



CDOT Bicycle and Pedestrian Section

CDOT Bicycle and Pedestrian Programs

February 14, 2014
Presentation to
the STAC

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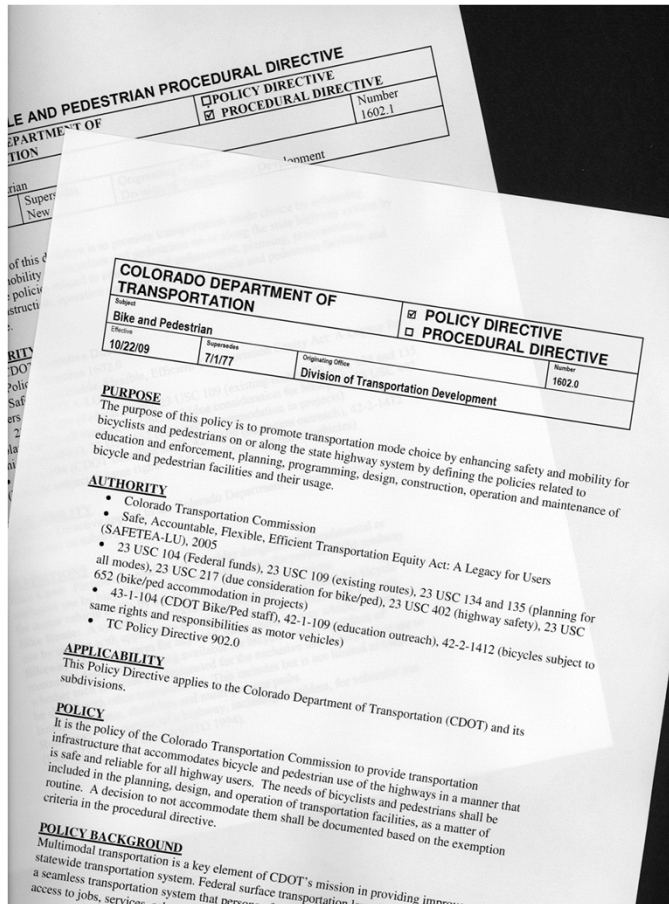




CDOT Bicycle and Pedestrian Section

CDOT Bike and Ped Programs

Bicycle and Pedestrian Policy 1602: October, 2009



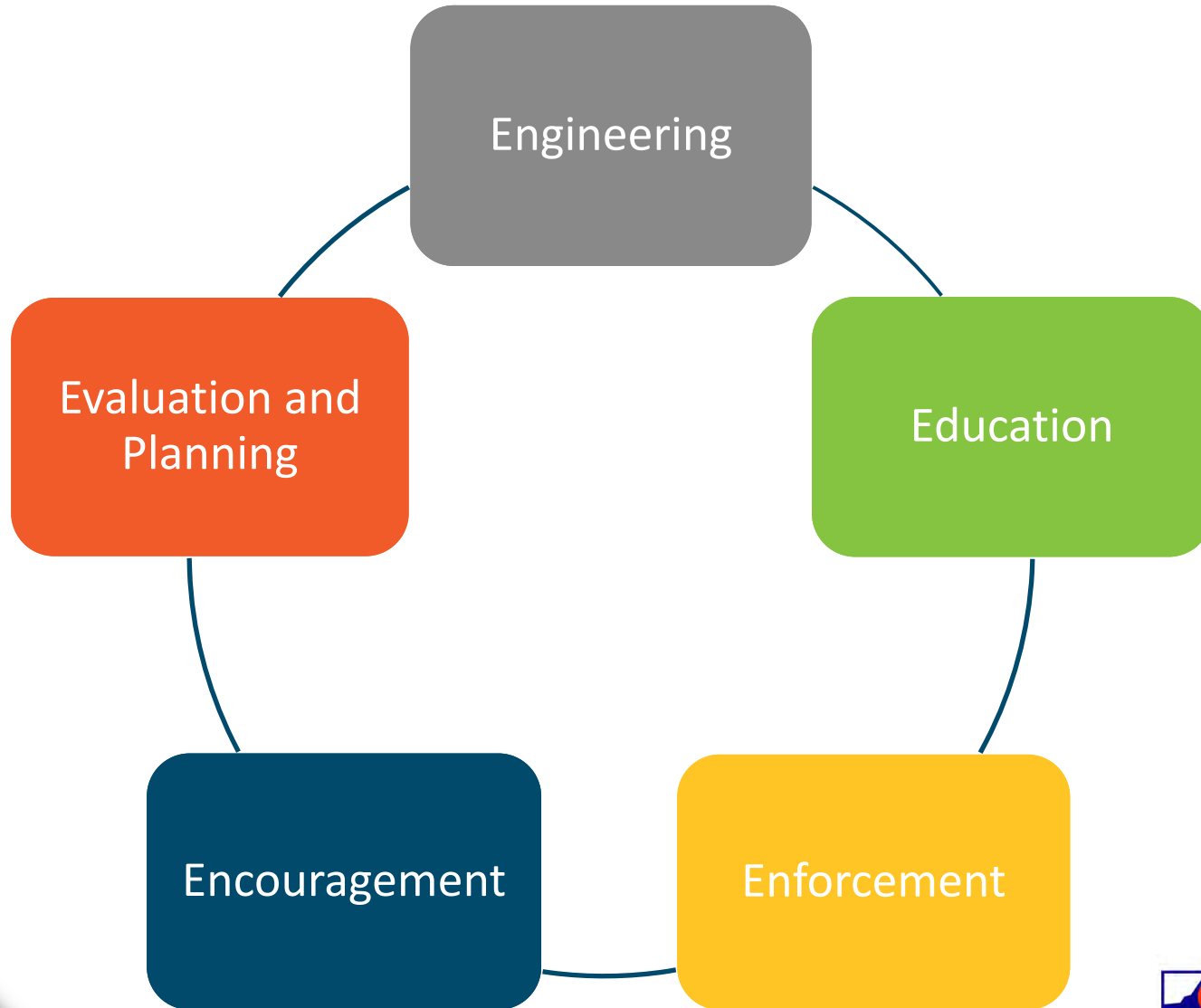
Colorado State Statute 43-1-120: June, 2010





CDOT Bicycle and Pedestrian Section

The Five E's





CDOT Bicycle and Pedestrian Section

Chapter 14

Bicycle and Pedestrian Facilities

Engineering

Colorado Department of Transportation
Roadway Design Guide

Chapter 14 Bicycle and Pedestrian Facilities
Eighth Revision – Final Adopted November 1, 2011



Prepared for
CDOT Bicycle/Pedestrian Program

by the firms of



&



Provides designers statewide with clear direction on designs for better accommodating bicyclists and pedestrians





CDOT Bicycle and Pedestrian Section



Facility Design Courses

Engineering

Over 600 engineers and planners have attended





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Share the Road

Education

Educating and encouraging all road users to be courteous and safe.





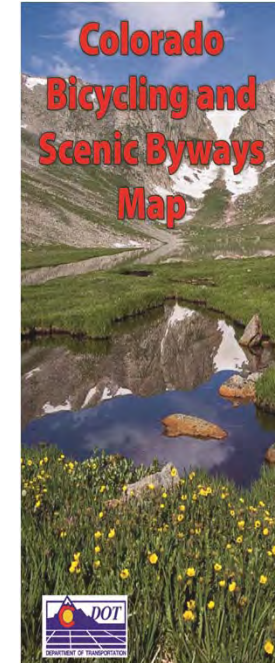
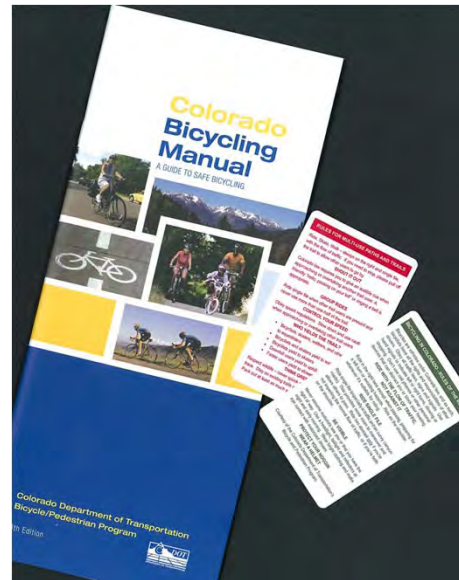
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Education

Special Events



Materials





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Colorado SRTS Program

Education

Promoting walking and biking to school K-8



- Since 2006, Reached more than:
 - 500 schools and 200,000 students
- Increased children walking and biking to school by as much as 31%
- Increased rate of walking and biking to school in 95% of schools receiving funding



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Partnership with State Patrol

Enforcement



Hundreds of special events occur on State Highways every year

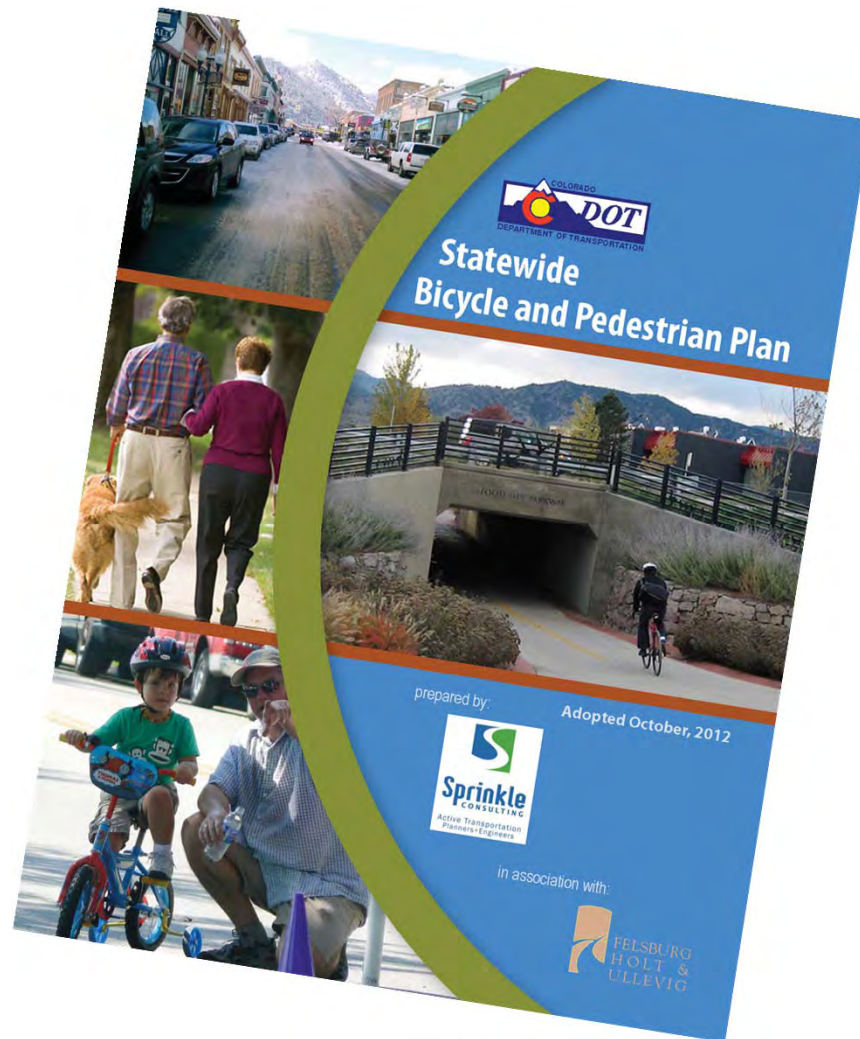




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Statewide Bicycle and Pedestrian Plan

Evaluation
and
Planning





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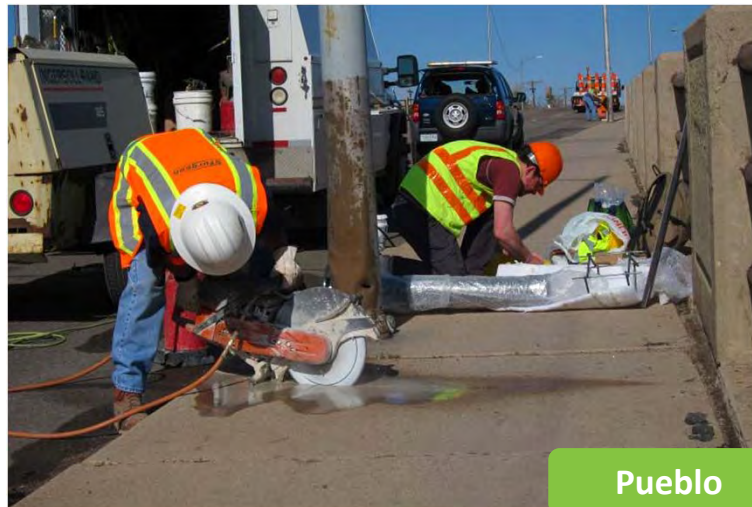
Bicycle and Pedestrian Data Collection

Evaluation and Planning



Vail Pass

Cherry Creek Trail



Pueblo

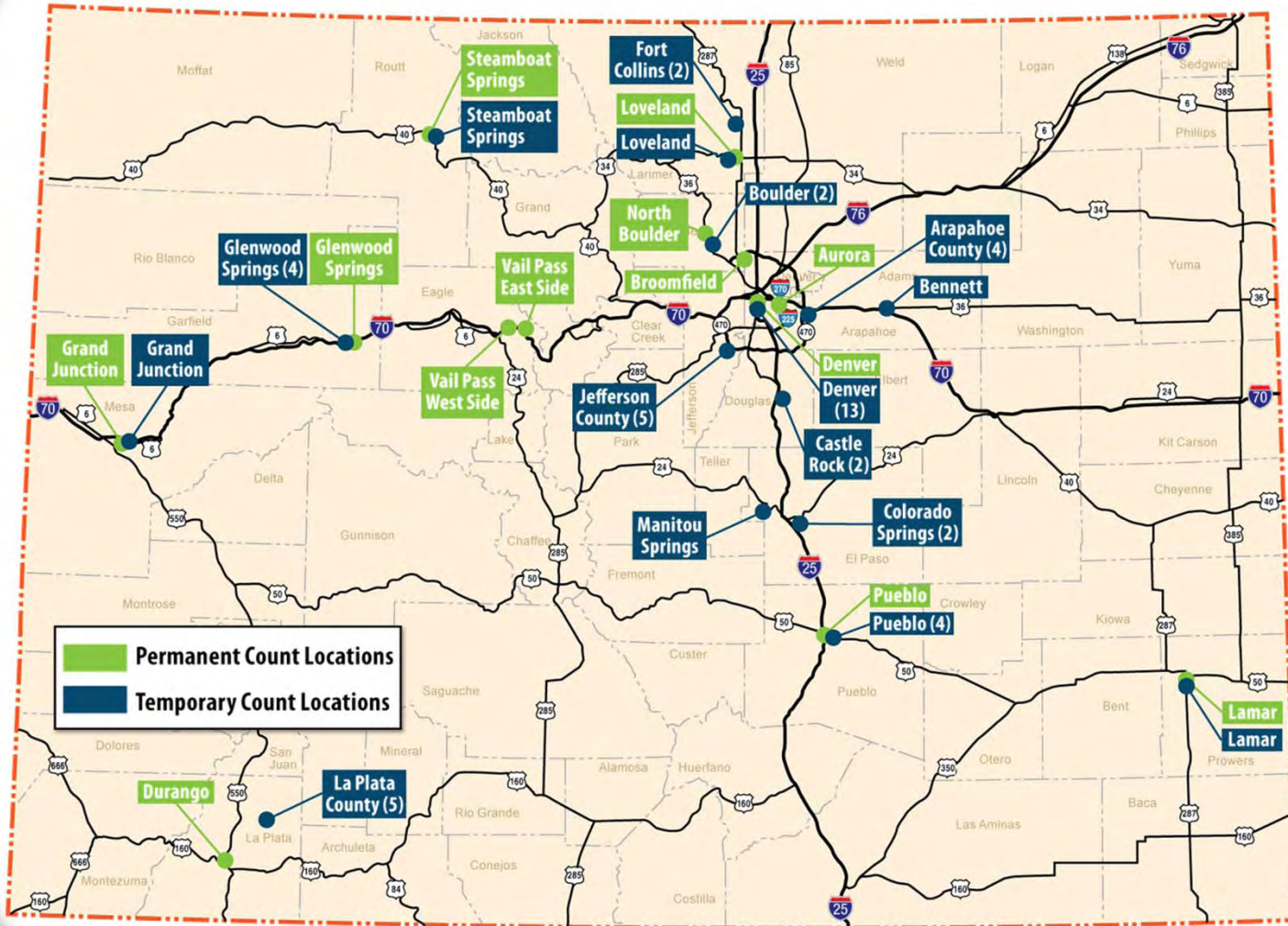




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Evaluation
and
Planning

Count Locations



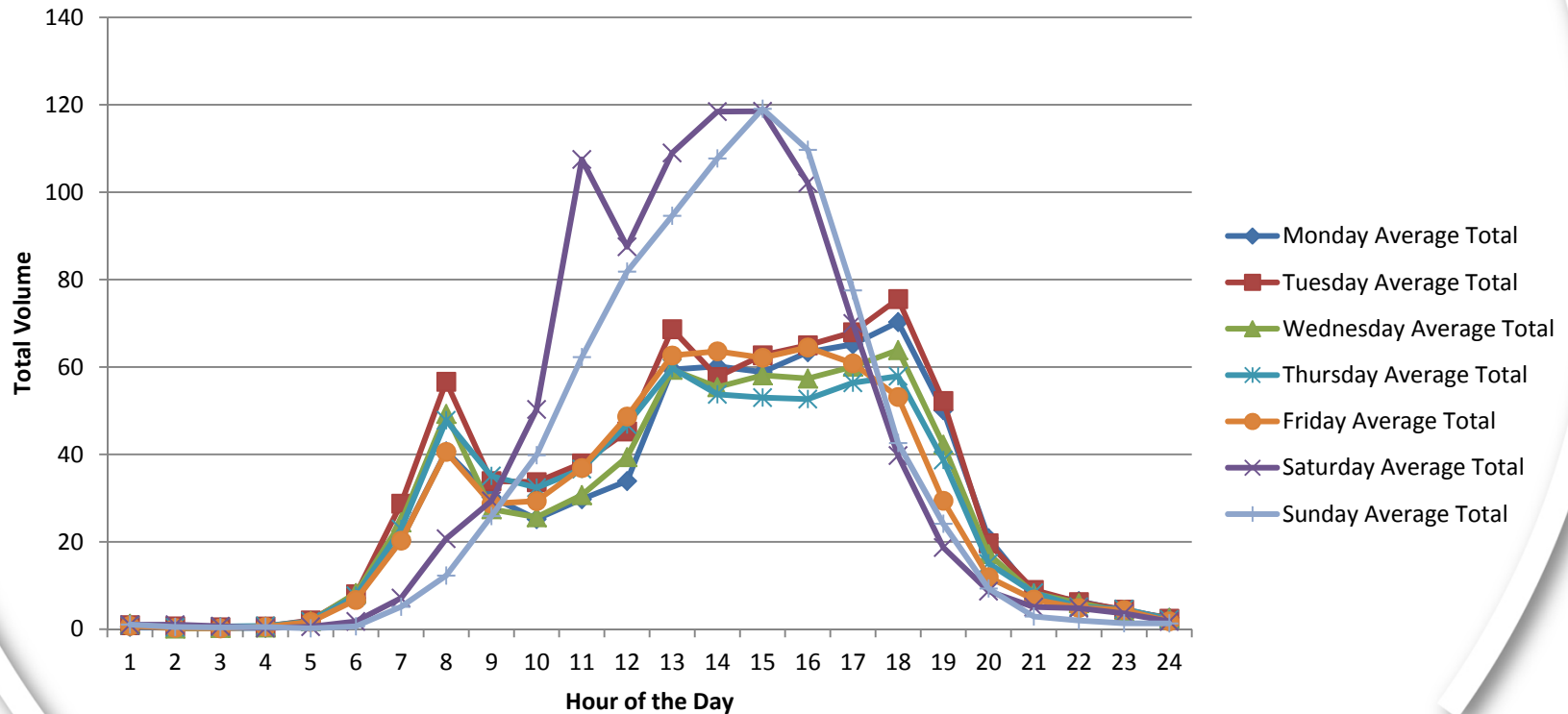


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Travel Patterns: Recreation vs. Commuting

Evaluation
and
Planning

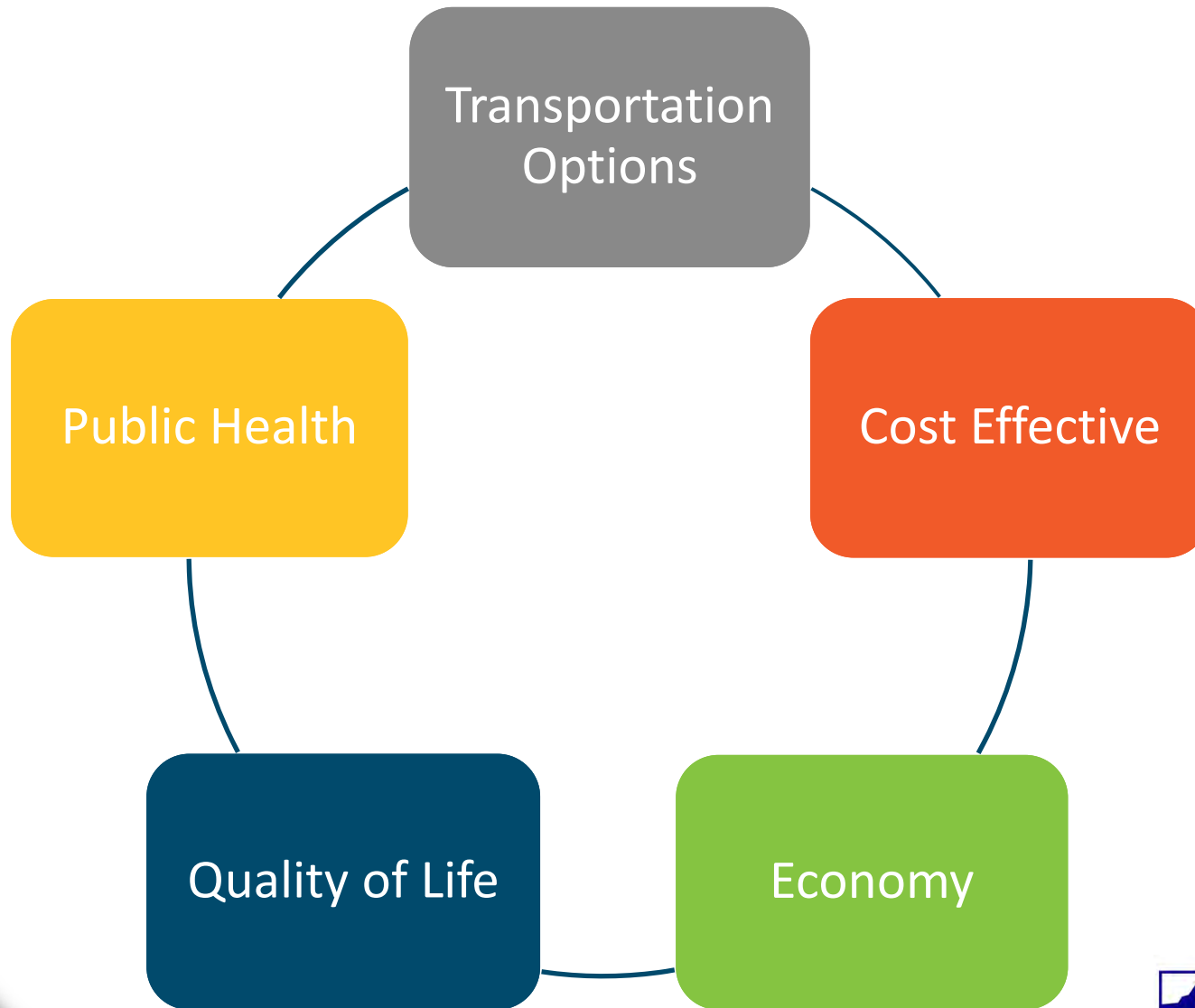
**Cherry Creek Trail, Colorado
Bicycle and Pedestrian Traffic
Average Total Volumes
(September, 2009 – April, 2010)**





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Benefits of Supporting Bicycling and Walking in Colorado





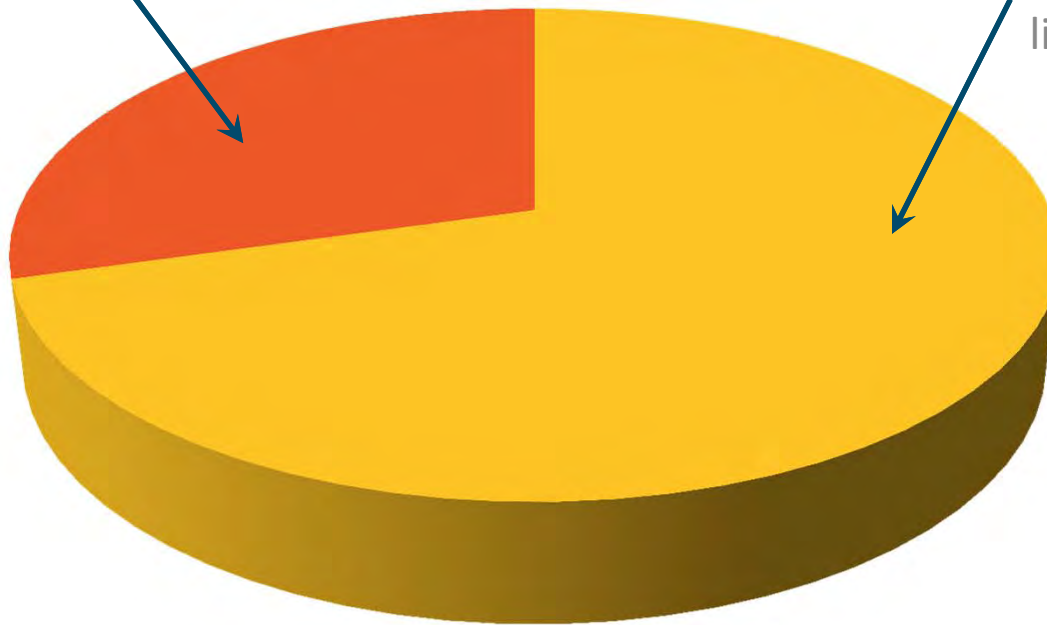
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Colorado's Population

Transportation
Options

Total Population of 5.1 million

1.5 million (30%)
can't drive



3.6 million (70%)
licensed drivers



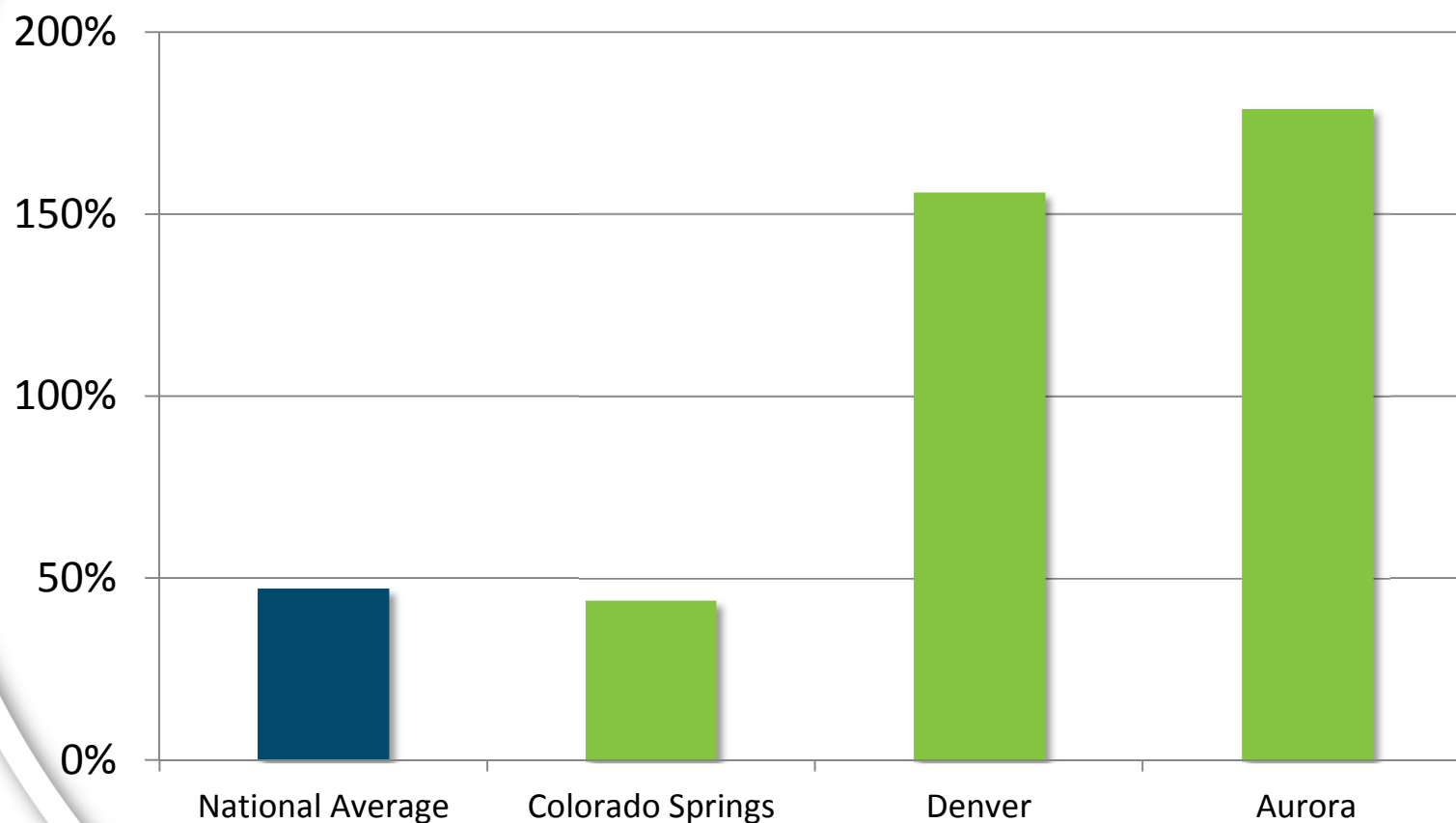


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Increasing Usage

Transportation Options

Percent Growth in Bicycle Commuting (2000 - 2011)



Source: League of American Bicyclists

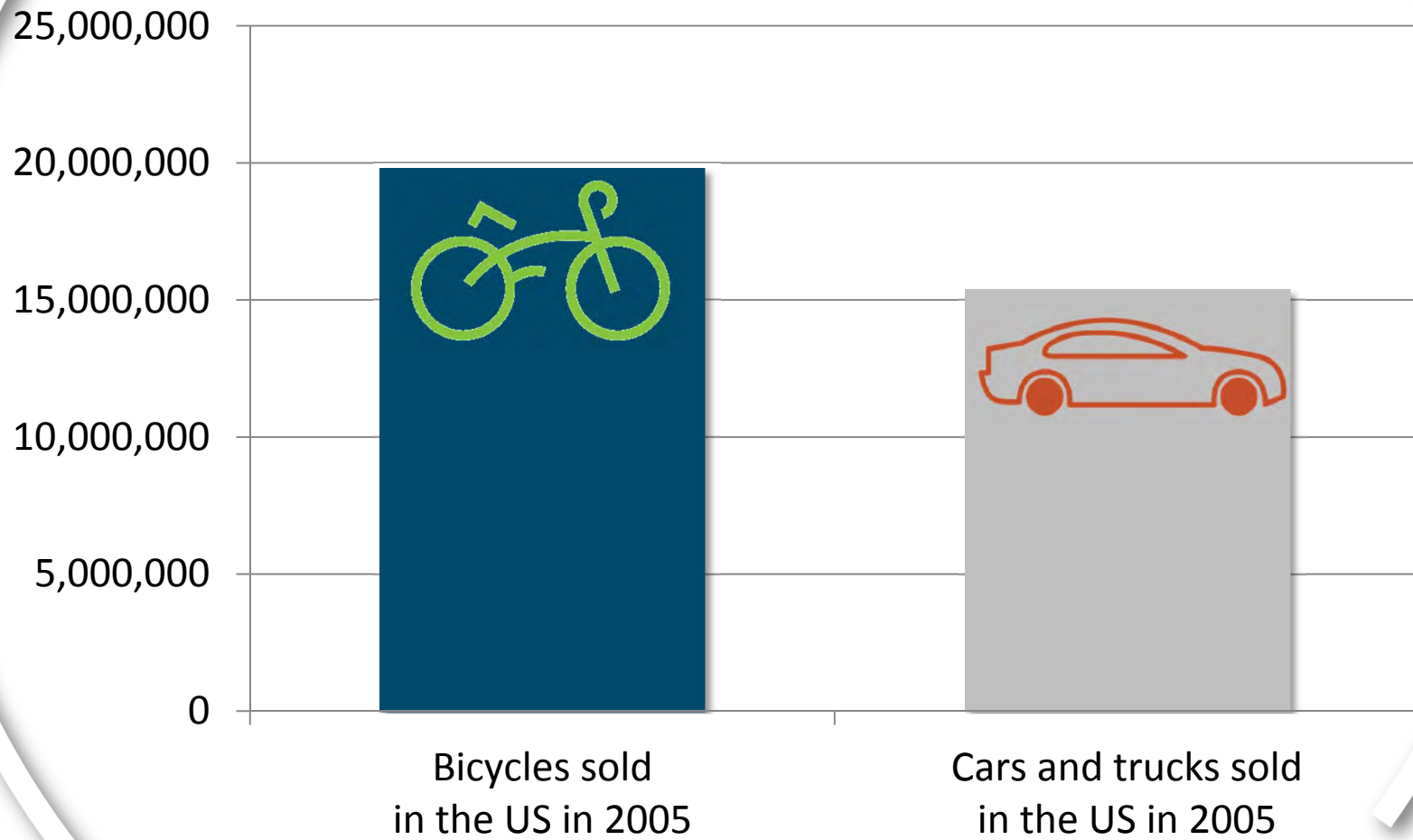




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Bicycle Sales

Transportation
Options



Source: Bikes Belong





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\$30 Million can buy...

Cost
Effective

1 mile of highway widening



600 miles of quality bike lanes



100 miles of sidewalk



20 miles of bike trails



Source: Tulsa Bicycle/Pedestrian Advisory Committee





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Economic Benefits

Economy

Manufacturing



Moots, Steamboat Springs

Retail



Wheat Ridge

Tourism and Bike Races



USA Pro Challenge

\$1 billion
economic
impact in 2000

Sources: "Bicycling and Walking in Colorado: Economic Impact and Household Results," April 2000.





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Bicycle Friendly Communities: Best Places to Live

Quality
of Life



Colorado has 17
Bike Friendly
Communities





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Safety Benefits

Quality
of Life

Designing intersections for pedestrian travel can reduce pedestrian risk by **28%**



Source: "Pedestrian Safety Through a Raised Median and Redesigned Intersections."
Transportation Research Board 1828 (2003) King, M., Carnegie, J. & Ewing, R.



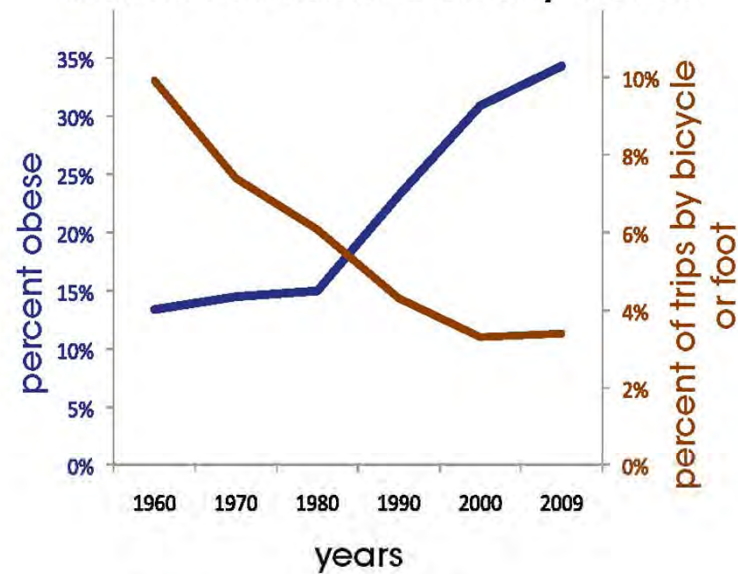


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Biking and Walking vs. Obesity

Public Health

Change in Bicycling and Walking Rates vs. Adult Obesity Rates



Legend:

-  = % of trips to work by bicycle or foot
-  = % obese

Sources: Ogden and Carroll 2010, Census 1960, 1970, 1980, 1990, 2000, ACS 2009 Note: bicycling was not separated from "other" modes in early Census surveys, so 1960 and 1970 levels shown are for walking only; $r = -0.93$ (bicycle + walk/overweight); $r = -0.87$ (bicycle + walk/obesity).



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Going Forward





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Becoming the Number One Bike Friendly State

Going
Forward

- An initiative of Governor Hickenlooper
- Ranking is based on League of American Bicyclists Annual Survey
- Colorado currently ranks second
- Will take a concerted statewide effort

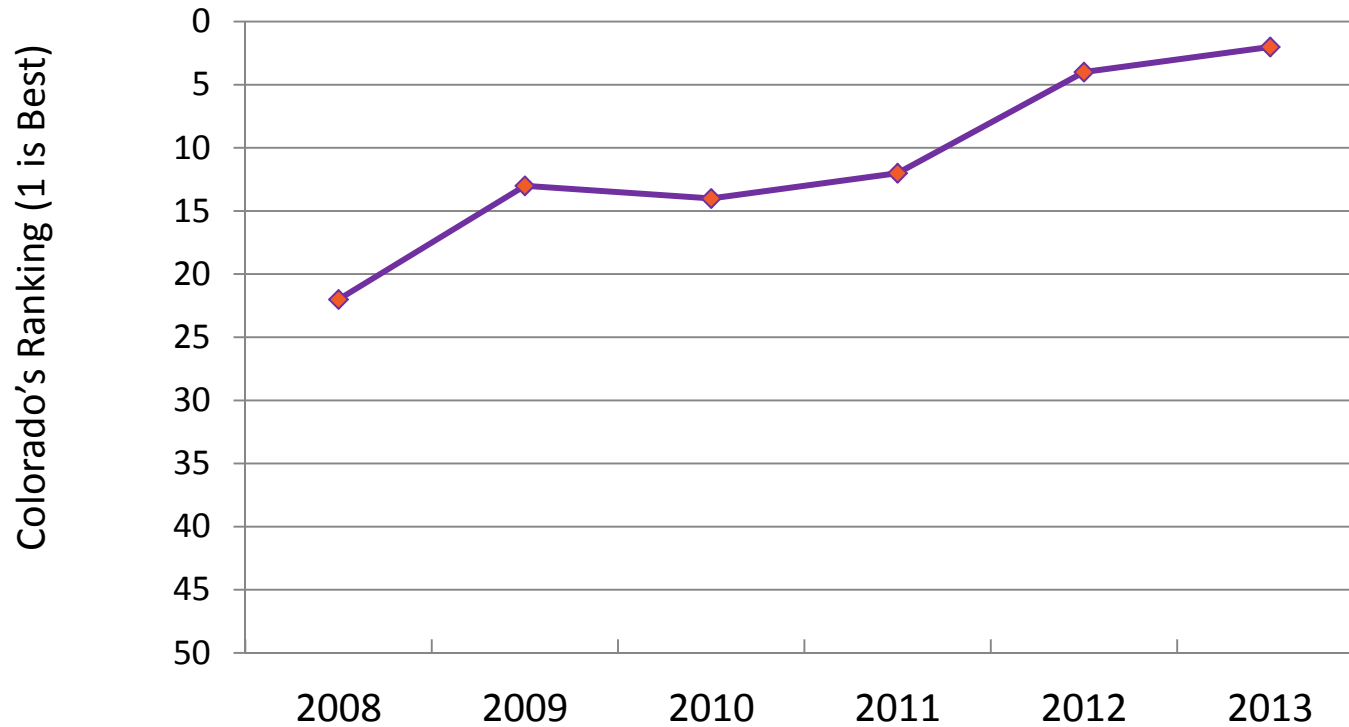




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On the Way Up ...

Going Forward



Colorado's rankings since 2008





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We've Done Well At ...

Going
Forward

- Rumble strip policy and specification
- Safe Routes to School legislation and program
- Passage of Bicycle and Pedestrian Accommodation in all projects policy – and later state statute
- Development and adoption of Bicycle/Ped Facility Design Chapter 14
- Development and adoption of Statewide Bicycle and Pedestrian Plan
- Specialized trainings on bicycle and ped facilities





CDOT Bicycle and Pedestrian Section

Going Forward

Top Five States

	WA #1	CO #2	OR #3	MN #4	DE #5
Legislation & Enforcement	5	5	4	4	4
Policies & Programs	4	4	4	4	3
Infrastructure & Funding	3	2	2	3	2
Education & Encouragement	5	4	4	4	4
Evaluation & Planning	3	2	3	2	2

*Score of 5 is high; 1 is low





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Six Strategies

Going
Forward

- **Six strategies based on feedback from the League of American Bicyclists**
 - Establish a statewide bicycle advisory committee
 - Add Bicycle Safety to the Strategic Highway Safety Plan
 - Implement performance measures
 - Implement AASHTO's US Bike Route System
 - Adopt a mode share goal for biking
 - Dedicate funding for Safe Routes to School Program





CDOT Bicycle and Pedestrian Section

Strategies to Becoming Number One

Going
Forward

- **Establish a Statewide Bicycle Advisory Committee**

Create a governor-appointed committee consisting of diverse representation from across the state to provide input on programs and policies.





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Strategies to Becoming Number One

Going
Forward

- **Add Bicycle Safety to the Strategic Highway Safety Plan**

The Traffic and Safety Branch is examining this as they move forward on their plan.





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Strategies to Becoming Number One

Going
Forward

- **Implement Performance Measures**
 - CDOT's Statewide Bicycle/Pedestrian Plan calls for performance measures, but they have not yet been finalized or implemented.
 - Finalization and Implementation are part of Phase II of the Bicycle/Pedestrian Plan currently under development.





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Strategies to Becoming Number One

Going
Forward

- **Implement Performance Measures** (continued)
 - Additional measurements needed:
 - Developing an inventory of bicycle/pedestrian facilities
 - Determining a way to specify funds spent on bike/ped projects when they're part of a larger road project.





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Strategies to Becoming Number One

Going
Forward

- **Implement AASHTO's US Bike Route System**
 - The US Bike Routes System is a developing network of bicycle routes across the country. This will take coordination with local agencies as well as neighboring states to determine best routes for designation.
 - Funding for appropriate signage will also be required.



DEPARTMENT OF TRANSPORTATION



CDOT Bicycle and Pedestrian Section

Strategies to Becoming Number One

Going
Forward

- **Adopt a Mode Share Goal for Biking**
 - Encourages integration of bicycle transportation needs into all transportation and land use policies.
 - As part of the Bike/Ped Plan and the Statewide Transportation Plan, we'll work with the MPOs to develop a mode share goal and add it to PD 14.
 - Continued expansion of the Bike/Ped Counting Program will provide more accurate data regarding actual usage.





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Strategies to Becoming Number One

- **Dedicate Funding for Safe Routes to School**
 - MAP-21 eliminated dedicated funding.
 - Colorado has received national recognition for its efforts, yet we only have funding approved through 2014.
 - MAP-21 TAP funds allow for infrastructure, education, and administration; but SRTS competing against all other TAP projects.





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Strategies to Becoming Number One

Going
Forward

Next Steps:

- Agree on strategies to pursue.
- Agree on funding level to support efforts.
- Coordinate/partner with MPOs and TPRs on strategies to increase ranking.





CDOT Bicycle and Pedestrian Section

Thank You!

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