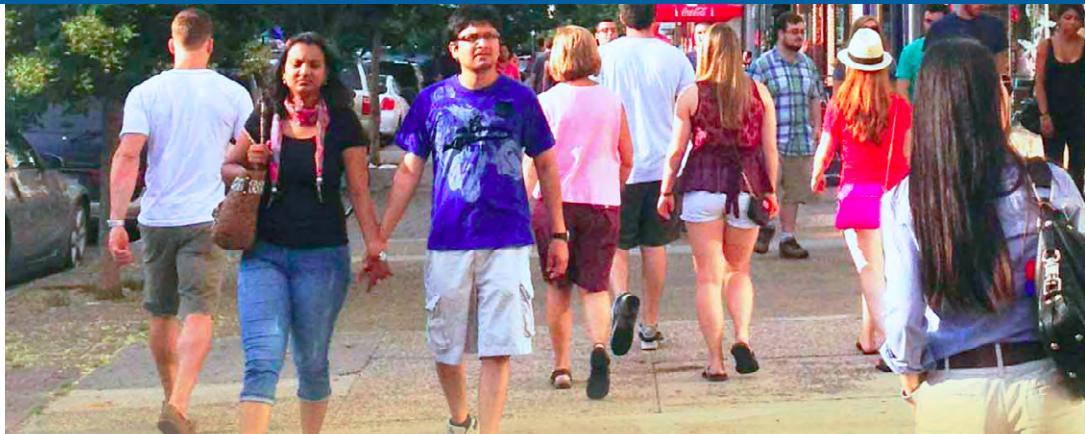


NEW JERSEY

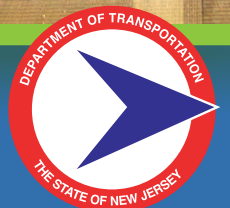


BICYCLE & PEDESTRIAN MASTER PLAN.

EXECUTIVE SUMMARY



November 2016



Purpose

The *New Jersey Bicycle and Pedestrian Master Plan* presents a vision, goals, and strategies to achieve a transportation system in which walking and bicycling are routine, convenient, and secure throughout the state. The master plan analyzes current conditions for walking and bicycling in New Jersey and provides guidance on implementation and measures to track progress toward realizing the vision. With a ten year horizon, the master plan takes a “big picture” perspective and is intended to be a living document that will require ongoing coordination among NJDOT, other state agencies, MPOs, counties, municipalities, nonprofits, consultants, developers, advocates, and the general public.



By working together, **we can** make New Jersey better for walking and bicycling.

Vision Statement

New Jersey is a place where people of all ages and abilities are able to bicycle and walk. Those who live, work, or visit are able to conveniently walk and bicycle with confidence, a sense of security in every community, and with the respect of all modes. Both activities are a routine part of the transportation and recreation systems.



Goals and Strategies

Goals are broad statements of what must be achieved to realize the vision and strategies are manageable actions that can be implemented in order to achieve the goals. The goals and strategies of the master plan are as follows:

Goal #1: Improve safety

Eliminate pedestrian and bicycle fatalities and serious injuries, and improve the sense of safety experienced by all who bike or walk.

1. Prioritize the most vulnerable (disadvantaged/high-risk groups – youth, seniors, low-income, disabled and minority populations) of vulnerable user needs in projects and decision-making.
2. Maximize use of HSIP funding for ADA, pedestrian, and bicyclist safety projects.
3. Improve data collection and data management systems.
4. Implement the *Pedestrian Safety Action Plan* and the *Bicycle Safety Action Plan*.

Goal #2: Enhance accessibility, mobility, and connectivity

Provide a connected and accessible network for bicyclists and pedestrians throughout New Jersey.

1. Continue to move Complete Streets from policy to implementation.
2. Improve and expand the transportation infrastructure for bicyclists and pedestrians throughout the state.
3. Collaborate with counties, municipalities, and school boards on land use and transportation decisions.

Goal #3: Achieve healthy, equitable, sustainable communities

Provide opportunities for people to become more healthy and active through walking and bicycling.

1. Continue to educate the public on the benefits of and safe practices for walking and bicycling.
2. Continue and prioritize all Safe Routes To School initiatives.
3. Continue to partner and build relationships outside of traditional transportation circles to strengthen communities, particularly those at high risk and with health concerns.

Goal #4: Foster a culture shift

Considering the needs of all users becomes the default way of doing business, with Complete Streets integrated into everyday practice.

1. Increase public awareness of the benefits of bicycling and walking.
2. Improve bicyclist, pedestrian, and driver behavior.
3. Address emerging technologies, such as electric bikes and bike share.

Goal #5: Facilitate coordination and integration

No one entity alone can achieve the goals of this master plan — a partnership of public, private, and nonprofit partners is needed.

1. Conduct a comprehensive review and evaluation of bicycle and pedestrian legislation, regulations, plans and policies at the state, regional and county level to understand what exists and where there are gaps.
2. Monitor and track progress for adoption and implementation of state funded bicycle and pedestrian local technical assistance projects.
3. Partner with the public, private, and nonprofit communities in the education, employment, environment, enforcement, equity, health, and housing sectors to integrate Complete Streets, Safe Routes to School, Safe Routes to Transit and bicycle and pedestrian initiatives.

Coordinate and collaborate

NJDOT has been a leader in encouraging walking and bicycling through project delivery, research, county and municipal funding and planning assistance, design guidance, and policy development. In spearheading this master plan, NJDOT will act as a transformational leader, providing direction and guidance, yet depending upon partner entities to achieve the vision and goals.

Collaboration and coordination are instrumental to success. Strengthening existing relationships and forging new relationships with partners across the state will be an important part of successful implementation. NJDOT will lead from the front, with a collaborative effort among NJDOT, other state agencies, Metropolitan Planning Organizations (MPOs), counties, municipalities, nonprofits/NGOs, consultants, developers, advocates, and the general public.



Lay the groundwork in Years 1-3

The master plan is intended to be a living document and should be re-evaluated periodically as relationships develop and collaboration occurs, data is gathered and analyzed, trends are understood, and projects are implemented. Implementing the master plan over the next ten years will require flexibility. At the conclusion of each year, a scorecard on progress will be developed and reviewed with internal and external summit partners, and reported out to the public.

Partners Summits

Two key initiatives for NJDOT will be to initiate a series of internal and external partners summits to be held each year over the first three years of the master plan. Each summit should share knowledge and data in a two-way information exchange, and identify specific opportunities for collaboration. The partners summits fit into a feedback loop over the first five years of the master plan to grow the knowledge and momentum in a constructive, transparent, and measurable fashion.



New Jersey Bicycle & Pedestrian Master Plan

Key Actions for Years 1-3



Goal	Within One Year	Within Two Years	Within Three Years
Goal 1: Improve Safety	Develop and publicize an online reporting tool for the public to report problem locations	Develop and test a training program for crash reporting	Develop and test bicycle and pedestrian crash reporting templates
		Develop and test a short trip opportunity analysis tool for the project prioritization process	
Goal 2: Enhance Accessibility, Mobility, and Connectivity	Conduct a Local Planning Assistance survey to inventory Complete Streets plan adoption and implementation	Develop and fund pilot projects in communities with adopted Complete Streets implementation plans	Develop a data-driven management system for the project prioritization process
	Identify critical issues for increasing the number of adopted Complete Streets plans		
	Establish a yearly tracking system		
Goal 3: Achieve Healthy, Equitable, Sustainable Communities		Create a bilingual public service announcement for safe bicycling	
		Create a pilot program for safe walking (identify and implement in three pilot communities; conduct before and after surveys)	
Goal 4: Foster A Culture Shift	Conduct a public survey on travel, attitudes, and perceptions about walking and bicycling		Develop a statewide campaign: Respect for All Modes
	Identify and conduct pedestrian/bicycle safety enforcement and educational training and events on annual basis		
Goal 5: Facilitate Coordination and Integration	Conduct Internal Summit (conduct survey; develop joint action plan)	Conduct Internal Summit (conduct survey; assess progress of joint action plan)	Conduct Internal Summit (conduct survey; assess progress of joint action plan)
	Conduct External Summit (share plans and data, collaborate)	Conduct External Summit (review progress and findings)	Conduct External Summit (review progress and findings)
Reporting Progress	Year One Scorecard	Year Two Scorecard	Year Three Scorecard

Improve data collection

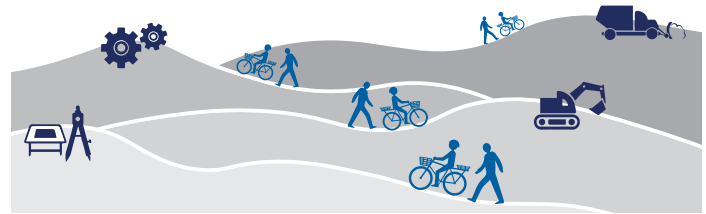
1. Conduct a public survey to assess attitudes and perceptions about walking and biking, and to track changes to behavior and use over time.
2. Develop and publicize an online reporting tool for the public to report problem locations for pedestrians and bicyclists.
3. Conduct a Complete Streets Local Planning Assistance survey to develop a database of what has been accomplished in Complete Streets plan adoption and implementation. With an eye towards continuing to increase the number of Complete Streets plans in the state, the survey will also be used to identify problems in implementation that must be addressed.
4. Develop a short trip opportunity analysis tool as part of creating a project selection process.



Opportunities and challenges

Jurisdictional authority, responsibility, and coordination

There are many different transportation entities responsible for planning, building, and maintaining walking and biking infrastructure

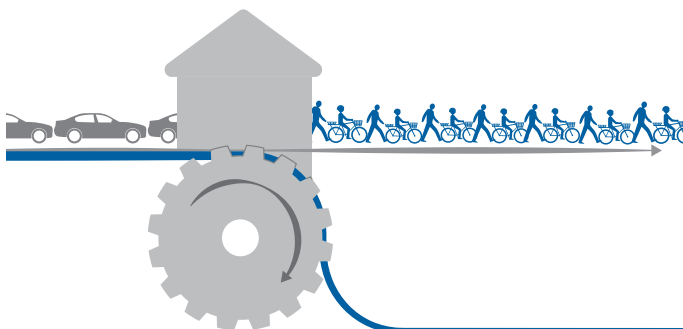


Data collection, analysis, and performance management

Planning and delivering a more performance-based transportation system provides a great opportunity to objectively measure results and repeat what works best.

Reach and engage the public

It is vital to reach, inform, educate, and listen to the voices of our communities, especially with disadvantaged segments of the population that are difficult to reach yet have profound needs.



Available resources

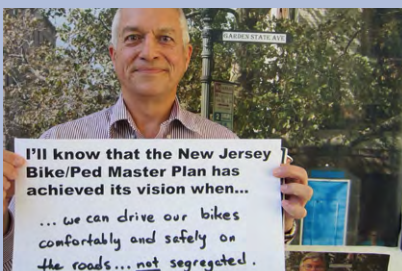
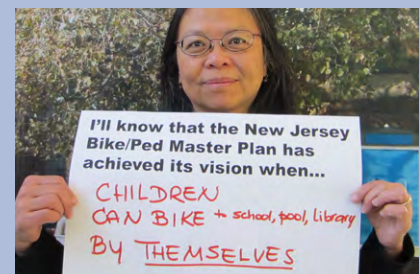
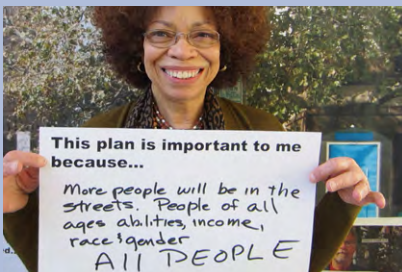
Implementing a plan requires consistent and dedicated resources to gather and analyze data, communicate and coordinate information, develop plans and projects, and measure and report results.

Who contributed to the master plan?

The *New Jersey Bicycle and Pedestrian Master Plan* was shaped by the input, ideas, and feedback from a Steering Committee comprised of state, regional, and non-profit entities. A diverse range of outreach efforts were conducted to engage the public, including underserved communities, as well as planning, public health, and design professionals through a public survey, website, participation at conferences and professional events, and focused stakeholder interviews.

Key Takeaways

- The vision statement would benefit from additional language to emphasize that people of all ages and abilities walk and bicycle and that respect among all travel modes is very important.
- The master plan should identify collaborative actions with other state agencies, counties, municipalities, and non-governmental organizations to effect positive change for pedestrians and bicyclists.
- Survey respondents identified improved facilities, slower traffic, and education for motorists and pedestrians as top improvements for pedestrian travel.
- Survey respondents identified more on-road and off-road facilities, better accommodation at intersections, and increased enforcement and education of traffic laws as top improvements for bicycle travel.
- Environmental justice interviews revealed a lack of bicycle, pedestrian, and ADA-compliant facilities in low-income urban areas, concerns about safety and personal security, and a variety of funding challenges.
- NJDOT 'inreach' interviews revealed a high regard for Complete Streets policy, but also the need for improved intra-departmental communication, collaboration, and education to overcome engineering and operational challenges to multi-modal improvements.



Why are walking and bicycling important?

Walking and bicycling are healthy

Active transportation encourages physical activity and is an important step that people of any age can take to improve their health and lower the risks of heart disease, stroke, type 2 diabetes, depression, obesity, and some cancers.*

*: *United States Centers for Disease Control and Prevention. (2016).*



Walking and bicycling contribute to the economy

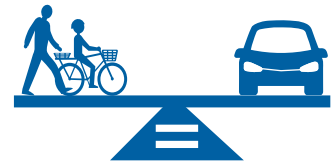
Businesses, events, and infrastructure related to active transportation contribute significantly to New Jersey's economy and have been estimated to generate over \$497 million annually.*

*: *Brown, C., & Hawkins, J. (2012).*



Walking and bicycling promote equity

High quality pedestrian and bicycle facilities break down barriers to mobility for those without the option to drive. Walking and bicycling are affordable modes that can provide safe access for all people to schools, jobs, economic centers, transit, parks, and other destinations.



Walking and bicycling are good for the environment

Walking and operating a bicycle are emissions-free activities that help keep the environment and the atmosphere clean and quiet. On the large scale, increases in walking and bicycling can lead to significant decreases in the use of fossil fuels, carbon emissions, and air pollution.



Walking and bicycling improve access to schools

The Safe Routes to School Program helps children of all abilities realize the many benefits of walking and bicycling to school. By doing so, young people can experience reduced traffic in the vicinity of schools, safer streets, and regular physical activity.



Walking and bicycling improve access to transit

Walking, bicycling, and public transit can be linked together to form multi-modal commuting trips that reduce traffic and emissions and encourage physical activity.



Walking and bicycling are good for personal finances

Walking and bicycling are significantly less expensive than personal car ownership annually.



Walking and bicycling facilities are fiscally attainable

Most pedestrian and bicycle infrastructure projects and facilities are extremely low-cost in comparison to overall roadway infrastructure.* Federal surface transportation law offers flexible funding opportunities from a wide variety of transportation programs that can be used for bicycle and pedestrian projects.**

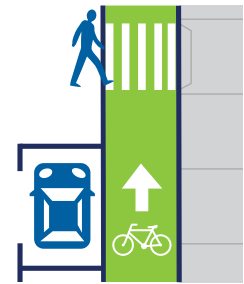
* Bushell, M., Poole, B., Zegeer, C., Rodriguez, D. (2013).

** United States Department of Transportation. (2010).



Walking and bicycling are at the heart of Green, Smart, and Complete Streets

They are central to the understanding that roadways are public facilities that should serve travelers of all ages and abilities, increase safety, accommodate non-motorized travel, reduce energy inputs, and mitigate environmental harm.



Walking and bicycling are growing in acceptance and preference

They are more than a form a recreation; they are viable modes of transportation and commuting. The Millennial generation is noted for decreased driving rates and increased walking, biking, and transit use.*

*: United States Public Interest Research Group. (2014).



Walking and bicycling contribute to placemaking and quality of life in New Jersey

Comfortable and accessible pedestrian and bicycling environments offer alternatives to personal vehicles. The increase of social interaction and development of the public realm through pedestrian and bicycling improvements contribute to an improved quality of life and a sense of identity and place.



Pedestrian and Bicycle Design 101



Thoughtful pedestrian design creates a safe and comfortable walking environment for people of all ages and abilities. Pedestrian design elements range from sidewalks and paths, to crossing treatments, lighting, furnishings and amenities that enhance the streetscape.

Feet on the street are the cornerstone of great places!

Bicycle facilities designed to be safe, comfortable, and conveniently networked are useful to the largest segment of the population. Most people prefer bicycling where there are slower traffic speeds and bicycle facilities are separated from motor vehicle traffic.

Public input, inclusion, and sensitivity to local context and needs should inform pedestrian and bicycle design decisions. Adherence to Complete Streets principles will help ensure that facilities are beneficial to people of all ages and abilities.



Downtown sidewalk



Residential sidewalk



Shared use path



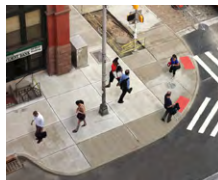
Shared lane marking



Standard bicycle lane



Curb ramp



Curb extension



High visibility crosswalk



Buffered bicycle lane



Separated bicycle lane



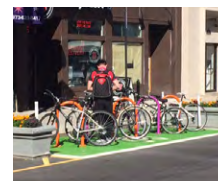
Midblock crossing



Placemaking



Safe transit access



Short term bicycle parking



Long term bicycle parking

Detailed design guidance is available through these resources:

- NJDOT *Complete Streets Design Guide*
- AASHTO *Guide for the Planning, Design, and Operation of Pedestrian Facilities and Guide for the Development of Bicycle Facilities*
- NACTO *Urban Street Design Guide, Urban Bikeway Design Guide, and Transit Street Design Guide*
- *Americans with Disabilities Act Accessibility Guidelines (ADAAG)*
- *Manual on Uniform Traffic Control Devices (MUTCD)*

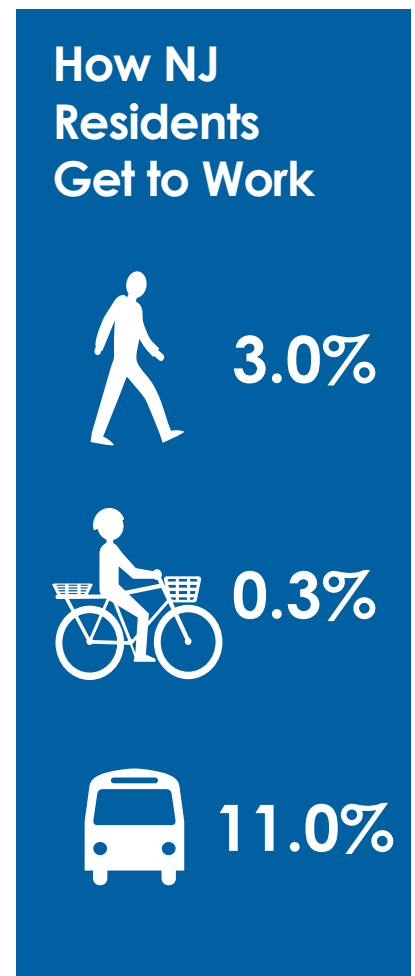
Walking and bicycling in New Jersey?

Relatively little data is available on the rates of walking and bicycling. However, the use of these modes tends to be concentrated in areas with relatively high population density and high transit use, and highest among households with limited access to automobiles.

The 2014 ACS provides a breakdown of transportation modes for the work trip. In New Jersey, walking accounts for 3% of work trips and bicycling accounts for 0.3%. This compares with 2.8% and 0.6%, respectively, for the nation as a whole. New Jersey ranks 20th out of 51 states, including Washington, D.C., in the percentage of workers walking to work, and 33rd in the percentage bicycling to work.

Since the ACS commutation data is only for the primary mode used, these figures do not reflect the use of walking and bicycling to access public transit services. As of 2014 ACS reporting, 11% of New Jersey workers used transit to commute to work, the third highest usage in the country behind only Washington, D.C. and New York State. The statewide transit share reflects recent ridership growth at NJ TRANSIT, which hit record levels in 2015. (Driving to work alone accounts for nearly 72% of all households in New Jersey. Carpooling accounts for an additional 8%, and 4% work at home.)

Transit, walking, and bicycling are often complementary modes of transportation. All transit passengers must use another mode of travel to get to and from their station stops, and walking is a common element of at least one leg of the journey. This makes walking an integral part of the transit system. An interconnected pedestrian network and safe, comfortable, and convenient pedestrian access to transit are critical to support and encourage transit ridership in the state.



Walking and Bicycling Safety

Within the national context, in 2014 New Jersey's pedestrian fatality rate exceeded the national average and ranked as the 10th highest pedestrian fatality rate among the 50 states and the District of Columbia. Pedestrian fatalities also accounted for a much higher proportion of all fatal crashes than the national average.

For bicycle safety, New Jersey stood in a slightly better position than the national average. Bicycle fatalities also accounted for a slightly lower proportion of all fatal crashes than the national average (NHTSA, 2014).

Bicycle & Pedestrian Fatality Rates (2014)		New Jersey	National
Pedestrian	Fatality Rate	1.88	1.53
	% of All Traffic Fatalities	30.3%	16.3%
Bicyclist	Fatality Rate	0.12	0.23
	% of All Traffic Fatalities	2.1%	2.4%

Complete 'Suite'

NJDOT is committed to safe and convenient pedestrian and bicycle travel. Since 2014, NJDOT has developed a suite of five pedestrian and bicycle planning studies to serve policy makers, government officials, and local citizens. The five studies are described below and available at www.state.nj.us/transportation.

New Jersey Bicycle and Pedestrian Master Plan (2016)

The New Jersey State Bicycle and Pedestrian Master Plan presents a policy-level framework to achieve a vision of New Jersey where people safely and conveniently walk or bicycle for daily trips.

New Jersey Complete Streets Design Guide (2016)

This guide will provide planners and engineers with strategies, design guidelines, and illustrative street typologies to support implementation of complete streets throughout New Jersey.

Bicycle Safety Action Plan & Toolbox (2016)

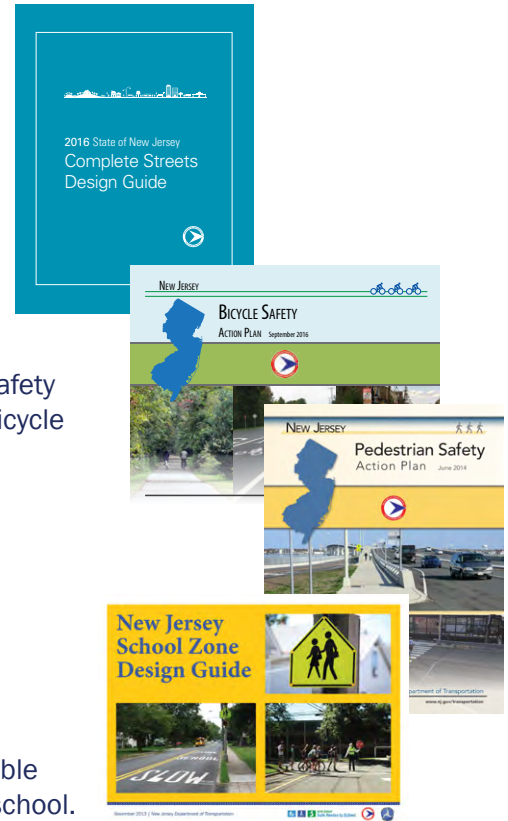
This data-driven study analyzes bicycle crash trends and current bicycle safety initiatives and identifies a broad range of targeted strategies to improve bicycle safety in New Jersey over the next five years.

Pedestrian Safety Action Plan & Toolbox (2014)

This data-driven study analyzes pedestrian crashes and presents strategies to reduce pedestrian fatalities and serious injuries in New Jersey by 20% in five years.

New Jersey School Zone Design Guide (2014)

This guide provides design recommendations to support safe and accessible school environments that encourage students to safely walk and bike to school.



Plan prepared for:

New Jersey
Department of
Transportation



Office of Bicycle &
Pedestrian Programs
P.O. Box 600, Trenton, NJ 08625

For more information:

[www.state.nj.us/
transportation/commuter/](http://www.state.nj.us/transportation/commuter/)

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Plan prepared by:

