U.S. Department of Transportation

Volpe Center

50 YEARS 1970 – 2020

TRANSPORTATION INNOVATION FOR THE PUBLIC GOOD

1970 – 2020 U.S. DOT VOLPE CENTER KEY CONTRIBUTIONS

Presidents	Richard M. Nixon 1969 – 1974	Gerald R. Ford 1974 – 1977	James Carter 1977 – 1981	Ronald Reagan 1981 – 1989	George H.W. Bush 1989 – 1993	William J. Clinton 1993 – 2001	George W. Bush 2001 – 2009	Barack Obama 2009 – 2017	Donald J. Trump 2017 – PRESENT
Secretaries of Transportation	John A. Volpe Claude S. Brinegar	Claude S. Brinegar William T. Coleman, Jr.	Brock Adams Neil Goldschmidt	Drew Lewis Elizabeth Hanford Dole James H. Burnley, IV	Samuel K. Skinner Andrew H. Card, Jr.	Federico F. Peña Rodney E. Slater	Mary E. Peters Norman Y. Mineta	Ray H. LaHood Anthony Foxx	Elaine L. Chao

1970

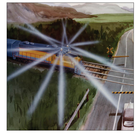
- Simulating **national air traffic flow**
- Developing anti-hijacking **aviation security** screening systems
- Examining constraints and required characteristics for **anticipatory sensing of impending automobile crashes**

- Pioneering the use of **alcohol breath analysis** for transportation safety
- Examining the control and information system and operational requirements for the **St. Lawrence Seaway**
- Supporting introduction of advanced **urban transit** technologies
- Conducting the first federal study on **automated fare collection**
- Examining highway-rail **grade crossing** protection in high-density corridors
- Informing the first **Corporate Average Fuel Economy** standards

1980

- Testing **wake vortex** sensing systems at major U.S. airports

- Conducting engineering tests and demonstrations of **rail rapid transit** vehicle technology
- Exploring the potential for flexicab services and **innovative uses of taxis** and jitneys for public transport
- Informing ***National Transportation Trends and Choices to the Year 2000***



- Studying the impact of **energy trends** on the automobile industry

- Contributing to the **financial analysis of the motor vehicle industry**
- Developing the first-ever U.S. DOT-DoD **Federal Radionavigation Plan**
- Evaluating airport **ground access capacity** at commercial airports
- Assessing **fire safety** in a transportation setting
- Conducting **noise assessments** of transportation systems
- Analyzing **ridership** levels of the Morgantown Personal Rapid Transit System

1990

- Deploying groundbreaking **air traffic management** concepts, including the Enhanced Traffic Management System

- Assessing the capability of **GPS** to meet civil navigation requirements
- Examining **transportation security** issues and countermeasures
- Creating an assessment tool to evaluate the **safety record of air carriers**—both military and commercial
- Contributing to an aviation **human factors** research plan
- Assessing prospective safety hazards associated with **commercial space launch** activities
- Studying the influence of **advanced communications** on the future of transportation
- Exploring **public-private partnerships** for urban transportation
- Studying **rail integrity** and the behavior of propagating fatigue cracks
- Examining the implications of stalling on **motor vehicle safety**
- Evaluating the effects of mandatory **seatbelt use** laws on safety
- Supporting development and implementation of the **intelligent vehicle highway system** program
- Studying the effect of the **65 mph speed limit** on highway safety
- Assessing the use and design of **flight crew checklists and manuals**
- Evaluating the **ridership, cost forecasts, and performance** of federally funded transit projects
- Supporting DoD's **strategic mobility and logistics** priorities
- Conducting a **port needs study** for the U.S. Coast Guard
- Contributing to ***Moving America: A Statement of National Transportation Policy***

2000

- Assessing the **crashworthiness of rail passenger equipment**
- Developing and installing a real-time communications and navigation system for the **Panama Canal**
- Laying the foundation for Amtrak's all-electric **Acela** high-speed service
- Testing and analyzing commercial vehicle **front and side collision warning systems** and adaptive **cruise control**
- Developing the system to calculate **aviation's contribution to global fuel burn and emissions**
- Enhancing the **integrated model for prediction and analysis** of aviation and highway traffic noise
- Implementing an **integrated security plan** for the U.S. Capitol area
- Contributing to a **surface transportation vulnerability assessment**
- Undertaking major **environmental remediation** at U.S. DOT and Superfund sites
- Supporting development of U.S. DOT's **policy architecture for transportation decision making**
- Supporting White House **National Science and Technology Council's** transportation initiatives

- Supporting U.S. DOT's response to the **September 11 attacks**
- Performing groundbreaking research and analysis on **GPS vulnerability**
- Supporting installation of a **communications-based train control system** in Iraq
- Expanding the multinational **maritime situational awareness** network
- Designing and deploying a landmark **Automatic Identification System-based data network** on the St. Lawrence Seaway
- Strengthening analysis of **federal motor carrier safety** programs

- Synthesizing data and information related to **Electronic On-Board Recorders** for reporting hours of service
- Assessing the U.S. Postal Service's Alaska **hovercraft demonstration** project
- Supporting **Intelligent Transportation Systems** programs
- Contributing to ***Transportation Vision 2030***
- Advancing **motor vehicle crash avoidance** research

2010

- Supporting the **Next Generation Air Transportation System** program
- Pioneering **GPS spectrum interference protection**
- Supporting **connected and automated vehicle** research, evaluation, and planning
- Supporting **high-risk motor carrier** prioritization
- Providing analytical and engineering support related to **High-Speed Intercity Passenger Rail** service
- Supporting development of ***Beyond Traffic 2045***
- Bolstering development of the first-ever **aviation CO_2 emissions standard**
- Developing a national model to evaluate **freight and fuel transport options**
- Supporting **global disaster relief efforts** in Haiti and Japan in the aftermath of devastating earthquakes
- Responding to natural disasters, including **Superstorm Sandy**
- Advancing safety of **crude oil and ethanol by rail** initiatives

2020

- Informing potential changes to **supersonic flight** regulations
- Providing **infrastructure** and **automated vehicle** policy support, including ***AV 3.0***
- Enhancing the **Environmental Review and Permitting Process**
- Applying **machine learning** methods to inform transportation safety decision making
- Assisting in the design and development of the technology for transmitting **electronic logging device** motor carrier data to safety officials
- Advancing **safe integration of new entrants** into the National Airspace System
- Advancing **data sharing** across the aviation community through the System Wide Information Management system
- Conducting **GPS** adjacent band compatibility assessments
- Supporting deployment of the **Strategic Highway Research Program** and its products
- Developing a first-ever National Long Range Transportation Plan for the **National Park Service**
- Responding to natural disasters including **Hurricanes Harvey and Irma**
- Preparing for relocation to a **new U.S. DOT Volpe Center facility** in Kendall Square, Cambridge, Massachusetts

ON THE OCCASION OF OUR 50TH ANNIVERSARY, WE RECOGNIZE AND APPRECIATE OUR PARTNERS WHO HAVE SPONSORED OUR WORK AND COLLABORATED WITH US TO ADVANCE THE NATIONAL AND GLOBAL TRANSPORTATION SYSTEM.

U.S. DOT

Federal Aviation Administration
Federal Highway Administration
Federal Motor Carrier Safety Administration
Federal Railroad Administration
Federal Transit Administration
Maritime Administration
National Highway Traffic Safety Administration
Office of Inspector General
Office of the Secretary of Transportation
Pipeline and Hazardous Materials Safety Administration
Saint Lawrence Seaway Development Corporation

OTHER FEDERAL AGENCIES

Millennium Challenge Corporation
National Aeronautics and Space Administration
U.S. Department of Agriculture
U.S. Department of Commerce
U.S. Department of Defense
U.S. Department of Energy
U.S. Department of Homeland Security
U.S. Department of the Interior
U.S. Environmental Protection Agency

WE VALUE OUR CROSS-AGENCY, CROSS-MODAL WORK WITH COLLEAGUES IN OTHER FEDERAL AGENCIES, STATE AND LOCAL GOVERNMENTS, ACADEMIA, PRIVATE SECTOR ORGANIZATIONS, AND FOREIGN COUNTRIES.