Chapter 4: Engage the Community

Building Public Awareness

weNEO2050+ is the “people’s plan” for making equitable decisions and implementing initiatives for community impact. The primary focus is actively involving community members in planning and ensuring all voices and perspectives are heard and considered throughout the development of the planning updates. This is the foundation of an inclusive engagement process— creating active involvement with diverse community members, ensuring everyone feels welcome, and allowing everyone to contribute their perspectives and ideas to lead toward a more equitable and impactful outcome.

While developing w*eNEO2050+*, NOACA actively created key methods and approaches to build collaborative efforts with regional stakeholders, especially underserved populations, to encourage participation and feedback.

These approaches were developed to bridge opportunities for capacity building with key stakeholders early in the process by hosting collaborative brainstorming sessions to update audiences on scenario planning, household travel surveys, population/demographic trends, and work commute patterns. Discussions on innovative technologies like autonomous vehicles, electric vehicle charging stations, and types of imagined infrastructure investments were also introduced to ultimately build an understanding of how to identify community needs and prioritize common goals for the future of Northeast Ohio (See Figure 4-1. Five Key Approaches for Public Engagement).

NOACA convened stakeholders and the public for discussions around significant topics of regional significance and those of community-based local interest to employ a broad spectrum of appropriate approaches. Activities reflected the wider goals, strategies, and tactics of *NOACA’s Public Engagement Plan* to provide opportunities to learn about what projects and initiatives have been planned and implemented since adopting the *eNEO2050 Vision Plan* in June 2021.

NOACA staff posted these engagement opportunities online and communicated widely throughout each county service area —Cuyahoga, Geauga, Lake, Lorain, and Medina—to clarify how and when the public could participate. As part of the process, NOACA utilized foundational planning documents (including the current long range plan, *eNEO2050: An Equitable Future for Northeast Ohio)* to reflect lessons learned through those engagement strategies and what further input is needed in the decision-making process.

Figure 4-11. Five Key Approaches Used for Public Engagement

NOACA convened stakeholders and the public for discussions around significant topics of regional significance and community-based local interest topics while employing a broad spectrum of appropriate approaches to specific audiences. Activities reflected the broader goals, strategies, and tactics of NOACA's *Public Engagement Plan* to provide open opportunities to learn about new projects and initiatives.

NOACA staff posted these engagement opportunities at 27 participating drop-off centers and online to communicate widely and clarify how and when the public could participate (See Figure 4-2. Public Engagement Process). Specifically, throughout the development of *weNEO2050+* NOACA:

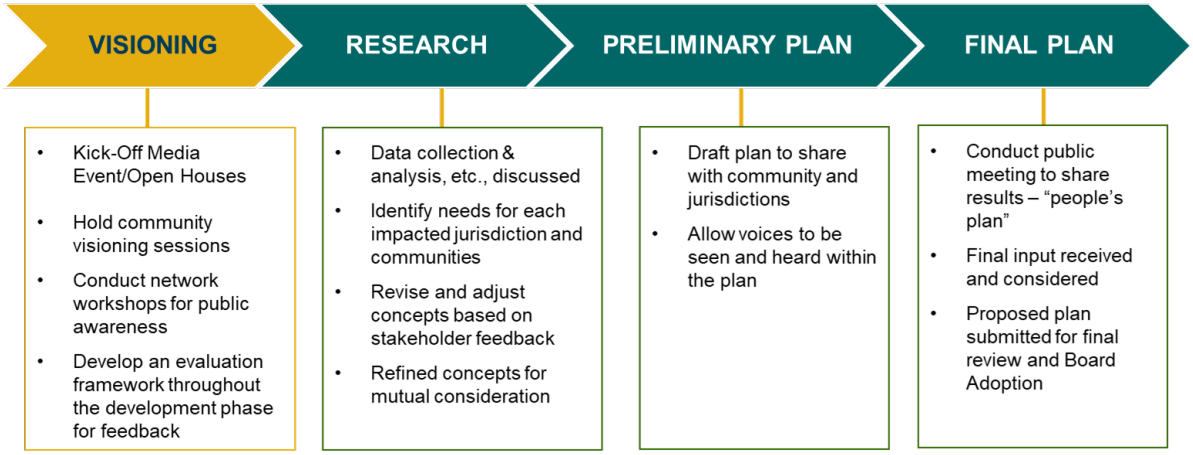
1. Utilize the eNEO2050 website as a central communication tool for project and plan updates
2. Posted social media and traditional outreach formats
3. Offered listening sessions, forums, and workshops
4. Designed and deployed interactive techniques and tools
5. Commissioned a statistically significant Regional Questionnaire
6. Provided traditional participation by connecting with regional leaders, the general public, NOACA Board, Committees, Subcommittees and Councils

Public Participation Process and Strategies

NOACA engaged stakeholders and the general public through four phases:

1. Visioning
2. Research
3. Preliminary Plan
4. Final Plan

Figure 4-2. Public Engagement Process



During each phase, NOACA:

1. Provided stakeholders and the general public with multiple opportunities for feedback during the plan's development:
2. Created activities and approaches that align with the agency's mission and vision to communicate a clear, coordinated, and comprehensive public message
3. Updated the public through various avenues influenced by community experts represented by the NOACA Board, Committees, Councils, and stakeholders
4. Identified and contacted new and previously hard-to-reach communities and residents in underserved communities.

NOACA also continued to provide a more inclusive approach to transit and mobility. Using an equity lens, it acknowledged the foundation of transit as a means to access housing, jobs, and economic opportunities, which are necessary to improve the quality of life for all people.

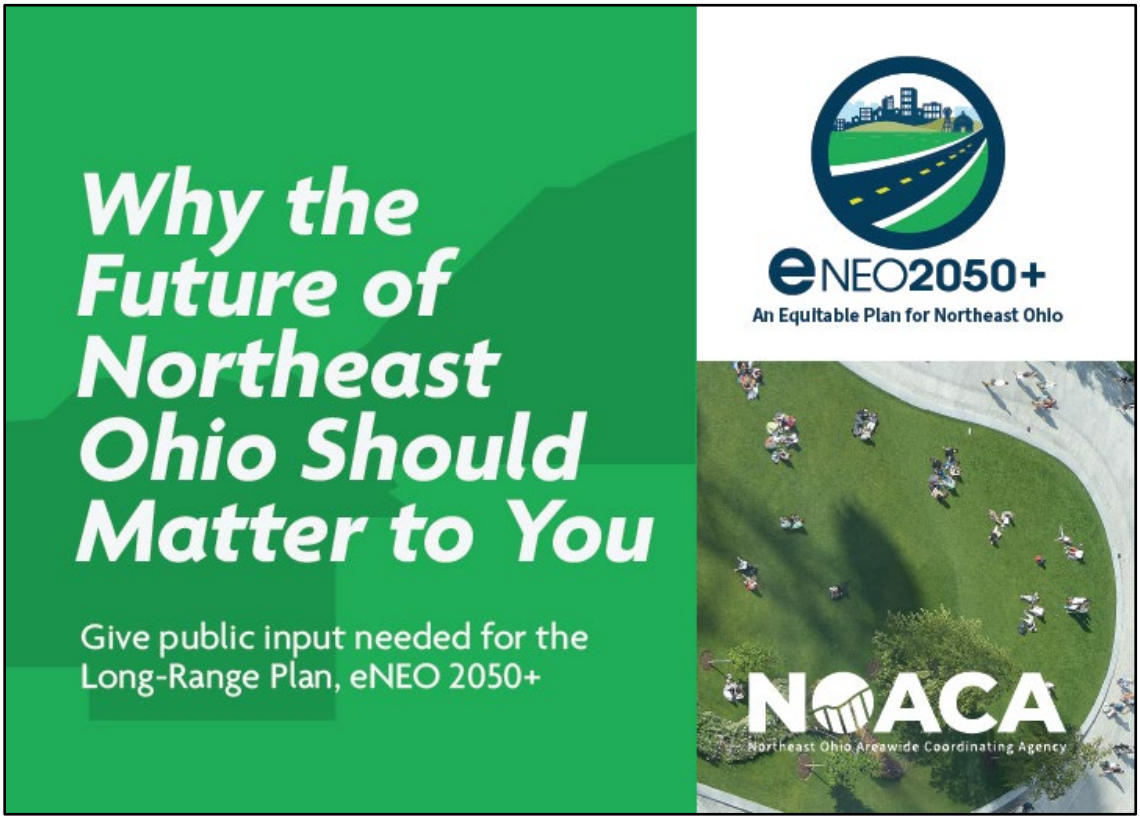
Partners in local and state government, advocacy groups, and stakeholders each play a key role in helping to shape the work of the eNEO2050+. NOACA targeted select groups at each engagement phase to help shape the plan with feedback and public comments. Public comments were compiled from surveys, hotline phone calls, emails, meeting notes, online portals such as Mindmixer, and focus group discussions. The following constituencies participated in the plan update:

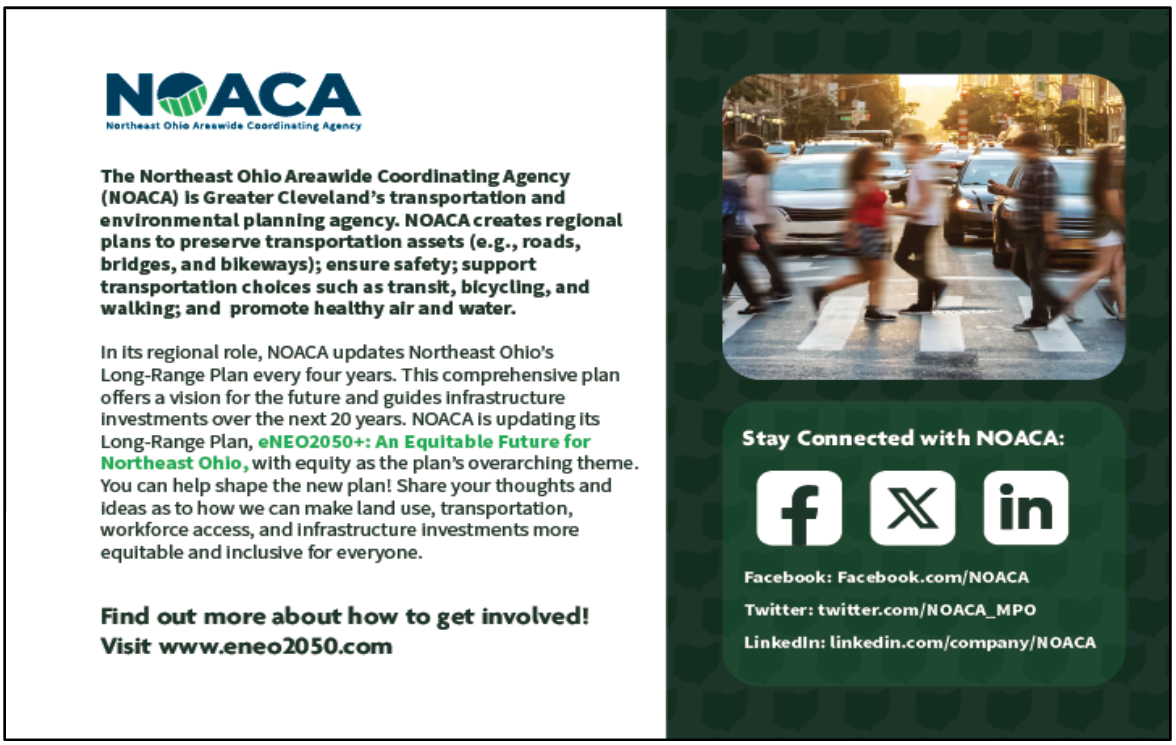
- Historically underrepresented populations within regional planning efforts (communities of color, cultural and ethnic communities, the disability community)
- Regional residents with diverse mobility behaviors, including drivers, cyclists, pedestrians, and transit users
- Elected officials and staff of counties, cities, the state, and other relevant public agencies
- Logistics providers (including ports, shippers, freight transportation service providers)

- Business interests (employers and employees; central business district representatives within each service area)
- Organizations that represent public transportation employees, private transportation, and commuting programs
- (carpooling, vanpooling, parking and transit benefit programs, telework, etc.)
- Agencies that represent rural parts of the region, as well as the urban core centers, along with expertise in areas such as land use and multimodal solutions

Figure 4-3. Front and Back of Postcards for Long Range Plan Public Meetings

Figures 4-4. Front and Back of Postcards for Long Range Plan Public Comment





NOACA Household Travel Survey (2024)

Overview

In December 2022, NOACA released a request for proposal (RFP) seeking travel survey data to support an update to the Greater Cleveland travel demand model covering the seven counties of Cuyahoga, Lorain, Lake, Medina, Geauga, Summit, and Portage. The previous survey had been conducted in 2012 and covered five counties (Cuyahoga, Geauga, Lake, Lorain, and Medina). Compared to the last survey conducted over 10 years ago, the current survey will provide NOACA with more detailed and updated data, replace personal wearable data logger technology with smartphone-based data collection technology, and utilize more advanced communication tools for respondents. NOACA awarded this travel survey in July 2023, after a competitive bidding process, to the team led by Westat.

The survey collected socio-demographic data and a one-day (24-hour) period of weekday (Tuesday, Wednesday, and Thursday) household travel behavior. The original goal was to collect data from 9,000 households across NOACA's transportation planning region. The geographic area surveyed consisted of the entire geographic area of Cuyahoga, Lorain, Lake, Medina, and Geauga counties and portions of Portage and Summit counties.

The dataset was weighted and expanded to the American Community Survey 5-Year estimates and the results of the data match those control totals.

Summary of Key Findings

Overall survey results show a representative snapshot of regional travel behavior. First, regarding the mode share distribution, Table 1 shows the majority of trips were made using private vehicles, either as the driver or passenger. This includes the proportion of both unweighted and weighted trips by mode. This outcome was expected and aligns with prior household travel survey outcomes across the U.S.

Table 4-1. Overall Trips by Mode

Mode	N	Unweighted	Weighted	MOE (95%)
Walk/Bike	5,815	9.39%	9.35%	0.52%
Driver	39,645	64.03%	63.34%	0.71%
Passenger	13,003	21.00%	20.98%	0.86%
Carpool/Vanpool	511	0.83%	0.82%	0.18%
School bus	1,093	1.77%	1.98%	0.23%
Public transit	1,163	1.88%	2.21%	0.30%
Something else	690	1.11%	1.33%	0.32%
Total	61,920	100%	100%	0%

[1] There are 158 “Not Ascertained” values for variable Mode. These missing variables are not included in the above table.

Trip rates obtained in the survey were reasonable and as expected. Table 2 shows the average number of trips captured at the household level by mode of survey participation (i.e., smartphone app or web/CATI). On average, households reported more trips per household through the smartphone app than those reporting through online or phone. Note that trip rate correction factors, based on smartphone app use, were not applied to the trip rate results.

Table 4-2. Overall Household Trip Rates by Retrieval Mode

Retrieval Mode	N	Unweighted	Weighted	MOE (95%)
Smartphone App	41,670	8.59	8.98	0.23
Web / CATI	20,250	6.26	6.38	0.20
Total	61,920	7.66	7.92	0.13

Similarly, Table 3 shows that the number of trips captured at the person level collected via the smartphone app was higher than trips reported per person via web or CATI.

Table 4-3. Overall Person Trip Rates by Retrieval Mode

Retrieval Mode	N	Unweighted	Weighted	MOE (95%)
Smartphone App	28,926	4.58	4.57	0.09
Web / CATI	32,994	2.79	2.76	0.06
Total	61,920	3.42	3.38	0.05

Households throughout the survey area showed a similar amount of interest and participation with overall response rates fairly consistent at the county level, as shown in Table 4.

Table 4-4. Response Rates for Recruit and Retrieval by County

County	Sample Count	Complete Recruit Count	Recruitment Rate	Complete Retrieval Count	Retrieval Rate	Response Rate
Cuyahoga	415,581	10,233	2.46%	5,141	50.24%	1.24%
Geauga	26,445	610	2.31%	295	48.36%	1.12%
Lake	68,004	1,551	2.28%	699	45.07%	1.03%
Lorain	94,082	2,085	2.22%	955	45.80%	1.02%
Medina	53,940	1,300	2.41%	643	49.46%	1.19%
Portage	5,289	139	2.63%	72	51.80%	1.36%
Summit	21,092	558	2.65%	281	50.36%	1.33%

County	Sample Count	Complete Recruit Count	Recruitment Rate	Complete Retrieval Count	Retrieval Rate	Response Rate
Total	684,433	16,476	2.41%	8,086	49.08%	1.18%

Finally, the following are the key survey results:

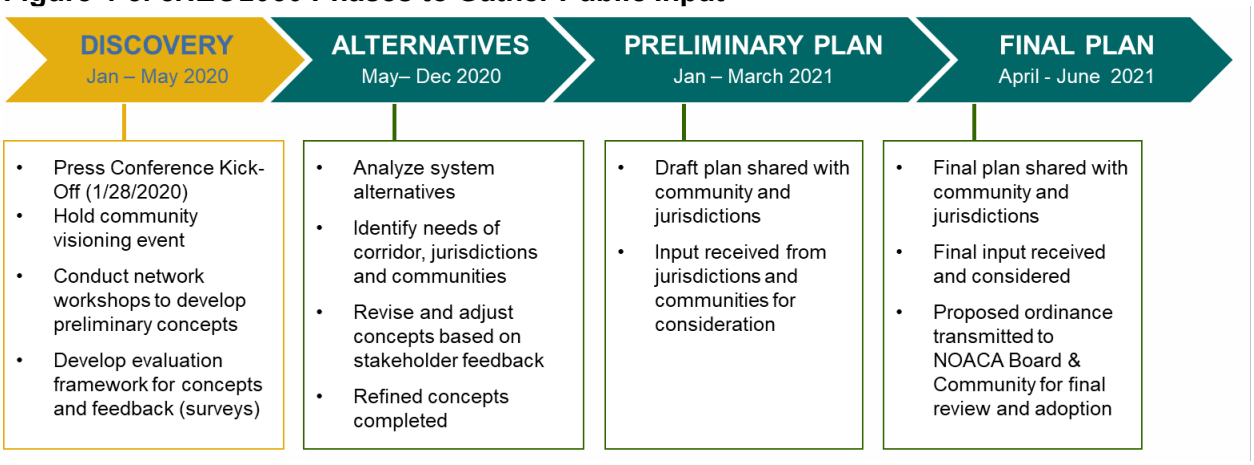
- Overall, 684,433 randomly selected households were invited to participate in the survey. Each of these households was mailed an invitation letter.
- Of those households, 16,476 households recruited themselves into the study (2.4 percent of all invited households), and 8,086 households completed the travel reporting survey, resulting in a retrieval rate of 49.1 percent and an overall response rate of 1.2 percent.
- The survey results contain information for 8,086 households, 18,122 persons, 14,308 vehicles, 61,920 trips, and 61,673 activities representing 957,074 households, 2,242,770 persons, 1,599,598 vehicles, and 1,182,835,016 trips throughout the entire study area.
- Households reported an average of 1.87 vehicles, including 6 percent zero-vehicle households.
- Households reported or captured an average of 7.92 daily household trips and 3.38 daily person trips.
- Overall, 84 percent of all trips were made by private vehicles as drivers or passengers, 9 percent were by non-motorized modes including walking and biking, 2 percent were by public transportation, and 4 percent were by other transportation modes including school bus and carpools/vanpools.
- Overall, the average one-way trip duration was 20.68 minutes, ranging from 19.80 minutes for Lake and Lorain counties to 21.45 minutes for Geauga County.

eNEO2050 Public Engagement

Strategic stakeholder and public involvement outreach was essential to the success of the *eNEO2050* plan. Through a broad and diverse process, NOACA established an integrated approach to develop the long-term strategies and vision of *eNEO2050* with public input. The public involvement and outreach process provided multiple opportunities for stakeholders and the public to review plan-related information. The process allowed NOACA to engage stakeholders on the analysis of future transportation and mobility conditions, fundamental criteria, performance measurements, and potential regional mobility opportunities. NOACA staff deployed the following phases to gather public input (see Figure 4-5):

- Discovery
- Alternatives
- Preliminary Plan
- Final Plan

Figure 4-5. *eNEO2050* Phases to Gather Public Input



Each phase incorporated messages to inform the general public of the processes to elicit responses so NOACA could identify the needs of the region. As such, the public engagement and outreach activities identified in Chapter 4 will detail the approaches, methods and outcomes throughout each phase. NOACA:

- Provided stakeholders and the public with multiple opportunities where NOACA could capture feedback for the plan's development;
- Created activities and approaches that align with the agency's mission and vision to communicate a clear, coordinated, and comprehensive public message; and
- Updated the public through various avenues internally with the NOACA Board, Committees, Councils, and stakeholders, while NOACA identified and contacted new, previously hard-to-reach communities and residents in Environmental Justice areas.

Among the new elements in *eNEO2050,* NOACA developed a more inclusive approach to transit and mobility, with equity as the focal point. NOACA used an equity lens to acknowledge the foundation of transit as a means to access housing, healthcare, education, jobs, and economic opportunities, which are necessary components to improve quality of life for all people.

NOACA created and implemented public engagement messaging and outreach activities to address equity in the region with planning assumptions for each phase. Public participation processes and strategies embraced a robust approach to convey messaging to capture input as part of the plan's development.

Public Participation Process and Strategies

NOACA strategically approached public participation to meet the needs of the region. It was important to reach out to stakeholders from all backgrounds and perspectives to have conscientious plans that benefit everyone. NOACA developed public participation activities with a comprehensive approach to equity, collaboration, and inclusion in mind.

Partners in local and state government, advocacy groups, and stakeholders each play a key role to help shape the work of the agency. NOACA targeted select groups at each phase of engagement, especially to help plan and shape messages and participation methods.
Specific constituencies included:

- Historically underrepresented areas within regional planning efforts (communities of color, cultural communities, the disability community)

- Regional residents and their mobility behaviors, including drivers, cyclists, pedestrians, and transit users
- Elected officials and staff of counties, cities, the state, and other relevant public agencies
- Freight interests (including ports, shippers, freight transportation service providers)
- Business interests (employers and employees; central business district representatives within each service area)
- Organizations that represent public transportation employees, private transportation, and commuting programs (carpooling, vanpooling, parking and transit benefit programs, telework, etc.)

NOACA also engaged agencies that represented rural parts of the region, as well as the urban core centers along with expertise in areas such as land use and multimodal solutions.

NOACA ensured an emphasis among communities that have not been historically engaged in policy decision making with NOACA. Staff developed a robust outreach strategic model to include underrepresented communities to provide feedback.

Specific tactics included, but not were not limited to, the following:

- Paid advertisements for online and mail community canvasing (three campaigns)
- Increased volume of flyers, postcards, and bullet cards handed out at various community engagements and outlets (2,200)
- Inclusion of sign interpreters and other language materials (i.e., Spanish, Mandarin) for meetings (one public meeting, three material releases)
- Neighborhood drop-in centers for distribution (127)

NOACA presented various information and messages to these groups and conducted special outreach methods to allow for more participation as well as leverage new relationships to cultivate long-lasting connections.

Public Participation Outreach Engagement and Approaches

Throughout the public engagement planning efforts, staff worked to provide opportunities for stakeholders and the general public to participate in *eNEO2050* development and to ensure all voices were heard, valued, and considered. NOACA built on its long history of engagement activities to strengthen its comprehensive planning efforts (see Appendix 4- 1).

When in-person meetings were not available due to the COVID pandemic, NOACA held virtual meetings. NOACA targeted several internal and external stakeholders to ensure professional perspective, discussion, and feedback on *eNEO2050* development. NOACA invited several associated groups and organizations to bring their constituents, clients, and broader audiences to the events as a way to gain more public participation.

NOACA employed the following methods for public participation during this phase of planning. Outreach and public involvement are valuable activities that can engage stakeholders, underrepresented constituencies, and newer audiences to shape region-wide planning.

1. Created background information to post on websites and for use in fact sheets, handouts, and other materials.
2. Convened stakeholders for discussion around large topics of regional scale
3. Sponsored listening sessions, workshops, and virtual webinars to feature policy aspects and promote topic-based policy discussions on plan content.

4. Used social media to connect constituencies to planning efforts and promote involvement—both for two-way discussion and one-way push marketing.
5. Included interactive techniques (such as crowdsourcing and visual mapping) to gather data and facilitate feedback.
6. Designed and disseminated informal surveys—used social media, electronic mailing lists, idea-gathering platforms, and websites to ask questions and promote discussion spaces.
7. Used online interactive engagement tools with abilities to crowdsource or generate surveys, interactive online maps and visualization (supported features such as layering), videos, create markers and provide feedback (related to social media and web-based methods.)
8. Offered forums, including online forums, to elicit stakeholders' and communities' ideas and perspectives on regional issues, projects, and initiatives.
9. Developed special events to announce, highlight, or launch an issue, discussion, project, initiative, or news event (on-site guerilla campaigns that allow for videotaping community responses to highlight ongoing participation).
10. Offered open opportunities to learn about the project, through open houses, meetings/virtual meetings, receptions specific to locations that interest the public, or other experience in order to highlight an initiative, infrastructure project, or investment.
11. Solicited in-depth information by hosting focus groups or small-group discussions about issues, activities, or public perceptions from stakeholders in nontraditional locations.
12. Updated existing foundational planning documents (including the current long-range plan, Aim Forward 2040) to reflect lessons learned through engagement strategies.
13. Created a web portal to access and download resources for public comment.

NOACA used a mixture of several or all of these strategies in every effort and, as appropriate, for specific audiences. Activities reflected the broader goals, strategies, and tactics of NOACA's *Public Engagement Plan*. NOACA staff posted these activities online and communicated widely to clarify how and when the public could participate.

External Communications

NOACA staff facilitated access to *eNEO2050* information to help residents understand, follow, and engage. NOACA staff applied in-person and webinar/virtual meetings, website content, emails, social media, and other electronic means for external communications. Staff deposited collateral materials at community meetings, events, and drop-off center locations. Staff also used community calendars and stakeholder distribution of information to notify a vast audience network. NOACA staff even disseminated a Communications Kit to partner organizations and committees within their own business networks.

Electronic Notifications

NOACA notified a broad range of stakeholders about the *eNEO2050* milestones and participation opportunities through complementary modes of communication:

1. **Emails:** Subscribers to the NOACA email list can opt in or out of communications about meetings, engagement opportunities, transportation equity updates, and notices. Emails are NOACA's primary method to notify interested parties about opportunities for engagement.
2. **Social Media:** NOACA used its social media platforms followed by transportation advocates, community groups, other government agencies, and interested members of the public. Staff routinely scheduled posting of events, campaigns, and public participation opportunities throughout *eNEO2050* development. Links to the *eNEO2050* webpage gave viewers easy access to information. Social media postings

complemented the use of all email and collateral material communications.

3. **Social Media Kits:** NOACA sent quarterly social media kits to Board of Director members, committees, and partners to share and distribute pertinent information about *eNEO2050*, which included public awareness campaigns, activities, and comment periods.
4. **NOACA Homepage Banners:** NOACA used large, inviting banner graphics with prominent "action buttons" to alert visitors to the NOACA website regarding important announcements and opportunities. The action buttons redirected visitors to the *eNEO2050* webpage, which hosts all plan development information.
5. **NOACA Website Calendar/Announcements:** NOACA added public involvement upcoming events to the webpage calendar and announcements under the News Section as information became available.
6. ***NOACA Connection:*** NOACA sent monthly updates about *eNEO2050* to all subscribers of the agency's external newsletter, the *NOACA Connection*. Each issue featured a section about *eNEO2050*, including developments, activities, and public comment periods. These updates helped reach a broader audience.
7. **Podcast:** NOACA hosted a podcast series about *eENEO2050*, electronically posted on several podcast listening stations (Spotify, iHeartRadio, iTunes, Alexa, Tune-in, Google Podcast, Podcaster, Amazon platforms, etc.).
8. **Media Alerts/Outlets:** NOACA sent monthly media alerts to news outlets from print, radio, television, and blogs to disseminate messages about *eNEO2050* development and to pitch story ideas to raise awareness of long-range planning.
9. **Local television and government stations:** NOACA sent public service announcements to the City of Cleveland broadcast station and East Cleveland Cable television to target residents and underserved populations that are frequent viewers.

Public Comment Process

State and federal law requires formal public comment processes for specific short-term and long-term planning efforts. The public comment period for *eNEO2050* formally involves people in the long-range planning process. These formal comment processes occurred throughout each segment of *eNEO2050* development, in an effort and opportunity to lend voice and feedback toward decision making. NOACA initiated the public comment period for eNEO2050 on April 21, 2021, and concluded the public comment period on May 20, 2021.

Public comments could be submitted by phone, U.S. mail, email, and online portals.

Planning Phases – Public Involvement Delivery

Phase I – Discovery

Implemented January 2020 – May 2020, this phase launched NOACA's public engagement to develop its new long-range plan. NOACA held a public informational meeting at the Cleveland History Museum on January 28, 2020, as a kick-off press conference to outline the plan development; previous long-range plan (*Aim Forward 2040*) objectives and results; and proposed plans for the agency's new long-range plan.

The event was a community visioning opportunity with more than 100 diverse audience guests and media. NOACA presented 20 polling questions to gain perspectives on travel patterns, multimodal use, transportation access, equitable mobility, and ridership to engage audience participation.

The kick-off event set the trajectory for the type of public input NOACA would seek over the next year as part of the plan development analysis,

Public Meetings – Informational

From February to April 2020, NOACA conducted several presentations to highlight the various area topics to build a framework around the long-range plan.

In February 2020, NOACA presented about smart technology and transportation systems at the Cleveland History Museum, with a focus on environmental and sustainable transit options. Content included alternative fuels, electric charging vehicles, and Hyperloop.
NOACA staff also gave presentations to the NOACA Board, committees, and councils to gain feedback on the overall long-range plan, public involvement process, and types of public engagement going forward.

NOACA posed key questions to audiences as part of the informational sessions:

- Why should *eNEO250* be important to you?
- What is working well with the transportation system in your community?
- Are there transportation barriers or mobility issues that prevent people from getting where they need to go?
- Are there transportation needs that you have heard about from people of color, people with low incomes, older adults, youth, people with disabilities, and people with limited English proficiency?
- What changes or trends are occurring that might affect the transportation system and how you use it?
- What opportunities for improving the transportation system do you see now or in the near future?

NOACA gave 26 presentations from January to May 2020 that targeted the general public, NOACA Board of Directors, Executive, Governance, Policy, Finance & Audit, External Affairs, and Planning & Programming Committees; Water Quality, Air Quality and Transportation Subcommittees; Transit, Business, Community, Rural, Bicycle & Pedestrian, Safety & Operations Councils; and public interest groups and stakeholders regarding the strategic regional transit plan; Hyperloop; and sustainable, innovative technology. NOACA used collateral material and digital messaging to cross-promote the meeting summaries as a form of cross niche content marketing.

NOACA posted five media releases and 10 media alerts during this phase; also disseminated 22 social media posts; and four external newsletter articles to a list of 1,128 base subscribers (average 67% open rate) to convey messages about *eNEO2050* development and updates.
Message Outputs and Portals

Website – eNEO2050.com
In February 2020, NOACA developed and launched a separate, and redirected, landing page from the NOACA website to become the central platform to obtain information about the long-range plan (see Figure 4-2). NOACA used this new comprehensive and interactive webpage to educate and alert visitors about:

- Long-range plan objectives and priorities
- Focus areas NOAC staff defined for public input
    - CrowdGauge Survey
    - Regional Survey Results
- Public involvement activities

    - Public & Virtual Meetings
    - Webinars
    - Lunch and Learns
    - Podcasts
- Previous and Current Research

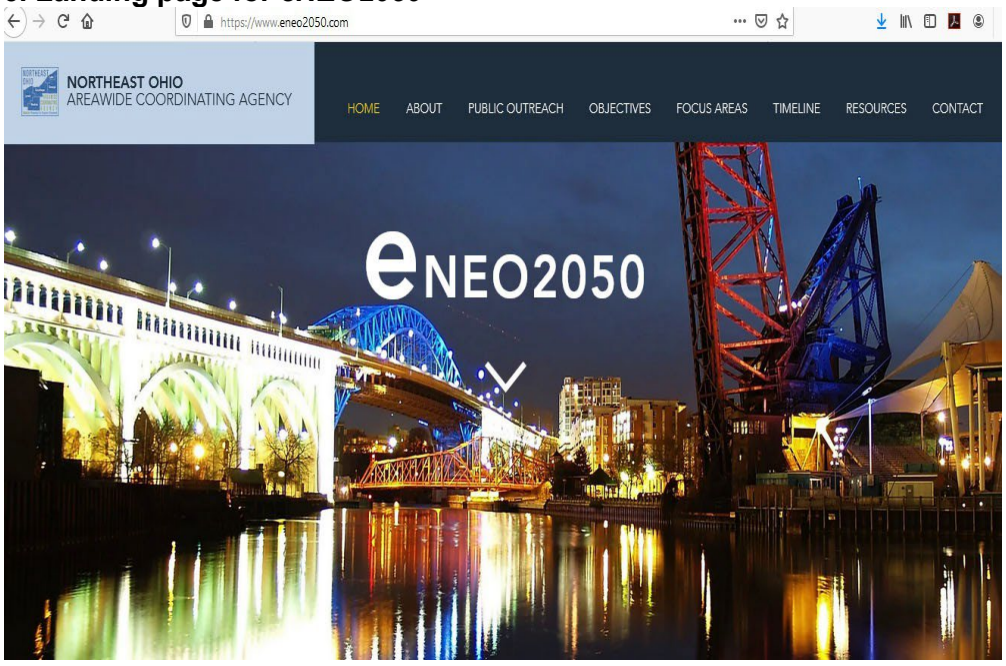
NOACA disseminated and updated information throughout all communication channels and ensured the web platform was available for:

- Proactive engagement with key constituents to assure all viewers were aware how to participate in the process—broad for large-scale regional discussions and more targeted for specific, smaller-scale conversations;
- Public comment through the website to allow input throughout each process phase to document all comments to be considered within the decision-making process.

The website also hosted the following sectional areas:

- About *eNEO2050*
- Timeline
- Public Outreach Material
- Planning Scenarios and Performance Criteria
- Resources/Media
- Public Comment Portal

Figure 4-6. Landing page for *eNEO2050*



NOACA disseminated updates throughout all communication channels to ensure the platform provided proactive engagement. NOACA thoroughly used communication channels, including a cross-marketing approach via the eNEO2050.com and NOACA.org websites; social media and digital platforms to maximize messaging; and communications to reach a vast regional audience.

Once the comment period ends, NOACA staff will forward *eNEO2050* to the NOACA Board of Directors for comment prior to their scheduled June 11, 2021, meeting. There, NOACA staff will

present a final copy as an action item to the Board for approval and adoption. Once approved, NOACA staff will post the final plan on the NOACA website and *eNEO2050* webpage.

Collateral Material

NOACA also developed collateral material for several informational campaigns to direct audiences to the website (Figure 4-3). Staff distributed bulleted cards, postcards, and flyers throughout NOACA's five counties (Cuyahoga, Geauga, Lake, Lorain, and Medina) and the City of Cleveland.

Figure 4-7. Informational Postcard (Both Sides)

The **Northeast Ohio Areawide Coordinating Agency (NOACA)** is Greater Cleveland's transportation and environmental planning agency. NOACA creates regional plans to preserve transportation assets (e.g., roads, bridges, and bikeways); ensure safety; support transportation choices such as transit, bicycling, and walking; and promote healthy air and water.

In its regional role, NOACA updates Northeast Ohio's Long-Range Plan every four years. This comprehensive plan offers a vision for the future and guides infrastructure investments over the next 20 years. NOACA is currently developing its next Long-Range Plan, *eNEO2050: An Equitable Future for Northeast Ohio*, with ***equity*** as the plan's overarching theme. You can help shape the new plan! Share your thoughts and ideas as to how we can make land use, transportation, workforce access, and infrastructure investments more equitable and inclusive for everyone.

Find out more about how to get involved! Visit:

www.eNEO2050.com

NOACA Lake Geauga Cuyahoga Lorain Medina Planning For GREATER CLEVELAND

Northeast Ohio Areawide Coordinating Agency

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Like us: facebook.com/NOACA

Follow us: twitter.com/NOACA_mpo

www.linkedin.com/company/NOACA

NOACA reached 980+ businesses, hospitals, health-care providers, churches, public-housing units, apartments, county fairs, COVID testing centers, advocacy centers, and drug stores toname

a few as part of the distribution of information during Phase I. Due to the COVID-19 pandemic, there were limitations to conduct in-person meetings and engage directly. As a result, NOACA relied on stakeholders and the development of regional drop-in centers to ensure hard copy material and visual communications were posted in areas with major vehicular and foot traffic. NOACA also concentrated on material placement within Environmental Justice areas to post *eNEO2050* information; more than $45.9 million of NOACA's FY21-24 transportation improvement programs (TIP) reside in such areas.

A total of 274 businesses, including grocers, pharmacies, chambers of commerce, public housing, food banks, apartment buildings, colleges, universities, public schools, social service, coffee houses, restaurants, and other locations allowed NOACA staff to post and drop off materials. NOACA staff approached nearly 200 media outlets, churches, libraries, public agencies, and others to post materials via website and electronic calendars of events. NOACA staff distributed a total of 4000+ flyers, posters, and bullets during this planning phase.

Dissemination of Messages – Electronically

NOACA developed several countywide public meetings, workshops, and roundtables to gain public feedback on preliminary concepts and framework outlined for *eNEO2050*. Each meeting was advertised as public service announcements to more than 77 print media, radio, and television news outlets.

Information was also disseminated via email to more than 4,800 residents on the NOACA mailing list and more than 1,100 on the NOACA external affairs communications lists. To ensure consistency in communications and facilitate promotion of all workshops, roundtables, virtual meetings, and events, NOACA used Constant Contact and Eventbrite to update audiences on the plan development and upcoming campaigns. These portals were used to also announce the upcoming interactive CrowdGauge interactive tool and town hall meetings in the next phase development.

Phase II – Alternatives Analysis

During this phase, NOACA staff captured the input of public stakeholders through 52 public participation engagements (virtual meetings, roundtables, Regional Survey, and CrowdGauge tool) to define interests and perspectives in the following areas:

- Where funding should be spent: Northeast Ohio system network operation, expansion, and programming;
- Transportation system alternatives and criteria;
- Transportation measurements;
- Identification of corridor needs from jurisdictions and communities;
- Concepts based on stakeholder feedback;
- Refined concepts based on staff analysis.

From June to December 2020, NOACA collected public comment through virtual stakeholder meetings; roundtables; webinars; and NOACA Board, committee, and council meetings. NOACA staff recorded each meeting as a public record, including chat room comments.

Public Meetings

NOACA held public meetings virtually in a webinar format from August to September 2020 to allow residents to interact and engage in the *eNEO2050* development process (see Figures 4-4 and 4-5). NOACA created data reports at the close of the process for all online and interactive surveys,

campaigns, and CrowdGauge activities for use as part of the analysis. NOACA held virtual public meetings for the CrowdGauge tool on the following dates:

- August 3 – Cuyahoga County
- August 12 – Lake County
- August 19 - Lorain County
- August 26 – Medina County
- September 2 – Geauga County
- September 16 – City of Cleveland

Figure 4-8. Virtual Public Meeting and Campaign Flyer

Figure 4-9. Postcard disseminated as collateral material and digitally

NOACA Transportation Day

In July 2020, NOACA hosted a transportation day, which included key stakeholders such as county commissioners, mayors, city managers, township trustees, and other public officials within NOACA's five counties. The theme was equity and what equity means in their respective areas in association with *eNEO2050*. NOACA hosted a panel discussion with 78 registered guests to hear community expert perspectives about equitable transportation access in the following areas:

1. Economic development/land use
2. Health and Environment
3. Public Transportation
4. Housing

The CrowdGauge tool was also part of the discussion; questions were polled throughout the use of the interactive tool with real-time conversion results. The event was fully documented as a matter of record, including comments and the results of the CrowdGauge tool.

Lunch and Learns

NOACA directed further discussions and dialogues through a monthly Lunch and Learn virtual dialogue series to offer public engagement, conversations, and input on *eNEO2050*. NOACA hosted the series every third Thursday of each month from July to December 2020. The six segments were:

- “Planning for Age-Friendly Communities” (July 2020)
- “Transit Oriented Development” (August 2020)
- “The Importance of Transportation for Ohio’s Economy and Future Growth” - NOACA Annual Meeting (September 2020)
- “Equitable Public Engagement” (October 2020)
- “Attitudes and Progress toward Regionalism” (December 2020)
- “Cross-Talk: “Engineer-Speak and Planner-Speak for Better Understanding and Collaboration” (January 2021)
- NOACA Commuter Choice Awards (February 2021)
- Racial Equity in Planning (March 2021)

A total of 546 guests attended the Lunch and Learns during this phase.

Podcasts

As part of its first podcast series, NOACA introduced the "NOACA Report" to delve deeper into aspects of building equitable and livable communities throughout the region. NOACA provided discussions on the overall planning effort to integrate equity into transportation and environment planning decisions with the objective of increasing accessibility to land use, housing, health, workforce mobility, and infrastructure investments. NOACA posted five podcasts during this period on the Buzzsprout news feed and on 15 channels: Apple, Spotify, Google, Amazon Music, Stitcher, iHeartRadio, Alexa, Podcast Addict, Podchaser, Pocket Casts, Deezer, Listen Notes, Overcast, Castbox, Podfiend.
NOACA staff produced the following topics:

- *eNEO2050*: *An Equitable Future for Northeast Ohio* (July)
- Racial Equity in Planning: Past, Present, Future – Creating a Region of Opportunities Part 1 (August)
- Racial Equity in Planning: Past, Present, Future – Creating a Region of Opportunities Part 2 (September)
- Building Communities for Safer Mobility (November)
- The Air We Breathe (December)

Social Media Campaign Survey

Pursuant to these public outreach activities, NOACA staff performed analytics from May to December 2020 around the public informational campaigns and surveys:

- Crowdgauge
- Lunch & Learns
- Podcasts
- Regional Transit Plan
- Scenarios
- Virtual Public Meetings

The analytic results of the campaigns include the following:

Digital Platforms Summary

- ENEO2050.com had 4,176 total site sessions from 2,592 unique visitors (an average of 324 unique visitors per month).
- 329 people registered for our Virtual Public Meetings through the site and/or redirected links.
- The vast majority of our visitors came from the City of Cleveland (average 924 visitors—the next highest cities are Lakewood with 11) and Beachwood with 100); the surrounding counties averaged 6-9% consistency rates

Twitter

- 66 posts across seven different categories (Crowdgauge, Lunch & Learns, Podcast, Regional Transit Plan, Scenarios, Video Project, and Virtual Public Meetings).
- 40,824 total impressions over that span; 601 total engagements.
- Virtual Public Meetings were the most successful type of post in terms of impressions (13,474) and engagements (240).
- CrowdGauge was the least successful organically; it generated only 1,987 impressions;

however, by our running paid campaigns, it generated 106,128 impressions (concentrated ads to reach Environmental Justice areas, over 1,509 clicks but did not transition into full participation in the tool).

Facebook

- 66 posts across seven different categories (see Twitter). Performance is significantly lower than that of Twitter.
- 12,088 total impressions (138 total engagements).
- The Virtual Public Meetings were again the most viewed (6,199) and engaged (49) posts.
- Likewise, this also does not include the paid campaigns in support of the CrowdGauge tool. These campaigns generated 30,040 impressions and 700 clicks.

Interactive Tools

Further, NOACA developed a Regional Survey and CrowdGauge interactive tool to engage the public. NOACA developed each tool to ensure adequate sample size to allow for statistically significant analysis and to ensure the sample was both geographically and demographically representative of the diverse adult population of Northeast Ohio.

Regional Survey

Overview

NOACA sought public input from a geographically and demographically representative sample of its adult population. NOACA wanted specifically to expand upon the range of topics for the *eNEO2050* regional survey, beyond transportation, as well as pursue a sample size large enough to ensure the results would be statistically significant at desired levels of confidence and error. The questionnaire for *eNEO2050 was designed* to maximize the number of survey respondents through an engaging, online experience. Reporting documents included data subsets, recommendations, presentations, advocacy, follow-up, and ongoing support.

Sampling Methodology

NOACA determined a sample size of at least 2,400 would ensure overall results at a "medium" confidence level of 95%, within a ±2% "low-medium" margin of error. Figure 4-6 displays the formula used to calculate sample size based on specified parameters [sample proportion (p) value assumed to be 0.5 to maximize sample size].

Figure 4-10. Formula used to calculate sample size[1]

$$\text{Sample size} = \frac{\frac{z^2 \times p\,(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p\,(1-p)}{e^2 N}\right)}$$

NOTE: (N) represents population size at a specified confidence level (z-score), margin of error (e) and sample proportion value (p)

[1] SurveyMonkey, Sample Size Calculator, 2020, https://www.surveymonkey.com/mp/sample-size-calculator/ (retrieved May 11, 2020).

The actual sample size was a bit higher (2,464) than 2400, which translates to a confidence level between 95% and 96%. An adjustment model probability sampling (controlled for outcome variables) was utilized where the 2018 American Community Survey (ACS) provided benchmark demographics for quota sampling data (specifically age and race) from a large frame population over age 18. The final survey (see Appendix 4-2) included a total of 36 questions designed not only to reveal information about the respondents, but also to provide information to NOACA staff that would support efforts to model the four future transportation scenarios introduced earlier and referenced throughout the remaining chapters of this document.

Collection of Responses

A total of 2,464 respondents completed the survey. The URLs experienced 3,980 hits with 3,028 qualified respondents (based on county and age questions) initially posted. A high number of respondents (2,534) continued to post answers past Q8 (jobs and economic growth); 2,416 continued to post until Q18 (increase riding public transportation); and 2,249 posted all demographic answers through the final question about race (optional). NOACA's Regional Survey completion rate (the percentage of qualified respondents who answered all questions) was 77%. Many questions prefaced that respondents should answer to reflect the time before or after COVID-19 pandemic (NOTE: During data collection, the U.S. economy went from lockdown to reopening).

Data collection began June 26 and mostly concluded in four weeks (by July 24). The last week of data collection focused exclusively on black respondents and, later, representative quota compliance in Lorain County.

Figure 4-7 and Table 4-1 illustrate the distribution of the sample across NOACA's geography. Appendix 4-3 provides a comprehensive report of survey results.

Figure 4-11. Map of respondents across the NOACA region by county and concentration*

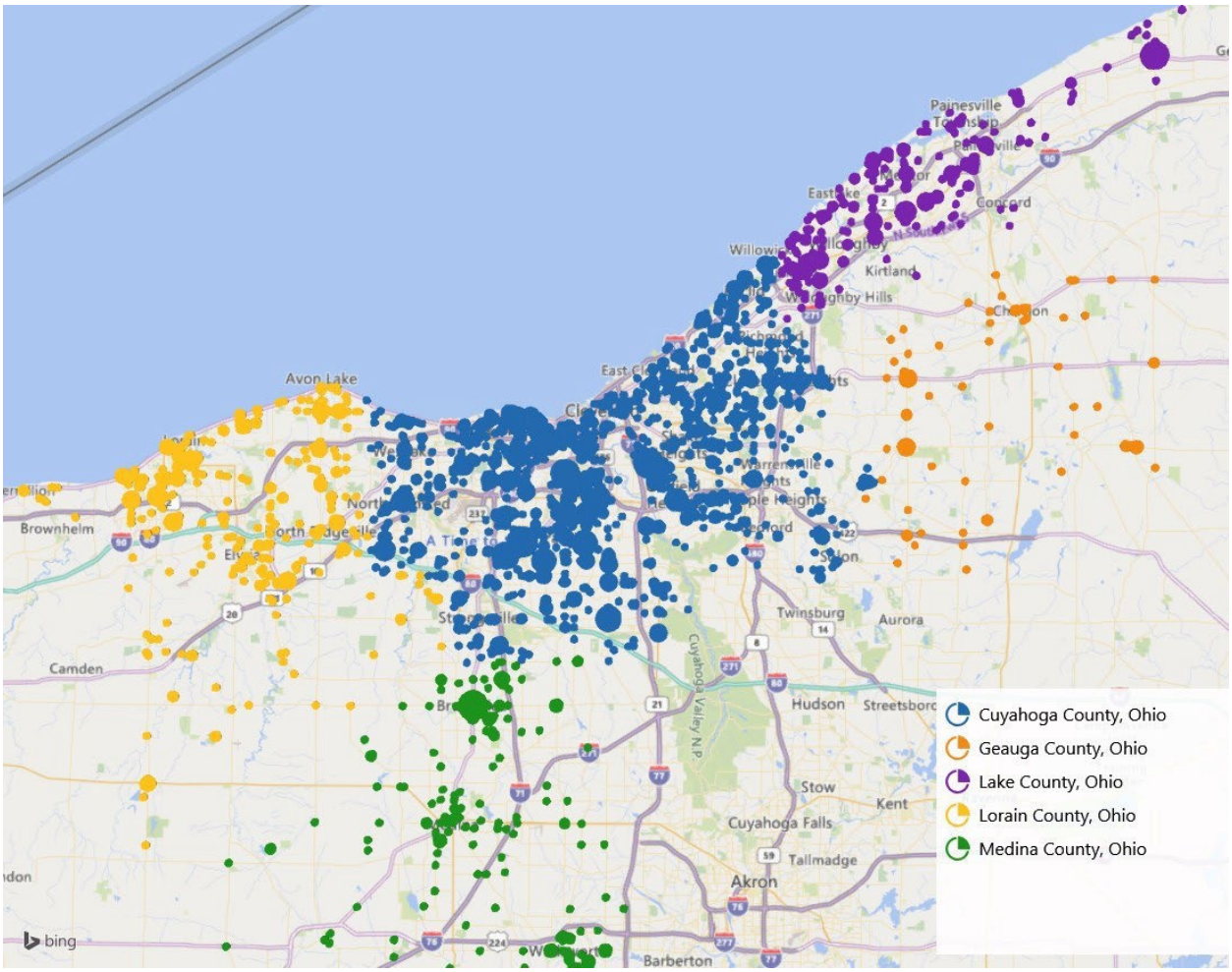


Table 4-5. Distribution of respondents by income/race category across NOACA geographies

		Cleveland and Counties	
	NOACA SURVEY BASE	**NOACA Survey**	**American Community Survey Population >18**
GOODNESS OF SAMPLE	2,464	%	%
Cleveland	446	18	19
Cuyahoga	1,087	44	42
Lorain	362	15	15
Lake	271	11	11
Medina	207	8	9
Geauga	91	4	4

Gender. Tables 4-6 and 4-7 (below) illustrate the distribution of respondents (total respondents labeled “BASE”) by gender, in comparison to regional and local gender distribution across the population. These tables suggest possible undersampling of males and oversampling of females,

but it is also important for the reader to note that 217 respondents (9%) did not answer the gender question, so the possible under/oversampling may simply be an artifact of nonresponse.

Table 4-6. Distribution of Regional Survey Sample by Gender

	Gender						
	NOACA Region	Cleveland	Cuyahoga (no Cleveland)	Lorain	Lake	Medina	Geauga
BASE	2,247	380	1,013	326	253	194	81
	%	%	%	%	%	%	%
Female	61.59	60.53	62.88	60.12	63.24	58.76	58.02
Male	37.83	38.95	36.43	39.88	35.57	41.24	40.74
Nonbinary	0.58	0.53	0.69	-	1.19	-	1.23

Table 4-7. Distribution of Regional Population by Gender

	ACS Gender 2018: ACS 1-Year Estimates Subject Tables					
	Cleveland	Cuyahoga (no Cleveland)	Lorain	Lake	Medina	Geauga
BASE: Population >18	301,081	684,949	241,198	184,304	138,890	72,713
	%	%	%	%	%	%
Female	51.23%	54.00%	51.41%	51.65%	51.10%	50.62%
Male	48.77%	46.00%	48.59%	48.35%	48.90%	49.38%

Age. Table 4-8 (below) breaks down the distribution of respondents by both geography and age. The numbers in the rows marked “ACS” represent the targeted subsample sizes from a particular geography within a particular age cohort. These numbers make up a sample distribution based on the actual percentage of the adult population that falls within that particular geography and age range. The numbers in the rows marked “Survey” represent the actual subsample sizes based sampling methodology. For most geography/age subsamples, the Survey numbers and ACS numbers are quite similar. See Appendix 4-4 for a comprehensive breakdown of the full Regional Survey results by age.

Table 4.8 Distribution of respondents across age cohorts (sample versus ACS)

		Age Cohort						
County	**Source**	**18-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65+**	**Total**
Cleveland	ACS	60	93	63	68	82	81	447
	Survey	81	87	83	62	75	58	446
Cuyahoga	ACS	102	168	149	161	182	254	1,016
	Survey	106	158	162	180	244	237	1,087
Lorain	ACS	41	49	55	61	66	84	356
	Survey	57	43	53	49	70	90	362
Lake	ACS	25	40	40	47	52	68	272
	Survey	33	39	39	40	58	62	271
Medina	ACS	19	29	33	38	38	47	204
	Survey	23	29	49	49	32	25	207
Geauga	ACS	12	12	14	19	21	29	107
	Survey	13	8	10	17	25	18	91
Target total (ACS) = 2,400; Total respondents final (Survey) = 2,464								

Race and Ethnicity. Tables 4-9 and Table 4- 10 show the distribution within the sample by geography and race and by geography and ethnicity. Please note that the NOACA region base count in Table 4-8 is lower because some respondents elected not to answer the race questions. Also, percentages may exceed 100% because some residents indicated that their identity included two races.

Table 4-9. Distribution of respondents (number and percentage) by race across geographic units

	Race						
Race	**NOACA Region**	**Cleveland**	**Cuyahoga**	**Lorain**	**Lake**	**Medina**	**Geauga**
BASE	2,249	383	1,011	328	253	193	81
White	79.90	53.52	80.61	87.50	92.49	93.78	92.59
African American or Black	15.03	38.64	13.75	8.84	4.74	4.15	2.47
Asian	2.98	3.92	3.46	1.83	1.98	2.07	2.47
American Indian and Alaska Native	1.16	2.35	1.19	-	1.58	-	1.23
Other(s)	2.49	3.92	2.47	2.74	1.19	0.52	3.70

Table 4-10. Distribution of respondents (number and percentage) by Hispanic/Latino ethnicity across geographic units

	Ethnicity

Hispanic or Latino	NOACA Region	Cleveland	Cuyahoga	Lorain	Lake	Medina	Geauga
BASE	2,235	378	1,004	326	253	193	81
Hispanic / Latino	5.23	7.94	4.98	7.98	1.98	2.59	1.23
Not Hispanic / Latino	94.77	92.06	95.02	92.02	98.02	97.41	98.77

Tables 4-11 and 4-12 provide a more detailed summary of racial and ethnic distribution among survey respondents in comparison to racial and ethnic distribution among the NOACA adult population based on the 2018 U.S. Census Bureau American Community Survey.

Table 4-11. Population and Sample Distribution by Race and Geography

NOACA	Total Population (2,057,009)		White	Black	Native	Asian	All other	TOTAL
Cleveland	19%	ACS Population	173,202	197,208	6,830	14,238	14,100	405,578
		ACS % population	43%	49%	2%	4%	3%	100%
		ACS # for survey	191	217	8	16	16	448
		NOACA Survey	205	148	9	15	15	392
		NOACA %	52%	38%	2%	4%	4%	100%
Cuyahoga (no CLE)	42%	ACS Population	642,342	196,455	5,777	36,201	7,010	887,785
		ACS % population	72%	22%	1%	4%	1%	100%
		ACS # for survey	736	225	7	41	8	1,017
		NOACA Survey	815	139	12	35	25	1,026
		NOACA %	79%	14%	1%	3%	2%	100%
Lorain	15%	ACS Population	274,543	32,511	2,645	5,325	4,461	319,485
		ACS % population	86%	10%	1%	2%	1%	100%
		ACS # for survey	306	36	3	6	5	356
		NOACA Survey	287	29	-	6	9	331
		NOACA %	87%	9%	-	2%	3%	100%
Lake	11%	ACS Population	213,368	13,674	1,418	4,361	3,229	236,050
		ACS % population	90%	6%	1%	2%	1%	100%
		ACS # for survey	246	16	2	5	4	273

		NOACA Survey	234	12	4	5	3	258
		NOACA %	91%	5%	2%	2%	1%	100%
Medina	9%	ACS Population	173,724	3,941	1,087	2,818	1,377	182,947
		ACS % population	95%	2%	1%	2%	1%	100%
		ACS # for survey	195	4	1	3	2	205
		NOACA Survey	181	8	-	4	1	194
		NOACA %	93%	4%	-	2%	0%	100%
Geauga	4%	ACS Population	91,720	1,377	311	881	0	94,289
		ACS % population	97%	1%	-	1%	-	100%
		ACS # for survey	104	2	-	1	-	107
		NOACA Survey	75	2	1	2	3	83
		NOACA %	90%	3%	1%	3%	4%	100%

Table 4-12. Population and Sample Distribution by Ethnicity and Geography

NOACA	Total Population (2,057,009)		Hispanic or Latino	Not Hispanic or Latino	TOTAL
Cleveland	19%	ACS Population	47,144	336,637	383,781
		ACS % population	12%	88%	100%
		ACS # for survey	55	392	447
		NOACA Survey	30	348	378
		NOACA %	8%	92%	100%
Cuyahoga (no CLE)	42%	ACS Population	29,588	830,488	860,076
		ACS % population	3%	97%	100%
		ACS # for survey	35	982	1,017
		NOACA Survey	50	954	1,004
		NOACA %	5%	95%	100%
Lorain	15%	ACS Population	31,642	277,819	309,461
		ACS % population	10%	90%	100%
		ACS # for survey	36	320	356
		NOACA Survey	26	300	326
		NOACA %	8%	92%	100%
Lake	11%	ACS Population	10,738	219,776	230,514
		ACS % population	5%	95%	100%
		ACS # for survey	13	259	272
		NOACA Survey	5	248	253
		NOACA %	2%	98%	100%
		ACS Population	3,823	175,323	179,146
		ACS % population	2%	98%	100%

Medina	9%	ACS # for survey	4	201	205
		NOACA Survey	5	188	193
		NOACA %	3%	97%	100%
Geauga	4%	ACS Population	1,509	92,522	94,031
		ACS % population	2%	98%	100%
		ACS # for survey	2	105	107
		NOACA Survey	1	80	81
		NOACA %	1%	99%	100%

Table 4-11 shows ACS race for the total population and NOACA's survey sample. These numbers suggest possible undersampling of nonwhites and Hispanics. Both tables also suggest possible undersampling of certain geographies (e.g., City of Cleveland) and certain racial and ethnic groups where highly concentrated (e.g., blacks in Cleveland and suburban Cuyahoga County and Hispanics in Cleveland and Lorain County). However, because 9% of the respondents did not answer the race question or the ethnicity question, the apparent undersampling may simply be an artifact of nonresponse.

Income. The 2020 *eNEO2050* Regional Survey respondents were segmented into "Higher-Income" and "Lower-Income" groups by a threshold set at 200% of the Federal Poverty Level (FPL) (see Table 4-13).[2]

- Higher-income
  - $25,000 - $34,999+ and a one-person household
  - $35,000 - $49,999+ and a household with two people
  - $50,000 - $74,999+ and a household with up to three people
  - $75,000 - $200,000+ and four or more people in a household
- Lower-income
  - $10,000 - $24,999 or less and a one-person household
  - $25,000 - $34,999 or less and two or more people in a household
  - $35,000 - $49,999 or less and three or more people in a household
  - $50,000 - $74,999 or less and four or more people in a household
  -

Table 4-13. Distribution of respondents by income across geographic units

	Annual Household Income						
	NOACA Region	Cleveland	Cuyahoga	Lorain	Lake	Medina	Geauga
BASE	2,220	376	1,000	323	252	192	77
	%	%	%	%	%	%	%
Less than $10,000	6.85	14.10	5.00	8.05	4.37	5.21	2.60
$10,000 - $14,999	3.60	9.57	1.60	5.26	3.57	1.04	-
$15,000 - $24,999	8.29	15.69	6.90	4.33	9.13	7.29	6.49
$25,000 - $34,999	11.35	15.16	10.10	11.46	13.49	10.42	3.90
$35,000 - $49,999	12.30	13.83	11.80	12.07	13.89	13.02	5.19

[2] United States Department of Health and Human Services, (1.17.2020). "Annual Update of the HHS Poverty Guidelines," Jan. 17, 2020, https://www.federalregister.gov/documents/2020/01/17/2020-00858/annual-update-of-the-hhs-poverty-guidelines (accessed June 24,2020). Up to $25,520 for one-person household Up to $34,480 for two-person household Up to $43,440 for three-person household Up to $52,400 for four-person household Up to $61,360 for five-person household Up to $70,320 for six-person household Up to $79,280 for seven-person household Up to $88,240 for eight-person household

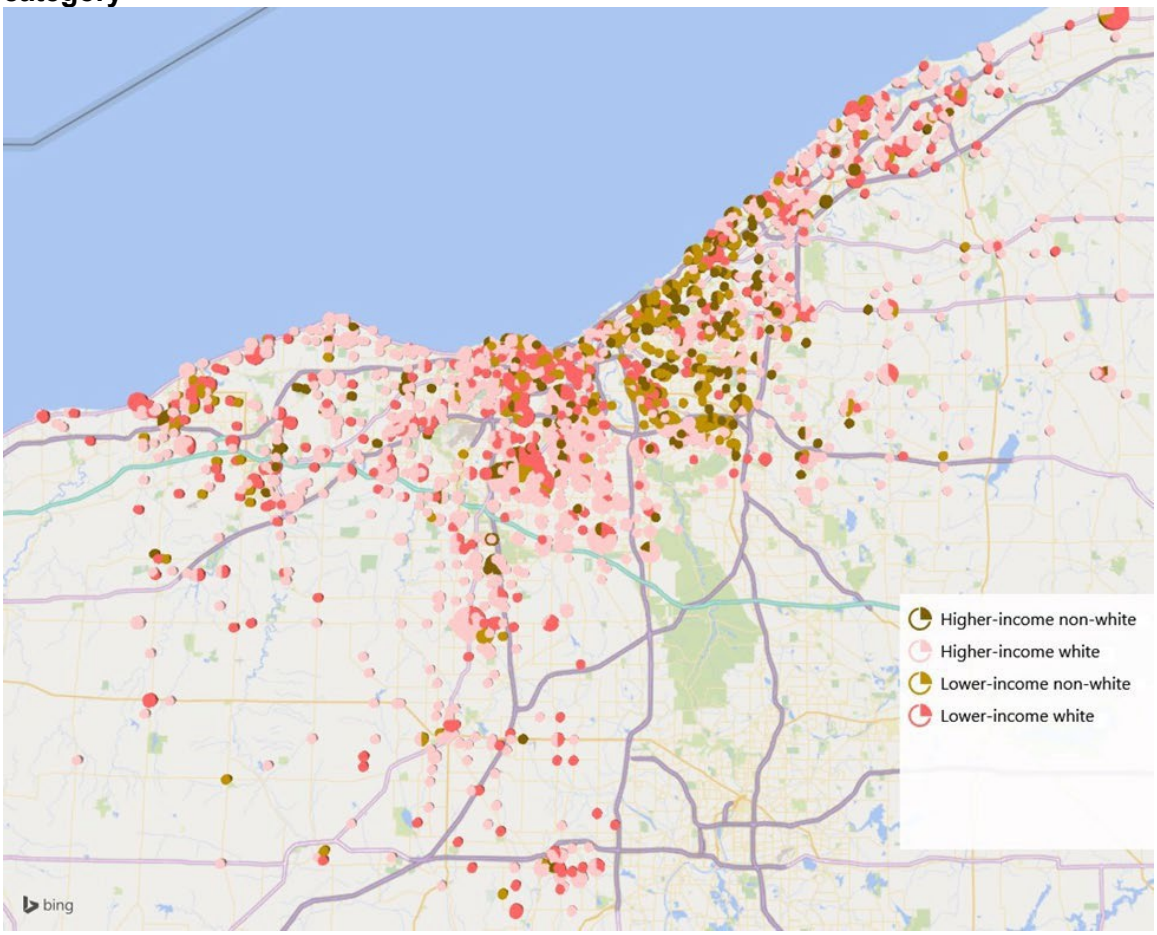
$50,000 - $74,999	19.41	15.16	21.00	17.03	22.62	17.71	23.38
$75,000 - $99,999	14.05	6.91	15.80	15.48	13.49	15.10	19.48
$100,000 - $149,999	14.73	5.59	16.50	19.81	12.30	18.23	14.29
$150,000 – $199,999	5.27	1.86	6.50	4.64	2.78	6.25	14.29
$200,000 or more	4.14	2.13	4.80	1.86	4.37	5.73	10.39

And then cross-tabulated "higher-income" and "lower-income" filters by race ("White" and "Nonwhite") (see Figure 4-12 and Table 4-14).

- White (1,755 respondents)
- Nonwhite[3] (459 respondents)

Inclusion in the income/race groups (and subsequent analysis) required respondents to answer both the income and race questions. Some, however, chose to skip one or both questions.

Figure 4-12. Distribution of Regional Survey respondents across NOACA by income/race category



[3] Some respondents identified as multiple races. For this report, any nonwhite identification was included in the nonwhite group.

Table 4-14. Distribution of respondents by income/race category across NOACA geographies

		Race and Income Disparity for each NOACA county/county subset			
	NOACA Region	Higher-income white	Lower-income white	Higher-income Non-white	Lower-income Non-white
BASE	**2,453**	**1,215**	**536**	**219**	**237**
Cuyahoga Westside	25.72%	33.74%	22.95%	19.18%	6.33%
Cleveland Westside	8.97%	5.35%	15.11%	10.05%	12.66%
Cleveland Eastside	8.56%	2.39%	4.48%	21.92%	30.80%
Cuyahoga Eastside	18.14%	16.21%	11.75%	33.79%	29.54%
Lorain County	14.76%	15.56%	17.35%	8.22%	10.13%
Lake County	10.84%	11.85%	15.86%	4.11%	5.06%
Medina County	8.40%	9.96%	10.63%	1.37%	4.22%
Geauga County	3.55%	4.77%	1.49%	1.37%	1.27%

As previously mentioned, not all respondents answered the race or income questions in NOACA's Regional Survey; thus, the individual income/race classification group counts in Table 4-10 (above) do not add up to the base count of 2,453 Please see Appendix 4-5 for a comprehensive breakdown of Regional Survey results by income/racial group.

Environmental Justice Areas. The data file was also divided into respondents from Environmental Justice (EJ) and non-EJ areas, as introduced in Chapter 1 and discussed in more detail in Chapter 3. Figure 4-13 and Tables 4-15 through 4-18 illustrate the intersection between EJ/non-EJ areas by geographic and demographic variables. Please see Appendix 4-6 for a comprehensive breakdown of Regional Survey results by Environmental Justice area status.

Figure 4-13. NOACA Environmental Justice Areas

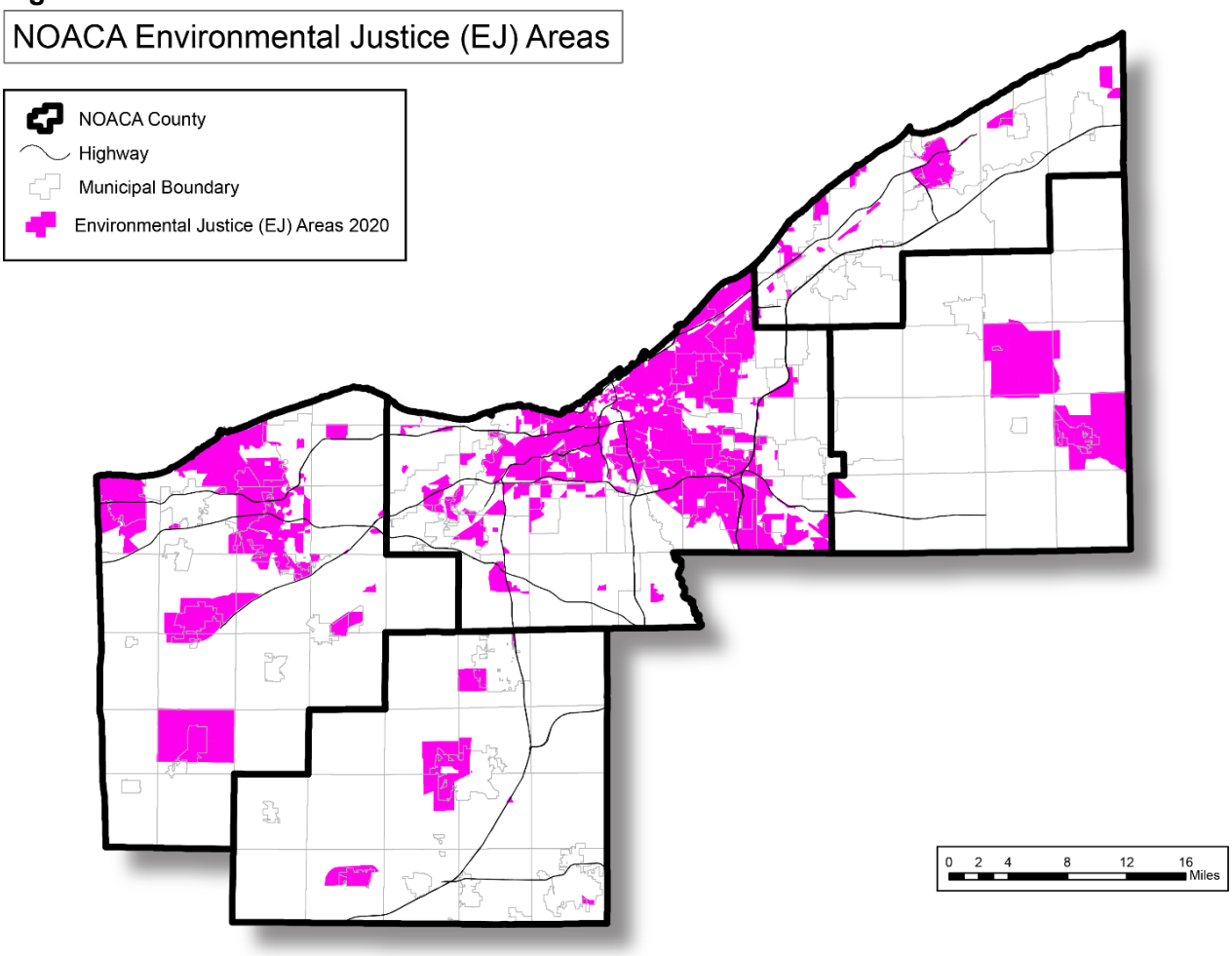


Table 4-15. Percent of counties and county subsets inside and outside Environmental Justice areas[4]

	BASE	NOACA Environmental Justice areas	Non-EJ	
Cuyahoga Westside	631	34.39%	65.61%	*100%*
Cleveland Westside	220	86.82%	13.18%	*100%*
Cleveland Eastside	210	95.71%	4.29%	*100%*
Cuyahoga Eastside	445	67.87%	32.13%	*100%*
Lorain County	356	35.96%	64.04%	*100%*
Lake County	263	24.71%	75.29%	*100%*
Medina County	203	27.09%	72.91%	*100%*
Geauga County	84	19.05%	80.95%	***100%***

[4] Includes the answer to “In which county of Northeast Ohio do you currently live?” and ZIP codes.

Table 4-16. NOACA Environmental Justice area respondents by each county/county subset

	BASE	NOACA Environmental Justice areas	Non-EJ
BASE	**2,453**[5]	**1,175**	**1,237**
Cuyahoga Westside	25.72%	18.47%	33.47%
Cleveland Westside	8.97%	16.26%	2.34%
Cleveland Eastside	8.56%	17.11%	0.73%
Cuyahoga Eastside	18.14%	25.70%	11.56%
Lorain County	14.76%	10.89%	18.43%
Lake County	10.84%	5.53%	16.01%
Medina County	8.40%	4.68%	11.96%
Geauga County	3.55%	1.36%	5.50%
		100%	*100%*

Table 4-17. NOACA Environmental Justice area respondents by race

	NOACA Region	NOACA Environmental Justice areas	Non-EJ
BASE	**2,284**	**1,104**	**1,172**
White	78.68%	66.58%	89.93%
African American or Black	14.80%	25.45%	4.86%
Asian	2.93%	3.08%	2.82%
American Indian and Alaska Native	1.14%	1.45%	0.85%
Other(s)	2.45%	3.44%	1.54%
	100%	*100%*	*100%*

Table 4-18. NOACA Environmental Justice area respondents by income group

	NOACA Region	NOACA Environmental Justice areas	Non-EJ
BASE	**2,220**	**1,066**	**1,146**
Less than $10,000	6.85%	9.85%	3.93%
$10,000 - $14,999	3.60%	5.63%	1.75%
$15,000 - $24,999	8.29%	10.32%	6.37%
$25,000 - $34,999	11.35%	14.26%	8.64%
$35,000 - $49,999	12.30%	12.85%	11.87%
$50,000 - $74,999	19.41%	19.98%	18.94%
$75,000 - $99,999	14.05%	11.35%	16.67%
$100,000 - $149,999	14.73%	10.32%	18.76%
$150,000 - $199,999	5.27%	3.00%	7.33%
$200,000 or more	4.14%	2.44%	5.76%
	100%	*100%*	*100%*

[5] Researchers would not fully verify whether 41 respondents lived in an Environmental Justice area. Therefore, the base for row percentages is 2,412 and the base for columns is 2,453.

Employment. Finally, the NOACA Regional Survey was segmented into responses by respondents' employment status, which was a multiple-choice question. For this analysis, researchers created a single employment status for the 261 respondents (10.6% of the sample) who provided multiple responses (see Table 4-19). Please see Appendix 4-7 for a comprehensive breakdown of Regional Survey results by employment status.

Table 4-19. Employment status of respondents across NOACA Region

	Total	Cuyahoga Westside	Cleveland Westside	Cleveland Eastside	Cuyahoga Eastside	Lorain	Lake	Medina	Geauga
BASE	2,250	599	200	178	412	330	251	194	75
	%	%	%	%	%	%	%	%	%
Employed full-time	38.27	39.57	34.50	36.52	40.29	30.61	39.84	43.81	45.33
Retired	22.36	27.05	19.50	12.36	17.23	27.27	30.28	13.40	20.00
Not currently employed	9.78	9.02	12.50	16.29	7.52	10.00	6.37	13.40	5.33
Part-time (one job)	5.87	4.67	2.00	8.43	5.58	7.88	6.77	8.76	2.67
Part-time (multiple jobs)	2.22	1.84	2.00	2.81	2.91	2.42	1.20	3.09	1.33
Furloughed (COVID-19)	5.51	5.34	7.50	10.11	6.55	5.45	1.59	3.61	4.00
Student	5.38	3.84	5.50	5.06	7.28	5.45	6.77	3.61	6.67
Self-employed	4.49	2.84	6.00	3.37	6.07	4.24	3.59	5.67	6.67
Work from home	3.73	3.51	5.50	3.37	3.64	3.33	2.79	4.12	6.67
Disabled[6]	1.73	1.34	4.50	1.12	2.67	2.12	0.80	-	-
Homemaker[7]	0.67	1.00	0.50	0.56	0.24	1.21	-	0.52	1.33
	100%	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*	*100%*

[6] Disabled was a verbatim response (additional respondents might have selected disability if prompted). It is included in the tables but not in the charts.

[7] Homemaker was a verbatim response. It is only included on this table and not in any further part of the analysis.

Analysis and Reports

A series of reports that focused on the overall results of the survey, as well as specific elements were produced. While each of these reports is too lengthy to include in *eNEO2050* (see Appendices 4-2 through 4-7), data and analysis from these reports helped inform the content included here. This section provides and discusses some of the overall results of the Regional Survey, while other results are shared through subsequent chapters that focus on specific topics (Economy, Chapter 5; Employment, Chapter 6; Housing, Chapter 7; Environment, Chapter 8; etc.).

One of the most poignant sets of questions posed to respondents was Question 12:
Please indicate how much of your personal income you would be willing to invest, each month, for the following concepts in the future.
Respondents then reviewed items pertaining to concepts (future transportation projects, environmental protection, existing road maintenance, etc. and selected from an array of dollar amounts that reflected the monthly outlay they would be willing to pay personally in support of each concept or project: $(0, 1, 5, 10, 25, 50, 100). The following tables illustrate the breakdown of respondents' willingness to pay broken down by geography, EJ area, income, race, and age.

Each of the four tables shown (Tables 4-20 through 4-23) includes a list of the 13 concepts on the left side, one per row, ordered from top to bottom according to respondents' average monthly willingness to pay. The columns reflect a particular demographic or socioeconomic characteristic of respondents, in no specific order. Each cell contains the average monthly willingness to pay for a unique concept by a unique subgroup and exhibits a color that corresponds to a range of monetary value indicated in the legend below each table.

The order of concepts in each table indicates an overall pattern. Repair and maintenance of existing roads received the highest average monthly allocation ($14.40), followed generally by a number of environmental protection initiatives, then innovative transportation projects or technologies. The overall takeaway from these tables is that Northeast Ohio residents are willing to pay most for improved and maintained roads, but they also want climate change impact reduction and a clean environment. There is willingness to pay for innovations such as Hyperloop, commuter rail along Interstate 480, and smart crosswalks, but they are comparatively lower priority. It is noteworthy that the lowest priority item (smart crosswalks) still earned a monthly average willingness-to-pay value of $7.24, so all of the listed concepts have value among the respondents.

Table 4-20. Willingness to Pay across Entire NOACA Region and by Geography

	NOACA Region	Cleveland	Cuyahoga County (no CLE)	Lorain	Lake	Medina	Geauga
Road repair and maintenance	$14.40	$20.37	$13.17	$11.88	$14.69	$13.84	$10.78
Reduce climate change impacts	$14.15	$20.57	$13.11	$13.05	$13.48	$11.17	$9.02
Cleaner rivers and lakes	$13.57	$19.78	$12.63	$12.84	$10.88	$12.26	$9.00
Cleaner drinking water	$13.56	$21.82	$12.12	$11.79	$11.17	$12.47	$7.65
Hyperloop CLEVELAND-CHICAGO	$12.78	$15.38	$12.39	$12.48	$12.39	$11.87	$9.49
Cleaner air	$12.73	$20.47	$11.40	$11.01	$10.38	$11.42	$8.25
V2I (vehicle-to-infrastructure comm)	$10.81	$15.91	$9.50	$9.68	$10.36	$10.48	$8.59
Hyperloop CLEVELAND-PITTSBURGH	$10.77	$14.77	$9.82	$9.43	$10.97	$11.07	$6.91
Transportation hub	$10.16	$13.69	$9.39	$9.19	$8.20	$11.48	$9.30
Commuter rail I-480 route	$8.07	$12.87	$7.87	$6.46	$5.03	$6.54	$6.39
Brownfield cleanup & redevelop	$8.03	$13.05	$7.02	$6.47	$5.94	$8.72	$7.01
Improve movement of goods	$7.93	$13.38	$6.61	$7.26	$6.37	$6.54	$8.25
Smart crosswalks	$7.24	$13.50	$5.33	$6.32	$6.33	$7.12	$6.91

$13.50+ **$11.50-13.49** **$9.50-11.49** **$7.50-9.49** **<$7.50**

Table 4-20 illustrates how willingness to pay varies across the geographic location of the respondents. The colors help illustrate this pattern as well. City of Cleveland respondents generally demonstrated the highest willingness to pay, with cleaner drinking water at the top ($21.82 per month). None of the suburban respondents expressed average willingness to pay of even $15 per month for any of the listed concepts. Road repair and maintenance garnered the highest amount of support from respondents in Lake (14.69), Medina ($13.84) and Geauga ($10.78) counties, as well as suburban Cuyahoga (13.70) county; and the third highest in Lorain County ($11.88). The other significant observation in Table 4-16 is that Geauga County respondents are the least willing to pay for most of these concepts; all monthly averages are below $10 per month except for road repair and maintenance ($10.78) commuter rail route). The lowest overall monthly commitment was by Lake County respondents for I-480 commuter rail ($5.03).

Table 4-21. Willingness to Pay Across Entire NOACA Region and by EJ Area

	NOACA Region	Inside EJ Area	Outside EJ Area
Road repair and maintenance	$14.40	$16.06	$12.25
Reduce climate change impacts	$14.15	$15.68	$12.34
Cleaner rivers and lakes	$13.57	$15.49	$11.30
Cleaner drinking water	$13.56	$15.93	$10.88
Hyperloop CLEVELAND-CHICAGO	$12.78	$12.98	$12.29
Cleaner air	$12.73	$14.84	$10.32
V2I (vehicle-to-infrastructure comm)	$10.81	$11.78	$9.60
Hyperloop CLEVELAND-PITTSBURGH	$10.77	$11.50	$9.76
Transportation hub	$10.16	$10.97	$9.07
Commuter rail I-480 route	$8.07	$9.49	$6.52
Brownfield cleanup & redevelop	$8.03	$9.50	$6.23
Improve movement of goods	$7.93	$9.52	$6.10
Smart crosswalks	$7.24	$9.01	$5.43

$13.50+ **$11.50-13.49** **$9.50-11.49** **$7.50-9.49** **<$7.50**

The pattern in Table 4-21 is fairly clear: respondents inside EJ areas demonstrate a higher willingness to pay than respondents outside EJ Areas. Professed monthly allocations for EJ area respondents are generally higher than the region as a whole, with priority given to road repair and maintenance ($16.06) and environmental protection; the lowest priority is smart crosswalks ($9.01 per month). Among non-EJ area respondents, the three highest priorities are climate change impact reduction, Hyperloop to Chicago, and road repair and maintenance, but all under $12.50 per month. The lowest priority is smart crosswalks, but at a much lower amount ($5.43) per month than respondents in EJ areas.

Table 4-22. Willingness to Pay across Entire NOACA Region and by Income/Race Group

	NOACA Region	Higher-income Whites	Lower-income Whites	Higher-income Non-whites	Lower income Non-whites
Road repair and maintenance	$14.40	$12.58	$12.92	$16.13	$22.29
Reduce climate change impacts	$14.15	$11.38	$13.39	$18.17	$20.56
Cleaner rivers and lakes	$13.57	$10.39	$12.45	$17.77	$22.91
Cleaner drinking water	$13.56	$10.12	$13.03	$19.45	$22.74
Hyperloop CLEVELAND-CHICAGO	$12.78	$13.08	$9.48	$14.93	$14.71
Cleaner air	$12.73	$9.29	$11.99	$19.78	$21.55
V2I (vehicle-to-infrastructure comm)	$10.81	$10.13	$8.03	$14.49	$16.28
Hyperloop CLEVELAND-PITTSBURGH	$10.77	$9.87	$8.54	$13.57	$13.70
Transportation hub	$10.16	$9.75	$6.91	$12.31	$14.90
Commuter rail I-480 route	$8.07	$6.99	$6.13	$9.64	$14.32
Brownfield cleanup & redevelop	$8.03	$5.83	$6.78	$9.51	$16.68
Improve movement of goods	$7.93	$5.95	$6.52	$10.30	$15.55
Smart crosswalks	$7.24	$4.75	$7.05	$10.01	$15.54

$13.50+ **$11.50-13.49** **$9.50-11.49** **$7.50-9.49** **<$7.50**

The pattern in Table 4-22 is also fairly clear: nonwhite respondents demonstrate higher willingness to pay for the listed concepts than white respondents and, among nonwhites, lower-income respondents demonstrate higher willingness to pay than higher-income respondents. Among all whites, willingness to pay does not extend much beyond $13 per month. Highest priorities for higher-income white respondents are the Hyperloop to Chicago, and road repair and maintenance. Lower-income white respondents do not prioritize Hyperloop as much; they are most willing to pay for climate change impact reduction and cleaner drinking water. Highest priorities for higher-income nonwhites are cleaner air and cleaner drinking water (each between $19 and $20 per month). Lower-income nonwhites prioritize these as well, but also road repair and maintenance, and cleaner rivers and lakes (highest, at nearly $23 per month).

Table 4-23. Willingness –to Pay across Entire NOACA Region and by Age Cohort

	NOACA Region	AGE 18-24	25-34	35-44	45-54	55-64	65+
Road repair and maintenance	$14.40	$22.78	$15.85	$13.90	$13.69	$12.70	$10.80
Reduce climate change impacts	$14.15	$25.93	$18.18	$13.88	$13.50	$10.37	$8.47
Cleaner rivers and lakes	$13.57	$25.56	$16.57	$12.85	$12.84	$10.47	$8.23
Cleaner drinking water	$13.56	$22.71	$19.00	$14.53	$12.82	$10.18	$7.07
Hyperloop CLEVELAND-CHICAGO	$12.78	$17.63	$16.51	$14.51	$12.79	$10.38	$8.05
Cleaner air	$12.73	$22.02	$16.46	$13.07	$13.06	$9.28	$7.15
V2I (vehicle-to-infrastructure comm)	$10.81	$16.20	$14.31	$10.50	$10.38	$8.45	$7.86
Hyperloop CLEVELAND-PITTSBURGH	$10.77	$18.06	$13.74	$11.79	$10.33	$8.73	$5.62
Transportation hub	$10.16	$17.93	$12.43	$10.04	$9.16	$7.78	$6.97
Commuter rail I-480 route	$8.07	$12.60	$11.11	$8.24	$7.72	$6.35	$4.88
Brownfield cleanup & redevelop	$8.03	$16.69	$9.21	$8.35	$7.25	$5.39	$4.81
Improve movement of goods	$7.93	$15.20	$9.83	$8.38	$7.35	$5.28	$4.77
Smart crosswalks	$7.24	$14.10	$10.36	$7.35	$6.49	$5.42	$3.00

$13.50+	$11.50-13.49	$9.50-11.49	$7.50-9.49	<$7.50

Table 4-23 displays perhaps the sharpest pattern of all, with younger respondents more willing to pay for listed concepts than older respondents. Interestingly enough, the younger cohorts demonstrate a higher willingness to pay for certain concepts than any other subgroup, and the older cohorts demonstrate a lower willingness to pay for certain concepts than any other subgroup. For example, respondents aged 18-24 are willing to spend more than $25 per month on both climate change impact reduction, and cleaner rivers and lakes; the lowest they'll spend is $12.60 per month on the I-480 commuter rail. Respondents aged 65 years and older are not even willing to spend $5 per month on the I-480 commuter rail, brownfield cleanup and redevelopment, or improved goods movement. The oldest cohort of respondents is only willing to spend $3 per month on smart crosswalks. The most interesting observation here is that older respondents, who reflect those in positions of greater power, influence, and authority, have very different priorities than the younger respondents for whom *eNEO2050* will shape their adult lives as they move into those positions.

Presentation and Webinar

NOACA presented highlights of the Regional Survey results to the NOACA Board of Directors on December 11, 2020. At the Board's request, NOACA staff also presented highlights of the regional survey results at a webinar on January 15, 2021. Board members and stakeholders within their respective networks were eligible to attend. Appendix 4-8 includes the webinar presentation, with all information presented to the Board on December 11, as well as some additional refinements and information based on Board member feedback.

CrowdGauge Tool

NOACA continued its tradition of public engagement through CrowdGauge software. NOACA had previously used CrowdGauge for both *Vibrant NEO 2040*, a regional visioning framework for a 12-county region in Northeast Ohio (including the five-county NOACA region), and *AIM Forward 2040*, the current NOACA long-range plan. CrowdGauge is described as:

An open-source framework for creating educational online games. It first asks users to rank a set of priorities, then demonstrates how a series of actions and policies might impact those priorities. The third part of the sequence gives users a limited number of coins, asking them to put that money towards the actions they support most.[8]

NOACA's intent with CrowdGauge was to supplement its Regional Survey with a more focused effort to target input from certain stakeholders and especially from persons within Environmental Justice areas. NOACA sought input from low-income and minority populations that historically have been less engaged or not engaged with the planning process, and hoped the tool would facilitate that engagement. This was particularly important given NOACA's strong emphasis on equity in the new long-range plan and staff desire to articulate a more equitable future for the region. The following paragraphs will describe development of the CrowdGauge tool; an outreach strategy to engage all persons, but particularly those from EJ Areas; regional workshops held to engage the diverse geographic areas of the NOACA region; and analysis of participant responses.

Tool Development

A comprehensive, three-phase tool was developed, which was beta-launched at NOACA's annual Transportation Day on July 24, 2020. Feedback was incorporated from this event into the first of several regional workshops that began on August 3, 2020, and continued through the months of August and September. The tool itself, made available through NOACA's long-range plan website, stayed open for anyone to access through October 31, 2020.[9]

The CrowdGauge tool involves three phases, or steps: priorities (or values), project and policy impacts, and project and policy choices. And although most of the items related directly to areas that NOACA could influence in its role as a transportation and environmental planning agency, some were intentionally placed outside of its jurisdiction in order to gauge broad priorities in comparison to its own responsibilities. A title page preceded these three steps; it provided not only details about the tool itself and its intended purpose, but also the opportunity for participants to provide some basic demographic information to help NOACA better understand the characteristics of the sample, including user location.

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[8] Sasaki and Associates, CrowdGauge.

[9] Northeast Ohio Areawide Coordinating Agency (NOACA), "CrowdGauge," eNEO2050: An equitable future for northeast Ohio, https://www.eneo2050.com/crowdgauge (accessed Feb. 3, 2021)

Step 1: Priorities. NOACA developed a list of 15 present-tense statements that describe attributes related to numerous subjects, such as mobility, jobs, housing, health, and the environment. The tool required users to identify their priorities for the future through these statements. Users considered each statement from the perspective of either a desire to preserve a current attribute of the system or to describe an ideal future condition. Users assigned zero to five stars to each statement as a reflection of relative value to the individual; however, each user only had 40 stars to assign. Therefore, it was not possible for a user to rate all 15 statements as a top priority (five stars); users had to make choices and trade-offs. A dynamic display of icons shifted with the user's scoring of each statement, which yielded a composite, icon-based visualization of their individual priorities.

Step 2: Project and Policy Impacts. Once users had established priorities, they could click through different options of projects and policies to see how these would affect their priorities. NOACA generated examples of projects and policies that reflected not only areas where NOACA has a direct influence, such as transportation and the environment, but also areas strongly connected to transportation, such as land use, housing, and economic development. As was the case in the Priorities step, users' clicks through the options influenced the size and color of the icons to represent positive or negative impact by the selected projects and policies. The selected options highlighted the three greatest impacts based on the users' priorities.

NOACA also developed explanations of why and how the impacts occur, to facilitate the users' understanding. It is noteworthy that, in Step 2, there was no direct action by the user. Step 2 was an opportunity for users to learn more about how realistic project and policy options might affect their priorities. Step 3 involved actual decision-making.

Step 3: Project and Policy Choices. With stated priorities and information about impacts on those priorities in hand, users advanced to choose specific projects and policies. NOACA developed 29 project group categories, each of which contained a mix of specific projects and policies. Users spent money on projects and voted on policies based on the potential impacts they would have on the user's priorities. As with the stars in Step 1, users had a limited budget of coins (50) they could spend on projects. As users selected projects and policies, the sizes and colors of the priority icons changed to reflect the impacts of a given choice. When the user clicked on the icon, a written explanation of how the project or policy affected that specific priority appeared. This "pop-up" explanation provided an opportunity for the user to learn about the consequences of their choices. The user's selection of priorities, projects, and policies collectively indicated their overall attitudes and choices regarding regional transportation planning and investment trade-offs.

Analysis and Reports

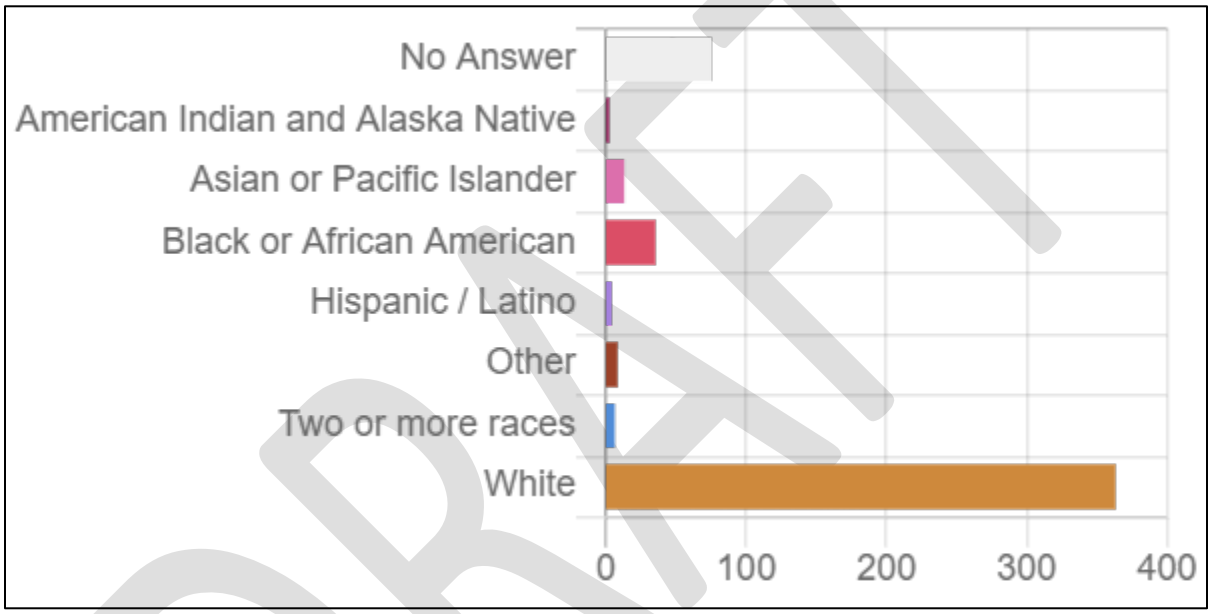
Sample. A total of 506 stakeholders participated in the CrowdGauge exercise. This was much lower than expected, and NOACA attribute the lower participation rate to the COVID-19 pandemic. It was not possible to engage stakeholders in person. Virtual gatherings and remote distribution of information did not realize the same levels of participation as in-person engagement activities. NOACA presented the full results from the CrowdGauge tool exercise at a virtual roundtable for *eNEO2050* on November 6, 2020.

Among the 506 respondents, more than half came from Cuyahoga County (270). This was to be expected given that Cuyahoga County represents more than half of the total population in the NOACA region (see Chapter 1). The second largest group of participants came from Medina

County (132). Although this may seem unusual as it is not proportional to population, it can be attributed to interest in engagement by the Medina County Economic Development Corporation who facilitated a special workshop on the CrowdGauge tool during the participation period The remaining counties had a lower participation rate: Lorain (31), Lake (16) and Geauga County (8). There was also a smattering of participants from other counties outside the NOACA region.

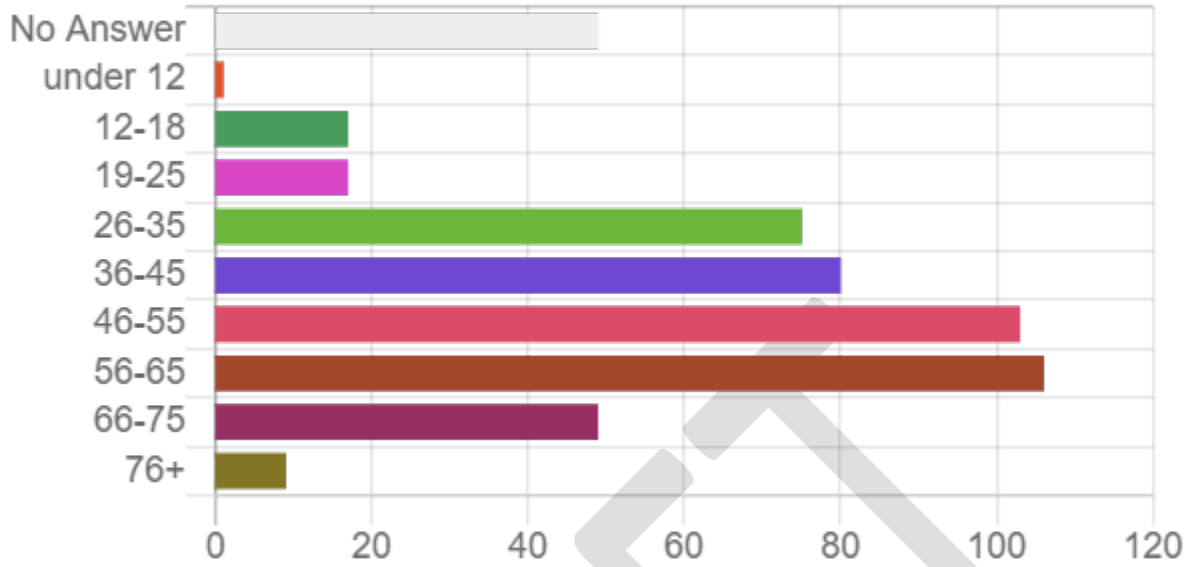
The racial breakdown of participants was overwhelming white (see Figure 4-13 below). Among the 431 respondents who reported race, more than 84% (363) identified as white. Only 35 (8%) of the respondents who reported race identified as black, which is less than the percentage of blacks from the entire NOACA regional population (15%) and certainly far below the over-representative sample NOACA staff had hoped to obtain.

Figure 4-13. Distribution of CrowdGauge Participants across Racial/Ethnic Groups



While there was roughly equal gender representation among the participants (48% women versus 52% men), that was not the case with regard to age. Figure 4-14 below shows two prominent peaks in terms of the age cohorts represented in the bar graph (46-55 and 56-65). Of the 457 respondents who reported their age, nearly half (46%) were ages 46-65. By comparison, the number of respondents ages 19-35 made up only 20% of all reporting respondents. Not only did the COVID-19 pandemic prove challenging to reach nonwhite stakeholders, but it was also more difficult to secure broader participation among younger adults, particularly high school and college students, whom were identified as a target audience. *eNEO2050* is really a plan for the youth today who will mature personally and professionally over the next 30 years. Their engagement is critical to the region's future success.

Figure 4-14. Distribution of CrowdGauge Tool Users by Age



Priorities Results. A major theme emerged from the priorities rankings: priority to live in a clean environment, with access to recreation and parks, healthy food, and health care. Based on all respondents, the top five (of 15) priorities ranked in the CrowdGauge tool were as follows (each priority averaged a score of at least three stars; total stars assigned per priority are provided in parentheses):

1. I live in an environment with clean water (1,678)
2. I live in an environment with clean air (1,601)
3. I can easily get to fresh food and healthcare (1,568)
4. I live in a home/neighborhood free from toxins and pollutants (1,510)
5. I can easily get to recreation spaces and parks (1,448)

Priorities by county varied. Cuyahoga, Lorain, and Medina counties each had the overall top priority, “I live in an environment with clean water,” as their top priority as well. Respondents from Cuyahoga and Medina counties each had the overall second priority, “I live in an environment with clean air,” as their second priority. Respondents from Lorain County had the overall fourth priority, “I live in a home/neighborhood free from toxins and pollutants,” as their second priority. Lake and Geauga counties were somewhat different, although it is critical to note that very few individuals from each and of these counties actually participated. Lake County had the overall third priority, “I can easily get to fresh food and healthcare,” as its top priority and the overall sixth priority, “I can access a good job to ensure my financial stability,” as its second priority. Geauga County had the overall ninth priority, “I am proud to live in my neighborhood,” as its top priority and the overall top priority (clean water) as its second priority.

Policies Results. Most of the policies received positive reactions, with one exception. The only policy response that received more negative reactions than positive reactions was “only implement new High-Occupancy Vehicle (HOV) lanes as additions to, not in replacement of, existing highway lanes.” Three of the top five positive policy responses were in support of NOACA’s commitment to greater community leaders’ involvement and prioritization of racial equity and diversity.

1. Involve more community leaders in NOACA project review and decision making that will impact their communities (255 “for,” 14 “against”).

2. Support ongoing maintenance and upgrades to wastewater treatment facilities (253 “for,” 4 “against”).
3. NOACA uses traffic calming solutions to achieve more livable communities (252 “for,” 19 “against”).
4. NOACA Commitment to Racial Equity in Planning (2020): “NOACA will commit to creating a subcommittee of the Policy Committee and develop a plan to ensure racial equity is embedded in all of our work” (249 “for,” 19 “against”).
5. Increase racial and ethnic diversity on advisory councils that corresponds to specific planning areas (245 “for,” 17 “against”).

Four of the top five policies most voted against still received (by far) more positive votes overall. Here are the five policies with the most “against” votes (total votes):

1. Only implement new High-Occupancy Vehicle (HOV) lanes as additions to, not replacement of, existing highway lanes (129 “against,” 79 “for”).
2. Require developers or communities to share in the cost of new road construction for their projects for which they receive direct benefit (74 “against,” 188 “for”).
3. Require local governments to increase housing density, commercial and retail uses in specific areas to enable more convenient walking, biking and transit to reduce car dependency (37 “against,” 188 “for”).
4. Prioritize investment in new or upgraded transit before building new roads (35 “against,” 232 “for”).
5. Improve road infrastructure to attract or facilitate the relocation of companies to places where most workers live (34 “against,” 185 “for”).

Projects Results. NOACA summarized the top specific projects by the number of coins given and the number of times selected to provide a more comprehensive view that accounts for preference as well as cost.

The top five most coins awarded to specific projects included redevelopment and clean-up of brownfield sites (a relatively expensive project, but also one that fulfilled numerous priorities) as well as projects that focused on regional transportation, clean water, and the construction of new parks. The top five most coins awarded to specific projects (total coins) aligns very well with the top five project categories in terms of focus on issues of mobility and the environment.

1. Redevelop 200 acres of brownfields (contaminated sites that require environmental clean-up/remediation, such as former factories, gas stations, dry cleaners, and junkyards) to attract new employers with 1,000 jobs (1,260).
2. Add 10 new miles of cross-county intercity commuter rail (1,050).
3. Invest in upgrades to 50 wastewater treatment facilities and grey infrastructure (e.g., tunnels, conduits, sewer pipes) (1,044).
4. Add bike lanes to 10% of local roads; improve sidewalks on 10% of local roads (812).
5. Build new roads and utilities (water, sewer, etc.) to facilitate development of 10,000 new homes on previously undeveloped land (680).

When ranked by the number of times selected, the top five specific projects are still primarily focused on mobility-related issues, with traffic calming the most selected, followed by restoration of recently cut bus service, provision of free transit passes, and senior shuttle services. These projects also align with the preferences identified within the broader project categories, but alsolikely received many selections due to their relatively low cost compared to other projects. The fifth-most selected specific project was the demolition of 1,000 currently vacant housing units, and planting trees as part of a neighborhood beautification effort. The popularity of this specific

project supports the broader project group category of decayed building renovation or demolition, which ranked third overall based on number of total policies and projects selected.

1. Traffic calming measures at 500 intersections, such as curb extensions, traffic circles, raised crosswalks, speed tables, pedestrian signals, etc. (203).
2. Restore recently cut bus and rapid transit services (172).
3. Provide free transit passes to 5,000 households that make less than 80% of the area median income to maintain the affordability of their housing units (169).
4. Provide funding for purchasing up to 400 neighborhood shuttles for seniors (148).
5. Demolish 1,000 currently vacant housing units, add fencing, plant trees, and maintain for 30 years to beautify the lot (137).

Phase III – Preliminary Plan

The process to develop *eNEO2050* began with the development of two core components: 1) public outreach to gather input on transportation needs from people across the region, and 2) analysis of data on transportation services and infrastructure to identify existing gaps for opportunities and improvements.

During the Preliminary Plan Phase, outreach approaches and messages conveyed how NOACA used the results from public comments to shape analyses of several proposed alternatives. The results of these analyses were part of a scenario planning exercise and development of associated performance measurements. NOACA used various outreach methods to raise awareness about these results, starting with the identification of four possible future scenarios for Northeast Ohio's transportation system. These announcements were issued through various outreach formats and included press releases to various news outlets, which included instructions on how stakeholders could provide input; direct email and newsletter announcements; electronic material to reach vast audiences; website alerts; social media; and presentations of the findings at 12 NOACA Board, Committee, and Advisory Council meetings. These various outreach approaches allowed for continuous public comments at these meetings and through the online portal.

The social media analytics provided reach to all five counties served with more than 185,000 impressions combined from Facebook, LinkedIn, and Twitter, along with an increase of 421 frequent monthly website users between January 1 and March 30, 2021. Although comments were minimal from the digital outlets, likes and shares of the public awareness campaign held steady at 15%, a slight 2.1% increase from the 2020 public awareness campaign. This indicates that NOACA retained public interest and frequent users to the website, along with other digital formats during this three-month outreach process.

Neither the website portal nor the agency website generated any public comments. Most of the comments from this outreach campaign came directly from targeted stakeholders through meetings and advisory councils of Northeast Ohio representatives.

NOACA prepared a matrix to outline the performance measures as they aligned with the four scenarios. NOACA presented this matrix to the general public and stakeholders. NOACA staff distributed this information to more than 1,100 regional residents as part of the project email list (see Figure 4-12). The *eNEO2050* website hosted the matrix. NOACA also sent it to NOACA's Board of Directors; Committees; Business, Community, Rural, Transportation, and Bike and Pedestrian Advisory Councils; and Air and Water Quality Subcommittees to widen the audience reach. Two stakeholder meetings that targeted the Ohio Department of Transportation (ODOT),

planners, engineers, economic developers, and other transportation professionals from Cuyahoga, Geauga, Lake, Lorain, and Medina counties took place on March 5 and March 18, 2021. NOACA received direct comments and questions from these professionals with regard to the scenarios and performance measures to guide and advise staff on revisions and next steps.

Figure 4-15. Public Posting of Future Transportation Scenarios and Performance Measures

Figure 4-16. Public Posting of Future Transportation Scenarios and Performance Measures (cont.)

Given the information about each scenario, consider a set of performance measures intended to help differentiate among the future scenarios. These performance measures and the outputs for each scenario are shown in the following matrix.

1 The baseline represents current conditions (2020 conditions). The outputs reflect how the performance measure will change from the baseline to the target year (2050) under each of the four scenarios.

Sign/ Color	Green	Red
+	Increase has positive impact	Increase has negative impact
-	Decrease has positive impact	Decrease has negative impact

2 The "-" and "+" signs shown as outputs for each performance measure under each scenario indicate the direction of change. A "-" sign indicates a decrease from the baseline and a "+" sign indicates an increase from the baseline. There are two sizes for each sign; they represent the magnitude of change (smaller signs indicate slight change; larger signs indicate more substantial change).

3 The colors of the signs and numbers are also important. Red indicates a negative impact on the region, while green indicates a positive impact. While many people associate "-" signs with a negative impact and "+" signs with a positive impact, that is not always the case. It is possible to have a red "+" sign, meaning the value of that performance measure will increase under a scenario, but that increase will have a negative impact on the region.

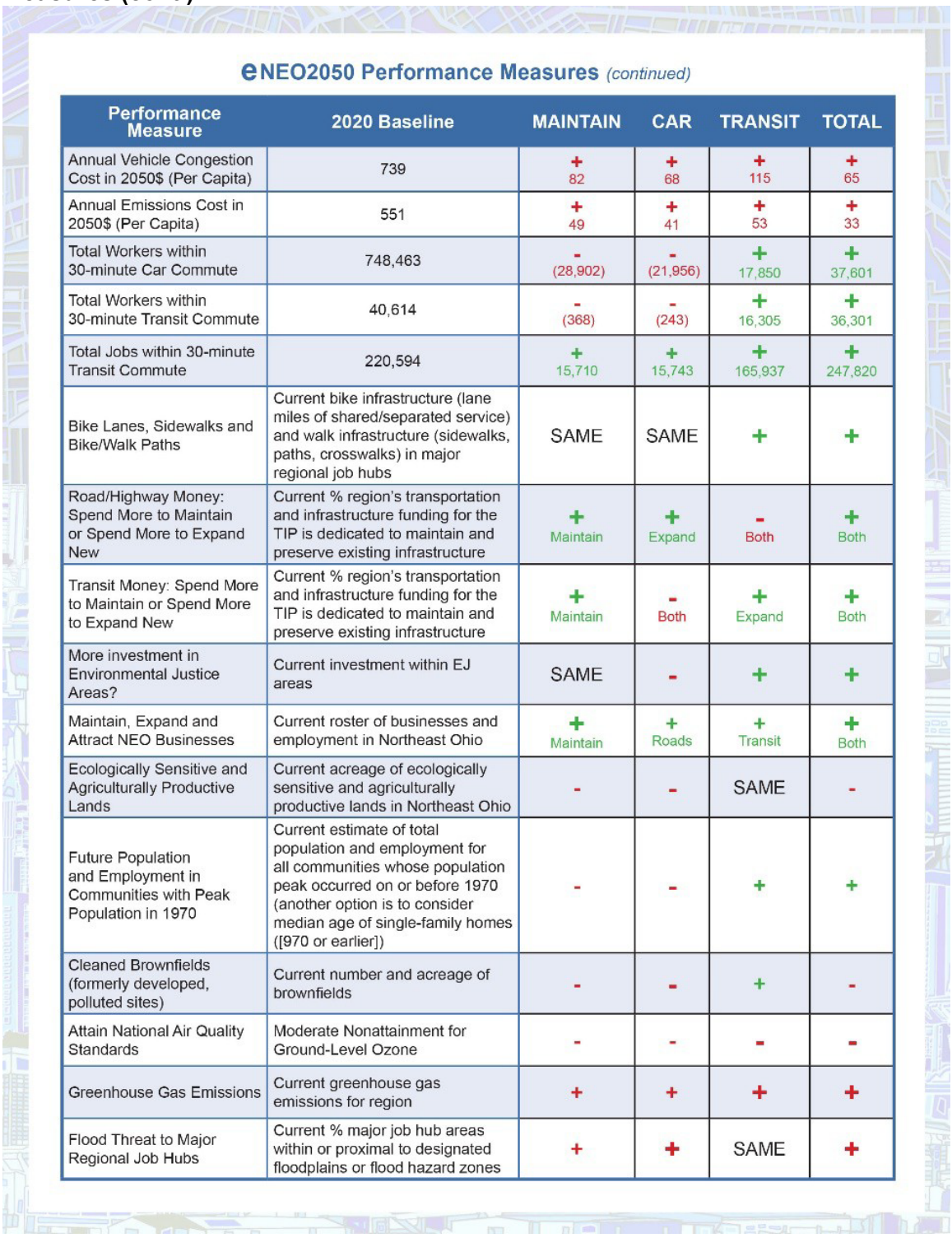
4 Where shown, the numbers displayed quantify the outputs for some performances measures, but not all. Some performance measures are qualitative and there may be words or nothing at all below the signs to help the reader understand how a scenario will change the output for a particular performance measure.

Please review the scenarios, performance measures and outputs and provide feedback on what you like or do not like: **www.eNEO2050.com/the-future**

eNEO2050 Performance Measures

Performance Measure	2020 Baseline	MAINTAIN	CAR	TRANSIT	TOTAL
Regional Population	2,026,866	- (42,806)	- (42,806)	+ 100,406	+ 200,892
Regional Employment	1,421,195	+ 55,850	+ 55,850	+ 66,254	+ 132,950
% AM Work Commutes Not Driving Alone	16%	SAME	SAME	+ 4%	+ 6%
Population within 15-minute walk to bus stop or rail station	1,376,439	- (95,315)	- (95,315)	+ 106,642	+ 189,021
Environmental Justice Area Population within 15-minute walk to bus stop or rail station	792,649	- (86,979)	- (86,979)	+ 49,992	+ 98,258
Jobs within 15-minute walk to bus stop or rail station	1,113,631	+ 17,610	+ 17,610	+ 96,540	+ 163,003
Population within 15-minute walk to rail station only	182,495	- (15,826)	- (15,826)	+ 219,679	+ 243,620
Population within 5-mile drive to nearest highway interchange	1,859,900	- (49,026)	- (49,026)	+ 98,266	+ 196,627
Environmental Justice Area Population within 5-mile drive to nearest highway interchange	854,576	- (84,223)	- (82,155)	+ 48,949	+ 98,536
Road and Highway Vehicle Miles Traveled (Car) Per Capita	7,345	+ 601	+ 622	+ 88	- (102)
Millions of Transit Trips Per Year	40	- (2)	- (2)	+ 42	+ 70
Average AM Commute (Minutes) to All Job Hubs by Car	26.2	- (0.5)	- (0.6)	- (1.5)	+ 1.9
Average AM Commute (Minutes) from Environmental Justice Areas to All Job Hubs by Transit	60.9	- (0.5)	- (0.6)	- (3.0)	- (6.6)

Figure 4-17. Public Posting of Future Transportation Scenarios and Performance Measures (cont.)



eNEO2050 Performance Measures *(continued)*

Performance Measure	2020 Baseline	MAINTAIN	CAR	TRANSIT	TOTAL
Annual Vehicle Congestion Cost in 2050$ (Per Capita)	739	+ 82	+ 68	+ 115	+ 65
Annual Emissions Cost in 2050$ (Per Capita)	551	+ 49	+ 41	+ 53	+ 33
Total Workers within 30-minute Car Commute	748,463	- (28,902)	- (21,956)	+ 17,850	+ 37,601
Total Workers within 30-minute Transit Commute	40,614	- (368)	- (243)	+ 16,305	+ 36,301
Total Jobs within 30-minute Transit Commute	220,594	+ 15,710	+ 15,743	+ 165,937	+ 247,820
Bike Lanes, Sidewalks and Bike/Walk Paths	Current bike infrastructure (lane miles of shared/separated service) and walk infrastructure (sidewalks, paths, crosswalks) in major regional job hubs	SAME	SAME	+	+
Road/Highway Money: Spend More to Maintain or Spend More to Expand New	Current % region's transportation and infrastructure funding for the TIP is dedicated to maintain and preserve existing infrastructure	+ Maintain	+ Expand	- Both	+ Both
Transit Money: Spend More to Maintain or Spend More to Expand New	Current % region's transportation and infrastructure funding for the TIP is dedicated to maintain and preserve existing infrastructure	+ Maintain	- Both	+ Expand	+ Both
More investment in Environmental Justice Areas?	Current investment within EJ areas	SAME	-	+	+
Maintain, Expand and Attract NEO Businesses	Current roster of businesses and employment in Northeast Ohio	+ Maintain	+ Roads	+ Transit	+ Both
Ecologically Sensitive and Agriculturally Productive Lands	Current acreage of ecologically sensitive and agriculturally productive lands in Northeast Ohio	-	-	SAME	-
Future Population and Employment in Communities with Peak Population in 1970	Current estimate of total population and employment for all communities whose population peak occurred on or before 1970 (another option is to consider median age of single-family homes ([970 or earlier])	-	-	+	+
Cleaned Brownfields (formerly developed, polluted sites)	Current number and acreage of brownfields	-	-	+	-
Attain National Air Quality Standards	Moderate Nonattainment for Ground-Level Ozone	-	-	-	-
Greenhouse Gas Emissions	Current greenhouse gas emissions for region	+	+	+	+
Flood Threat to Major Regional Job Hubs	Current % major job hub areas within or proximal to designated floodplains or flood hazard zones	+	+	SAME	+

Phase IV – Final Plan

NOACA staff consulted with stakeholders and the public throughout the entire development of *eNEO2050*. From the discovery phase's needs assessment, public awareness campaigns,

CrowdGauge Tool, and Regional Survey to the analysis of alternative transportation scenarios and performance measures, NOACA's long-range plan reflects public input during each phase of planning.

The final *eNEO2050* public comment period is focused on its draft document beginning May 3rd and continuing for 30 days, provided the public a last opportunity to review and comment on the recommended plan and the entire *eNEO2050* development process before finalization for NOACA Board review and approval at its June 11, 2021, meeting.

NOACA provided both printed and digital collateral material to disseminate throughout the region, including drop-off centers, hard-to-reach population areas, and in-person events as allowed (i.e.,the COVID pandemic rules for social distancing began to lift slightly throughout the region in 2021).

There was also a push to bring public awareness to the entire draft plan NOACA notified the public of the plan's availability for review on the *eNEO2050* website through email, social media, and news media, and throughout the stakeholder network.

Due to the COVID pandemic, NOACA conducted a public meeting through a webinar digital format on May 3, 2021, and announced the meeting on April 5, 2021. This information was also part of the collateral and digital material released. Because the webinar platform was limited to 500 attendees, NOACA used a Live YouTube feed to ensure more residents could view the meeting. For those without technology resources, NOACA made a printed summary and audio available for post-meeting consumption.

NOACA shared the final plan with the Northeast Ohio community, including organizational leaders and elected officials from both municipalities and counties, after the NOACA Board of Directors adopted *eNEO2050* at its June 11, 2021, meeting. The agency also provided the last episode of its podcast, "The NOACA Report," to summarize *eNEO2050* and the next steps for NOACA staff to implement actions and recommendations outlined in the document.
Implementation is necessary to ensure that the preferred scenario elements actually come to fruition and help characterize the future of Northeast Ohio. NOACA staff posted *eNEO2050* on the project website, where it will remain for one year until it moves permanently to the NOACA website as a resource document.