completing FYI, and one third say it has been about the same. Over half of the respondents say their maintenance costs stayed the same.

1. How much time do you spend on regular maintenance since completing FYI?

2. How have your maintenance costs changed since completing FYI?



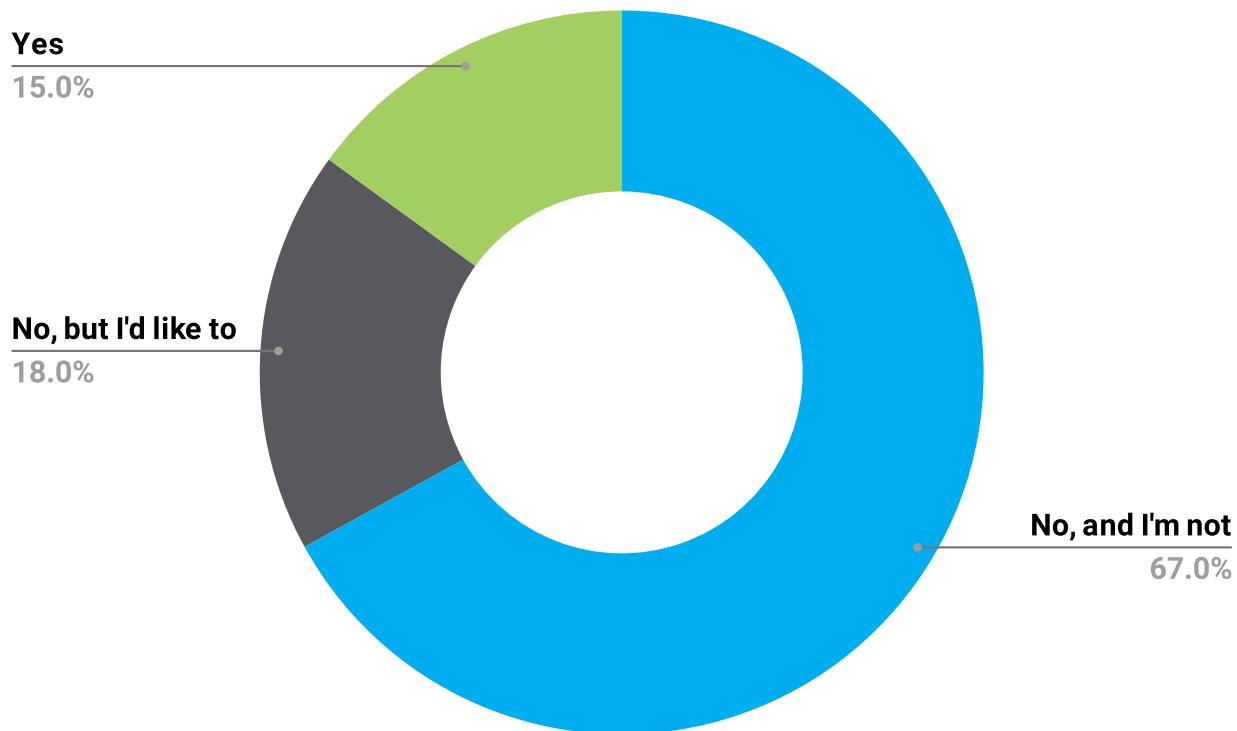
The larger context: We also asked generally how much maintenance their properties required. Nobody responded that their properties require a great deal of maintenance. In the comments, most participants expressed that they appreciate their new watersmart features and enjoy maintaining them because of the benefits they provide.

Some participants expressed difficulty controlling weeds due to the additional yard area that tearing up concrete created. This could point to an opportunity for maintenance contractors to follow up and offer maintenance services to their clients.

MAINTENANCE CONTRACTORS

Over 80% of our participants were not interested in hiring a maintenance contractor, while almost 10% are interested in having someone perform regular maintenance. Some participants reported that regular maintenance contractors were too expensive for their budgets.

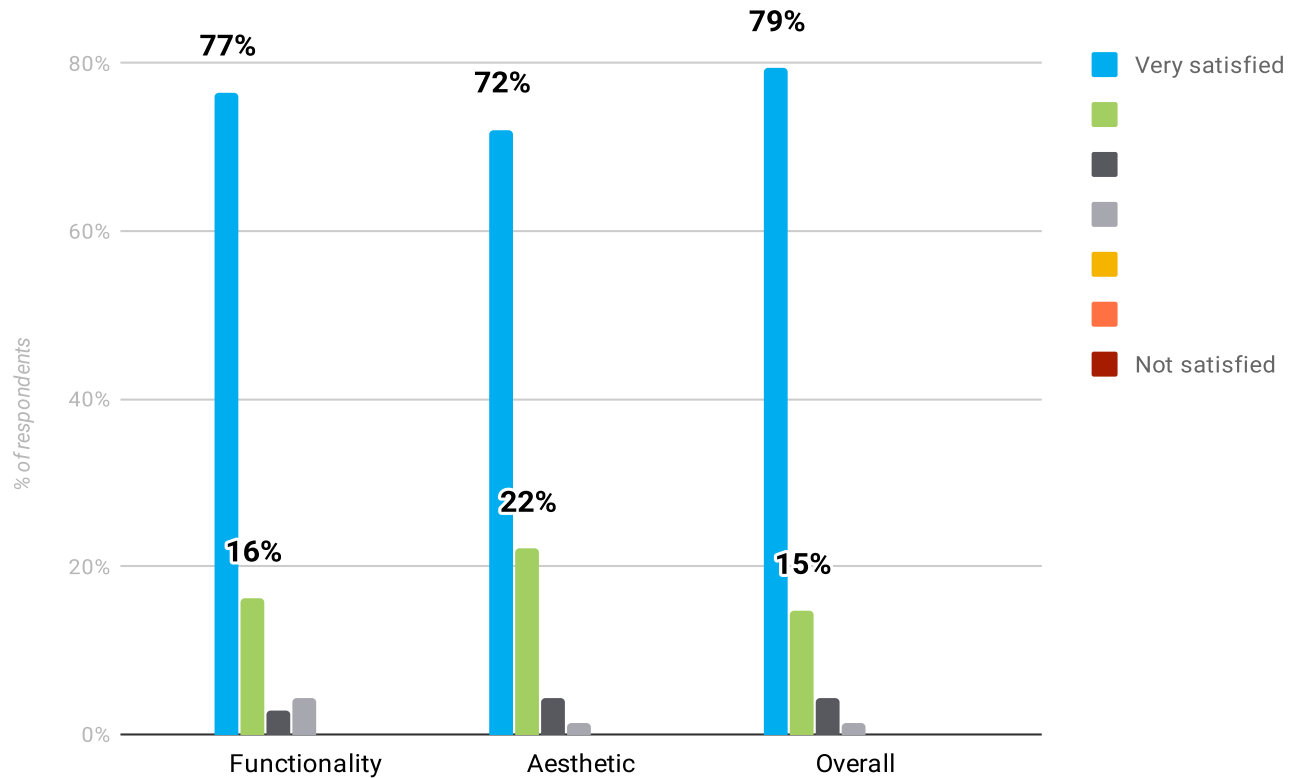
Have you hired a contractor for regular maintenance of your FYI project?



PROJECT SATISFACTION

Respondents were largely very satisfied with their FYI projects. Ninety-four percent of participants rated their project a six out of seven or better overall.

Rate your current satisfaction with your FYI project based on (1-7 scale):

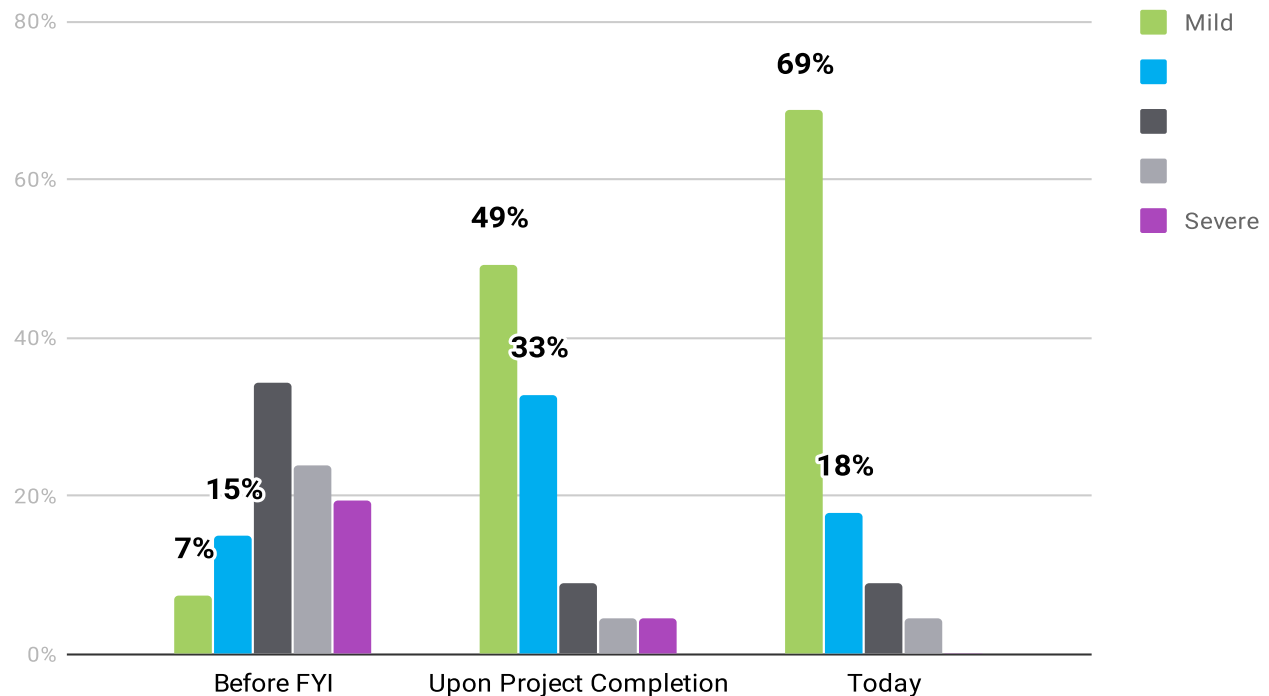


PROJECT IMPACT

Participants were asked to rate their property's flooding and drainage issues at three different points in time on a scale of 1 (mild) to 5 (severe).

Rate the severity of flooding and drainage issues on your property:

1. before completing FYI
2. immediately after FYI
3. today

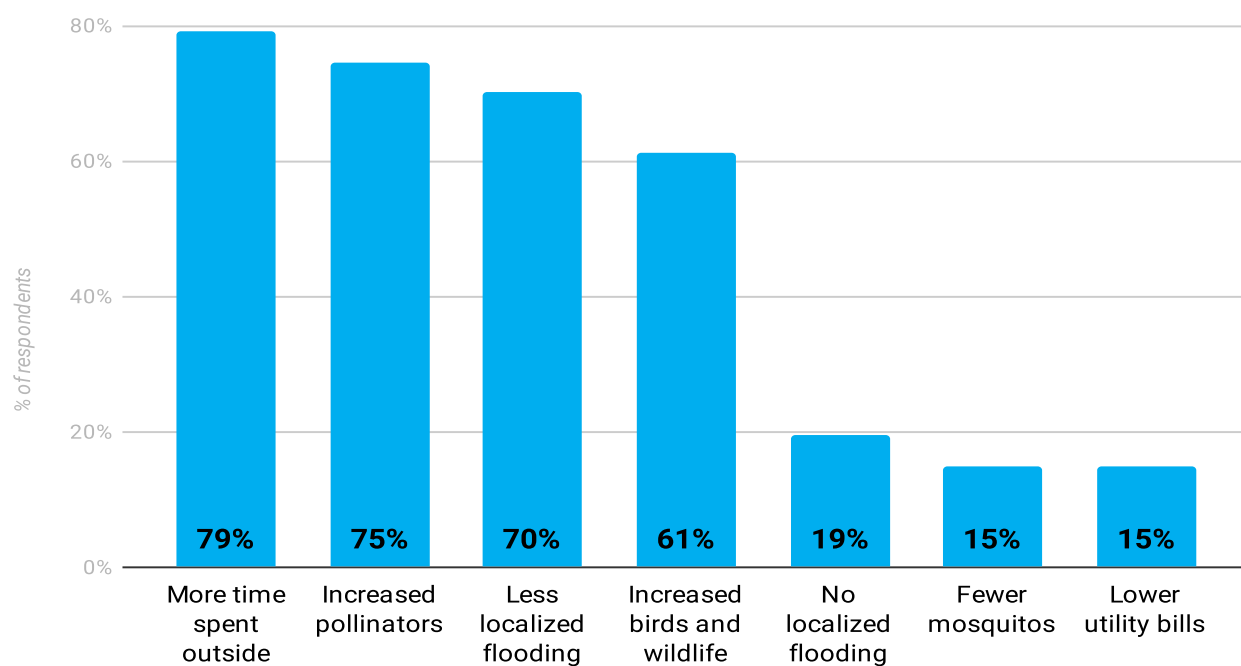


Often the drainage-enhancing, flood-reducing effects of green infrastructure measures become stronger over time, especially when native plants and raingardens are involved. Today, none of our past FYI participants are reporting severe (5/5) flooding and drainage issues.

PROJECT BENEFITS

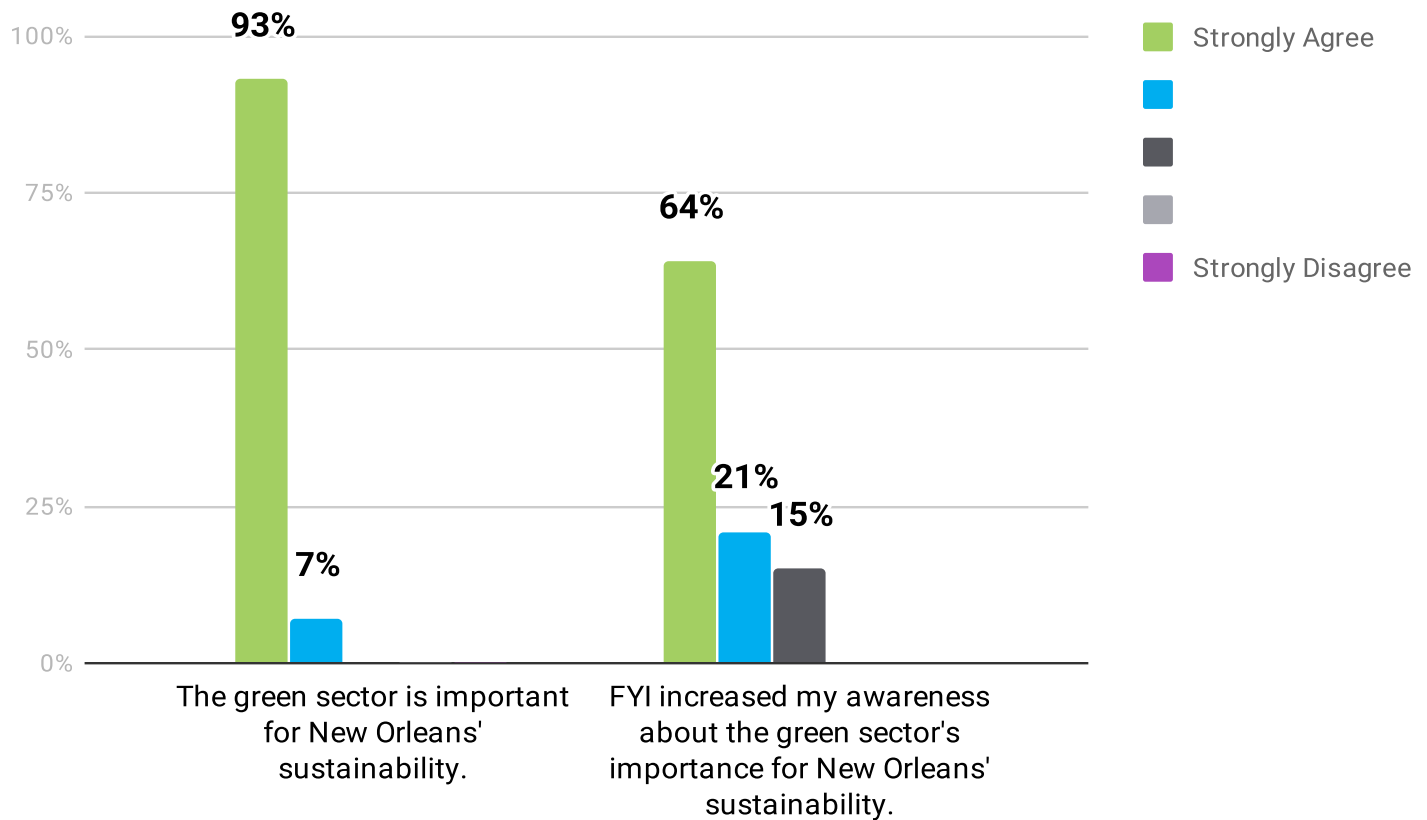
Next, we asked people what benefits they've seen as a result of their FYI projects. Respondents were instructed to choose multiple items if their project has brought them multiple benefits. Most people reported at least two benefits. Some respondents reported the presence of positive effects like increased pollinators, while others noted the removal of negative effects, such as reduced localized flooding.

Which of the following benefits have you seen as a result of your FYI project?



GREEN SECTOR EDUCATION

While many of our homeowners were already familiar with the green sector in New Orleans, 85% of respondents reported that FYI increased their awareness of the green sector's importance.

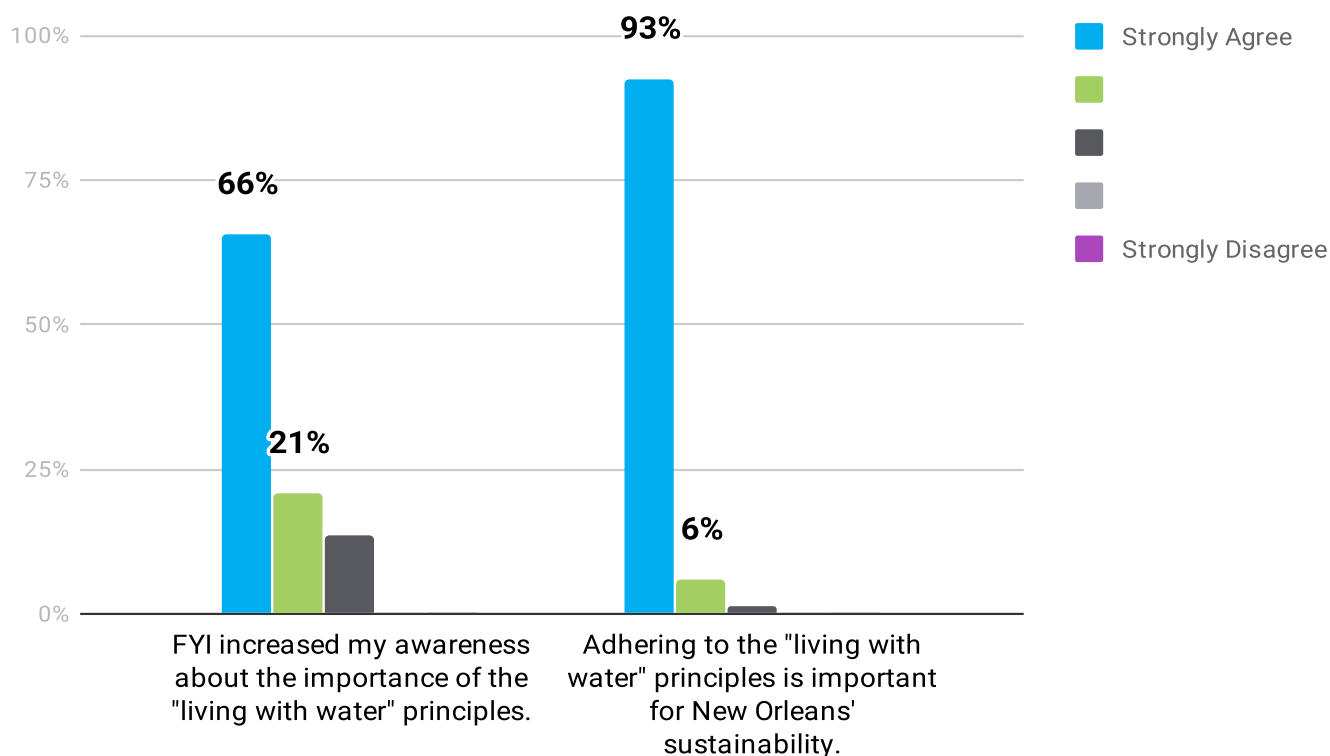


About the Green Sector:

The green sector includes professionals who understand living with water principles and provide goods and services in support of holding water where it falls to minimize runoff into our drainage system.

LIVING WITH WATER

Because FYI is designed to deliver water education as well as facilitate GSI installation, we asked how FYI participation had increased awareness of the “living with water” principles. We then asked what “living with water” principles mean for New Orleans’ sustainability.



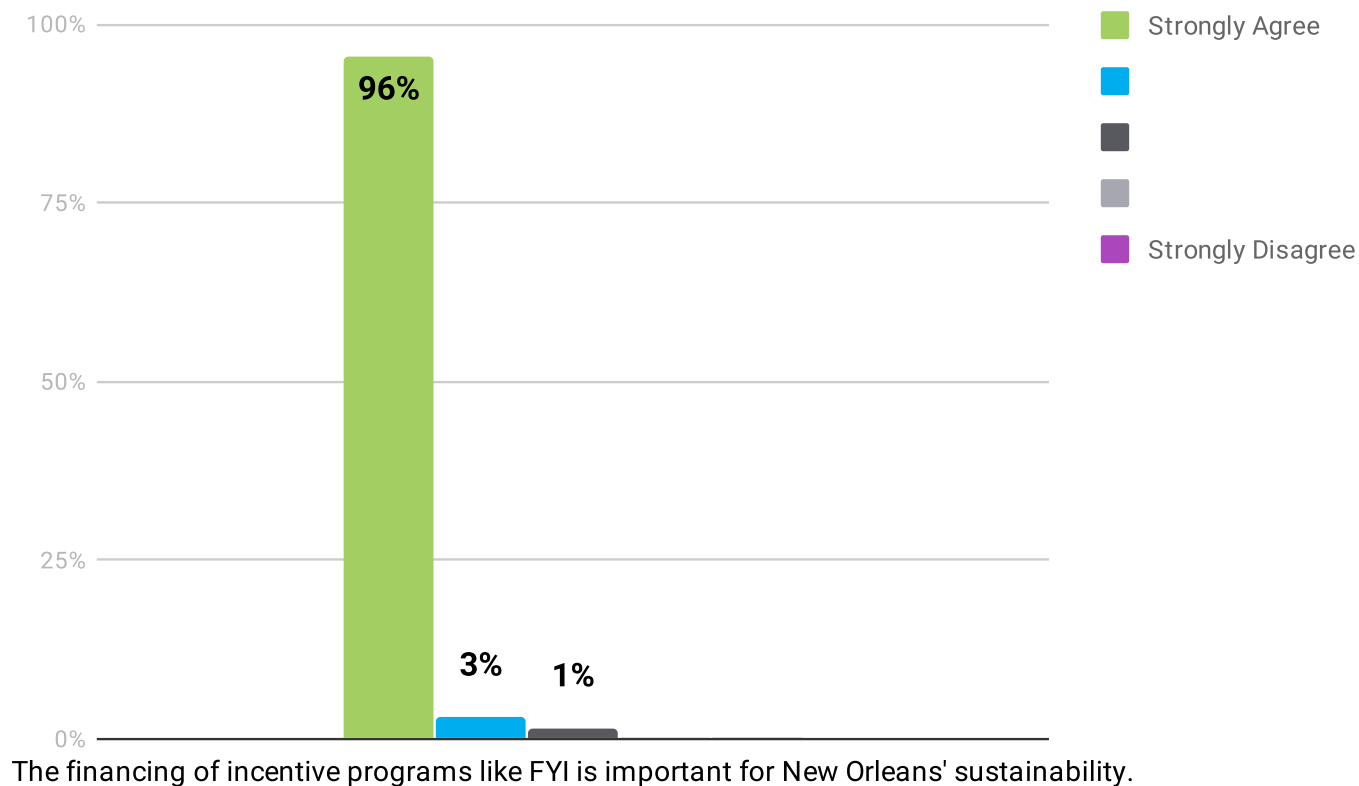
About “living with water”:

Living with water means incorporating water-smart landscaping that slows rainwater down, spreads it out, and allows it to soak back into the soil where it falls.

Over 85% of FYI participants agree or strongly agree that FYI increased their awareness of “living with water” principles and 99% agree or strongly agree that “adhering to living with water principles is important to New Orleans’ sustainability.” Homeowners who have satisfactorily completed GSI projects such as FYI are excellent resources as peer-to-peer ambassadors to further promote GSI expansion citywide.

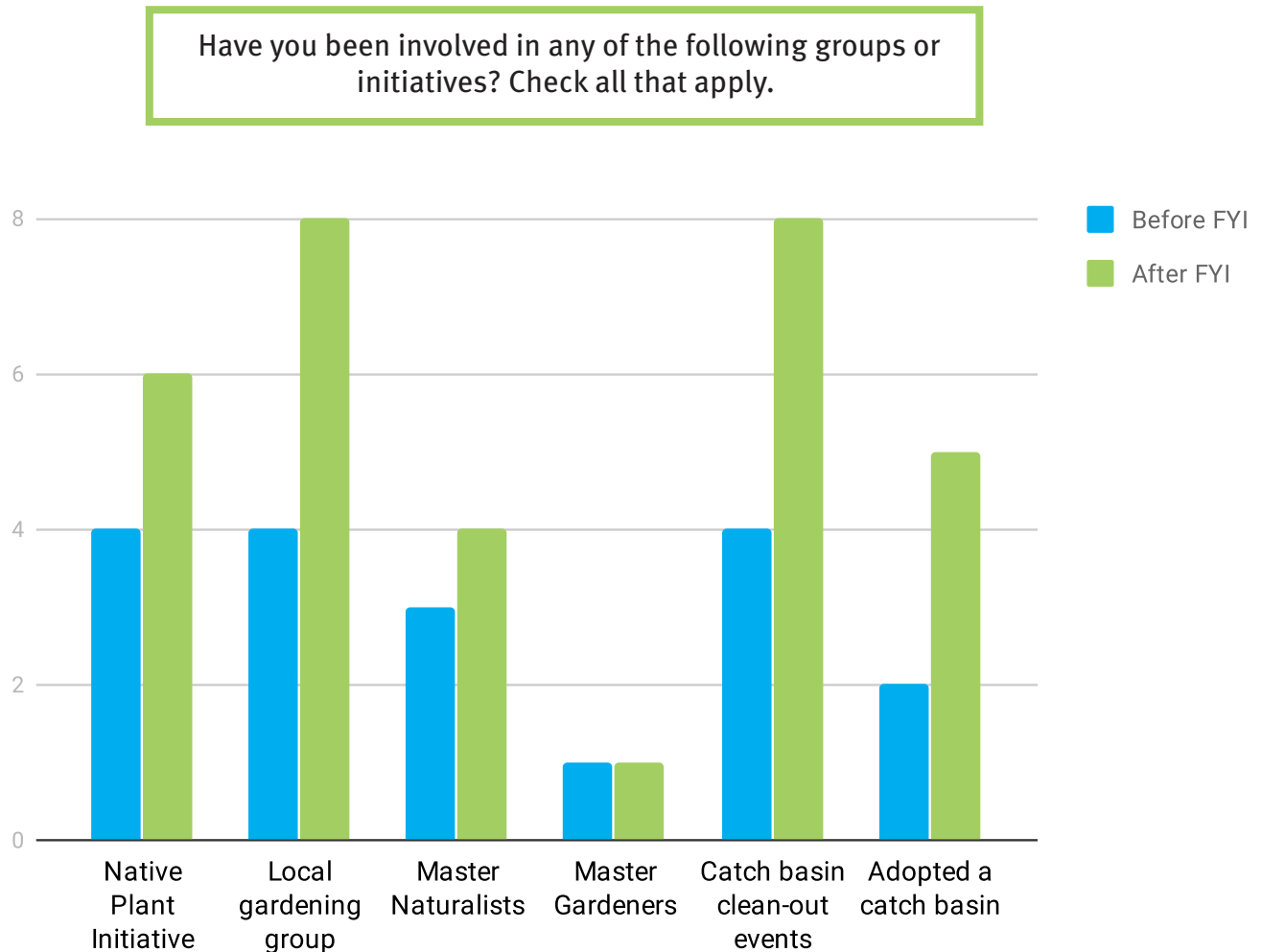
INCENTIVE PROGRAMS

We asked FYIers how important incentive programs (like FYI) are to expanding GSI throughout New Orleans.



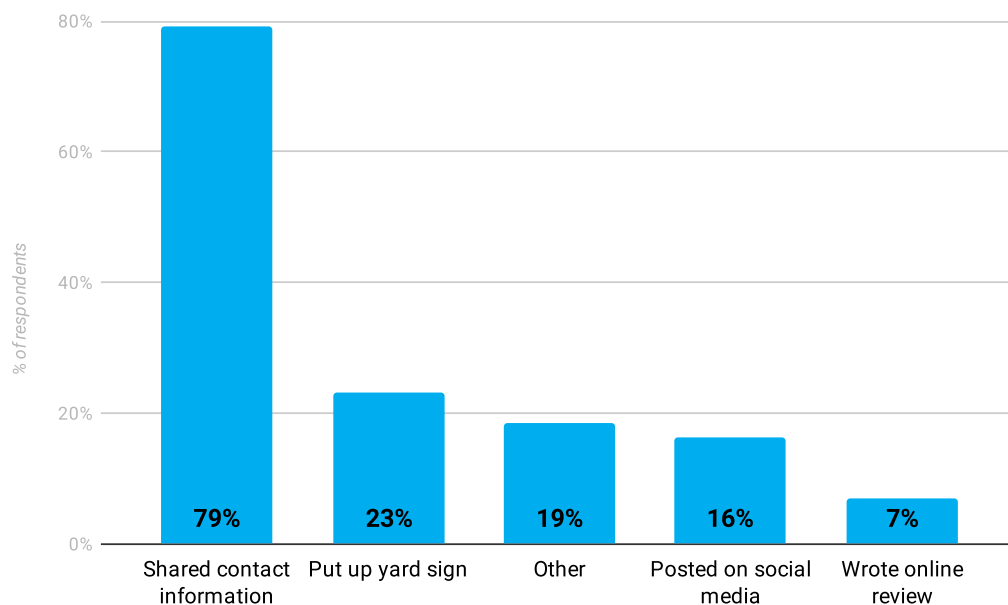
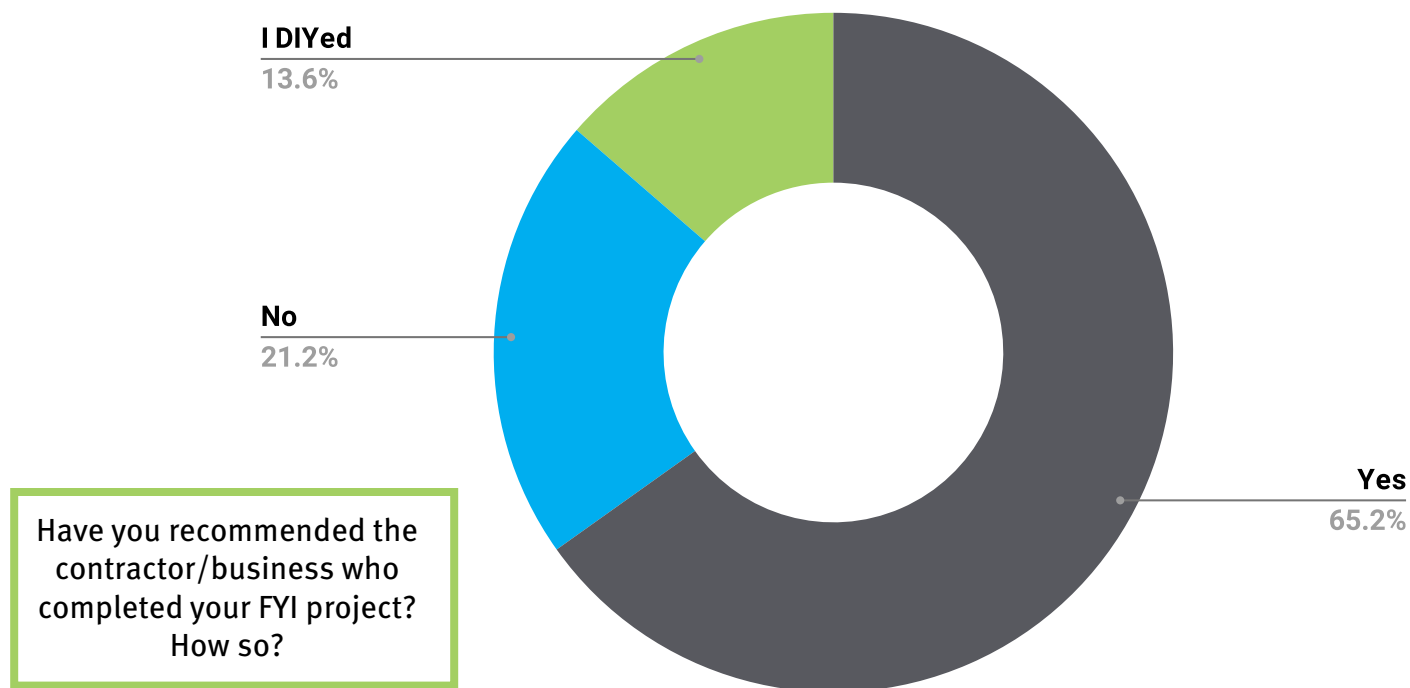
GROUP & INITIATIVE INVOLVEMENT

We asked what other groups and initiatives FYI participants are involved in. We found a marked increase in participation in green groups and initiatives after completing FYI.



CONTRACTOR RECOMMENDATIONS

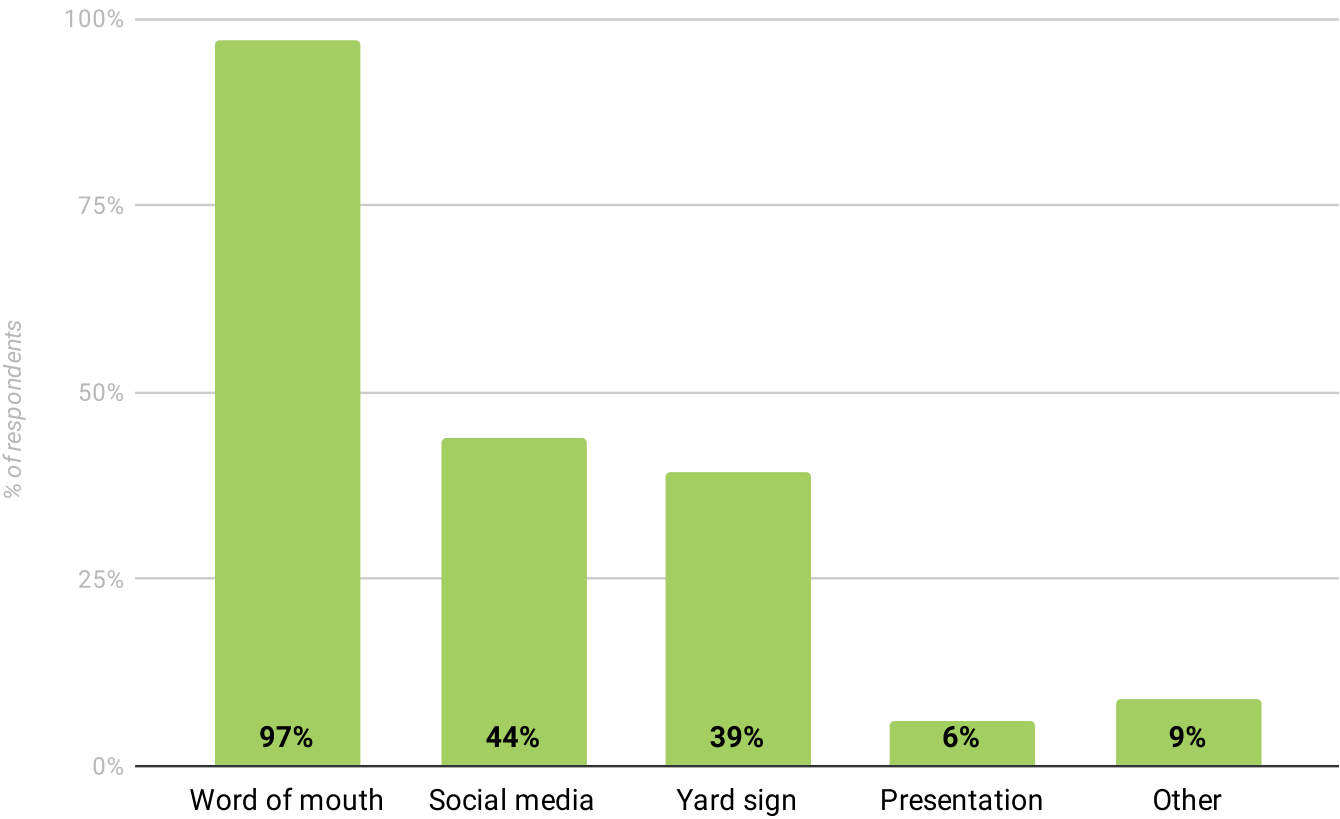
Most respondents passed their project contractor's information along, but 21% did not. Out of all contractor recommendations, most were given by word-of-mouth, and 23% were displayed as a yard sign. 13.6% of our homeowners decided to DIY their projects without the help of a contractor.



SPREADING THE WORD

Next, we wanted to understand the means by which our grassroots movement is spreading. 97% of our homeowners have had conversations with others about FYI, 44% shared their projects on social media, and 39% put up FYI yard signage.

How have you spread the word about FYI since participating? Check all that apply.



GRAY TO GREEN CONVERSIONS BY YEAR

Each point on the map represents residential concrete removal by participants in the FYI program.



Homeowners receiving taxable incentives through FYI have removed 52,000 square feet of paving resulting in approximately 2 million gallons annually being diverted from our pumping systems. These projects have provided \$475,000 in economic stimulus to the green sector for goods and services procured since 2015.



Facts & Figures



52,119

FYIers remove excessive pavement and replace it with green space to take pressure off our stormwater system and reduce street flooding. To date, we have removed **52,119 SF** of paving.



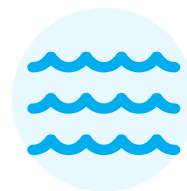
85

FYI provides visible examples of green infrastructure in the urban environment that serve as models and inspiration for future efforts throughout the city. **85 yards** have been transformed thus far.



\$473,155

Going gray to green creates demand for qualified professionals to provide landscaping and paving removal services. FYI has generated **\$473,155 in economic stimulus** to the green sector to date.



81,750

Completed FYI projects keep **81,750 gallons of stormwater** out of our city's drainage system during a two-inch, one-hour rain event.

To get involved, visit: www.frontyardinitiative.org

Thank you!

Contact Us:

www.frontyardinitiative.org

fyi@urbanconservancy.org

(504) 717-6187

FYI Partners:



**Resilience +
Sustainability**
CITY OF NEW ORLEANS

staylocal 



Appendix A - Homeowner Survey

FYI Participant Follow-up Survey

Thank you for completing a Front Yard Initiative project at your home. Since 2016, FYI has helped 85 residents go from #graytogreen, and your project is an integral part of a larger movement to improve New Orleans' safety, beauty, and stormwater management. To help us improve the FYI program, please take 10 minutes to reflect on your project outcomes.

FYI Participant Follow-up Survey

Demographic Info

Note: Demographic data is required by grantors. All information is kept confidential, and the Urban Conservancy only uses data collected in the aggregate.

* 1. Your full name:

* 2. Age:

* 3. Race/Ethnicity:

* 4. Gender:

* 5. How many years have you been living in the New Orleans area?

FYI Participant Follow-up Survey

Property Info

* 6. FYI Property Address:

* 7. Do you occupy/live at this property?

☐ Yes

☐ No

* 8. Which green infrastructure measures are installed at your property? Check all that apply.

- ☐ Rain barrel
- ☐ Infiltration trench
- ☐ French drain (includes a pipe)
- ☐ Rain garden
- ☐ Bioswale
- ☐ Stormwater planter box
- ☐ Permeable paving (driveway, walkway, patio, etc.)
- ☐ Parking strips
- ☐ Native tree
- ☐ Native plants & shrubs

* 9. Rate your current satisfaction with your FYI project based on: (1=Not satisfied; 7=Very satisfied)

	1	2	3	4	5	6	7
Functionality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aesthetic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 10. Do you own additional properties in New Orleans?

- ☐ Yes
- ☐ No

11. Please list any other properties you own (including any LLCs):

FYI Participant Follow-up Survey

Property Maintenance

* 12. How much maintenance does your watersmart property require?

None					A great deal
★	★	★	★	★	

* 13. How much time do you spend on regular maintenance since completing FYI?

- ☐ More
- ☐ Less
- ☐ About the same

* 14. How have your maintenance costs changed since completing FYI?

- ☐ Increased
- ☐ Decreased
- ☐ About the same

Comments:

* 15. Have you hired a contractor for regular maintenance of your FYI project?

☐ Yes

☐ No, but I'd like to

☐ No, and I'm not interested

Other (please specify):

FYI Participant Follow-up Survey

Maintenance Contractor Info

16. Who is your maintenance contractor?

Name:

Business:

Phone number:

Email address:

* 17. Would you recommend your maintenance contractor?

☐ Yes

☐ No

Comments:

FYI Participant Follow-up Survey

Plantings

* 18. How have your **native** (or non-invasive naturalized) plants done since being planted?

- ☐ My plants are thriving and multiplying
- ☐ My plants were slow to establish but are happy
- ☐ My plants are unhappy (due to soil, light requirements, etc.)

Comments:

* 19. Have you had to replace any original native (or non-invasive naturalized) plantings?

- ☐ Yes, all
- ☐ Yes, several
- ☐ Yes, a few
- ☐ No

Comments:

FYI Participant Follow-up Survey

Plantings Continued

* 20. Have you replaced original plantings with more **native** (or non-invasive naturalized) plants?

- ☐ Yes
- ☐ No
- ☐ Unsure

FYI Participant Follow-up Survey

Project Impact

* 21. Rate the severity of flooding and drainage issues on your property **before** completing FYI.

Mild				Severe	
★	★	★	★	★	

* 22. Rate the severity of flooding and drainage issues on your property **immediately after** completing FYI.

Mild				Severe	
★	★	★	★	★	

* 23. Rate the severity of flooding and drainage issues on your property **now**.

Mild		Severe		
★	★	★	★	★

* 24. Which of the following benefits have you seen as a result of your FYI project?

- | | |
|--|--|
| <input type="checkbox"/> Increased pollinators | <input type="checkbox"/> More time spent outside |
| <input type="checkbox"/> Increased birds & wildlife | <input type="checkbox"/> Less localized flooding |
| <input type="checkbox"/> Fewer mosquitos | <input type="checkbox"/> No localized flooding |
| <input type="checkbox"/> Lower utility bills (decreased heat island effect, more rain water harvested) | <input type="checkbox"/> None of the above |

FYI Participant Follow-up Survey

Water Education

To what extent do you agree with the following statements:

* 25. Adhering to the "living with water" principles is important for New Orleans' sustainability. ("Living with water" means incorporating water-smart landscaping that slows rainwater down, spreads it out, and allows it to soak back into the soil where it falls.)

Strongly disagree		Strongly Agree		
★	★	★	★	★

* 26. FYI increased my awareness about the importance of the "living with water" principles.

Strongly disagree		Strongly Agree		
★	★	★	★	★

* 27. The green sector is important for New Orleans' sustainability. (The “green sector” includes professionals who understand living with water principles and provide goods and services in support of holding water where it falls to minimize runoff into our drainage system.)

Strongly disagree

Strongly agree

★	★	★	★	★
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* 28. FYI increased my awareness about the green sector's importance for New Orleans' sustainability.

Strongly disagree

Strongly agree

★	★	★	★	★
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* 29. The financing of incentive programs like FYI is important for New Orleans' sustainability.

Strongly disagree

Strongly agree

★	★	★	★	★
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FYI Participant Follow-up Survey

Community

30. Have you been involved in any of the following groups or initiatives? Check all that apply.

	Before FYI	After FYI	Current Member
Master Naturalist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Master Gardener	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Native Plant Initiative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Herb Society of America	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local gardening group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Catch basin clean-out event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adopted a catch basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

31. Have you received any of the following certifications for your property? Check all that apply.

- ☐ NABA Butterfly Certification
- ☐ NWF Certified Wildlife Habitat
- ☐ Million Pollinator Garden Challenge

* 32. Are you an active member of our FYI Facebook group?

- ☐ Yes
- ☐ No, but I would like to join
- ☐ No, and I don't want to join

FYI Participant Follow-up Survey

Advocacy

* 33. How have you recommended the contractor/business who completed your FYI project?

- ☐ Liked their business on social media
- ☐ Written them a review (Facebook, Google, Yelp, Nextdoor, etc.)
- ☐ Given their contact info to a friend, family member, or neighbor
- ☐ Put their sign in your yard
- ☐ I have not yet recommended my contractor
- ☐ I would NOT recommend my contractor
- ☐ N/A: I DIYed my project
- ☐ I recommended my contractor by:

* 34. How have you spread the word about FYI since participating? Check all that apply.

- ☐ Recommended the FYI program to friends, neighbors, contractors by word of mouth
- ☐ Posted about FYI on social media
- ☐ Displayed an FYI yard sign in your yard
- ☐ Made a public presentation (e.g. neighborhood association meeting, hosted a walk and learn)
- ☐ I have not spread the word about FYI
- ☐ Other, please specify:

* 35. Would you be interested in assisting the Urban Conservancy develop its green sector advocacy strategy (e.g. by participating in a focus group)?

- ☐ Yes
- ☐ No

36. Please feel free to share any ideas, reflections, recommendations or stories about your FYI project or the program.