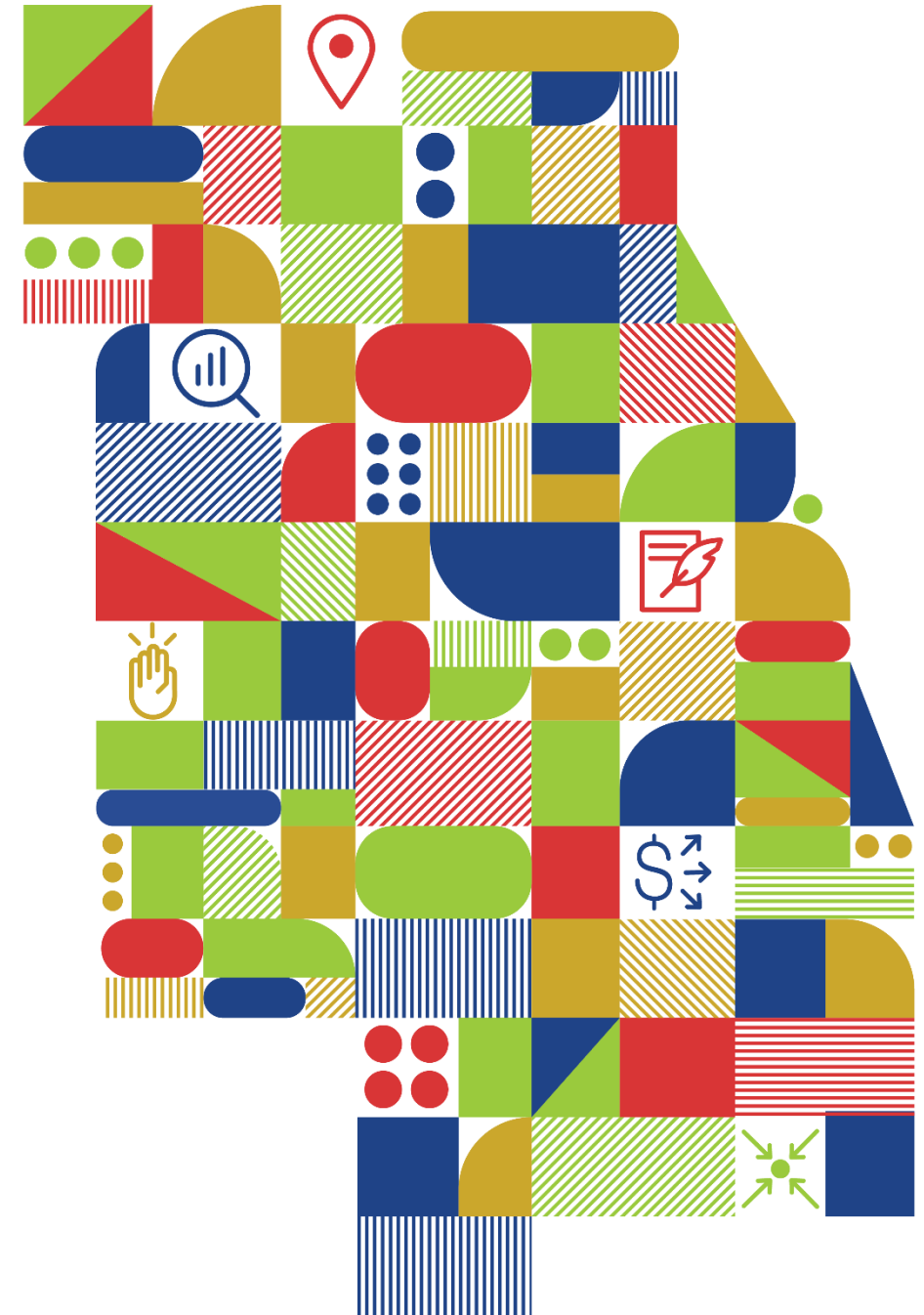




Climate Focus Area

November 19, 2020



A photograph of a person running on a bridge at sunset. The sun is low on the horizon, casting a warm orange glow. Other people are visible in the background, including a cyclist and a person pushing a stroller. The bridge has a metal railing.

ON TO 2050 ENVIRONMENT GOAL

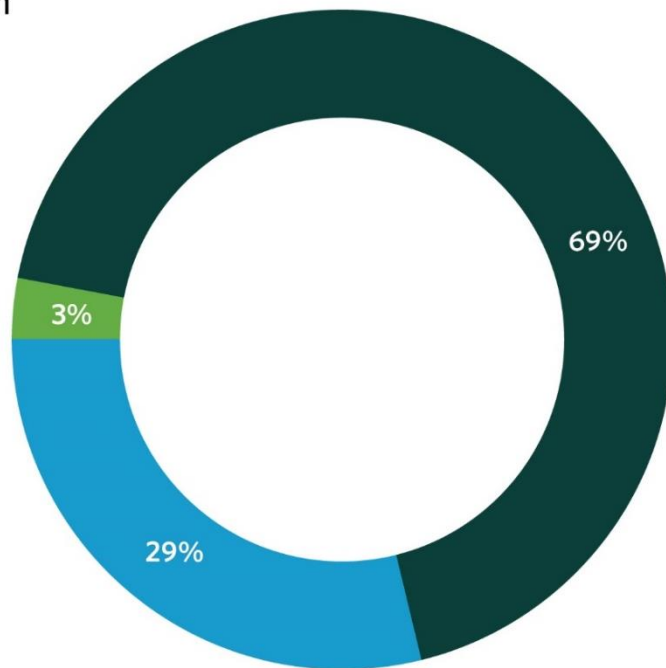
A region prepared for climate change

- Intensify climate mitigation efforts
- Plan for climate resilience

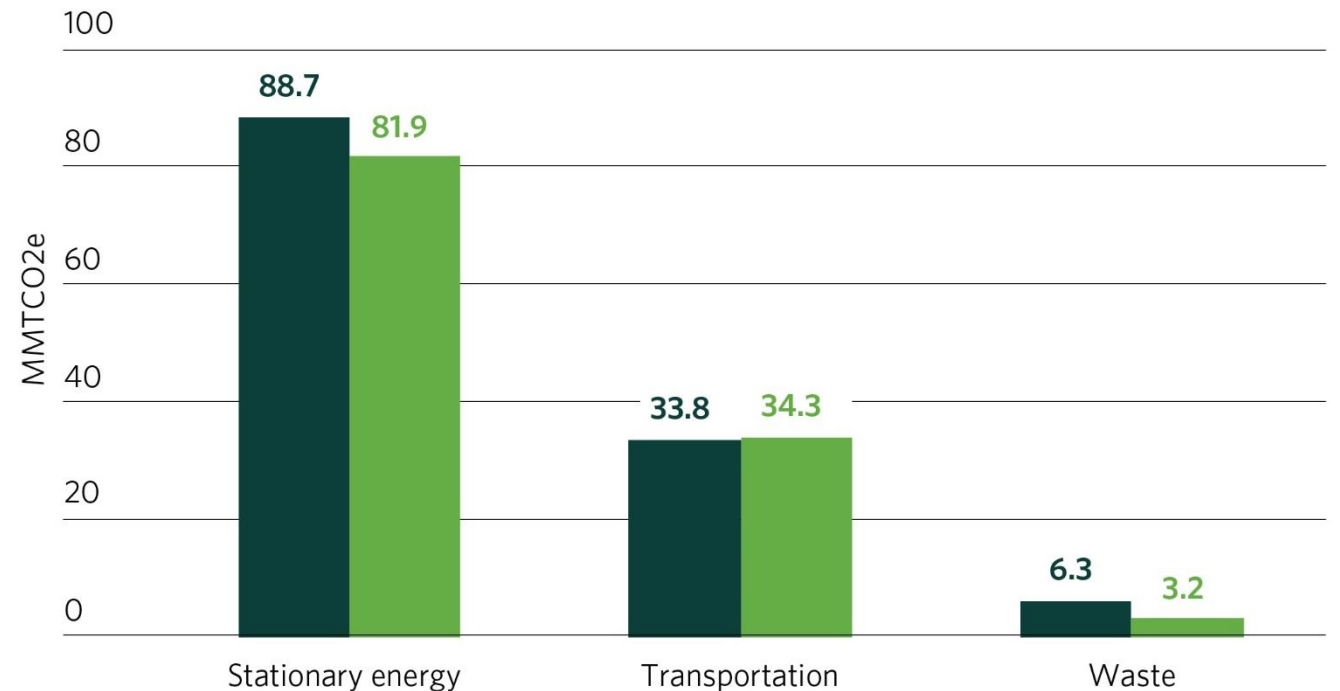
Chicago region greenhouse gas emissions by sector

2015

- Stationary energy
- Transportation
- Waste

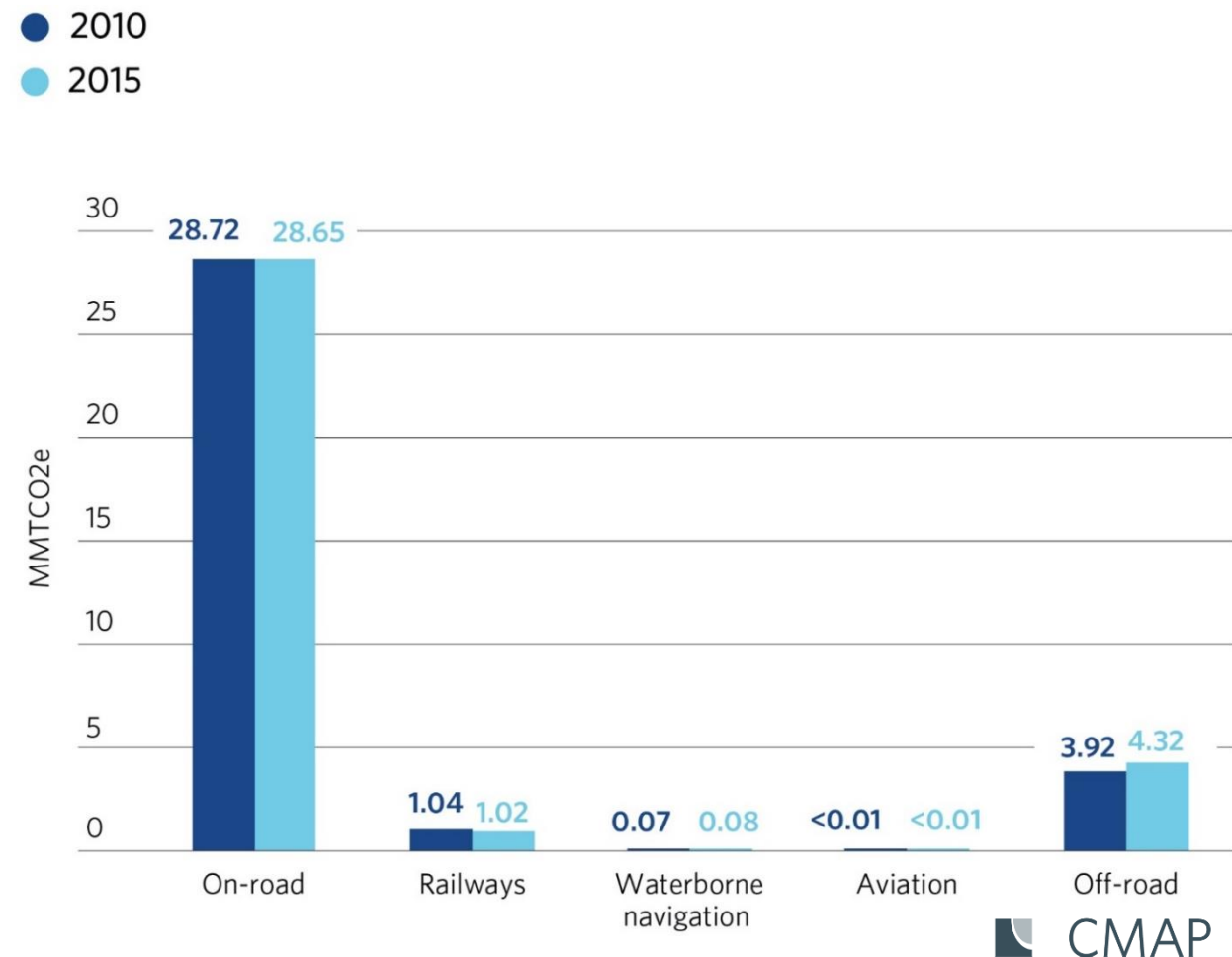
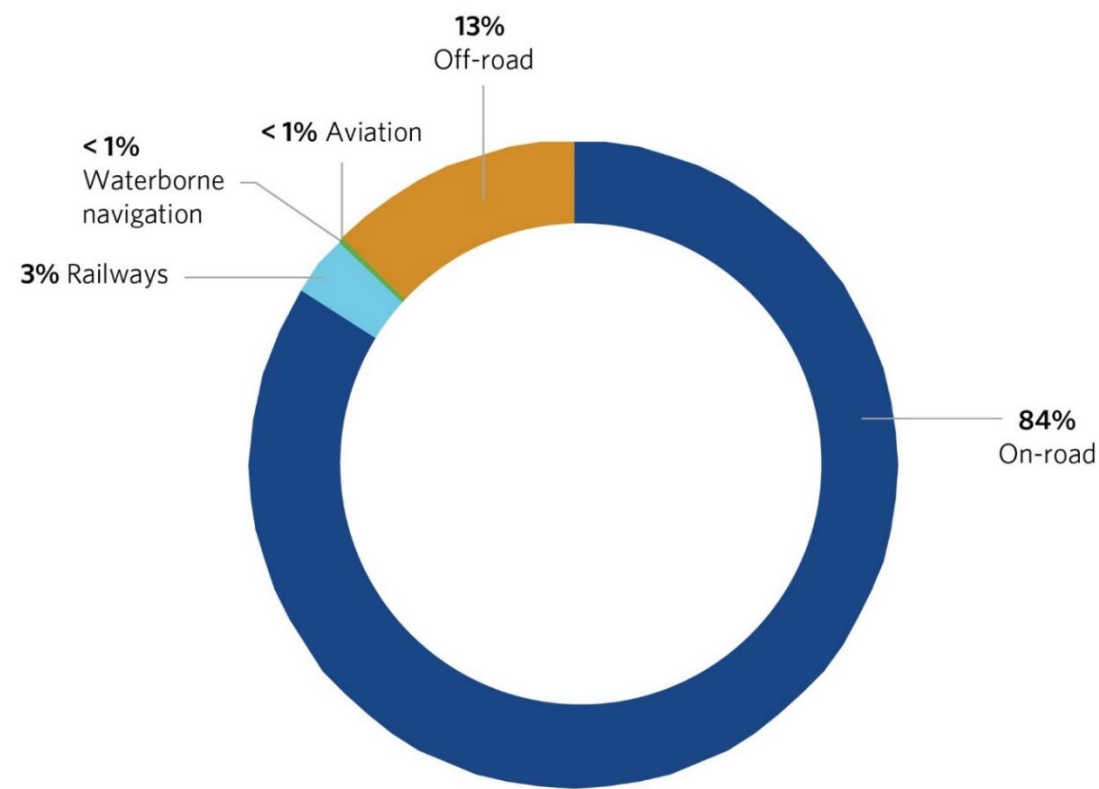


- 2010
- 2015



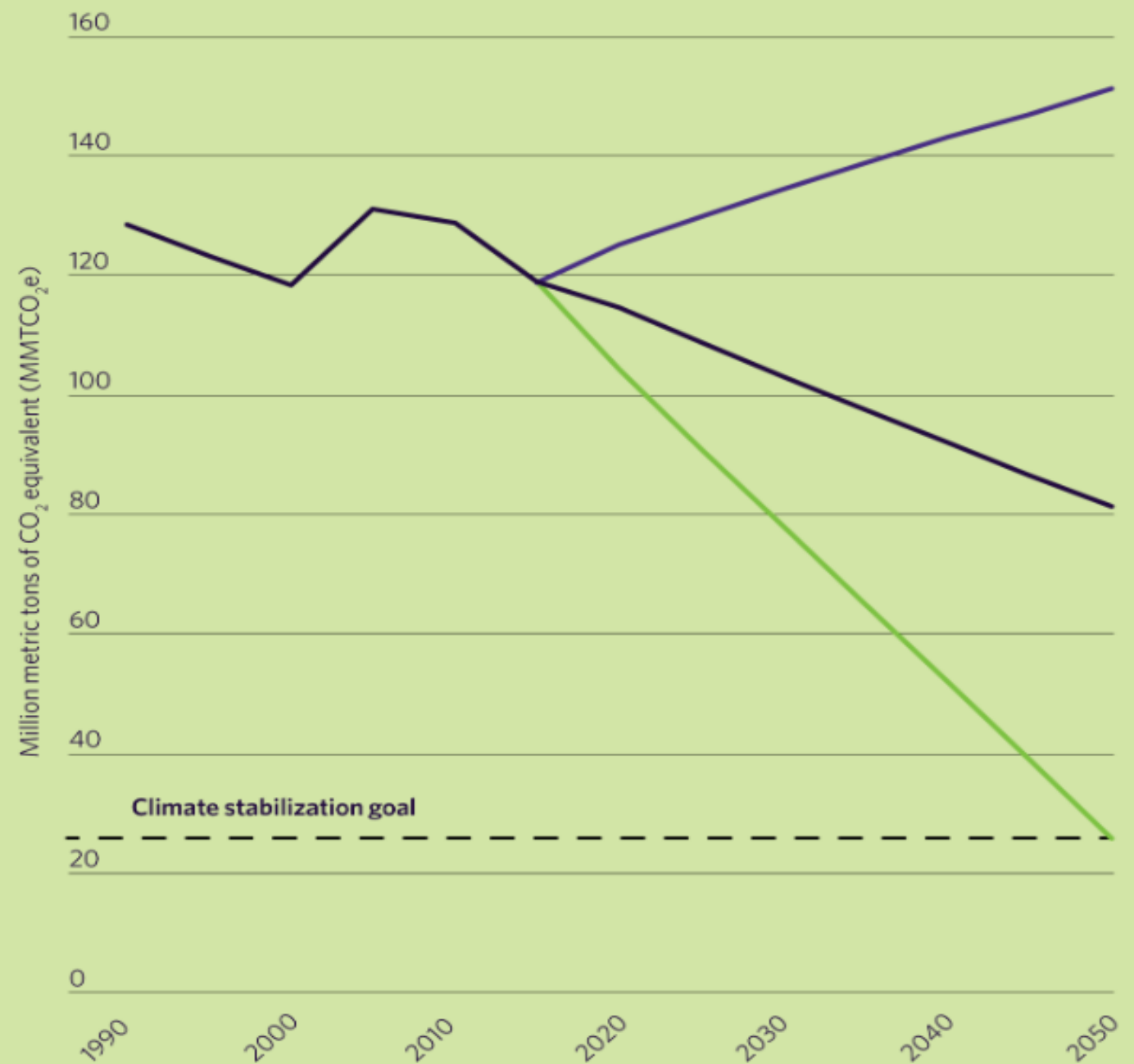
Chicago region transportation emissions

2015



Greenhouse gas emissions inventory and projections for the Chicago region, 2010-2050

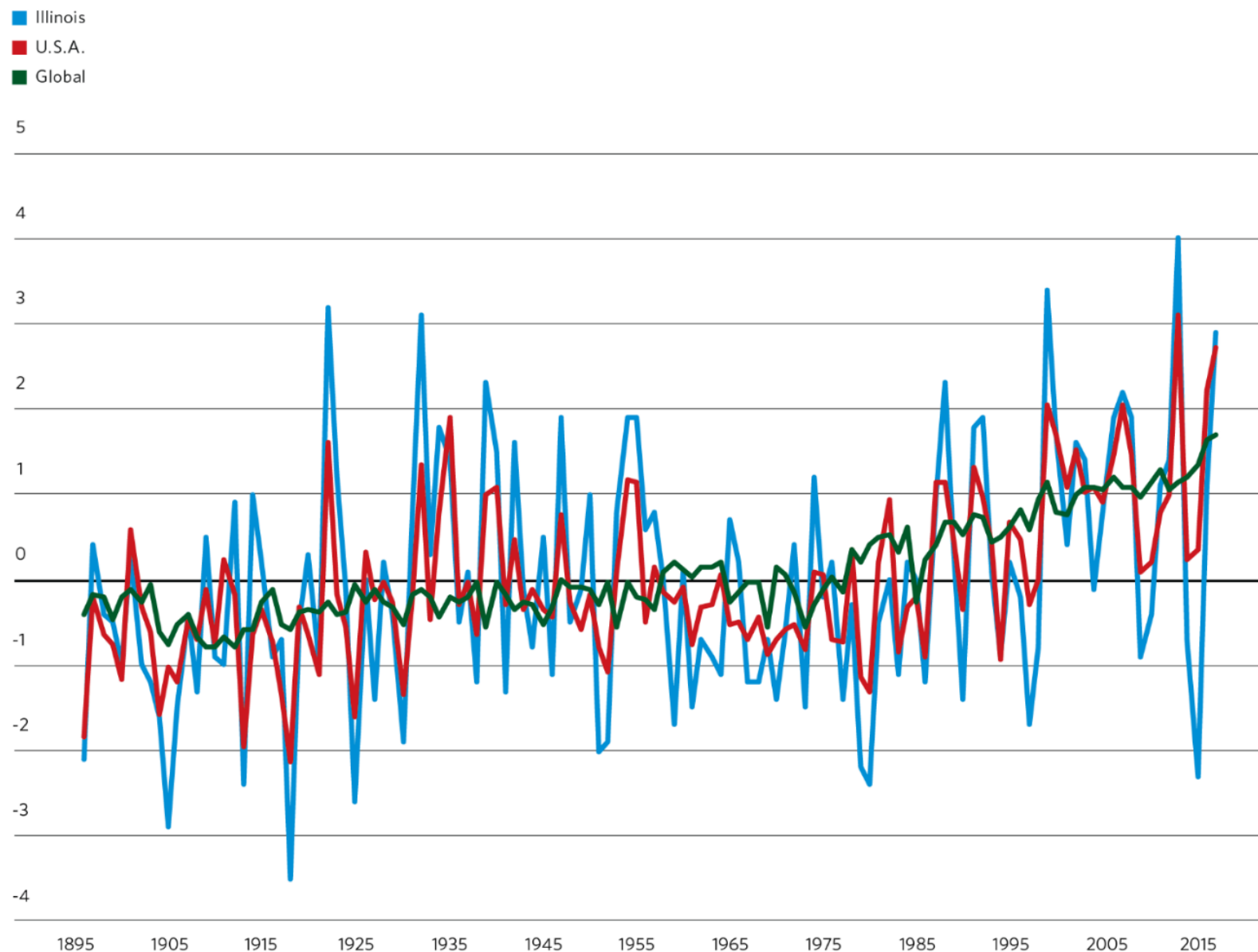
- Business as usual
- Current trend
- Climate stabilization path



Warmer, wetter, and more variable climate

Average temperature anomalies, in degrees Fahrenheit, 1895-2015

Source: National Centers for Environmental Information, "Climate at a Glance," National Oceanic and Atmospheric Administration, 2017.



Plan for climate resilience

Figure 16. Localized street flooding in Summit, July 2010



Source: Sergio Garcia



CMAP



Climate Adaptation Guidebook for Municipalities in the Chicago Region

June 2013

CHICAGO METROPOLITAN AGENCY FOR PLANNING | ON TO 2050 STRATEGY PAPER

Climate Resilience

CMAP

FORESIGHT
INITIATIVE

ENERGY STRATEGY PAPER



American Planning Association
Creating Great Communities for All

Using Climate Information in Local Planning: A Guide for Communities in the Great Lakes



An American Planning Association Report

CMAP

Recent activities

- Regional guide for local climate action (MMC/CMAP/GCoM)
- CCoM transportation vulnerability and resilience
- CMAP Talks: regional stormwater resilience
- C19-related updates



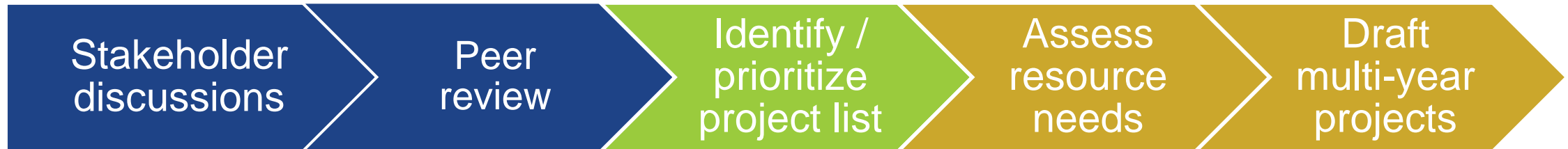
ON TO 2050 ENVIRONMENT GOAL

A region prepared for climate change

FY21 Climate Focus Area Workplan

1. **Climate multi-year implementation planning**
2. Transportation mitigation strategies
3. Climate mitigation and adaptation technical assistance
4. Climate data inventory and refinement
5. Greenhouse gas emissions reporting and performance monitoring

Climate multi-year implementation planning



Peer review highlights

- Vulnerability assessments (regional, local, and frameworks)
- Local and regional scale greenhouse gas emissions inventories and sector targets
- Focus on transportation mitigation strategies
- Work on building decarbonization
- Partnerships to expand impact
- Resource sharing is a major, enabling action
 - Interactive maps, inventories, toolkits, model ordinances, etc.

Stakeholder discussion highlights

- Energy and building sectors moving; transportation mitigation is not
- Electrification (commercial and transit fleets; light and heavy-duty vehicles; freight; electric vehicle infrastructure), mode shift, transportation demand management, land use
- Reach out to equity/environmental justice community for fuller perspective
- Locals are short on resources, knowledge, data, and guidance
- There is no climate champion

Stakeholder highlights: CMAP's role

- Regional coordination, convening, and facilitation
- Transportation sector climate strategies: assessment, prioritization, and coordination across implementers
- Data monitoring, analysis, and information dissemination
- Direct local assistance, capacity building, and barrier removal
- Infrastructure and community resilience assistance
- Climate-friendly economic growth

Now: identify and prioritize climate projects

- Concurrent with FY22 agency workplan and budget development
- Identify pathways and projects for near term and 3- to 5-year timeframe to **implement** climate goals of ON TO 2050
- Consider CMAP implementation avenues when selecting projects
- Consider urgency, impact, leverage, support, synergy, and capacity



ON TO 2050 ENVIRONMENT GOAL

A region prepared for climate change

FY21 Climate Focus Area Workplan

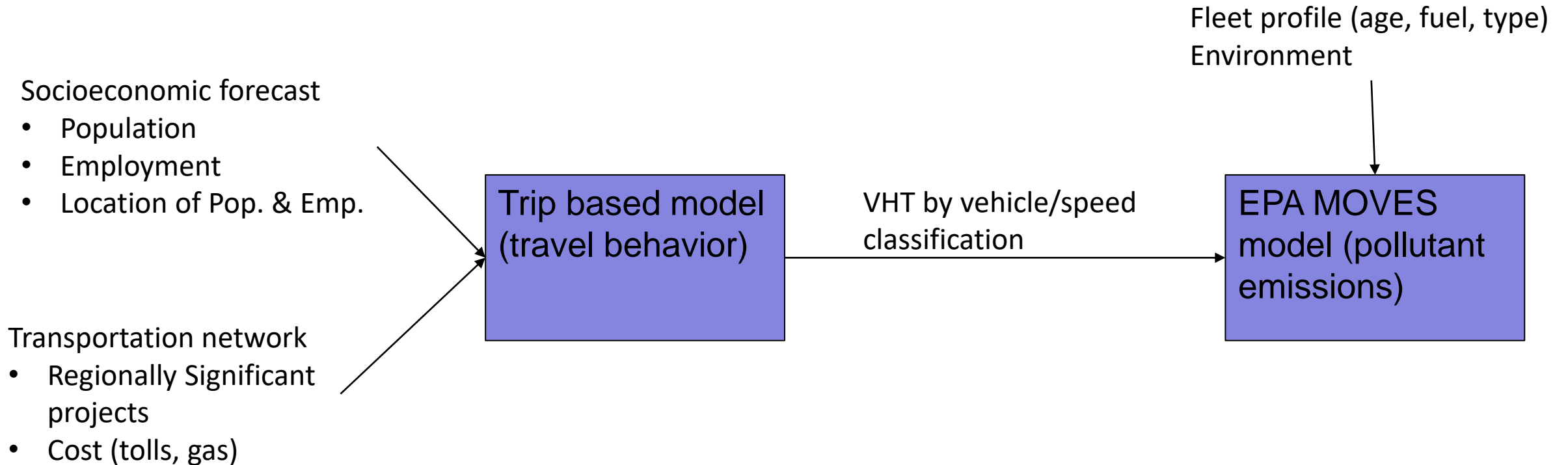
1. Climate multi-year implementation planning
2. **Transportation mitigation strategies**
3. Climate mitigation and adaptation technical assistance
4. Climate data inventory and refinement
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Project Purpose

Examine potential contributions the region can make toward reducing GHG emissions from the transportation sector.
(Specifically on road transportation)

- Identify pathways for mitigation
- Increase understanding by CMAP staff and partners of GHG impacts of transportation decisions
- Prepare CMAP and the region to respond to future legislation or other initiatives aiming to reduce GHG emissions
- High level quantification of various GHG mitigation strategies

Modeling



Past modeling

Figure 2: Gain in mode share at low and high levels of strategy implementation, 2015

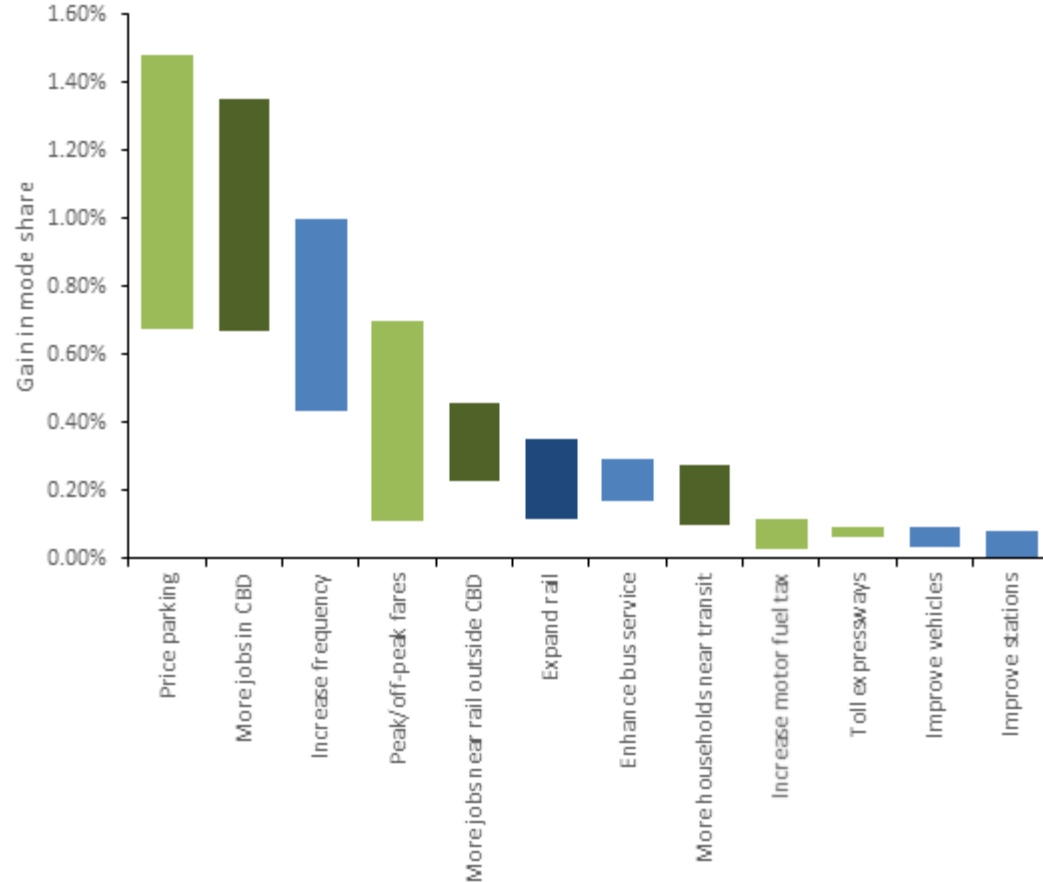
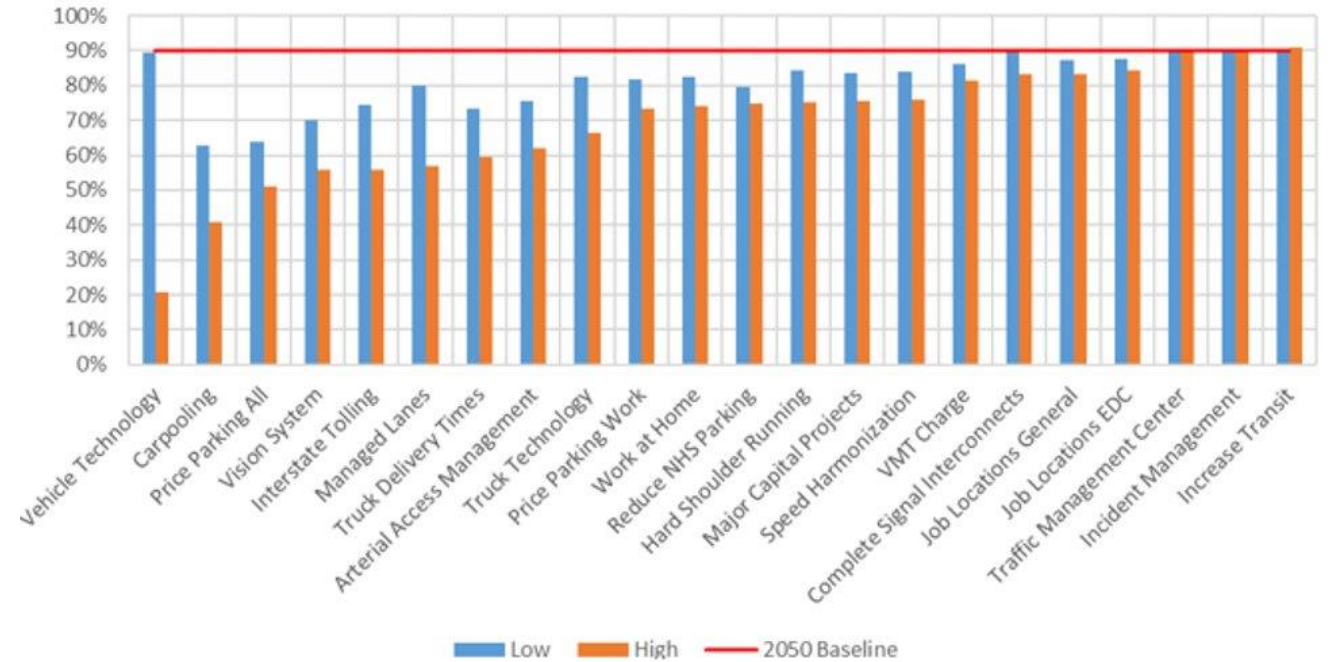


Figure 4: 2050 vehicle hours of travel under congested conditions compared to 2015



Scenarios

Trip Base Model + MOVES

- Transit RSPs
- Highway RSPs
- Increase transit use
- Driving cost
 - Price parking
 - Tolling/ congestion pricing
 - VMT or GHG tax
- Speed harmonization (safety+)
- Congestion reduction technologies
- Increase work from home

MOVES only

- Electrify cars
- Electrify freight
- Electrify transit
- More efficient vehicles (CAFE standards)
- Other alternative fuels

Future Analysis / Out of Scope

- Land use
- Air / Marine
- Electricity source
- Manufacturing / materials



Thank you!