



8TH METRANS

International Urban Freight Conference

October 16-18, 2019 | Hotel Maya, Long Beach, CA

Urban Goods Movement and Local Climate Action Planning: Assessing Plans to Reduce Greenhouse Gas Emissions from Urban Freight Transportation

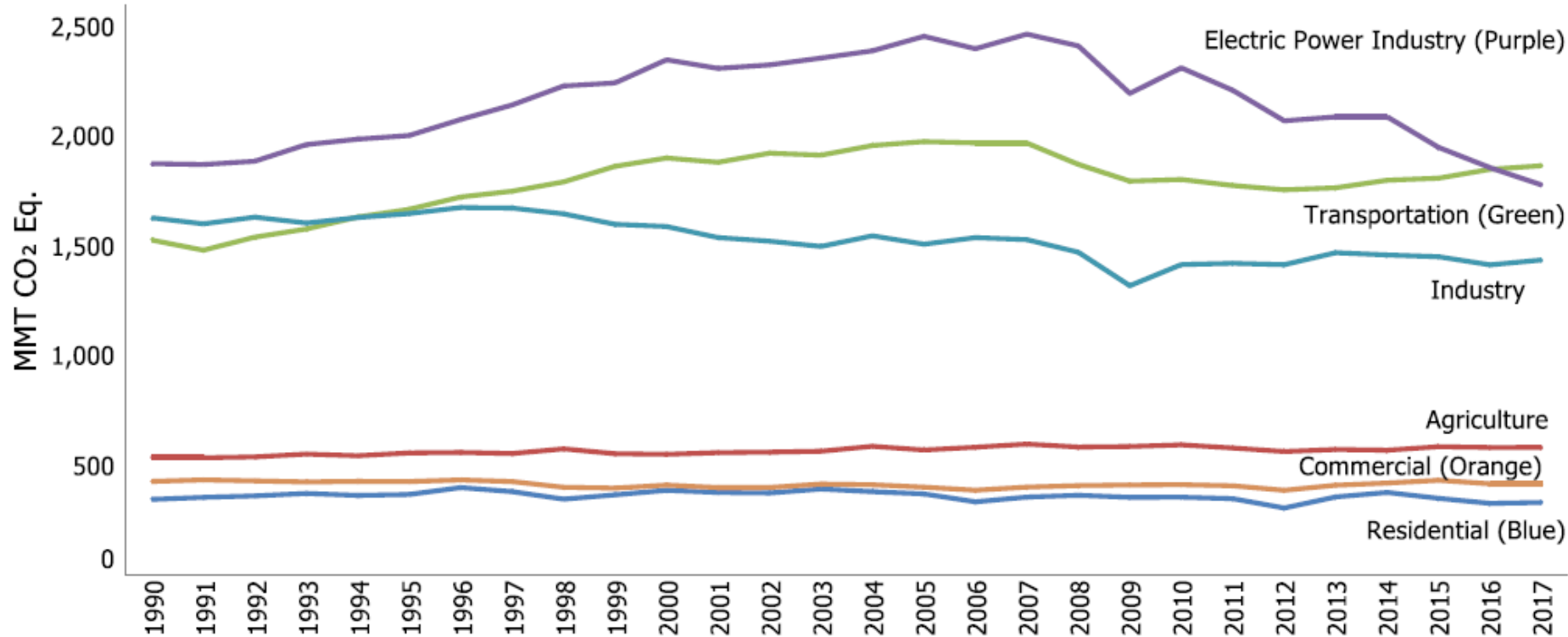
Andrew R. Goetz, University of Denver

Serena Alexander, San Jose State University

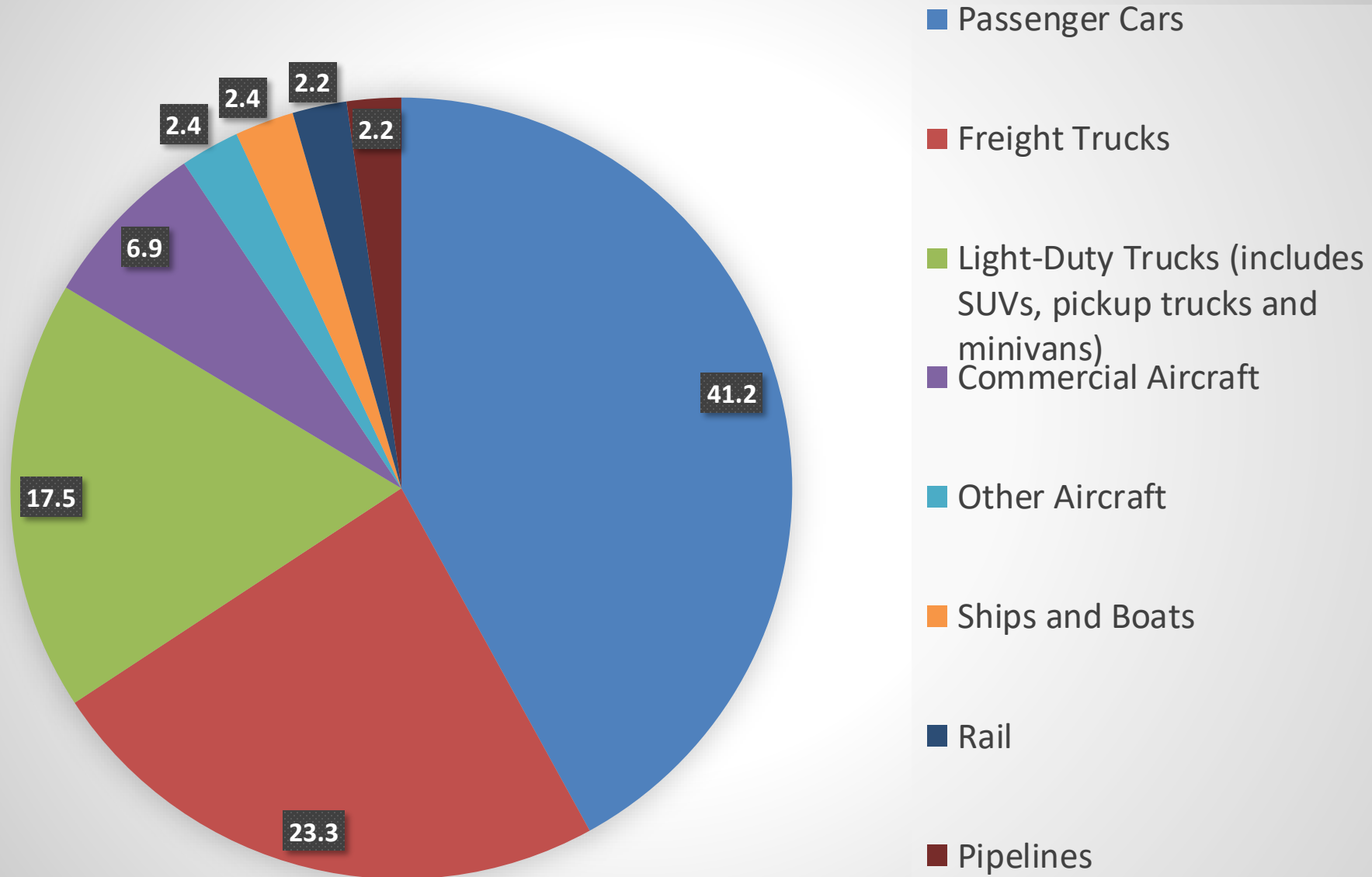


Transportation is now top source of greenhouse gases in U.S.

Figure ES-14: U.S. Greenhouse Gas Emissions Allocated to Economic Sectors (MMT CO₂ Eq.)

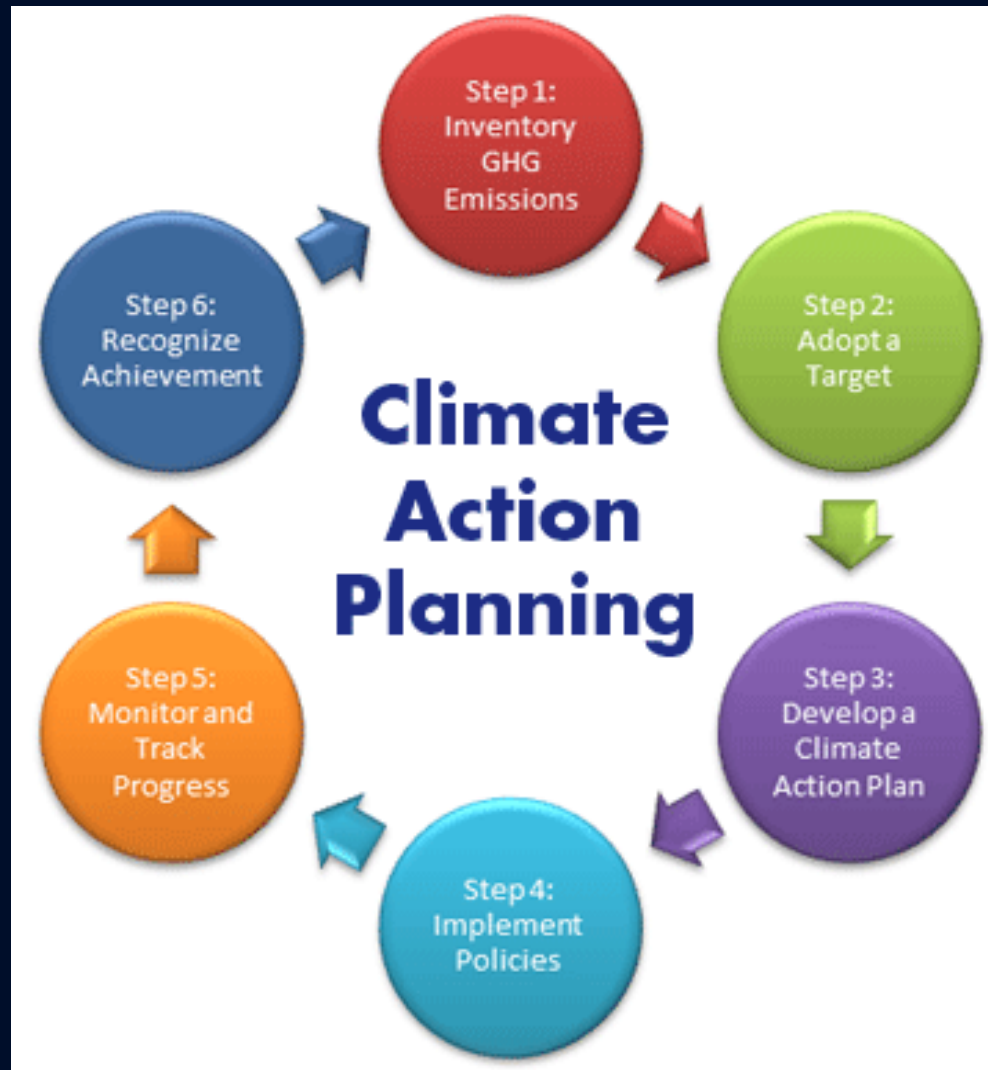


Share of U.S. Transportation GHG Emissions, 2017

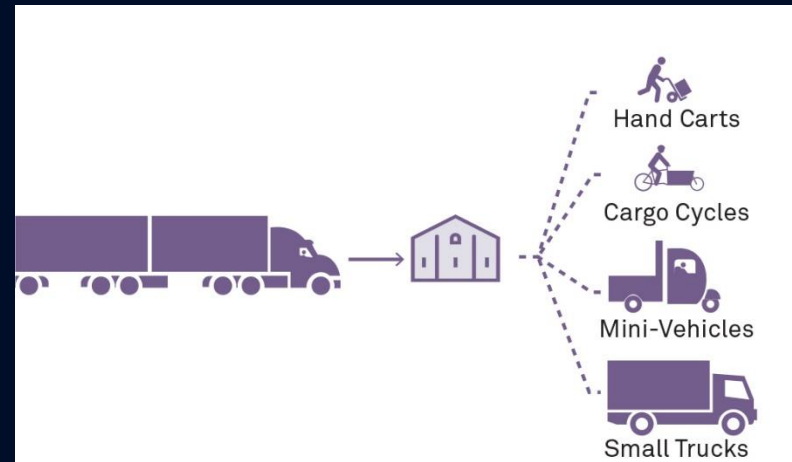


Source: U.S. Environmental Protection Agency 2019.

Climate Action Planning



Strategies to reduce GHG emissions from freight transport



Research Question and Objectives



How can cities better incorporate innovative strategies to reduce GHG emissions from freight transport through climate action planning?

1. Analyze content of 27 advanced local climate action plans (CAPs) for freight emission reduction strategies
2. Compare local CAPs and corresponding freight plans concerning freight emissions

Climate Action Plans (CAPs)



Level 5 CAPs

Burlington, VT
Cambridge, MA
Chula Vista, CA
Denver, CO
Fort Collins, CO
Madison, WI
Miami-Dade Co., FL
Minneapolis, MN
Portland, OR
Santa Monica, CA

Level 4 CAPs

Ann Arbor, MI
Austin, TX
Berkeley, CA
Brattleboro, VT
Brookline, MA
Durham, NC
Los Angeles, CA
Medford, MA
Oakland, CA
Salt Lake City, UT
San Diego, CA
San Francisco, CA
San Jose, CA
Seattle, WA
Takoma Park, MD
Toledo, OH
Tucson, AZ

Level 5 CAPs: monitor and verify results

Level 4 CAPs: implement policies and measures

Methods of Analysis

Table 1. Assessment of Climate Action Plans for Freight Transportation

ICLEI Milestone 5 Plans				
City	Plan	Coder 1	Coder 2	Actions/strategies related to freight
Burlington, VT	Climate Action Plan (2013)			Focus on reducing GHG emissions for city vehicle fleets only.
Cambridge, MA	Climate Action Status Report (2011) Climate Protection Plan (2002)	**	**	Focus on reducing GHG emissions from buildings. With over 80% of Cambridge GHG emissions being connected to buildings, only 17% attributed to transportation overall. Reduce motor vehicle emissions, including heavy-duty trucks.
Chula Vista, CA	Climate Action Plan (2017)			Promote alternative fuel vehicle readiness in general.
Denver, CO	80 x 50 Climate Action Plan (2018)	*	*	Goal: By 2050, have 75% of freight trucks utilize carbon neutral fuel. Support electrification of local and regional delivery trucks and other heavier vehicles.
Fort Collins, CO	Climate Action Plan Framework (2015)	*	*	Strategy: Accelerate adoption of fuel efficient and electric vehicles including for commercial and municipal fleet systems.
Madison, WI	The Madison Sustainability Plan (2011) Climate Protection Plan (2002)	*	*	Action: Create a City Fleet Transition Plan to incorporate low or no-carbon/efficient fuel supply options.
Miami-Dade Co., FL	Climate Change Action Plan Greenprint (2011)	**	**	Strategy: Improve connectivity and mobility on the existing system to help ease the conflict between commercial trucks and personal passenger vehicles on urban streets and major roadways.

Coding Key:
 (blank) No explicit mention of freight
 * Mentions freight
 ** Indicates the impact and importance of freight
 *** Includes strategies to reduce freight-based emissions

Results: ICLEI Milestone 5 Plans

Assessment Level	CAPs
Includes strategies to reduce freight-based emissions	Portland, OR
Includes the impact and importance of freight	Cambridge, MA; Miami-Dade, FL
Mentions freight	Denver, CO; Fort Collins, CO; Madison, WI
No explicit mention of freight	Burlington, VT; Chula Vista, CA; Minneapolis, MN; Santa Monica, CA

CITY OF PORTLAND OREGON AND MULTNOMAH COUNTY

CLIMATE ACTION PLAN

PROGRESS

REPORT

APRIL
2017



Results: ICLEI Milestone 4 Plans

Assessment Level	CAPs
Includes strategies to reduce freight-based emissions	Austin, TX; Los Angeles, CA; Oakland, CA; San Jose, CA; Seattle, WA
Includes the impact and importance of freight	Ann Arbor, MI; San Francisco, CA; Takoma Park, MD
Mentions freight	Berkeley, CA; San Diego, CA
No explicit mention of freight	Brattleboro, VT; Brookline, MA; Durham, NC; Medford, MA; Salt Lake City, UT; Toledo, OH; Tucson, AZ



net-zero

FINAL DRAFT

Austin COMMUNITY CLIMATE PLAN 2015



FINAL DRAFT



TRANSFORMING LOS ANGELES
ENVIRONMENT | ECONOMY | EQUITY



City of Oakland
Energy and Climate Action Plan

December 4, 2012
(Updated March 2018)



CLIMATE SMART SAN JOSE

A People-Centered Plan for a
Low-Carbon City



ACTION



Analysis of Freight Plans



CALIFORNIA SUSTAINABLE FREIGHT ACTION PLAN



Governor Edmund G. Brown Jr.
July 2016

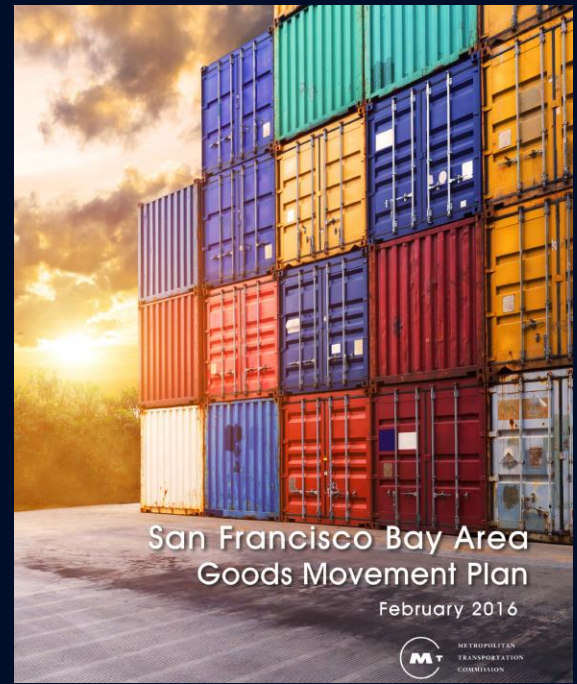


City of Portland Central City Sustainable Freight Strategy

Report and
Recommendations



October 2012



San Francisco Bay Area Goods Movement Plan

February 2016



Seattle Department of Transportation CITY OF SEATTLE FREIGHT MASTER PLAN

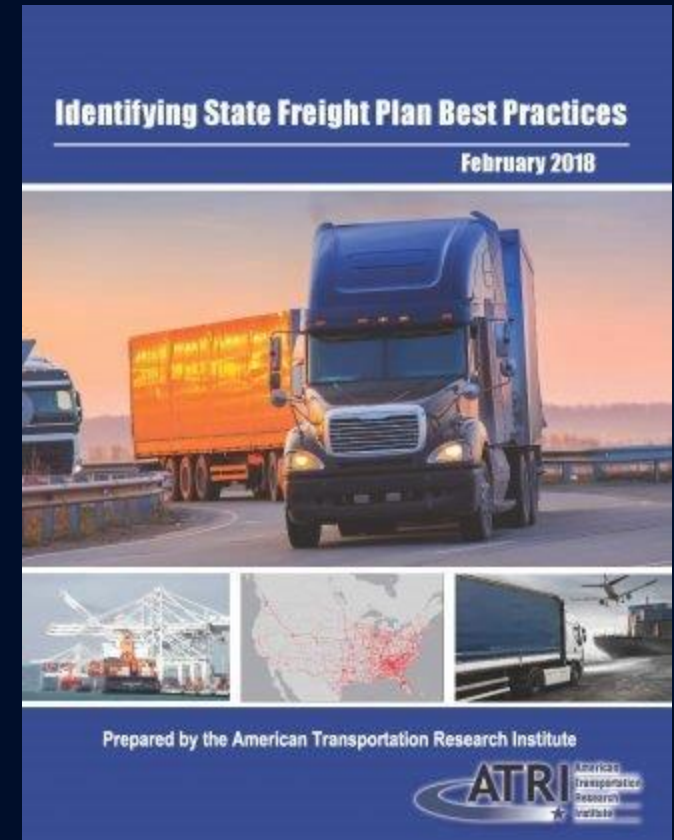


September 2016



SAN PEDRO BAY PORTS CLEAN AIR ACTION PLAN 2017

Comparison of CAPs and Freight Plans



Conclusions and Recommendations for Cities



- All CAPs should explicitly discuss GHG emissions from freight transport specifically and develop targeted strategies and actions for reducing freight emissions;
- Planners working on CAPs should coordinate more closely with planners working on city, regional, and state freight plans to identify and include freight initiatives that will have the effect of reducing GHG emissions; and
- Planners working on city, regional, and state freight plans should develop a coordinated approach with planners working on CAPs to identify strategies and actions for reducing GHG emissions from freight transport.

Thank you!



UNIVERSITY *of*
DENVER



San José State
UNIVERSITY