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Photo Source: [biketothesea.org](http://biketothesea.org). Used by permission

# Benefits of Shared Use Paths

## FOR YOUR COMMUNITY

Shared use paths make economic, environmental, and social contributions to communities. This primer will help you understand the impacts of four paths in different Massachusetts contexts. The first step in measuring trail impacts is to determine who is using the trail, when, where, why, and how.



# Case Studies in Massachusetts

## WELL-ESTABLISHED REGIONAL PATH



### Minuteman Commuter Bikeway

- 10 miles in length
- Connects to rail/train service
- Fully paved surface
- Popular route often busy with users
- Many commuter-based trips
- Connects many origins and destinations



Photo by Ray Bernoff.

## LOCAL PATH WITH REGIONAL EXTENSION IN PROGRESS



### Northern Strand Community Trail

- 8-12 miles in length
- Mix of asphalt and stone
- Mostly local trips
- Connects to a larger network of bikeways and trails
- Connects five densely-populated urban communities totaling over 250,000 residents



Photo by Jeff Dietrich.

## WELL-ESTABLISHED REGIONAL PATH



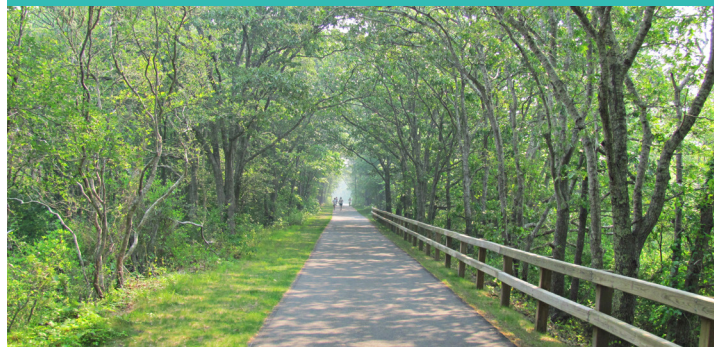
### MCRT-Norwottuck

- 11 miles in length
- Fully paved surface
- Passes through various landscapes (rural farmland, residential neighborhoods, university campus)
- River and waterway overpass bridges
- Surrounded by nature (marshland, pine forests, corn fields)
- Connects to Town Centers



Photo by John Phelan - Own work, CC BY 3.0, <https://commons.wikimedia.org/w/index.php?curid=9875755>

## RECENTLY EXPANDED REGIONAL PATH



### Cape Cod Rail Trail

- 26 miles in length
- Fully paved surface
- Mostly recreational trips
- Connects to beach access and other bicycle routes
- Attracts tourism

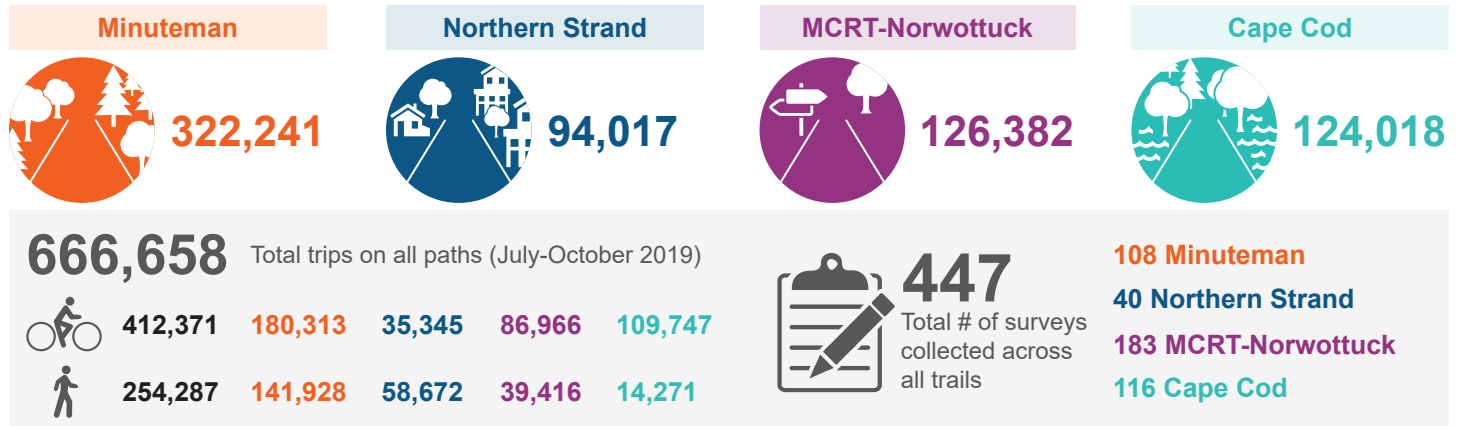


By John Phelan - Own work, CC BY 3.0, <https://commons.wikimedia.org/w/index.php?curid=10567938>

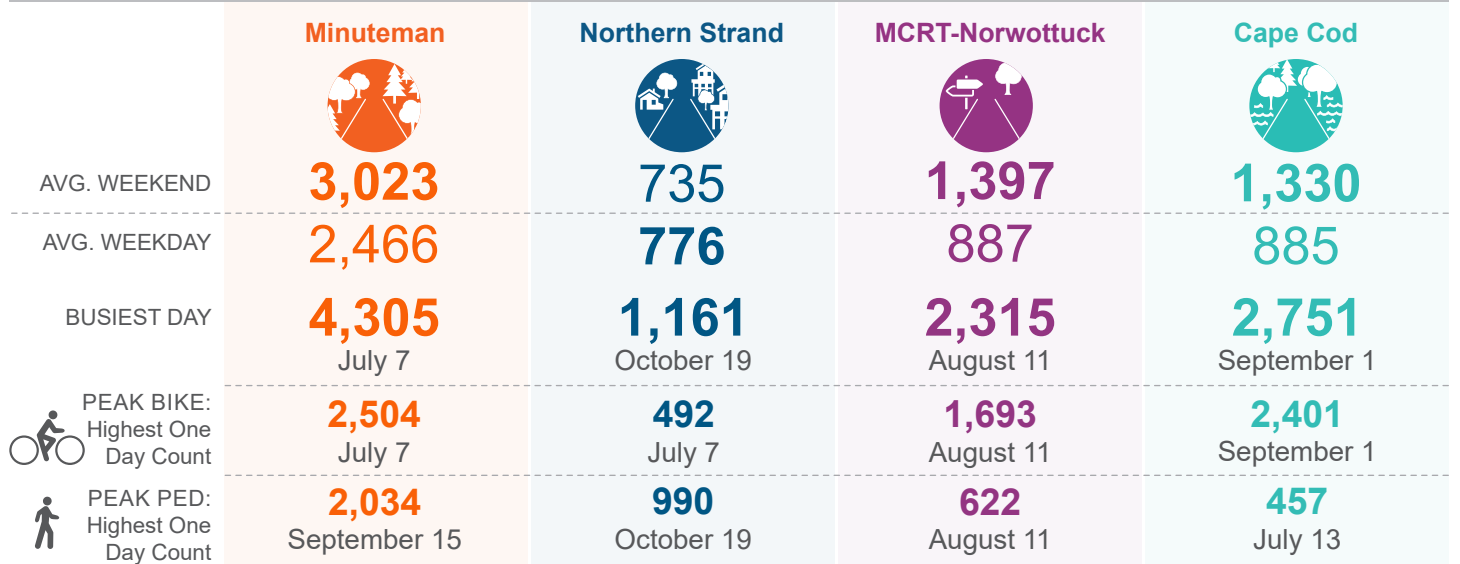
# The Data: When are Paths Used the Most?

## Total Trips (July-October 2019)

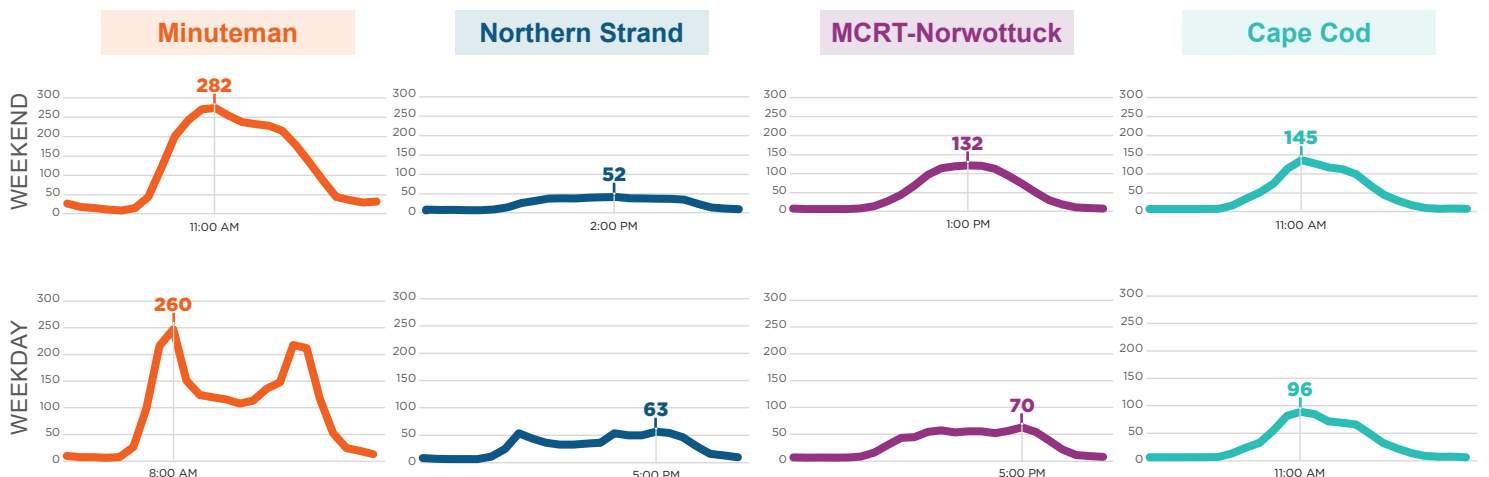
**Note:** Information is sourced from permanent 24-hour counters in one location on each trail and therefore does not capture trail users that do not pass the counters.



## Daily Trips



## Average Hourly Counts- Combined Bicyclists and Pedestrians



# Benefits: What do shared use paths bring to communities?

Shared use paths can transform communities by benefiting health, economies, transportation systems, access to local destinations, mobility, crime, and the environment.

## Residents share their sentiments on paths in their communities:

“The path is the envy of my friends and family...they wish they had something like it in their town”

I love living near the path. It's very convenient, and I never want to not live on it.

“There is nothing like early morning or dusk on the path. The light, the tranquility... seeing [my] community enjoying themselves is always uplifting”

Amazing asset to the community

“RESOURCE FOR THE COMMUNITY”

## Economy

Shared use paths can contribute significant economic benefits to their communities by providing access to businesses within walking and biking distance, and by creating an attraction for visitors

42%

of surveyed path users spend money while using the trail.

The average Path user spends...



\$4 to \$9

...on weekdays, and



\$6 to \$13

...on weekends



Those surveyed noted that shared use paths influenced home, apartment and recreational equipment purchases.

## Benefits to study trail communities (July-October 2019)



Minuteman



Northern Strand



MCRT-Norwottuck



Cape Cod

JOBS CREATED OR SUSTAINED

26

4

20

99

TOTAL ECONOMIC IMPACT

\$2.6M

\$367K

\$1.7M

\$9.2M

TOTAL TAXES GENERATED

\$361K

\$36K

\$250K

\$1.5M

Numbers based on surveys from one city along each trail.

## Health

Getting enough physical activity may prevent **1 in 10** premature deaths. Of the following conditions, it may also prevent...



**1 in 15**

CASES OF  
HEART DISEASE



**1 in 8**

CASES OF  
COLORECTAL CANCER



**1 in 12**

CASES OF  
DIABETES



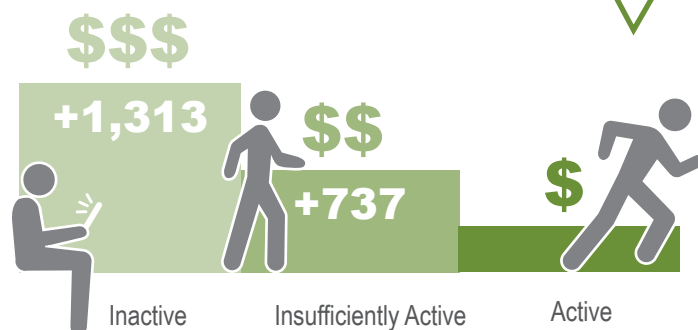
**1 in 8**

CASES OF  
BREAST CANCER

Just 150 minutes of physical activity per week measurably improves your health. That's just **one 22-minute walk a day**. In addition to improving physical health, exercise and exposure to nature can **improve mental health**, including reducing stress, anxiety and depression.

How much activity is "enough"?

Higher activity levels, lower healthcare costs.



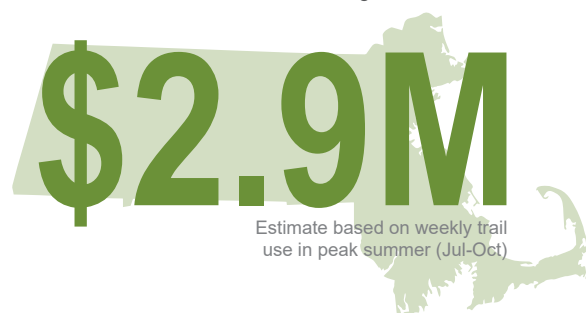
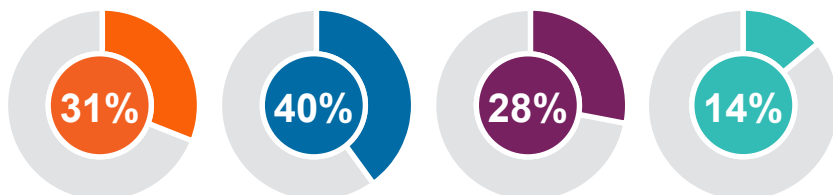
Source: Carlson, Susan A., et al. "Inadequate Physical Activity and Health Care Expenditures in the United States." *Progress in Cardiovascular Diseases*, vol. 57, no. 4, 2015, pp. 315–323., doi:10.1016/j.pcad.2014.08.002.

## How does Massachusetts measure up?

**Our shared use paths save our health and our healthcare dollars.**

Percentage of surveyed trail users whose physical activity increased because of the presence of the trail in their community:

Altogether, the four counties involved in this study had an estimated healthcare cost savings of...

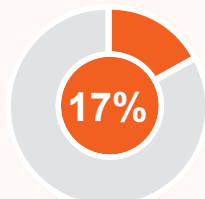




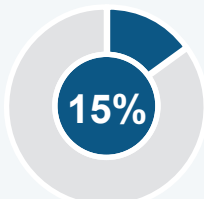
## Transportation

The presence of shared use paths increases the likelihood residents will **walk** or **bike to work**.

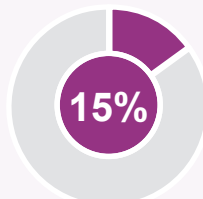
An average of **13%** of total commuters in the path areas (half mile buffer) commute by active mode.



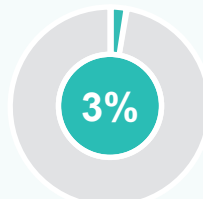
MINUTEMAN



NORTHERN STRAND



MCRT-NORWOTTUCK



CAPE COD

Path users avoided **90,509** one-way motor vehicle commuter trips from July-October 2019.

**-50,291**

**-18,054**

**-18,162**

**-4,002**

This equates to **170,638** fewer vehicle miles traveled.

**-74,834**

**-20,879**

**-59,420**

**-15,506**

## Access & Equity

People from all over the world use the paths, but those who live near receive the most direct benefits. The following shows estimates of the communities that can readily access the path within 10 to 15 mins using low-stress walking and biking routes.

	Minuteman		Northern Strand		MCRT-Norwottuck		Cape Cod	
	Walk	Bike	Walk	Bike	Walk	Bike	Walk	Bike
Elderly Population (65+)	5,420	1,090	2,800	880	555	285	75	20
Youth Population (19-)	7,635	1,645	6,050	1,760	900	960	35	10
Population with a Disability	2,885	655	3,000	875	385	240	30	10
Population of a Racial or Ethnic Minority	6,145	1,640	9,720	2,985	475	470	10	1
Population Experiencing Poverty	7,275	1,435	5,870	1,670	560	370	30	10
Households with Limited English Speakers	1,125	365	3,740	1,170	30	75	1	1
Households with No Vehicle Access	1,375	585	2,230	740	300	340	5	1

Types of Essential Destinations:



Number of essential destinations near each trail:

MINUTEMAN

**39**

NORTHERN STRAND

**31**

MCRT-NORWOTTUCK

**28**

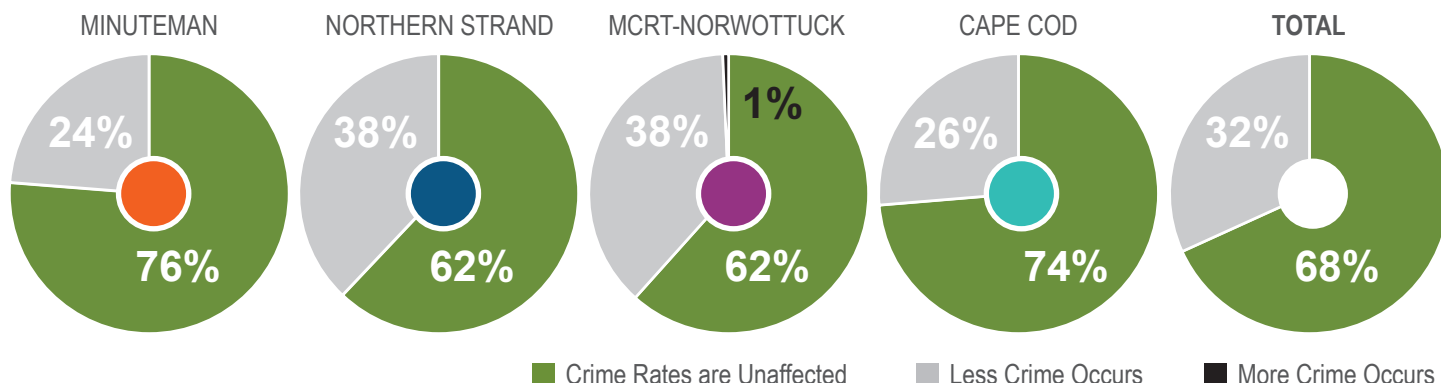
CAPE COD

**11**

## Impacts on Perceived Crime

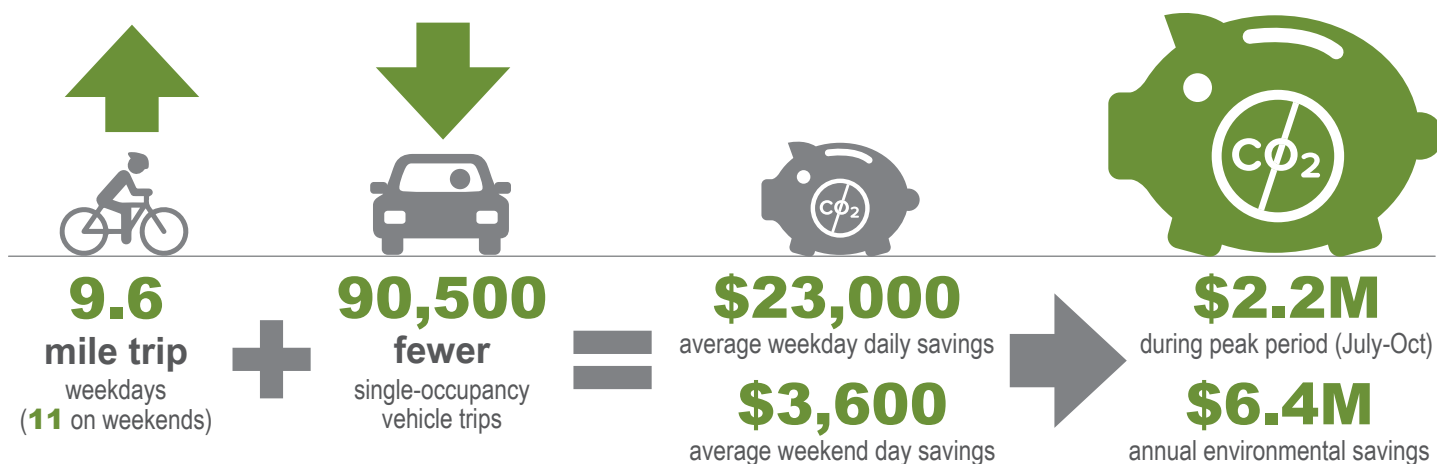
Shared use paths can deter crime by creating lively, inhabited spaces, where residents can look out for one another. Crime perceptions are based on intercept surveys.

“Do you think the path has affected crime rates in the area?”

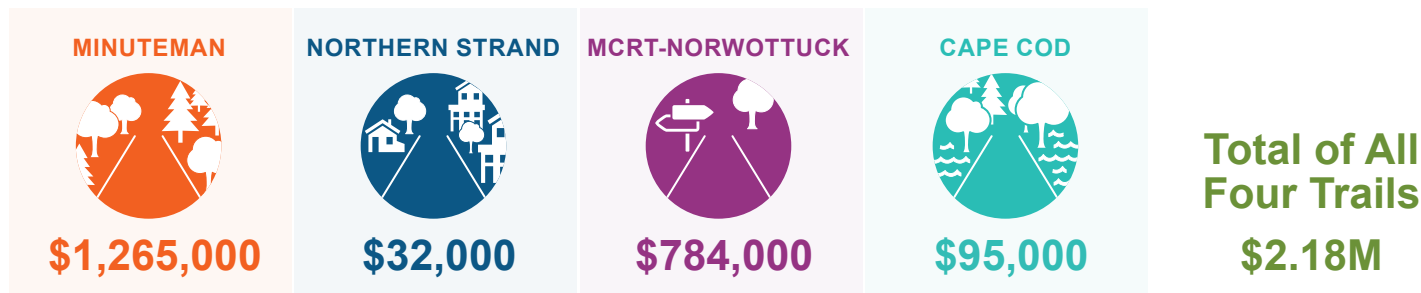


## Environment

The reduction in single-occupancy vehicle trips attributed to shared use path commuting reduces harmful pollutants like particulate matter, nitrogen oxide, volatile organic compounds, and carbon dioxide released into the air.



**Total Environmental Savings (July-October 2019)\***



As the data shows, shared use paths attract tourism, provide a safe and comfortable route for commuting, create local jobs, and help reduce carbon emissions. They encourage people to get outside, exercise, connect with friends and neighbors, and contribute to their local economies.

\*Numbers rounded to nearest 50.



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