

NATIONAL  
ACADEMIES

Sciences  
Engineering  
Medicine

**TRB** TRANSPORTATION RESEARCH BOARD

# TRB Webinar: Considering Quality of Life in Transportation Planning and Development

*August 25, 2022*

*12:30 – 2:00 PM*

NOVEMBER 2022 UPDATE

# Learning Objectives

- Propose solutions to transportation problems that incorporate community quality-of-life considerations
- Use both qualitative and quantitative data in impact assessments

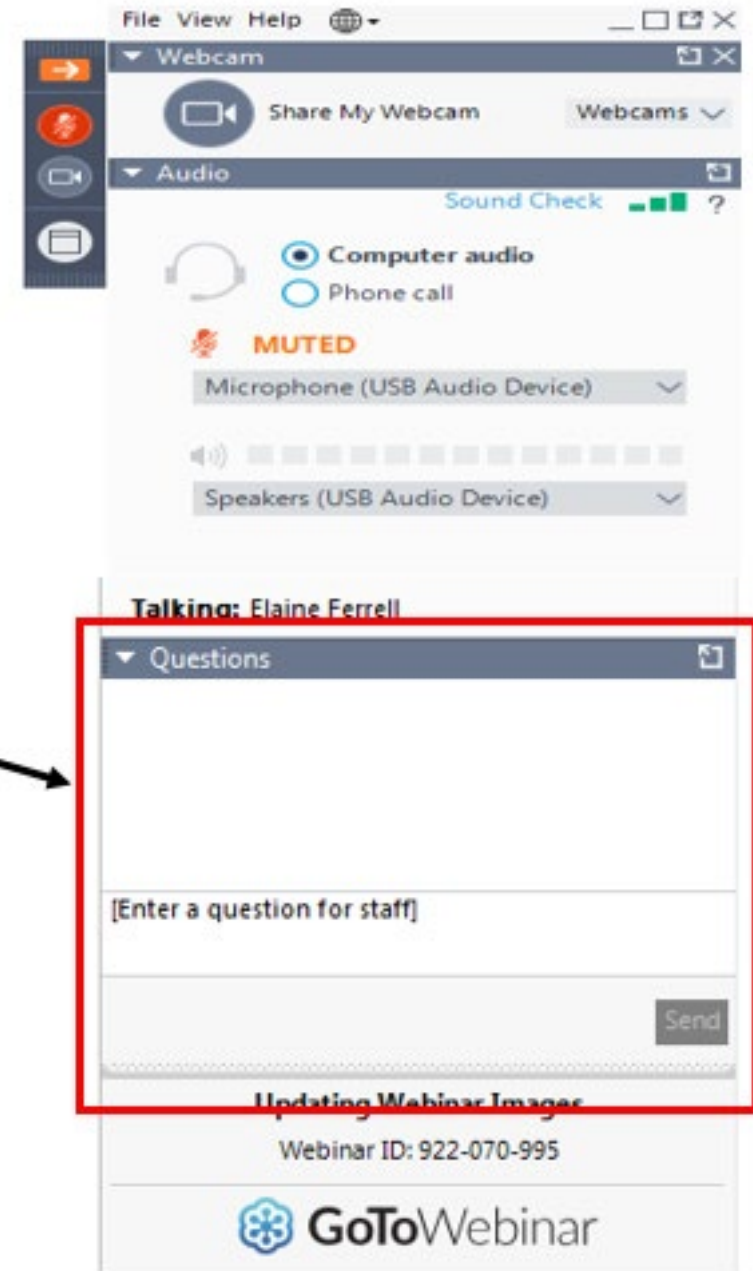
## **American Institute of Certified Planners Certification Maintenance Credits Information**

This webinar is approved by the American Institute of Certified Planners for 1.5 Certification Maintenance Credits. Please make sure that you register for this session and log in using the link that TRB provides to your email account. We use this as your record that you attended this session. TRB only maintains the records of attendees who use their email address to log into the webinar, and cannot verify attendance of individuals who view the webinar without personally logging into the session. Please visit the Certification Maintenance section of APA's website to claim your credits.

If you have problems reporting your CM credits or have general questions about the CM program, please contact AICP.

# Questions and Answers

- Please type your questions into your webinar control panel
- We will read your questions out loud, and answer as many as time allows



# Today's presenters



**Traceé Strum-Gilliam,**  
[tstrum-gilliam@prrbiz.com](mailto:tstrum-gilliam@prrbiz.com)



**John Sherrill**  
[John.Sherrill@illinois.gov](mailto:John.Sherrill@illinois.gov)



**Jesus M. Barajas**  
[jmbarajas@ucdavis.edu](mailto:jmbarajas@ucdavis.edu)

*u*



**Nissa Tupper**  
[Nissa.Tupper@state.mn.us](mailto:Nissa.Tupper@state.mn.us)

# Updating the IDOT Community Impact Assessment Manual: Agency and Research Perspectives

---

John Sherrill, Illinois Department of Transportation

Jesus M. Barajas, PhD, University of California, Davis

# Setting the stage

# Why the need for new CIA manual?

---

- By 2018, IDOT's *Community Impact Assessment Manual* (2007) was out of date
- IDOT recognized there were new insights on:
  - Importance of examining effects of historic transportation projects on disadvantaged communities
  - Assessing project benefits from an equity perspective
  - Need for community impact assessment for a wider variety of projects
- IDOT practice was to conduct a full CIA for only projects that needed an EIS



# IDOT recognizes community impact assessment is...

---

- Important for policies and procedures
- Closely related but distinct from:
  - Environmental justice and equity
  - Public involvement
- For evaluating project-specific development, not for long range planning

# Research development

---

- IDOT has a long-standing research agreement with the University of Illinois and its Illinois Center for Transportation
- Research proposals are approved by eight Technical Advisory Groups within the Department
  - Bridges, Environment, Freight, Safety, Operations, Pavement, Planning, and Sustainability
- All research is federally funded
- All research must be implementable
- Not all proposals are accepted: proposals compete against one another; funding is limited

# Research objectives and work plan

---

- The research objective is to provide recommendations to IDOT for updating and revising its *Community Impact Assessment Manual*
- Work plan includes:
  - A broad review of academic research and peer agency implementation of community impact assessments
  - Updating definitions and data in the IDOT manual
  - Developing a list of economic multipliers for each of Illinois' 102 counties
  - Developing a checklist for when to implement a Community Impact Assessment
  - Engage with at least two key stakeholder groups to review and provide feedback on interim research products
  - A final report

# Research timeline

---

December 2019: Proposal submitted to and approved by the eight Technical Advisory Groups

February 2020: Advertisement for bids

May 2020: Contractor selection

August 2020: Official start date of research

August 2022: Official end date with final report

# IDOT next steps

---

Form a committee comprised of:

- IDOT project managers and central office policy staff
- FHWA-IL

Committee's purpose, with a six-month timeframe, integrate and implement the research findings:

- Update IDOT's Community Impact Assessment Manual
- Update IDOT's Policy and procedures

# Research findings

# Research tasks

---

- Literature review
  - What are the strengths and limitations of impact assessment?
  - How is equity embedded in community impact assessment?
- Documentation review
  - Federal and state law and guidance
  - Search and review of CIA related documentation for all 50 states
- Practitioner engagement
  - Survey
  - In-depth interviews
- Development of recommendations

# Documentation sources

State	Manual or Guidance Title	Year of Publication	DOT Department/ Division
California	Community Impact Assessment	2011 (some elements updated in 2016 & 2019)	Division of Environmental Analysis
Florida	Sociocultural Effects (SCE) Evaluation	2020	Office of Environmental Management
Indiana	Procedural Manual for Environmental Studies: Social, Community, and Economic Impacts	2008	Office of Environmental Services
New Jersey	Socioeconomic Guidance Manual	2010	Engineering/ Environmental
Pennsylvania	Community Impact Assessment Handbook	2005	Bureau of Project Delivery, Environmental Policy and Development Section
Texas	Environmental Handbook: Community Impacts, Environmental Justice, Limited English Proficiency, and Title VI Compliance.	2020	Environmental affairs division



# Survey and interview participants

---

## Survey respondents

- Arkansas
- California
- Colorado
- Indiana
- Michigan
- Minnesota
- Ohio
- Oklahoma
- Tennessee
- Texas

## Interview respondents

- California
- Colorado
- Minnesota
- Oklahoma
- Ohio
- Texas

# Documentation scan, survey, and interview overview

- CIA is tightly integrated with environmental review
  - Few separate CIA from NEPA processes
  - Several base level of analysis on NEPA determination
- Common tools for CIA: checklists, templates, community context audit forms, interview and survey questions
- Process emphasizes avoiding future harms, not repairing past harms
- Guidance for public involvement, indirect/cumulative impacts provided separately
- Formal or regulatory overview on approving CIA results is rare
- Discovered several promising practices toward innovative CIA

# What projects do DOTs screen for CIA?

---

- Level of CIA required is often related to the environmental determination
  - Few DOTs require CIAs for CEs
- Screening for state-funded projects parallels NEPA class of action
- Informal review is common
  - Sentiment across interviewees that they conduct informal analysis of impacts to determine that there are no impacts in order to avoid triggering a full CIA
- Few DOTs articulate project criteria that trigger a technical report (separate from ED)

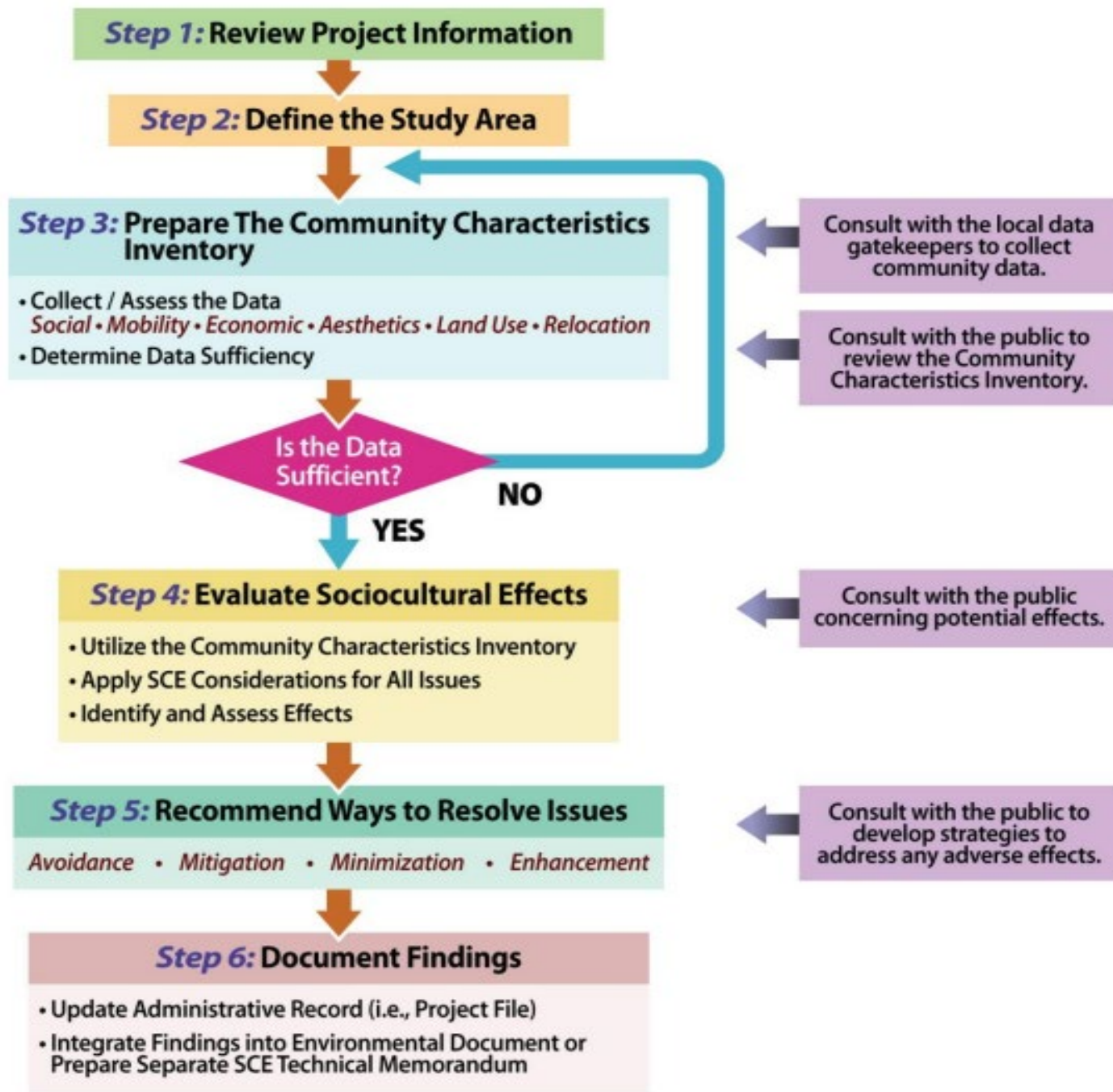
# Example screening criteria: TxDOT

---

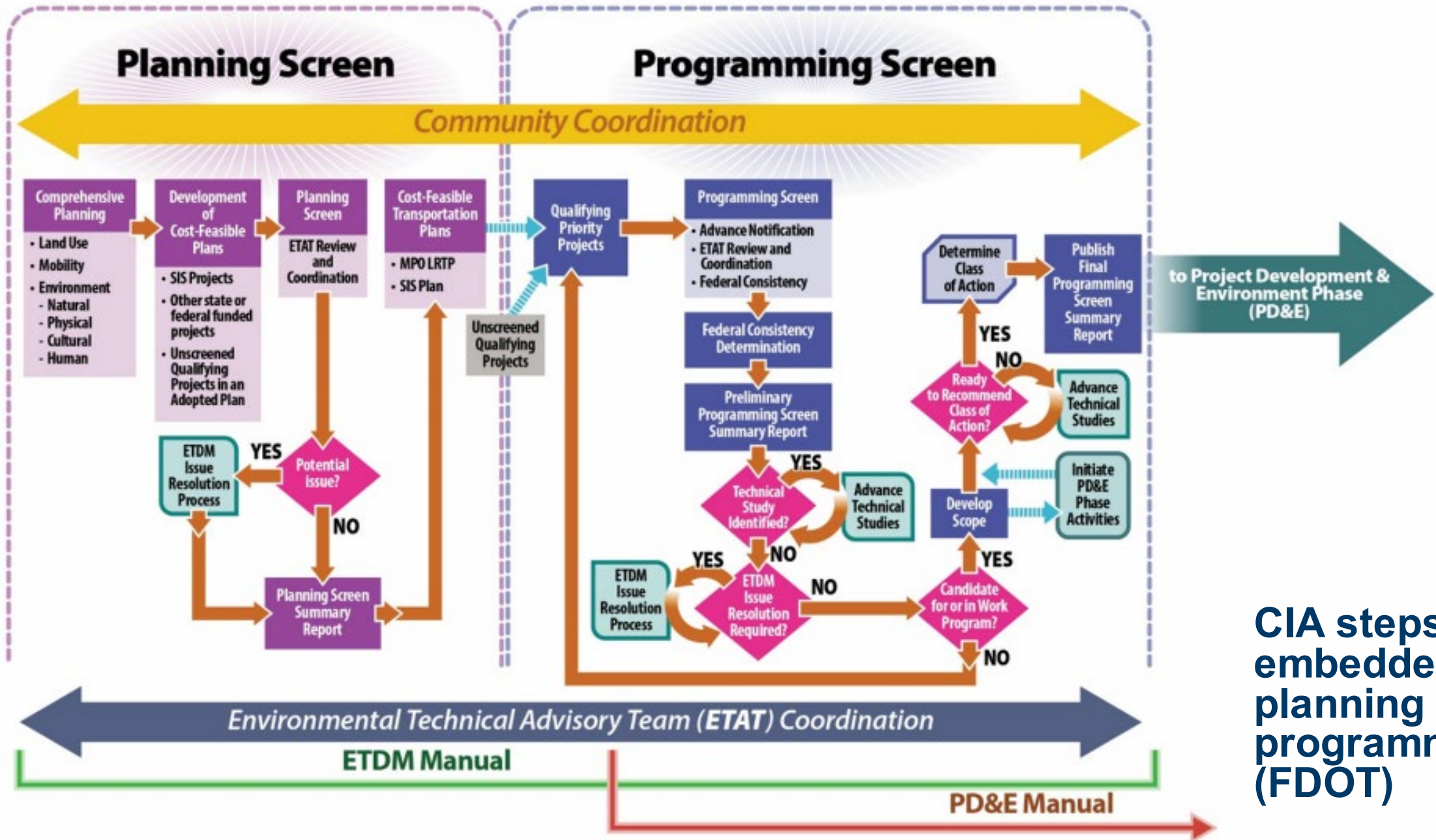
- Displacements of any kind
- Permanent increase in travel times to community facilities, businesses, or homes (except for projects that construct a new or extend an existing raised median or median barrier—see bullet below)
- Permanent elimination of driveway connections to/from community facilities, businesses, or homes
- Permanent impediment to use of non-automobile modes of travel
- Constructs a highway on new-location
- Creates a new bypass or reliever route
- Upgrades of a non-freeway facility to a freeway facility
- Adds toll lanes
- Expansion of the roadway pavement by the width of one vehicle lane or more
- Creates a grade separation
- Constructs a new or extends an existing raised median or median barrier in front of a school OR with a section longer than 3 miles without a break or crossover

# When does CIA get done and who's involved?

- CIA is typically integrated into the preliminary project design or scoping phase
- When it's done
  - Among **survey respondents**, zero integrate CIA in programming, one in planning, and one in identifying project needs.
  - Among **interviewees**, CIA mainly begins during preliminary design
  - Across **CIA manuals**, examples describe integration during project delivery
- Actors are typically staff within the environmental office/division and/or consultants working with them
- According to interviewees, some do public engagement before considering impacts while others do it after



**FDOT CIA  
process**



**CIA steps embedded in planning and programming (FDOT)**

# How do DOTs approach data collection and analysis in CIA?

- Desktop mapping, field visits, and secondary data collection to understand demographics, community resources (schools, hospital, parks), signs of other languages, community cohesion, mobility patterns
- Vulnerable populations not always well defined
- Two states have interactive mapping tools to identify vulnerable populations
- Approaches address forecast inequities, but rarely revisit existing inequities
  - One DOT has a research project to put together the history of how transportation projects have affected sensitive communities
- Assessing transportation cost burden, community needs assessments absent from CIAs
  - One state recently passed law requiring inclusion of housing cost-burdened households in their definition of “disproportionately impacted community”



# What topics do DOTs address in CIA?

- Numerous examples provided for various topics/issues to consider, most of which are those issues required under NEPA
  - **Social** (demographics, community cohesion, safety/emergency response, community goals, quality of life, special community designations)
  - **Economic** (business and employment, tax base, traffic patterns, business access, special needs patrons)
  - **Land Use Changes** (land use-urban form, local plan consistency, open space, sprawl, focal points)
  - **Mobility** (modal choices (pedestrian, bicyclist, transit), transportation disadvantaged, connectivity, traffic circulation, public parking))
  - **Relocation Potential** (residential, non-residential, public facilities)
  - **Aesthetic Effects** (noise/vibration, viewshed, compatibility)

FDOT list of six issues to examine in CIA

## Checklist for Assessing Social Impacts

	Yes
Will the project create a barrier that divides the neighborhood or limits access to all or part of the neighborhood?	<input type="checkbox"/>
Will the project impact any special groups (such as the elderly, persons with disabilities, racial/ethnic/religious groups) within the neighborhood?	<input type="checkbox"/>
Will the project reduce the amount of social interaction that occurs within the neighborhood?	<input type="checkbox"/>
Will the displacement of residents resulting from the proposed project negatively affect the perceived quality of life in the neighborhood?	<input type="checkbox"/>
Will the project affect access to, parking for, or result in the removal of, neighborhood facilities or services that are needed and valued by neighborhood residents (stores, parks, public services, schools)?	<input type="checkbox"/>
Will the facilities and services subject to removal or relocation be able to remain in, or within proximity of, the neighborhood?	<input type="checkbox"/>
Will the project result in an increase in noise, vibration, odor, or pollution that reduces social interaction in the neighborhood?	<input type="checkbox"/>
Will communal areas (e.g., parks and playgrounds) used by residents be negatively affected by construction of the project?	<input type="checkbox"/>
Will the availability and convenience of transit services be reduced as a result of the project?	<input type="checkbox"/>
Will the project negatively affect pedestrian and non-motorized mobility within the neighborhood?	<input type="checkbox"/>
Will vehicular mobility within the neighborhood be negatively affected by this project?	<input type="checkbox"/>
Will vehicular traffic increase on local streets as a result of the project?	<input type="checkbox"/>
If vehicular traffic increases, will this create unsafe conditions for non-motorized transportation within the neighborhood?	<input type="checkbox"/>
Will there be any changes to popular bicycle or pedestrian routes?	<input type="checkbox"/>
Will "blind or isolated" areas be created that are difficult to monitor for criminal activity as a result of the project?	<input type="checkbox"/>
Will emergency response routes be negatively impacted as a result of the project?	<input type="checkbox"/>

Caltrans CIA checklist

# How do DOTs determine impacts?

---

- Typically, only considers the presence of EJ populations above certain threshold
  - Most interviewees mentioned the need to consider access for people without vehicles but were not concrete in their approaches
- Determination of significance as a function of intensity and context
- Separate guidance for indirect and cumulative impacts
- Justification for status quo if project does not bring about changes
  - Existing inequities not always addressed
  - CIA processes don't always generate feedback loops with the public
- Few examples of how DOTs compare and document adverse impacts between target populations and the general population
- Most interviewees mentioned not feeling equipped to consider social, health and equity impacts
  - “When I was in school, environmental meant, like, bugs, bunnies, and biology. So, a lot of times, **people would just get thrown at this community impact assessment with no experience and no idea what that meant.**”
  - One DOT has research project to create a metric for measuring community engagement

# What solutions do DOTs provide to impacts?

---

- Manuals identify short- and long-term impacts
- Process requires avoid, minimize, mitigate, and enhance, though few specifics provided
- Although displacement is a concerning issue, there is little guidance on solutions beyond federal requirements
  - “Please note that certain populations, such as the elderly, persons with disabilities, non-English speaking, low income, racial/ethnic minorities, households with children, and long-term residents may have more difficulty in adjusting to relocation.” (PennDOT, p. 111-20)
- Traditional mitigation measures create additional impacts that must be considered.
  - “[Community members] would rather not be on the cul-de-sac street because police don’t patrol a cul-de-sac street ... and transit doesn’t go all the way down called a cul-de-sac street ... [and the] landscape and we were using were not safe for them [because] it created places for people to hide and jump out ... and even the noise walls create too much of a screen to keep people visible.”
- FDOT provided guidance on issue resolution processes, others didn’t

# How do DOTs document and review?

---

- Level of CIA analysis and documentation is based on ED
- Some CIA manuals include or reference templates, outlines, and/or forms
- Informal determinations go undocumented
  - “When you’re working with the with the rest of the team to try and scale back impacts, it is just like meetings and emails and just sort of general communication ... there’s not really, like, an official memo or anything that we create when we’re trying to work through our project.”
- No regulatory process to review and approve CIA findings and recommendations
- Caltrans requires two review documents
  - Environmental commitments record: Documentation of project change to avoid, mitigate, enhance
  - Tracking program for reporting and monitoring mitigation measures to ensure compliance
- Transparency was recognized as a key component of community trust-building

# Key recommendations to IDOT

---

- Conduct project screening for all projects leading to construction
  - Demographic assessment via newly developed screening tool
  - Qualitative assessment of businesses, community facilities, and displacement potential, particularly with respect to disadvantaged groups
  - Reflect on community engagement practices
- Projects that “fail” screening should undergo full CIA
- Draw on methods from other assessment types (health impacts, racial equity impacts, etc.)
- Consider impacts beyond immediate project area

---

John Sherrill: [John.Sherrill@illinois.gov](mailto:John.Sherrill@illinois.gov)

Jesus Barajas: [jmbarajas@ucdavis.edu](mailto:jmbarajas@ucdavis.edu)



Credit: Metropolitan Council

# Promoting Public Health in Transportation Decision-Making

TRB AME 80 Webinar

Nissa Tupper, Transportation and Public Health Planning Director,  
Sustainability & Public Health Office, Minnesota Department of Transportation

Aug. 25, 2022

# MNDOT VISION

Minnesota's multimodal transportation system maximizes the health of people, the environment, and our economy.

## Transportation system context

- One of the top 5 largest transportation systems in the U.S. – total public miles owned by MnDOT and partners
- MnDOT owns/operates ~10% of all roads in MN
- Transportation is the #1 source of carbon pollution

## Community context

- Anticipated to gain 1.1M new residents between 2018 and 2070
- 65+ population anticipated to double between 2010 and 2030
- ~30% growth in Communities of Color since 2010, ninth highest among states
- One of the healthiest states in the country, yet some of the worst health disparities



# Differing perspectives on creating health





Good health starts long before the doctor's office.  
Health is created where we live, learn, work, and play.  
**Healthy communities make healthy people.**

### Neighborhood & Built Environment

Physically and psychologically safe transportation options that reduce emissions and provide access to clean air, nutritious food, and greenspace.



### Healthcare

Reliable, efficient and convenient access to preventative health services, medical treatment, and emergency care.



Behavioral Health  
opportunities for  
physical activity,  
social interaction,  
nutritious food,  
healthcare

Social Inclusion  
access to places,  
people and power

Equitable  
Health &  
Wellness

Environmental Health  
safety from crashes, noise, crime,  
disproportionate enforcement,  
pollution, climate change

**Economic Stability**  
Affordable and reliable  
transportation options to access  
employment and build wealth.



**Education**  
Convenient access to learning  
and training opportunities, from  
early childhood to older adult.



**Social & Community Context**  
Multimodal transportation that connects with  
community and relationships to support  
social, physical, and mental wellbeing.

# Support Transportation that Improves Public Health



**Embed public health and equity** metrics and practices into MnDOT decision making.



**Make non-single occupant vehicle options more attractive** and accessible to support healthy and sustainable communities.



**Develop and strengthen relationships** with public health and community partners.

# MnDOT's role

## LEAD



For issues related to MnDOT owned/operated highways or MnDOT-led policies and/or programs, MnDOT is the leader. This is the agency's primary and traditional mission.

Examples include building out the state trunk highway bicycle network and offering Safe Routes to School planning grants.

## PARTNER



Where MnDOT policies, plans, programs, and funding impacts local governments but MnDOT may not be the lead agency, MnDOT is a partner.

An example includes partnering to advance statewide broadband access in transportation right of way for tele-access to health, education and employment.

## SUPPORT



Where MnDOT does not have decision-making authority or investments, MnDOT can support.

While MnDOT's primary mission and lever of influence is focused on transportation infrastructure, the agency can support partners in aligned efforts, like promoting Suicide Prevention Awareness Month by lighting the I-35W bridge.



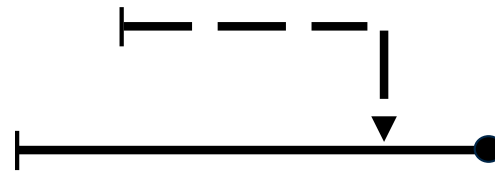
## Project Highlight – Equity and Health Assessment

# Health Evaluation Processes



## Health Equity Lens Tools

Considering equity in specific policies, processes and decision-making processes



## Health Impact Assessment (HIA)

Conducting a parallel assessment, integrating feedback into final decision



## Community Impact Assessment (CIA)

Integrated process to evaluate and address health throughout project process

# Hybrid Approach: Equity and Health Assessment (EHA)

from principles and best practices of

of equity and health impacts

network

2019-2024 project engineering process



Transportation equity means the benefits and burdens of transportation systems, services and spending are fair and just, which historically has not been the case.

Transportation equity requires ensuring underserved communities, especially Black, Indigenous and People of Color, share in the power of decision making.

*- Draft 2022 Statewide Transportation Multimodal Plan (SMTP)*

Health is a state of complete physical, mental, and social well-being, extending beyond the absence of disease or infirmity.

*- World Health Organization*

Minnesota's multimodal transportation system maximizes the health of people, the environment, and our economy.

*- MnDOT Vision*

# Hwy 252/I-94 Equity and Health Assessment (EHA)

## WHY?

The Hwy 252/I-94 EHA seeks to enhance MnDOT's understanding of equity and health along the corridor and elevate the role of equity and health considerations in Hwy 252/I-94 decisions.

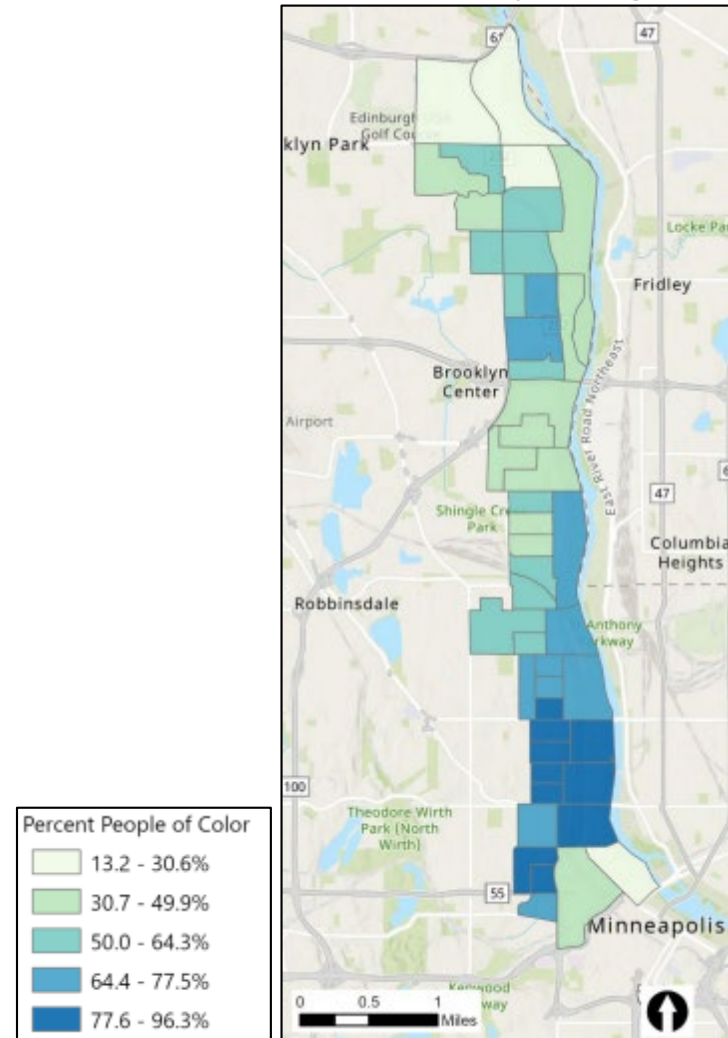
## HOW?

The EHA consists of equity and health analysis guided by targeted, intentional engagement of historically underserved and overburdened communities.

# Why are Equity and Health important for this project?

- Hwy 252/I-94 runs through some of the most racial and ethnically diverse areas of the state
- People living in North Mpls report more negative health outcomes than people in Hennepin County
- Public health models indicate higher chronic disease rates in majority non-white areas than in majority white areas along Hwy 252/I-94
- Compared to the typical Minnesotan, people living along Hwy 252/I-94 are at greater risk of disease, hospitalization, and death due to poor air quality

Racial and ethnic diversity along Hwy 252/I-94



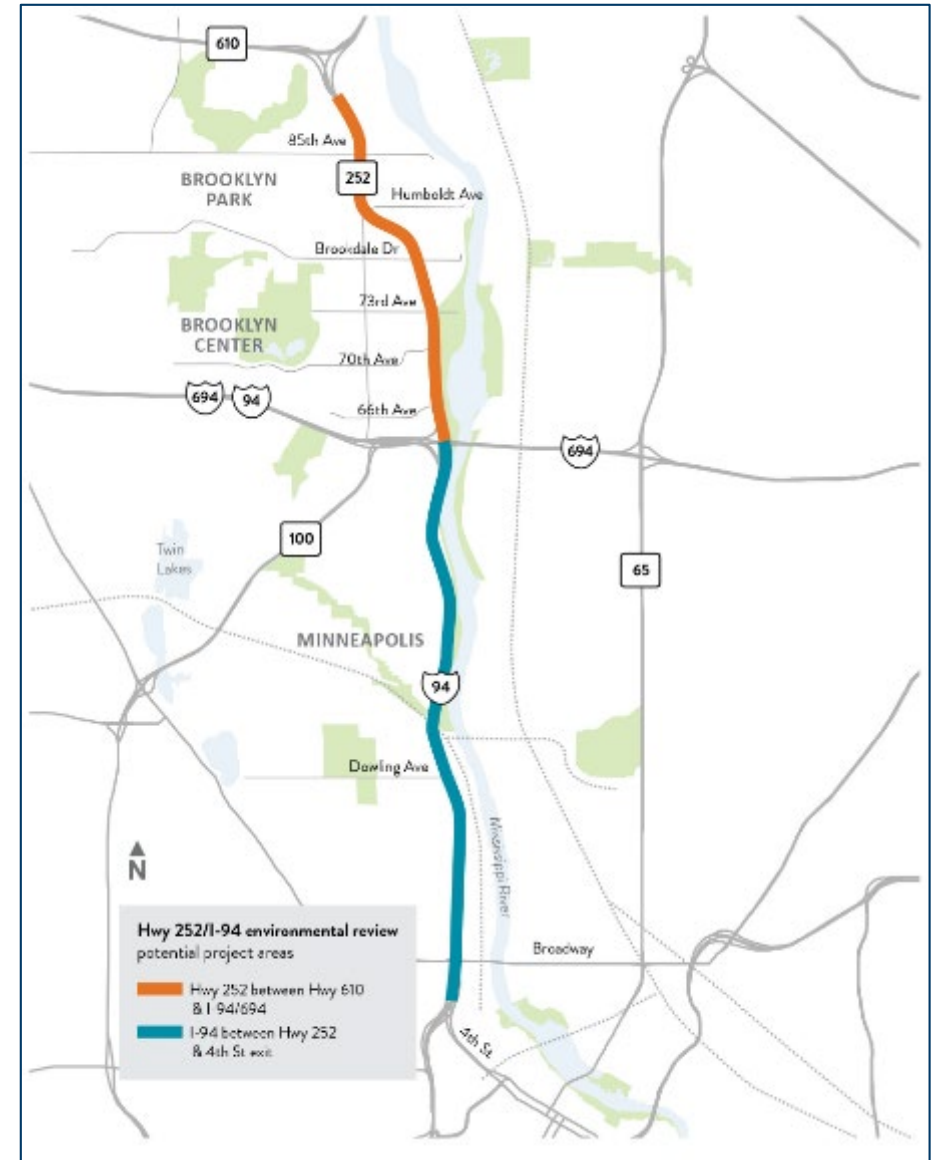
Data source: 2015-2019 ACS 5-Year Estimates

# Who conducts the EHA?

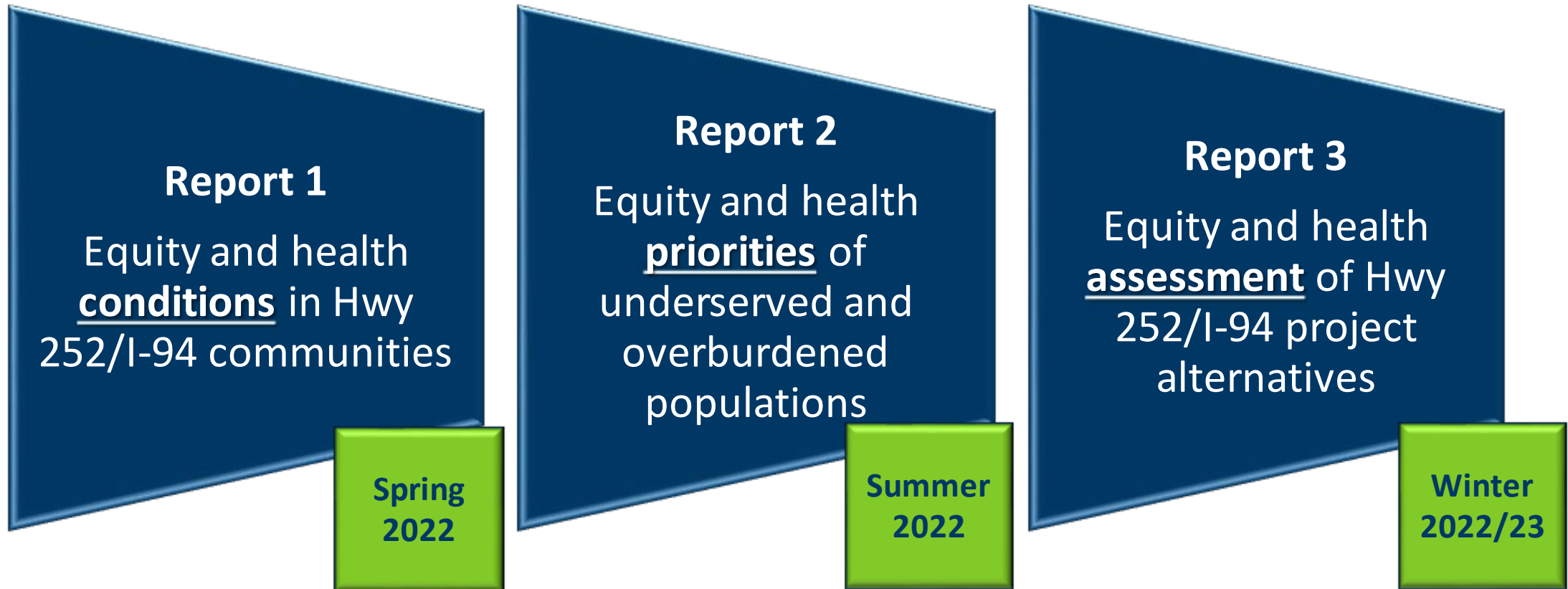
- The EHA is administered by **MnDOT's Sustainability and Public Health Division** with support of an **interagency workgroup**.
- **Equity and Health Neighborhood Advisors (EHNA)** group provides input on assessment of equity and health conditions, engagement activities, and potential transportation improvements to Hwy 252/I-94 project elements and alternatives.
- EHA reports are submitted to the **Hwy 252/I-94 project leadership team** and the **Project Advisory Committee (PAC)** as public input.

# Equity and Health Neighborhood Advisors (EHNA)

- 12-15 residents of neighborhoods along the Highway 252/I-94 corridor
- Application-based selection process
- Community organizations asked to identify and encourage applicants
- Considers applicant community connections, interest in equity and health
- Intent for balanced representation of Highway 252/I-94 corridor communities
- Pilot participation incentive



# The EHA during the SDD



# Report 1: Equity and Health Baseline Conditions Report

- Describes 30+ equity and health baseline conditions along the Hwy 252/I-94 corridor.
- Identifies six focus areas based on input from the EHA interagency working group and the EHNA. These focus areas were validated/adjusted through community engagement.
- Serves as the foundation for Reports 2 and 3.

The image shows the cover of a report. On the left side, there is a vertical brown bar. The main title is in teal text: 'HIGHWAY 252/I-94 EQUITY AND HEALTH ASSESSMENT'. Below the title, the subtitle 'Report #1: Baseline Conditions' is in brown text, and the date 'May 2022' is in brown text. A small teal square is located at the bottom left corner of the cover.

## HIGHWAY 252/I-94 EQUITY AND HEALTH ASSESSMENT

Report #1: Baseline Conditions  
May 2022

# Report 2: Equity and Health Focus Areas



Environment and human health



Sense of community



Property changes



Transportation safety



Transportation options



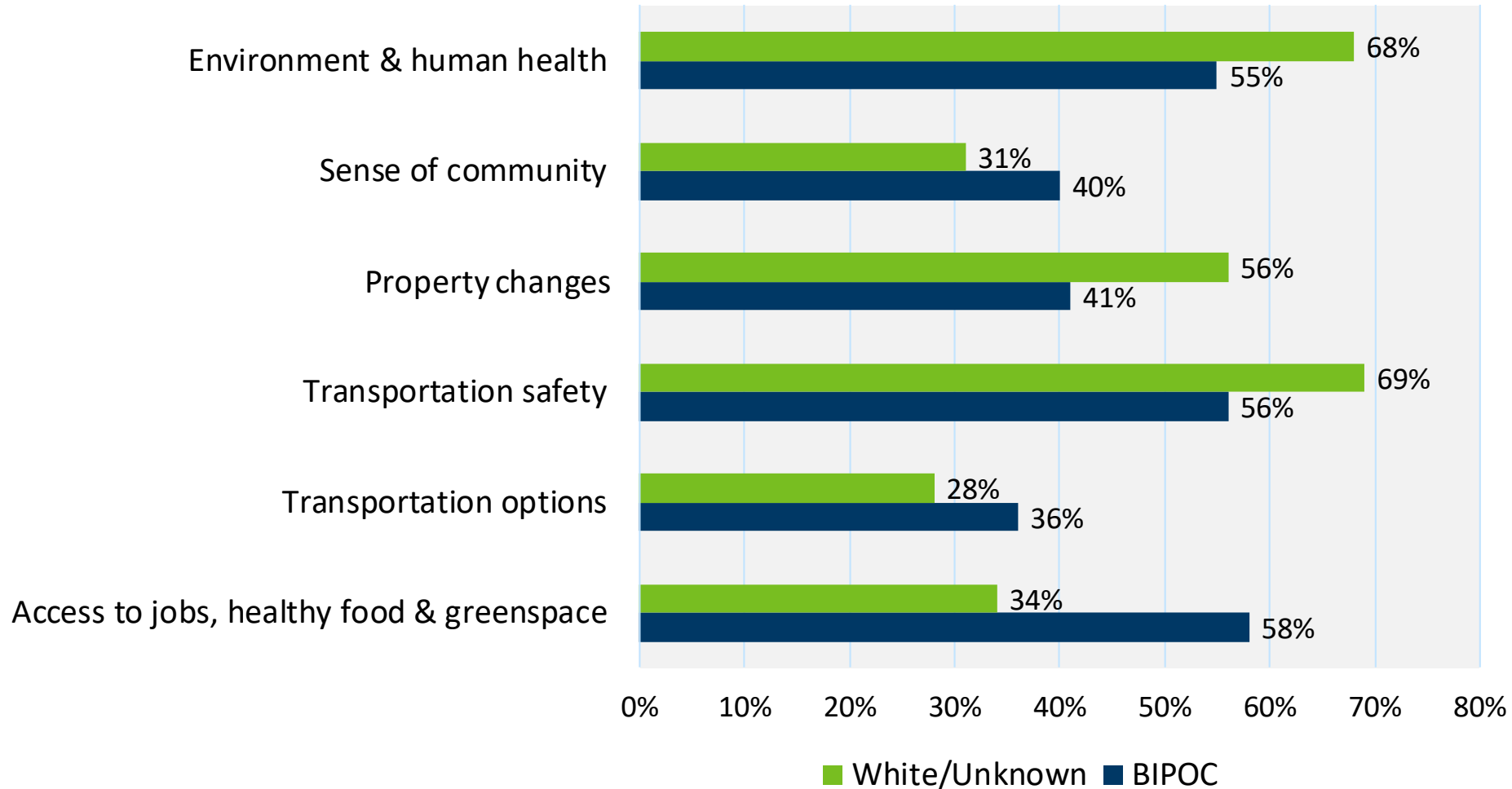
Access to jobs, healthy food, and greenspace

Framed through  
Report 1,  
validated  
through  
engagement for  
Report 2



# Report 2: Engagement Ranking Results

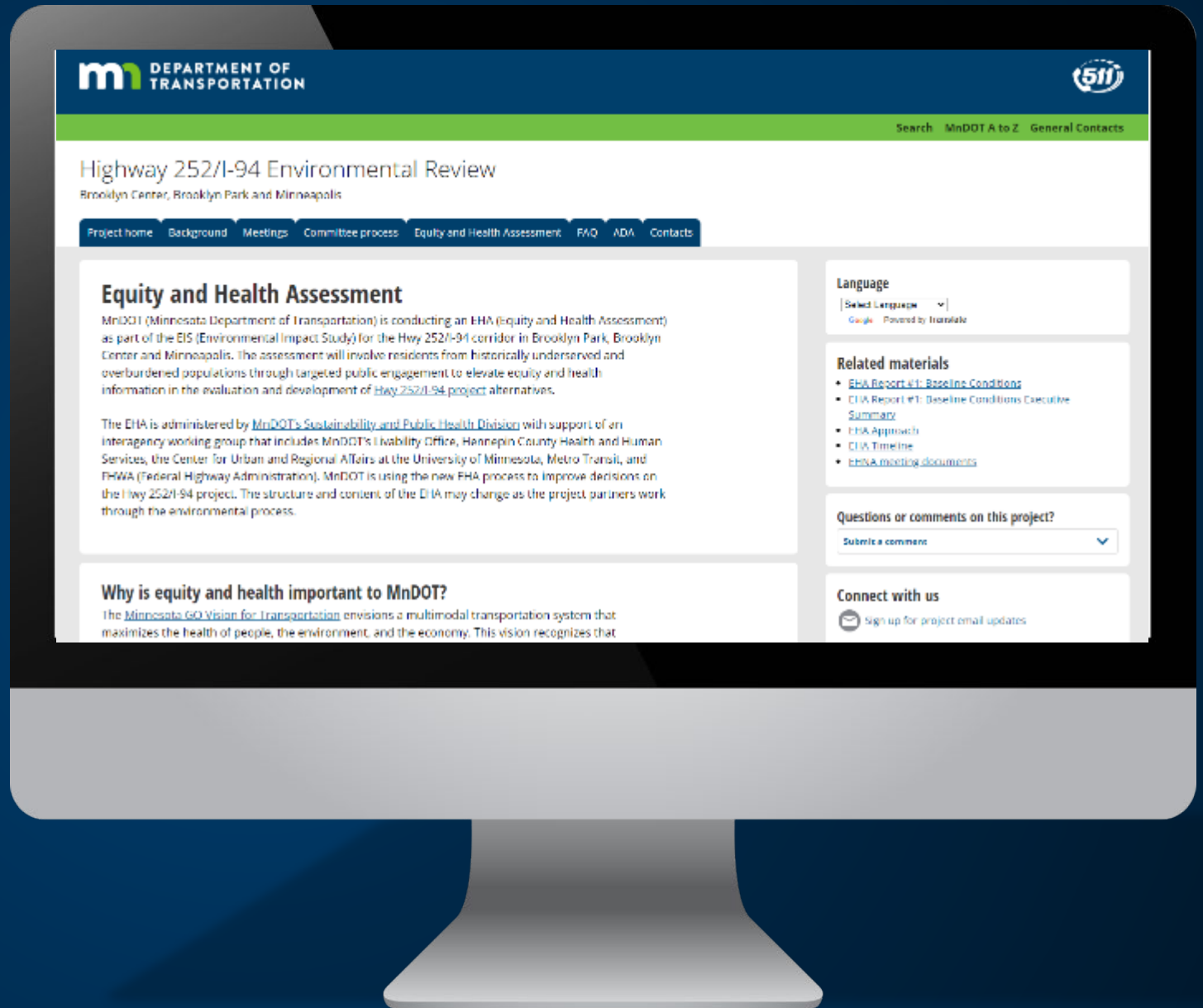
## Top focus area priorities for engagement participants in the project area



## Report 2: Key takeaways from BIPOC community members

- Many BIPOC respondents are concerned that expanding Hwy 252/I-94 will **increase traffic, air pollution and increased respiratory issues** in Hwy 252/I-94 communities.
- A majority of BIPOC respondents identified **safety** as an equity and health priority, with particular attention given to vulnerable users.
- BIPOC respondents highlighted the importance of **job access, food options, and green space** to healthy lives and equitable communities.
- BIPOC respondents stressed the importance of **ensuring local communities are not unfairly burdened** by Hwy 252/I-94 decisions that primarily benefit pass through traffic.

www.dot.state.mn.us/metro/projects/hwy252study/eha.html



# In-Progress Reflections

- Connecting on shared values – public health perspective offers an approachable language for community and respected data source for professionals
- Be intentional about who's at the table and facilitating – representation and leadership that's reflective of the community, building trust
- Get comfortable with being uncomfortable – reiterate from the beginning, and often
- Set expectations...again, and again – with community members, consultants, and colleagues

Thank you!

Nissa.tupper@state.mn.us

The screenshot shows a web browser window displaying the Minnesota Department of Transportation website. The page title is "Sustainability and Public Health". The navigation menu includes: Home, Public Health, Advisory Council, Reporting, Climate Resilience, GHG Analysis, Solar, Electric Vehicles, Clean Fuel Standard, and Co. The main content area features a "Public Health" section with three images: a family riding bicycles, a street scene with a green awning, and a man at a farmers market. Below the images is a paragraph: "Transportation affects the health of people, the environment, and the economy. Safe, convenient, and affordable transportation options help people connect with schools, jobs, friends and family, and essential needs like healthy food, recreation and health care." Another paragraph states: "MnDOT recognizes that healthy communities make healthy people. The Sustainability and Public Health Division was created in 2019 to lead and support efforts to promote public health in transportation. The following are examples of this work." On the right side, there are sections for "Contact Us", "Email Up", and "Additional".

[www.dot.state.mn.us/sustainability/public-health.html](http://www.dot.state.mn.us/sustainability/public-health.html)

# Today's presenters



**Traceé Strum-Gilliam,**  
[tstrum-gilliam@prrbiz.com](mailto:tstrum-gilliam@prrbiz.com)



**John Sherrill**  
[John.Sherrill@illinois.gov](mailto:John.Sherrill@illinois.gov)



**Jesus M. Barajas**  
[jmbarajas@ucdavis.edu](mailto:jmbarajas@ucdavis.edu)

u



**Nissa Tupper**  
[Nissa.Tupper@state.mn.us](mailto:Nissa.Tupper@state.mn.us)

**NATIONAL  
ACADEMIES** Sciences  
Engineering  
Medicine

# Update Events for you

**August 29-31, 2022**

[TRB's Tools of the Trade  
Conference](#)

<https://www.nationalacademies.org/trb/events>

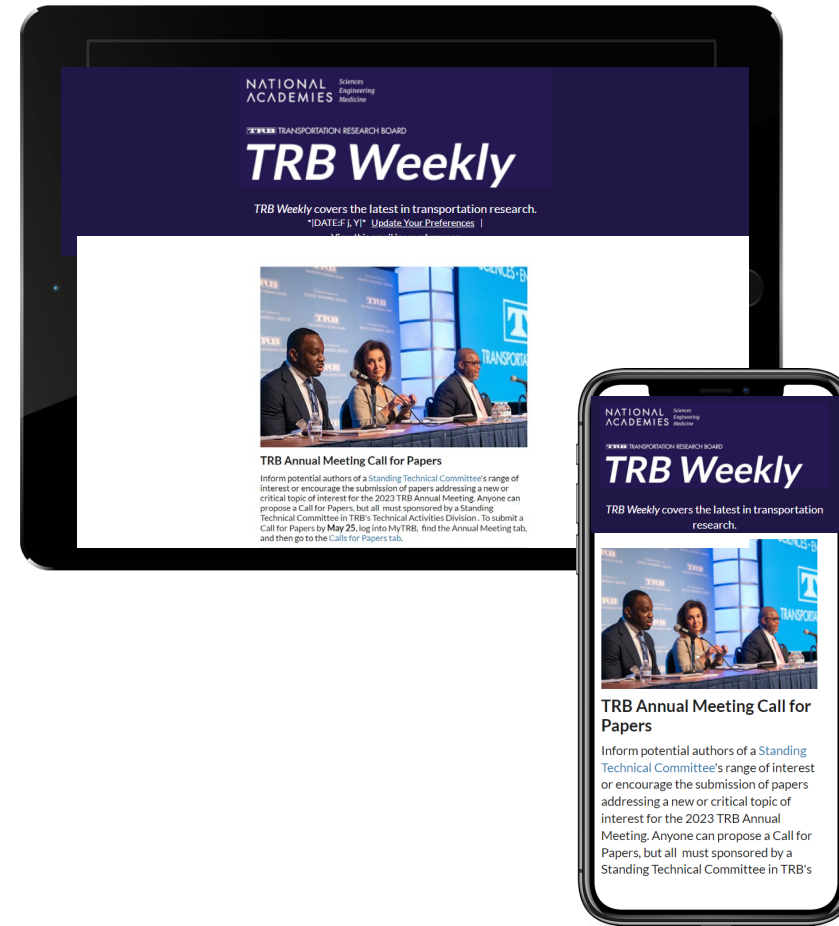


# Subscribe to *TRB Weekly*

If your agency, university, or organization perform transportation research, you and your colleagues need the *TRB Weekly* newsletter in your inboxes!

Each Tuesday, we announce the latest:

- RFPs
- TRB's many industry-focused webinars and events
- 3-5 new TRB reports each week
- Top research across the industry



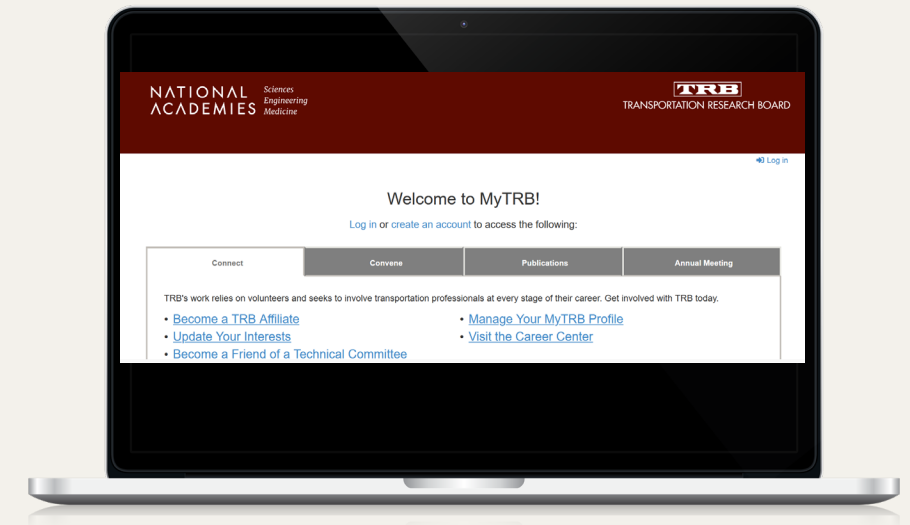
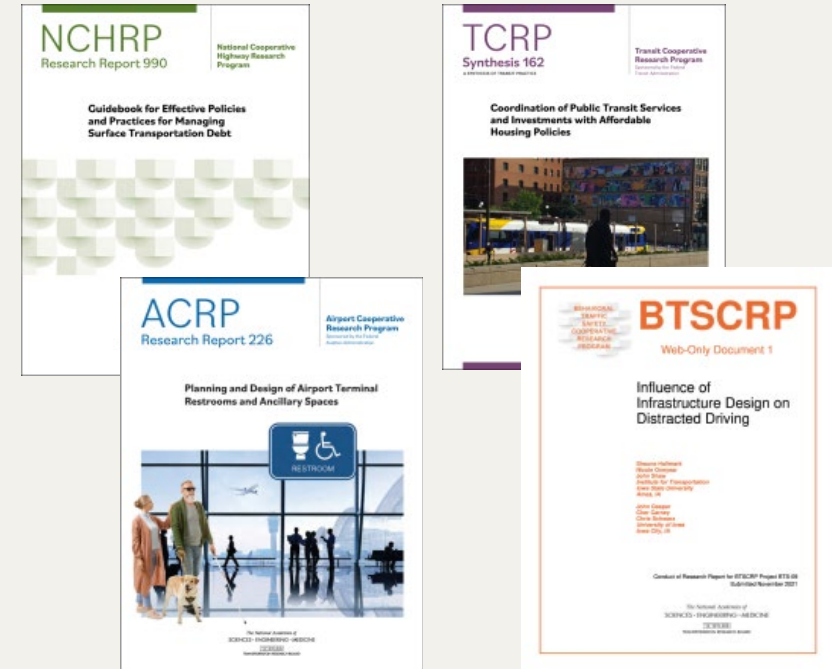
Spread the word and subscribe!

<https://bit.ly/ResubscribeTRBWeekly>



# Making our work accessible

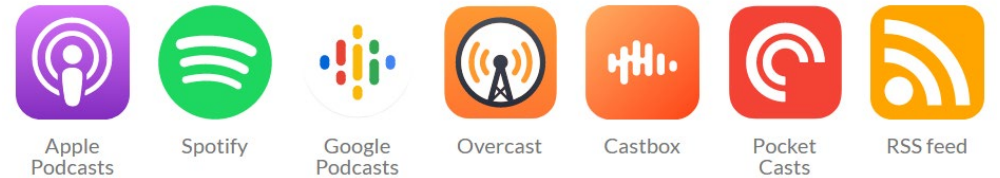
- **Join or Become a Friend of a Standing Technical Committee**  
Network and pursue a path to Standing Committee membership  
[bit.ly/TRBstandingcommittee](https://bit.ly/TRBstandingcommittee)
- **Work with a CRP**  
<https://bit.ly/TRB-crp>
- **Keep us updated with your information**  
[www.mytrb.org](https://www.mytrb.org)



# Listen to TRB's podcast



Listen on our website or subscribe wherever you listen to podcasts  
<https://www.nationalacademies.org/podcasts/trb>



# Stay in touch

Receive emails about upcoming webinars:

<https://mailchi.mp/nas.edu/trbwebinars>

Find upcoming conferences: <https://www.nationalacademies.org/trb/events>



@NASEMTRB



@NASEMTRB



Transportation  
Research Board

# We want to hear from you

- Take our survey
- Tell us how you use TRB Webinars in your work at [trbwebinar@nas.edu](mailto:trbwebinar@nas.edu)

