

## SELF-REPORTED ENVIRONMENTAL KNOWLEDGE AND PERSONAL EFFICACY OF VOLUNTEERS AT TREE PLANTING EVENTS IN NORTHWEST INDIANA

REBECCA Brokaw a and Dr. Jess Vogt b

<sup>a</sup> B.S. Environmental Science student <sup>b</sup> Assistant Professor Department of Environmental Science & Studies, College of Science & Health, DePaul University



## **External** funding agencies

## **Participants Resources:** Student Conservation

Association (SCA)\* Northwestern Indiana Regional

Stakeholders &

Planning Committee (NIRPC) Indiana Department of Natural

Resources (IDNR) Coastal

- Program\* Northwest Indiana Urban Waters Partnership\*
- Northern Indiana Public Service Company
- (NIPSCO)/Arbormetrics\* • Dunes Learning Center
- The Nature Conservancy Municipalities (East Chicago\*, Gary\*, Hammond\*, Whiting)
- (\* Asterisk indicates that interview has been conducted)

WHAT IS COMMUNITREE?

community, industry and government agencies.

# Capacity

## Funding,

Personnel

• Tree activities

CommuniTree

- Pre-planting planning, etc. Tree planting (trees in ground
- & characteristics of these trees?)
- Post-planting tree care & maintenance
- Education & outreach activities Volunteer & community participation

### CommuniTree program happening in an existing **SOCIO-ENVIRONMENTAL CONTEXT**

- ...prior and surrounding land use, biodiversity, ecological characteristics
- ...existing relationships & networks between community groups & CommuniTree partners & stakeholders
- ...environmental constraints (soil & water contamination) ...historical socio-economic & cultural dynamics ...values, norms, knowledge of trees/stewardship of different community groups
- ...etc.

CommuniTree is a collaborative, multi-organizational tree planting partnership

community of tree stewards. The effort is supported by partnerships with many

designed to make sure that their goals, and the goals of their stakeholders, are in

in Northwest Indiana working to promote the planting and care of trees, with

the goal of creating a healthier and more diverse tree population, as well as a

CommuniTree is in its beginning phases, created in 2016, so this project is

## Desired/Possible Outcomes

- Environmental outcomes • Tree survival & subsequent provision of benefits
- (stormwater managemen most crucial) Character of conservation and
- restoration areas Other biophysical, ecological, or environmental outcomes

defined by stakeholders

- Community outcomes Stewardship capacity
- Level of participation & buy-in of different stakeholders,
- including industry partners • Education, awareness &
- attitudes about conservation, tree planting and related CommuniTree goals
- Employment & training opportunities for tree planting
- Human health outcomes • Improved relations between
- municipality and citizens Mitigation of future costs for
- municipalities and private stakeholders by proper planting practices

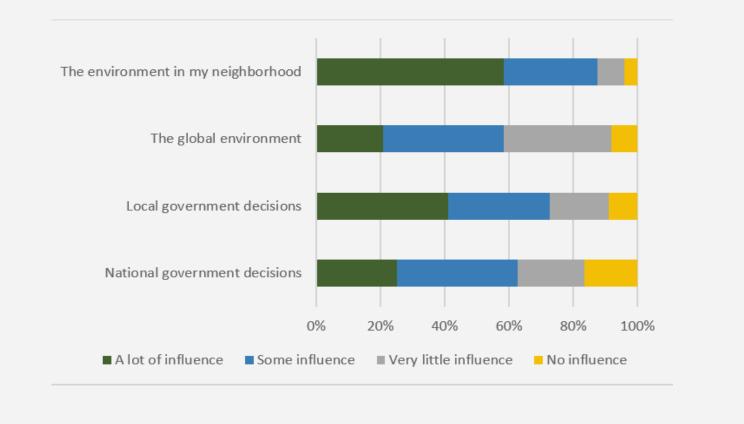
## RESULTS

Volunteer reported demographics

	Employment Status	
56 %	Full-time student	17.4 %
44 %	Part-time student	4.3 %
	Working full time for pay	34.8 %
40.6 %	Working part time for pay Working part time for pay, Full-time	17.4 %
59.4 %	student Working part time for pay, Part-time	17.4 %
	student	8.7 %
7.7 %	Date of Birth	
19.2 %	1960s	14.3 %
3.8 %	1970s	9.5 %
26.9 %	1980s	14.3 %
3.8 %	1990s	57.1 %
38.5 %	2000s	4.8 %
	44 % 40.6 % 59.4 % 19.2 % 3.8 % 26.9 % 3.8 %	Full-time student  A4 %  Part-time student  Working full time for pay  Working part time for pay, Full-time student  Working part time for pay, Full-time student  Working part time for pay, Part-time student  7.7 %  Date of Birth  19.2 %  1960s  3.8 %  1970s  1980s  3.8 %  1990s

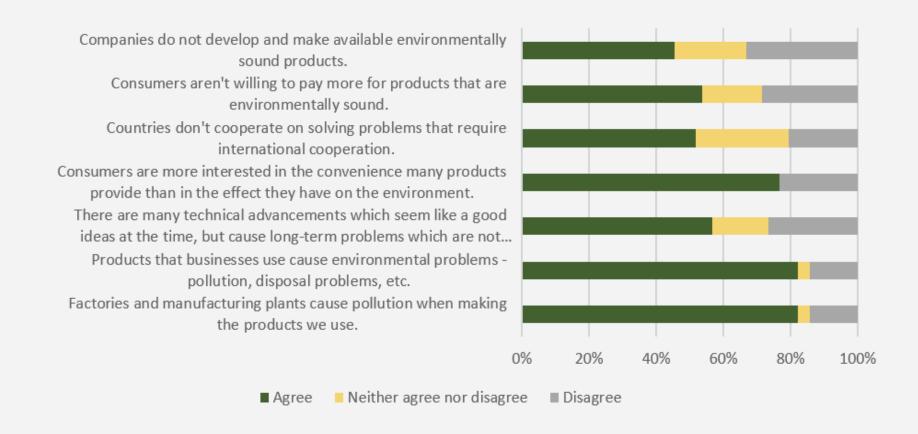
Personal efficacy index

When asked how much influence they had over...



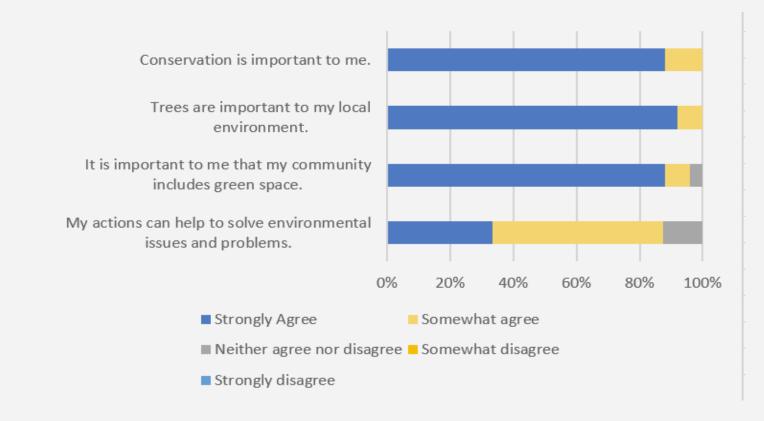
#### Environmental knowledge index

When asked the extent to which they agreed with these statements...



#### Environmental attitudes index

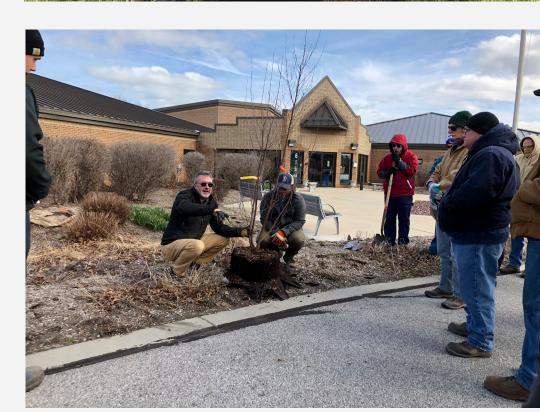
When asked the extent to which they agreed with these statements...



## IMPLICATIONS AND NEXT STEPS

- While CommuniTree volunteers identified themselves in many different ways, the most common demographics of CommuniTree volunteers were female, people who consider themselves to be white or caucasian, those who work full time for pay, and those who were born in the 1990s.
- Before coming to a CommuniTree tree planting event, 56% of survey respondents had previously planted a tree, while 44% had not. This shows that these tree planting events also act as educational workshops.
- Based on our index tables, CommuniTree volunteers who completed the survey were considered to be about average in their environmental knowledge. Environmental attitudes were strong among respondents with no one answering in the disagree categories. In terms of personal efficacy, volunteers felt that they had more of an influence on the local scale in terms of government and the environment compared to a larger national or global scale.
- CommuniTree, being a new multi-organizational partnership doing work in many different communities, has really struggled in community outreach and getting volunteers to show up to their events. 2 out of the 4 tree planting events that researchers were present for did not have any volunteers.
- To obtain a larger and more representative sample size, we are continuing to collect data by sending out the survey via email to volunteers that showed up at tree planting events in the spring. We will do the same with the CommuniTree tree planting events that occur in the fall of 2018.
- We plan on sharing our results with CommuniTree to help them better determine see the kinds of people that are showing up to their tree planting events so they know what populations to reach out to for future community outreach and engagement.







We are aiming to publish a manuscript by the end of the summer. Check out the project on the LUFA website for updates!

https://www.lufa-depaul.org/communitree.html

#### line with desired and obtained outcomes.

Methods

#### VOLUNTEER SURVEY

## Purpose:

To determine who is volunteering for CommuniTree tree planting events and their perceptions of CommuniTree and the program through understanding how and why they got involved in the program, what benefits they expect to see from CommuniTree, and where and how they would like to see CommuniTree grow.

- The survey was distributed at 8 CommuniTree volunteer tree planting events from April to May of 2018 to participants over the age of 18.
- Topics of questions included involvement with CommuniTree, environmental knowledge, environmental attitudes, personal efficacy and demographic information.