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TDM in Boulder: a town-gown partnership

The University of Colorado
Boulder, Colorado, USA



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Credits

- Many images in this slide show come from the City of Boulder Transportation Department
- Charlier Associates and LSA Associates provided analysis and modeling
- A number of slides come from the Boulder TMP Update
- One slide comes from CU TMP existing conditions report
- Thanks to Peter Roper for layout

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Boulder and the University of Colorado



Boulder's approach

- Traditional road-building focus until 1990
- Fiscal, political, and physical reality intervened!
- 1996 Transportation Master Plan
- Goal: Hold traffic to 1994 levels; reduce SOV mode share to 25%

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Focus on travel choices

- Transit service
- Create demand for transit
- Bike system
- Pedestrian system
- Marketing and Information
- Land Use/Urban Design
- Parking pricing
- Partnership with University of Colorado



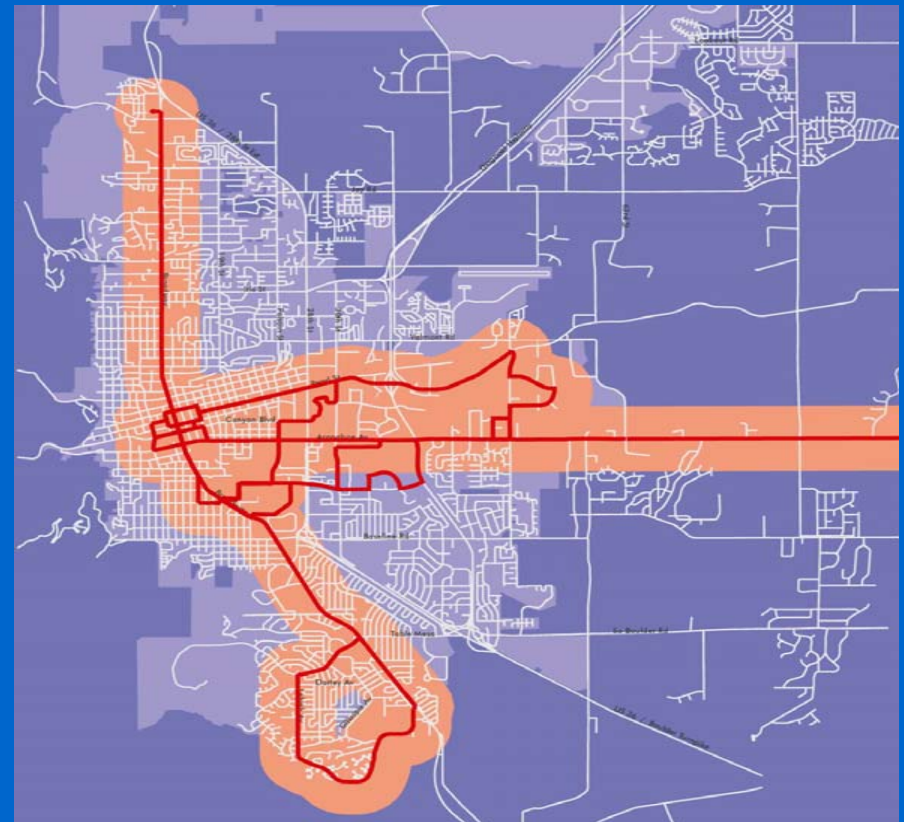
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Partnership is key!

- **University (CU), city, and transit district (RTD) are key partners**
- **CU provides transit passes for 29,000 students, 6,000 employees**
- **CU, city and RTD share funding for high frequency transit routes**

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High frequency transit routes



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The community transit network





Pass programs

- **Unlimited-use, photo-ID transit passes**
- **Provided to groups:**
 - employees at a business
 - all downtown employees
 - neighborhoods
 - CU faculty, staff, students
- **Proven to increase ridership & reduce single occupant vehicle travel**

Transit pass funding

- CU students pay mandatory fee
- Faculty/staff passes paid by parking revenues + general fund + head tax on auxiliary departments
- Neighborhoods collect voluntary contributions or vote on property tax; 25% city investment

Downtown transit passes

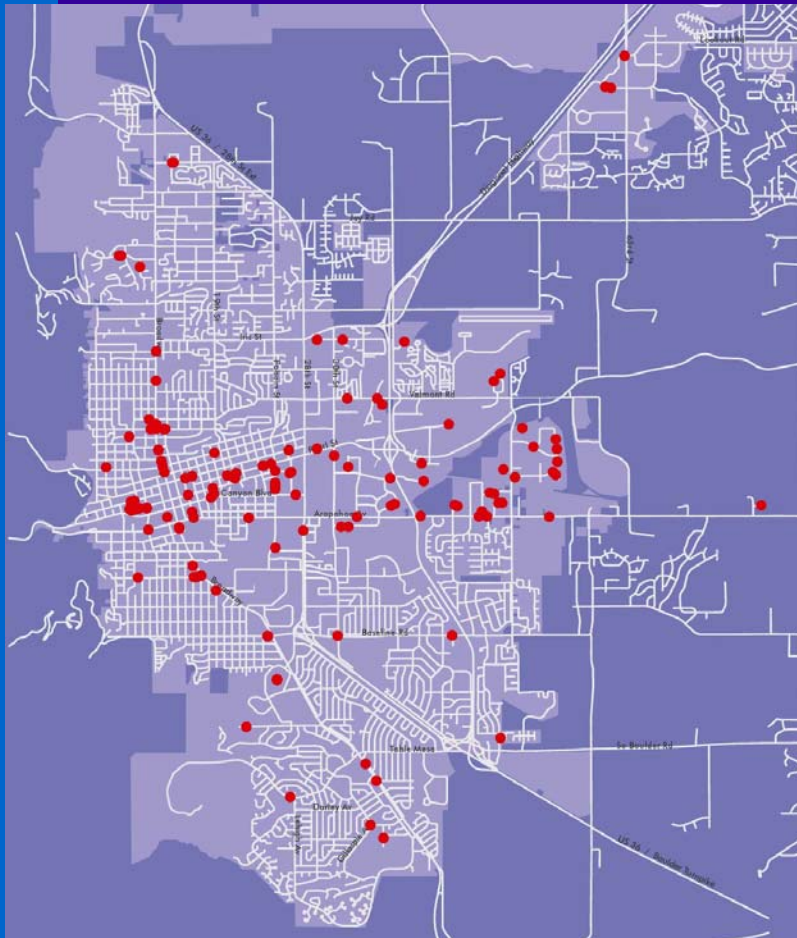
- **Parking revenues directly tied to services to downtown**
 - marketing of business area
 - maintenance of pedestrian mall
 - transit passes for employees
- **Builds political support for paid parking**

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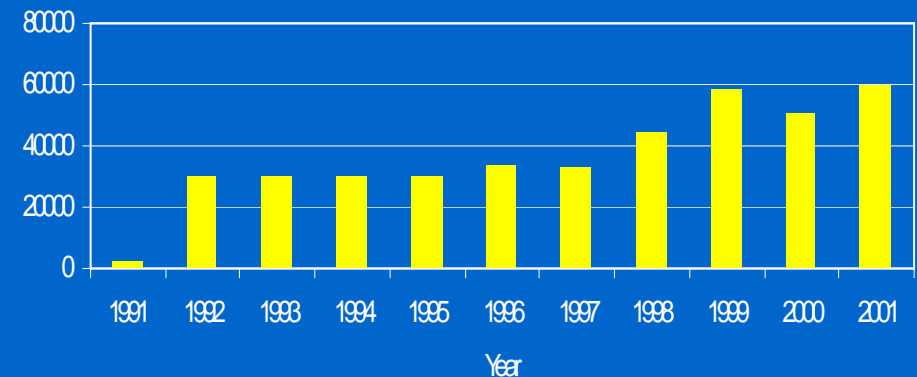
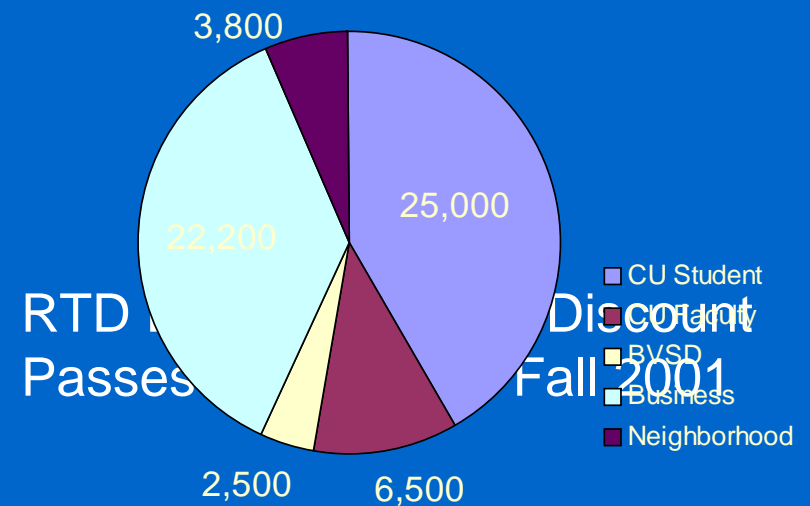
Student campaign for bus pass



65,000 transit passes in town!



Business Eco Pass Programs



Transit pass economics

- 14 transit users visible on this sidewalk .
- At \$20,000/net new space, \$280,000 to serve through parking
- It is 3 times more expensive to add a space than to shift one person to transit!



Results: transit

- 65,000 people in the community have access to passes
- Student transit use increased 200% in first year of pass program (92); is now up 600%
- Faculty/staff ridership increased 85% in first year of pass program
- Average daily ridership on local transit has quintupled - 5173 in 1990 to nearly 28,000 today!
- % of trips made on transit by Boulder residents doubled from 1990-2000

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Pedestrians are key!









Bikes in Boulder



• • • Making cycling part of everyday life

- **Bike routes, bike paths, bike lanes**
- **Bike actuated crossings at intersections**
- **Grade separated crossings**
- **Bike racks on all buses**
- **Funding sources; city transportation \$, federal enhancements and CMAQ \$, flood utility \$, university parking dollars, university student transit pass program**

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Bear Creek before.....



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..... and after



CU Bike Station



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Free bicycle checkout program



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Bike improvements can be cheap....



• **.....but
controversial -
removing
parking!**

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Converting space from cars to bikes



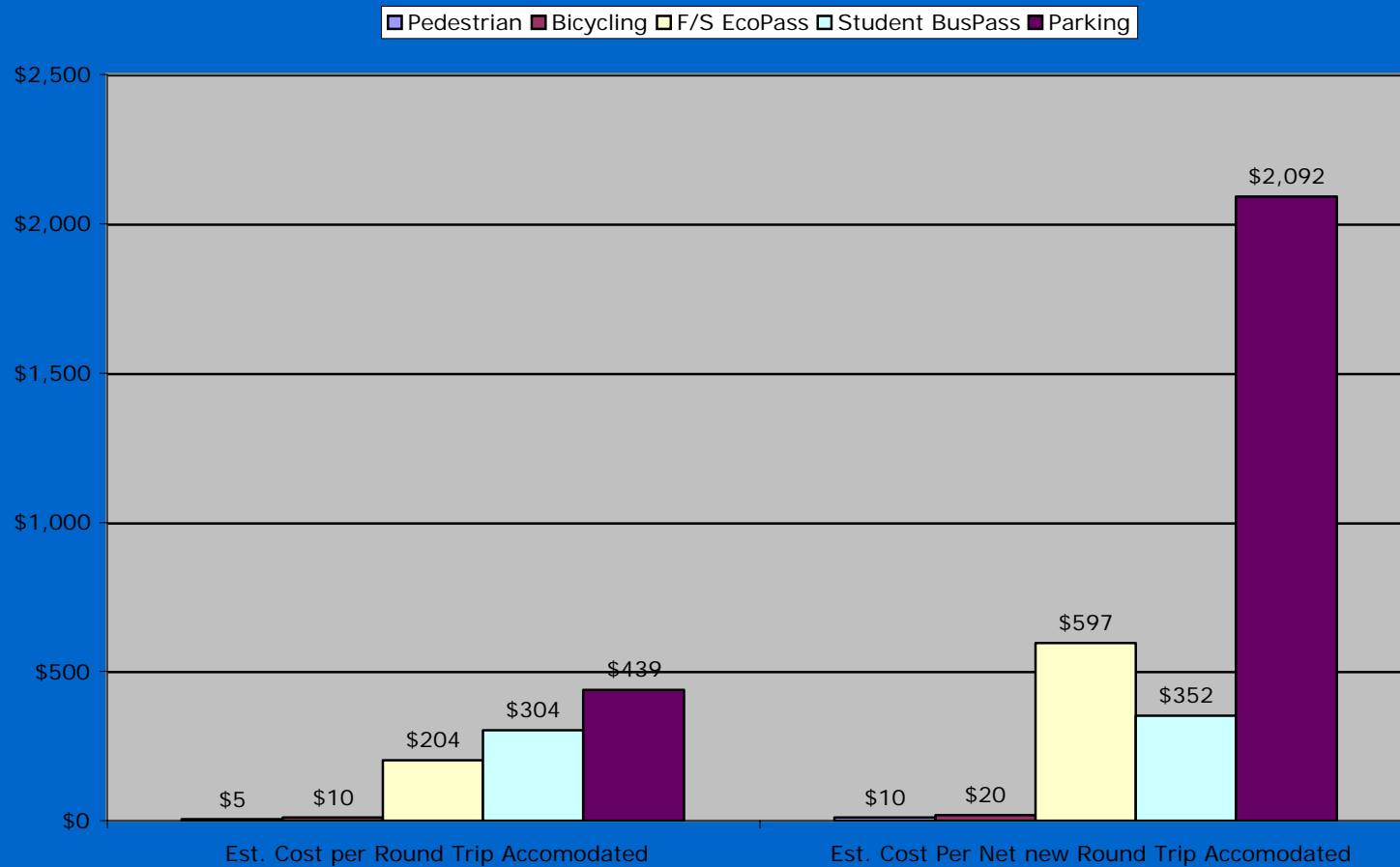
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5 acre parking lot; \$10 million structure; or...



Comparative cost by mode

Estimated Cost per Faculty/Staff/Student trip by Mode



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Overall: measurable results

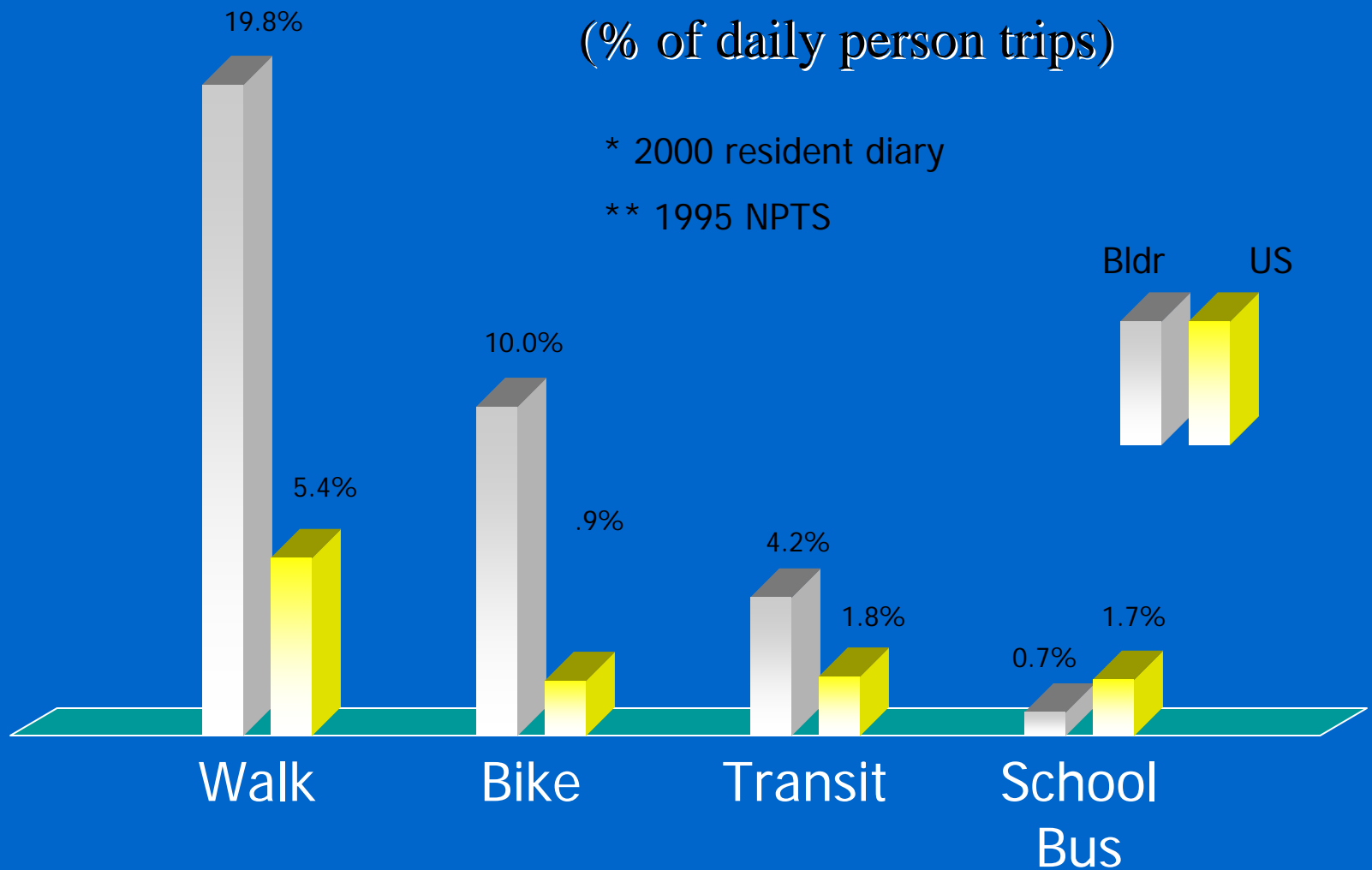
- **17% citywide shift from SOV work commute trips to other modes since 1990**
- **Shifted to bicycle (+10.6%) and transit (+5.8%)**

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Results: CU student travel

- **In 1990 2 % of student trips to campus were on transit; 17% in 2003**
- **67% of student trips to campus by bicycle or walking**
- **14% of trips by private automobile**

Boulder compared to the nation



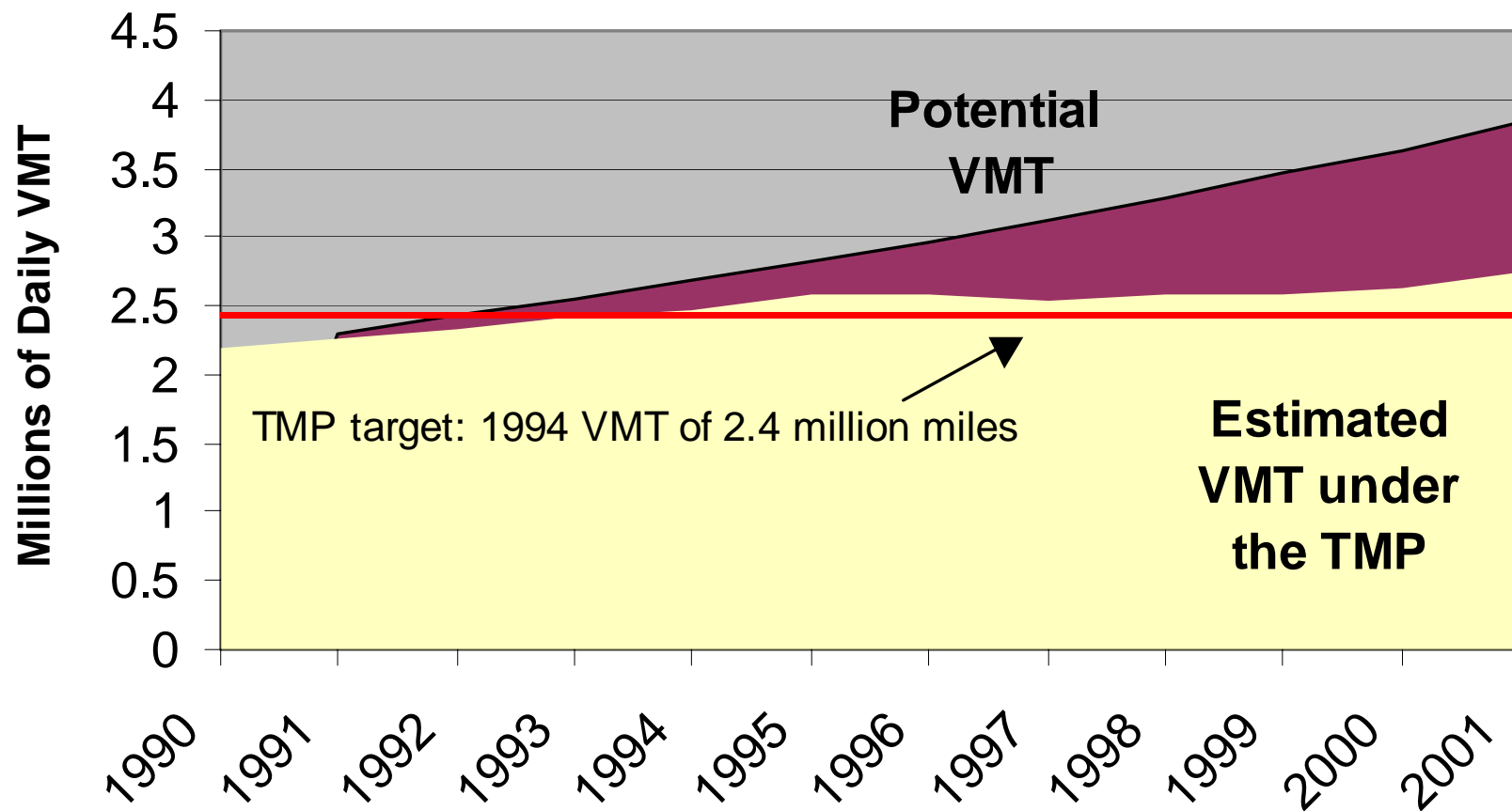
Boulder compared to the region

Census Mode Shares and Trip Lengths for Work Trips

| | Boulder CBD | Denver CBD | I-25/ Tech Center | Region |
|------------------------------------|---------------------|------------|-------------------|--------|
| | Total with Students | Total | Total | Total |
| Bicycle/Pedestrian Mode Share | 29% | 33% | 3% | 3% |
| Total Alternate Mode Share | 47% | 54% | 17% | 20% |
| Average Travel Time to Work (min.) | 18 | 22 | 20 | 27 |

Source: 2000 Census CTPP

Growth in Vehicle Miles Traveled



Current challenges

- Expanding transit pass programs - goal of 100,000 transit passes; future of transit pass programs
- Maintaining and expanding local and regional high frequency bus transit - different from regional transit authority funding priorities
- Creating countywide approach to transit
- Improving campus bicycle infrastructure

Lessons

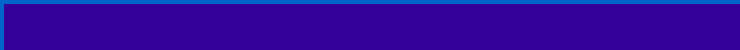
- Well designed transit can increase ridership by large factors
- Shifting users to transit and bikes is cheaper than building parking
- Universities are key market for sustainable transportation modes

For more information:



- For more details, check out this book!
- It can be ordered at www.islandpress.org

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