Return on Investment in Complete Streets

- Health
- Environmental
- Safety
- Economic
- Livability

Return on Investment

@CompleteStreets
Complete Streets

- good for safety
- good for the economy
Complete Streets

- An overall approach to transportation decision-making
- Consider the needs of all people using a roadway at every phase
- Not a design prescription
- Not a subset of projects—all projects follow Complete Streets approach
Complete Streets

- Are Complete Streets good transportation investments?
- Do they affect traffic efficiency and roadway safety?
- Do they cost more?
- What role do Complete Streets play in local economic development goals?
1. Safer streets for people using them

- Collisions fell in about 70 percent of projects.
- Injuries fell in about 56 percent of projects.
...and these safer conditions saved money.

- Every avoided collision produces cost-savings for individuals.
- For individual projects, these savings alone can justify the cost of these improvements.

Within our sample, Complete Streets improvements collectively averted $18.1 million in collision costs in 1 year.
2. Streets that encouraged multimodal travel

Bicycling increased in 22 of 23 projects.

Walking increased in 12 of 13 projects.

Transit ridership increased in 6 of 7 projects.

Automobiles increased in half of the projects and decreased in the other half.
Encouraging multimodal travel

More walking trips.

FIG. 2

Thirteen projects collected pedestrian counts. Of those, pedestrian activity increased in 12 projects after their Complete Streets improvements. This figure shows the amount of change in walking trips in each place.
Encouraging multimodal travel
Encouraging multimodal travel

**FIG. 5**

*More trips by public transit.*

Of the 37 projects we examined, seven reported transit ridership information. Of those, 6 measured increased ridership. This figure shows the amount of change in trips by transit in each place.
3. Streets that were remarkably affordable

- Nearly 75 percent of the projects cost less than the average “normal-cost” arterial.
- Nearly all the projects cost less than the average “high-cost” arterial.

The cost per mile to build Complete Streets projects vs. an average arterial road

Complete Streets projects are remarkably affordable—some of the projects in our survey cost just a few thousand dollars. They cost less to build than an average urban arterial, yet, as explained earlier, can still increase bicycle, pedestrian, and automobile activity.

- Grant Avenue in Novato, CA, improved sidewalks and added streetscaping, bulb-outs, and bicycle racks along 11 blocks of Novato’s main commercial street.
- Downtown West Jefferson, NC, replaced two traffic lights with four-way stops, added diagonal parking, curb extensions, better crosswalks and streetscaping in the historic downtown.
- Windsor and Ash streets in Columbia, MO, built a bike boulevard linking two residential neighborhoods and helping bicyclists safely access downtown.
Low costs, big results
4. Streets that supported local economic strategies

**Communities reported:**
- Higher employment and property values, often outpacing similar unimproved corridors and citywide trends;
- Net new businesses along 6 projects;
- Higher retail sales in 4 projects; and
- Private investment along 8 projects.

Lee’s Summit, MO

Orlando, FL
A strategy for economic development

• Higher employment
  – More people were employed along Complete Streets projects after a project was completed than before.
  – More people were employed along Complete Streets projects than other unimproved comparison streets.
A strategy for economic development

• Net new businesses
  – Six communities reported data on net new businesses following their redesigns: Orlando, FL; Normal, IL; Lee’s Summit, MO; West Jefferson, NC; Washington, DC; and Lancaster, CA. All six of these communities reported increases in businesses following their Complete Streets improvements.
A strategy for economic development

• Higher property values and private investment
  – Property values and private investment are other measures frequently used as benchmarks for economic progress.
  – Ten projects reported before-and-after data for property values. Of those ten projects, eight reported increased property values, while the remaining two reported no change.
To answer this question, *Safer Streets, Stronger Economies*:

- Analyzed 37 built Complete Streets projects on their transportation performance using before-and-after data
- Examined a subset of projects w. economic data (more limited)
- Compared to citywide trends & “control” corridors (where possible)
- Projected cost-savings from averted collisions using USDOT methods
Design approach
- Narrowed travel lanes
- Replaced sidewalks
- Installed curb extensions
- Added mid-block crossings
- Painted “sharrows”
- Enhanced streetscape

Outcomes
- 375% increase in all trips
  - Walking: 23% ↓
  - Bicycling: 273% ↑
  - Driving: 1416% ↑
- 75% fewer crashes
- 80% fewer injuries
- $34 million in private investment
West Jefferson, NC
Population: 1,315 • Complete Streets policy: 2011 • Cost: $300,000

Design approach
• Removed signals
• Installed curb extensions
• Enhanced streetscape with benches and lighting

Outcomes
• Driving: 1% ↑
• 24% fewer crashes
• 53% fewer injuries
• $500,000 in private investment
• 10 new businesses
• 55 new jobs
• More visitors
3rd & Broad Avenues, Long Beach, CA
Population: 467,892 • Cost: $900,000

Outcomes
• Walking: 13% ↑
• Bicycling: 33% ↑
• Driving: 12% ↓
• 50% fewer bicycle crashes
• 23% fewer vehicle crashes
• Lower speeds

Design approach
• Installed cycle tracks
• Narrowed roadway
• Added on-street parking
• Modified 23 signals to add bike and left-hand turn signalization
The BLVD, Lancaster, CA

Population: 159,055 • Cost: $11.6m

Design approach
- Narrowed 9 blocks from four to two travel lanes
- Installed a “rambla”
- Eliminated traffic signals
- Expanded pedestrian along existing sidewalks

Outcomes
- 29% fewer crashes
- 67% fewer injuries
- 802 new permanent jobs
- 800 new or rehabbed residential units
- 96% increase in sales tax revenue
Multnomah Street, Portland, OR

Population: 583,776 • Cost: $95,000

Design approach
• Narrowed travel lanes
• Created cycle track with plastic bollards
• Added new signage
• Added new auto & bike parking

Outcomes
• Bicycling: 44% ↑
• Driving: 23% ↓
• 6% fewer crashes
• 50% fewer speeding drivers
City of Orlando proposed a 4-to-3 lane conversion for 1.6 miles, adding bicycle lanes, a center turn lane, and wider on-street parking.
Example: Orlando, FL

- Total collisions dropped **40 percent**, from 146 to 87 annually.
- The crash rate was nearly cut in half and injuries fell by **71 percent**.
- Automobile traffic only decreased **12 percent** within a year following the redesign, while bicycle counts surged by **30 percent** and pedestrian counts by **23 percent**.
- **77 net new businesses** open and **560 new jobs** created since 2008.
- Average daily automobile traffic, which saw a slight dip following project completion, has returned to its original pre-project level and on-street parking use has gone up **41 percent**.
- The value of property adjacent to Edgewater Drive has risen **80 percent**, and the value of property within half a mile of the road has risen **70 percent**.
Case Study: Edgewater Drive, FL
Background

- Repaving project scheduled by FDOT
- FDOT was open to reconfiguration if City takes over jurisdiction
- Changes needed to be accepted by neighborhood and a before/after study must be conducted
  - Public determined 9 “measures of effectiveness”
Before
After
<table>
<thead>
<tr>
<th>Measures</th>
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<tbody>
<tr>
<td>1  Avoid increased traffic on neighborhood streets</td>
</tr>
<tr>
<td>2  Reduce speeding on Edgewater Drive</td>
</tr>
<tr>
<td>3  Increase number of people bicycling</td>
</tr>
<tr>
<td>4  Increased number of people walking</td>
</tr>
<tr>
<td>5  Reduce crashes</td>
</tr>
<tr>
<td>6  Increase use of on-street parking</td>
</tr>
<tr>
<td>7  Increase pedestrian satisfaction among residents</td>
</tr>
<tr>
<td>8  Increase pedestrian satisfaction among merchants</td>
</tr>
<tr>
<td>9  Increase parking satisfaction among residents</td>
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</table>
# Performance measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Accomplished?</th>
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Crash rate

12.6
8.4
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0

Crash Rate (per MVM)
Before After

34% Reduction

1 crash every 2.5 days
(146 per yr)

1 crash every 4.2 days
(87 per yr)
Injury rate

Before: 3.6 injuries per MVM
1 injury every 9 days
(41 per yr)

After: 1.2 injuries per MVM
1 injury every 30 days
(12 per yr)

68% Reduction
Speeding

- North End:
  - Before: 15.7%
  - After: 7.5%

- Middle:
  - Before: 9.8%
  - After: 8.9%

- South End:
  - Before: 29.5%
  - After: 19.6%
Automobile traffic volumes

- Before: 20,500 vehicles per day
- After: 18,100 vehicles per day

Generally remained in 18k-20k range now.
On-street parking use

Before: 29%

After: 41%
People walking

23% Increase

Number of Pedestrians

Before: 2,136
After: 2,632

2,632
2,500
2,400
2,300
2,200
2,100
2,000
1,900
1,800
1,700
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0

Before
After
People bicycling

30% Increase

Number of Bicycles

Before

After

375

486
Average peak period travel time

Northbound
Southbound

AM Before
AM After
PM Before
PM After
• 77 net new businesses open and 560 new jobs created since 2008.
• Average daily automobile traffic, which saw a slight dip following project completion, has returned to its original pre-project level and on-street parking use has gone up 41 percent.
• The value of property adjacent to Edgewater Drive has risen 80 percent, and the value of property within half a mile of the road has risen 70 percent.
Complete Streets: high value

- Collision & injury costs
- Employment levels
- Property values
- Private sector investment
- Net new businesses

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Conclusions:

• Investments in Complete Streets achieve traditional transportation goals.
• Investments in Complete Streets create economic value and support local economic development goals.
Complete Streets projects are some of the best transportation investments that a community can make.
Thank you

Christopher Zimmerman

Smart Growth America
Making Neighborhoods Great Together
Questions?