

Bikeshare Mobility

Exploring Cultural and Financial
Viability in Albuquerque

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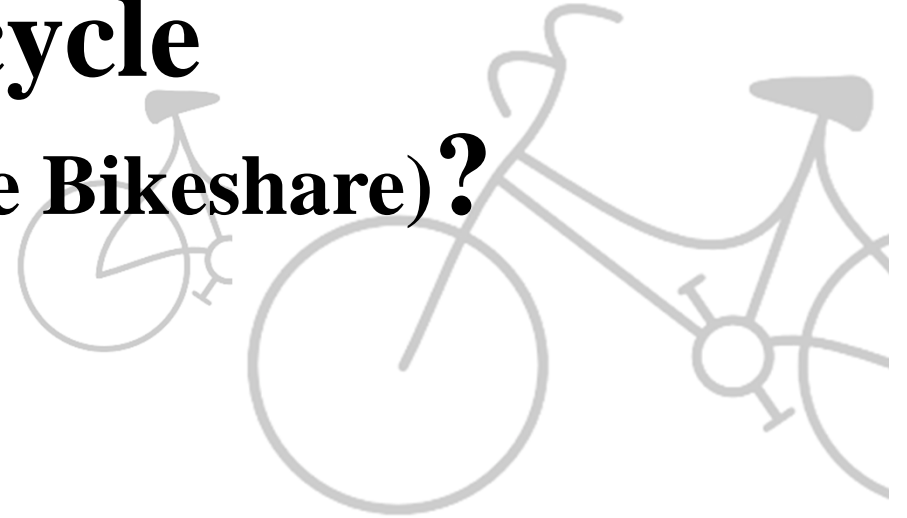
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Professor: Caroline Scruggs



Why Invest in Bicycle Infrastructure (like Bikeshare)?

- Traffic Congestion
- Pollution
- Obesity and Health Care
- Quality of Life
- Entrepreneurial Potential



Presentation Outline

- ✧ Addressing a Connected Bike Culture in Albuquerque
 - ✧ Recommendations
- ✧ Financing Bikeshare in Albuquerque
 - ✧ Recommendations



Photo credit: E. Huddleston

Cycle Focused Infrastructure

**ADDRESSING A CONNECTED BIKE
CULTURE IN ALBUQUERQUE**



Assets & Challenges to Connected Bike Culture in ABQ

Albuquerque has many bicycle assets to build on:

- Alvarado Transportation Hub
- 400mi of bikeways & trails
- Bike facilities & businesses
- Cycling events
- Established advocates
- Political will

Challenges to a infrastructure that supports bicycling:

- Connectivity
- Accessibility
- Perception of safety of cycling
- Funding infrastructure improvements



National Demand for Cycling Infrastructure

Increasingly the conversation around planning infrastructure is returning to planning for people mobility instead of solely car mobility.

- **Integrated Transportation-** Bikeshare as inter-city transportation opportunity
- **Lifestyle Changes-** Adapting to changing preferences of Millennials, and aging in place.

Bike Share

- Bike Share is an important tool within bicycle-friendly communities and is a catalyst for bicycle infrastructure and placemaking.

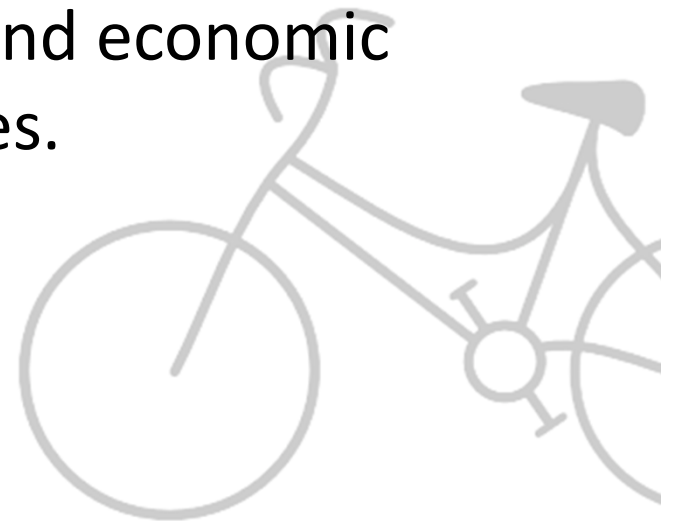


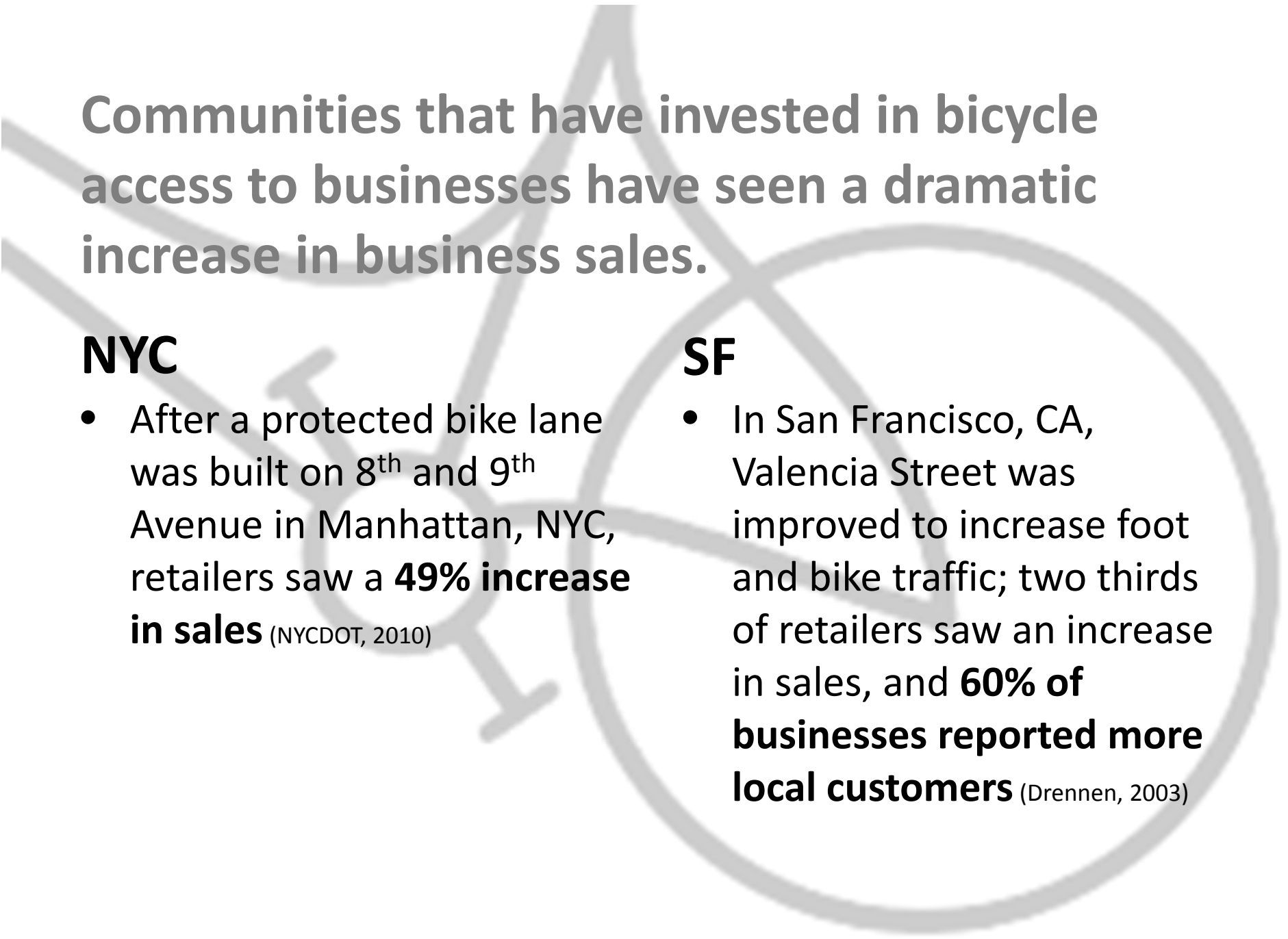
Photo credit: E. Huddleston

Bicycling Means Business:

Economic impacts of investing in bicycle infrastructure

Providing bicyclists access to Albuquerque destinations creates entrepreneurial opportunity and economic competitiveness with other bicycle cities.





Communities that have invested in bicycle access to businesses have seen a dramatic increase in business sales.

NYC

- After a protected bike lane was built on 8th and 9th Avenue in Manhattan, NYC, retailers saw a **49% increase in sales** (NYCDOT, 2010)

SF

- In San Francisco, CA, Valencia Street was improved to increase foot and bike traffic; two thirds of retailers saw an increase in sales, and **60% of businesses reported more local customers** (Drennen, 2003)



Local Impacts Of Bicycling Infrastructure

- Improved/safer environment attracts more people.
More people = more business
- Shorter more localized trips support local business
- Cyclist spend more, more often, more frequently
- Attracts businesses and innovation
 - Example: Green Zebra, bike culture entrepreneur

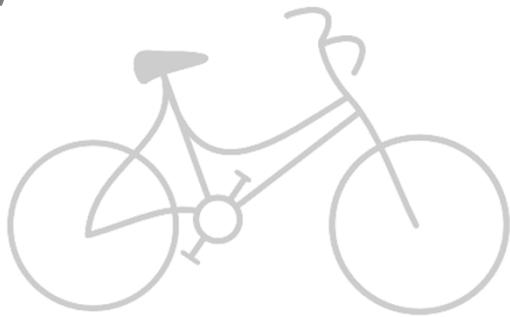


Making Neighborhoods Desirable

- 57% of home buyers want to see trails closer to their communities (NAHB, 2009)
- Bicycle infrastructure has a positive impact on home value
 - Indianapolis: A home closer to a bike trail sells for 11% more (LAB, 2009)

Infrastructure Recommendations

Look at infrastructure as a vehicle for citizen participation in models that build bike culture, and invest in solutions that invest in **places for people**, not only traffic.



Invest in shared mobility like Bikeshare to support short trip mobility between cultural nodes



Photo credit: E. Huddleston

Experiment with Physical Infrastructure Prototypes

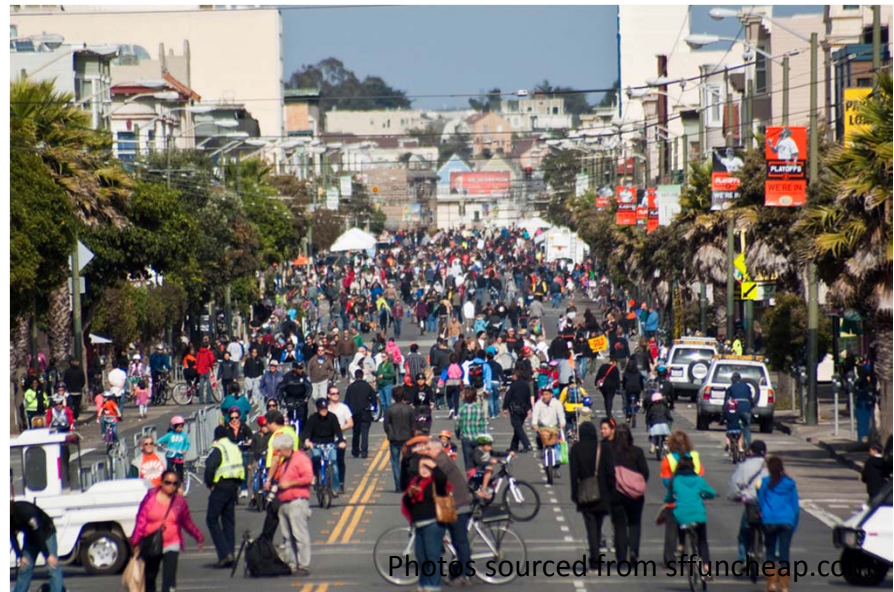
- Floating Parking, lighted bikeways, pop-up bikelanes



Photos sourced from <http://www.nyc.gov/html/brt/html/routes/drivingfirstsecond.shtml#safety> & Teambetterblock.com

Implement short-term interventions that support long-term goals of accessibility and connectivity - socially and physically

- Pop-ups
- Sunday Streets



**Explore Bike-friendly Districts, Bike in Zoning,
and other business initiatives for areas with
appropriate zoning and access to bike paths**



Photo sourced from: <http://bikeportland.org/>

Assessing funding models and business interest


FINANCING BIKESHARE IN ALBUQUERQUE

Survey of Bikeshare Systems Nation Wide

	ASPEN CO	DENVER	MIAMI	MILWAUKEE WI
SYSTEM NAME	WE CYCLE	DENVER B-CYCLE	DECO BIKE	MIDWEST BIKESHARE
SEASON		APRIL - DEC	YEAR ROUND	SEASONAL
TARGET USERS	COMMUTERS TOURISTS	COMMUTERS TOURISTS	TOURISTS	COMMUNITY
NUMBER OF BIKES START/CURRENT	100	400/520	500/1000	250
# OF STATIONS START/CURRENT	13	40/52	50/100	25
START DATE	JUNE 2013	APRIL 2010	2011	SPRING 2014
DOCKS/STATION		9-19/STATION	8-32/ STATION	19
SOLAR OR WIRED		SOLAR&WIRED	SOLAR	WIRED
BUSINESS MODEL	NON-PROFIT	NON-PROFIT	PRIVATE FOR PROFIT	NON-PROFIT
OVERSIGHT ENTITY	WE CYCLE	DENVER BIKE SHARING	DECO BIKE LLC	MIDWEST BIKESHARE
OPERATOR	WE CYCLE	DENVER BIKE SHARING	DECO BIKE	MIDWEST BIKESHARE
EQUIPMENT VENDOR		B-CYCLE		B-CYCLE
INITIAL CAPITAL COSTS	\$500,000 \$5000/BIKE			\$1.4 MILLION \$5600/BIKE
ANNUAL OPERATING COSTS		\$1,005,800 \$1935/BIKE		\$500,000 EST \$2000/BIKE
SOURCES OF INITIAL FUNDING		EPA EECGB PRIVATE- LOCAL MATCH FASTER PROGRAM	PRIVATE INVESTORS	CMAQ \$1.65M CITY 250K PRIVATE
SOURCES OF OPERATIONAL FUNDING	41 LOCAL SPONSORS	COLORADO VEHICLE REGISTRATION TAX	ADVERTISING USER FEES	PRIVATE SPONSOR-200K/YR ADVERTISING FEES EST 175K/YR
USER FEES		\$65/YR		

	SAN ANTONIO	BOULDER CO	SAN ANTONIO	FULLERTON CA
SYSTEM NAME	SAN ANTONIO BIKESHARE	BOULDER B-CYCLE	CHARLOTTE B-CYCLE	BIKELINK
SEASON	YEAR ROUND	YEAR ROUND	YEAR ROUND	YEARROUND
TARGET USERS	COMMUTERS	COMMUTERS TOURISTS	COMMUNITY	COMMUTERS CSFU STUDENT
NUMBER OF BIKES START/CURRENT	200/450	10/150	200	165
# OF STATIONS START/CURRENT	20/52	25/22	20	15
START DATE	MARCH 2011	MAY 2011	AUG 2012	2013
DOCKS/STATION	7-23/STATION			
SOLAR OR WIRED	SOLAR & WIRED	SOLAR	SOLAR	WIRED
BUSINESS MODEL	NON-PROFIT/ PUBLIC	NON-PROFIT	PRIVATE	PUBLIC PARTNRSHIP OCTA CITY CSUF
OVERSIGHT ENTITY	CITY OF SAN ANTONIO	BOULDER B-CYCLE	CHARLOTTE CITY CENTER PARTNER	ORANGE CO TRANSIT AUTH
OPERATOR	SA BIKESHARE	BOULDER B-CYCLE	B-CYCLE	BIKE NATION
EQUIPMENT VENDOR	B-CYCLE	B-CYCLE	B-CYCLE	BIKE NATION
INITIAL CAPITAL COSTS			\$923,000 \$4615/BIKE	750K 4545/BIKE \$1M INC 2 YRS
ANNUAL OPERATING COSTS	\$990,000 \$2200/BIKE	\$371,000 \$2473/BIKE	\$400,000 \$2000/BIKE	\$281,000 \$1700/BIKE
SOURCES OF INITIAL FUNDING	USDOT EPA EECBG CDC COMM GRANT OBESITY REDUCTION GRANT	ATT LOCAL BUSINESSES	BLUE CROSS VERION CAROLINAS HEALTHCARE	BUS LIVABILITY GRANT FTA MSRC CLEAN AIR GRANT CITY CO CSFU
SOURCES OF OPERATIONAL FUNDING	ADVERTISING CORPORATE SPONSORS	SPONSORS 22% GRANTS 56% GIFTS 10% USER FEES 12%	SPONSORS	FUTURE GRANTS ADVERTISING USER FEES
USER FEES	60/YR 24/7/365	\$50/YR	\$65/YR	75/YR 45-STUDENTS

EXISTING BIKESHARE SYSTEMS: SURVEY RESULTS

- **BUSINESS MODELS INCLUDE:**
 - NON-PROFIT
 - PUBLIC
 - PRIVATE FOR-PROFIT
 - PUBLIC/MULTI-JURISDICTIONAL PARTNERSHIP
 - PUBLIC/NON-PROFIT PARTNERSHIP
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SOME SOURCES OF FUNDS USED BY OTHER BIKESHARE SYSTEMS

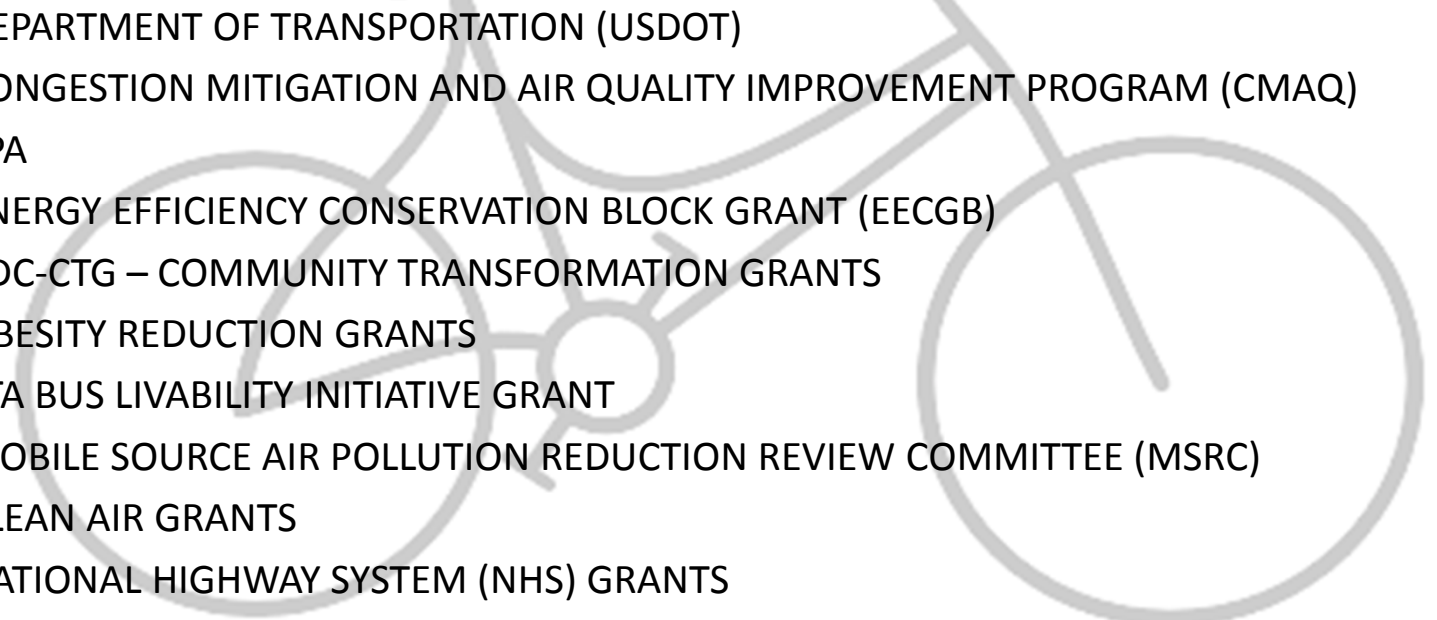
PRIVATE INVESTORS

LOCAL, REGIONAL, AND NATIONAL BUSINESSES SPONSORS

ADVERTISERS

CITIES, COUNTIES, STATES

GRANTS FROM VARIOUS FEDERAL AGENCIES INCLUDING:

- DEPARTMENT OF TRANSPORTATION (USDOT)
 - CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM (CMAQ)
 - EPA
 - ENERGY EFFICIENCY CONSERVATION BLOCK GRANT (EECGB)
 - CDC-CTG – COMMUNITY TRANSFORMATION GRANTS
 - OBESITY REDUCTION GRANTS
 - FTA BUS LIVABILITY INITIATIVE GRANT
 - MOBILE SOURCE AIR POLLUTION REDUCTION REVIEW COMMITTEE (MSRC)
 - CLEAN AIR GRANTS
 - NATIONAL HIGHWAY SYSTEM (NHS) GRANTS
 - TIGER GRANTS – TRANSPORTATION INVESTMENT GENERATING ECONOMIC RECOVERY
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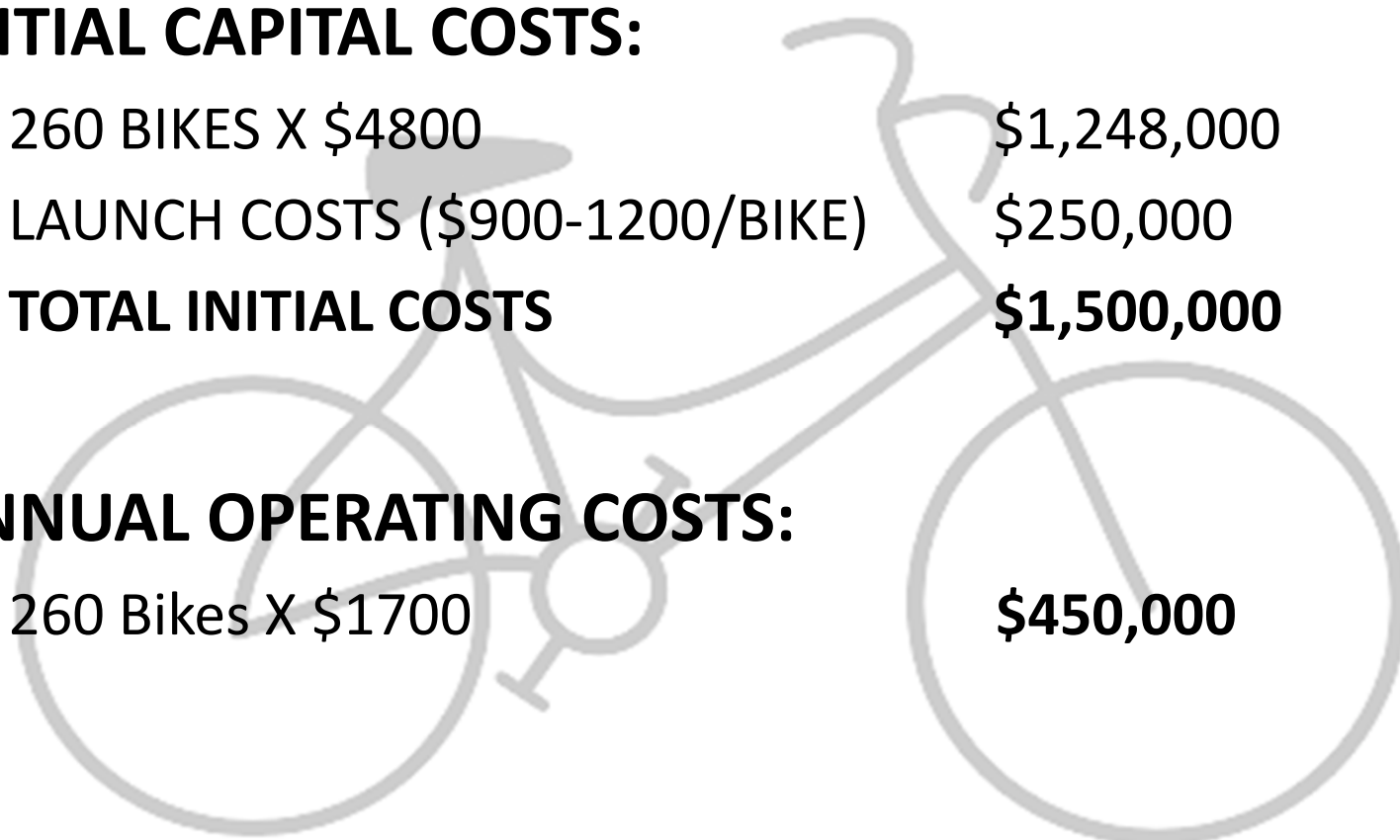
COST ESTIMATES

- **INITIAL CAPITAL COSTS:**

- 260 BIKES X \$4800 \$1,248,000
- LAUNCH COSTS (\$900-1200/BIKE) \$250,000
- **TOTAL INITIAL COSTS** **\$1,500,000**

- **ANNUAL OPERATING COSTS:**

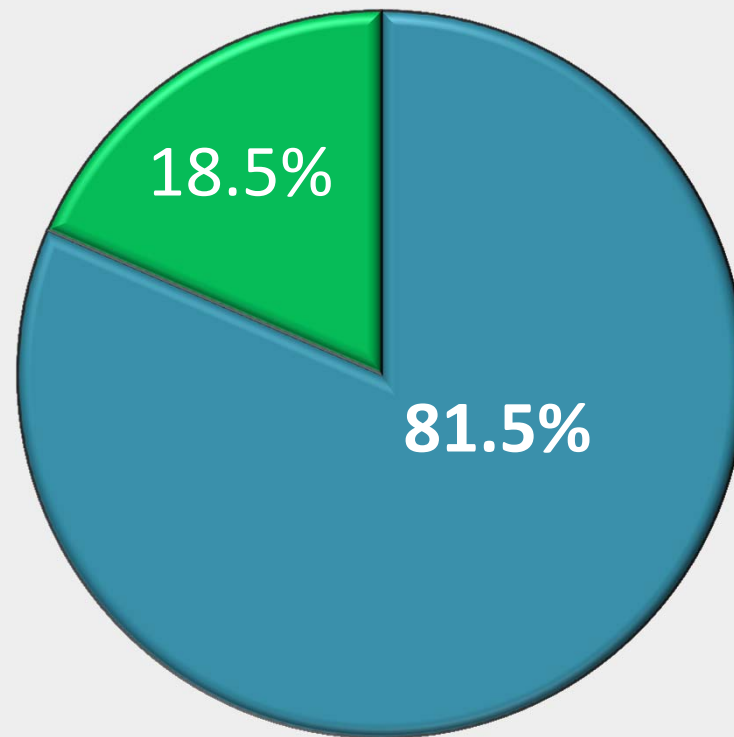
- 260 Bikes X \$1700 **\$450,000**



UNM Graduate and Undergraduate Student Survey Results

- Over 600 Respondents

Would you like to see a bike share program in Albuquerque or on UNM campus?



■ yes
■ no





Willingness to Pay



Green Fund

Answer Options	Response Percent	Response Count
\$3	14.2%	91
\$5	19.6%	125
\$7	4.7%	30
\$10	49.0%	313
I'm not interested in paying a student fee to support the Green Fund	12.5%	80

Bike Share

Answer Options	Response Percent	Response Count
\$3	28.8%	181
\$5	18.6%	117
\$7	6.0%	38
\$10 or more	14.3%	90
I am not interested in paying any fees toward a bike share program.	32.3%	203

Albuquerque Business and Institution Survey

- Contacted 75 businesses and institutions in person, via email and phone.
- Types of businesses: hotels, restaurants, bars, bike shops, hospitals, corporations, and other small businesses in Nob Hill, UNM, Downtown, and Old Town areas.
- Received 21 completed surveys for a response rate of 28%.
- Low response rate was likely due to our limited resources, time constraints, a perceived lack of credibility in the student researchers, and/or a perceived lack of relevance of bike share to businesses.
- Most respondents were owners of small businesses in the service industry (bars, restaurants, breweries, etc.)



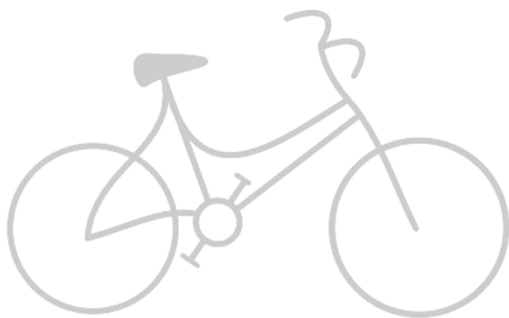
Summary of Results



- 86% of respondents want to see bike share in ABQ / 14% unsure / 0% don't want.
- 60% of business respondents were interested in contributing to bike share
 - 33% of the 60% would contribute less than \$100.
 - Most would want advertising and community recognition in return.
 - Most had a preference for contributing to capital costs instead of O&M costs.
- Aside from one outlier, a large Albuquerque-area business who would contribute \$5,000 - \$9,000, financial support from businesses is very low.
- Based on survey results with most businesses donating \$25 - \$99, \$500,000 in local support would require participation of 5,000 - 20,000 businesses.
- Institutions were either not willing to contribute (66%) or could not estimate an amount (33%).

Funding Recommendations

The survey is meant to start a bikeshare dialog, and is part of a larger process of interaction that should happen to make bikeshare successful.





Consider Alternative or Additional Funding

- The City of Albuquerque can look into federal grants, crowd funding, corporate sponsors, and/or the redistribution of current funds.
- Student Fees could partially cover O&M costs in exchange for annual membership



Conduct an Education Campaign

- Providing Albuquerque businesses and institutions with information on the economic benefits of bike share systems and increased bicycle traffic would likely garner more financial support.



Collaborate with Institutions and Nonprofit Organizations

For Example:

- The Green Chamber of Commerce
- The New Mexico Tourism Department
- The New Mexico Public Regulations Commission
- The Albuquerque Down Town Action Team
- The University of New Mexico Office of Sustainability
- Central New Mexico Community College



Commission an Extensive Survey

- A new survey of businesses should be conducted following the education program.
- The new survey should be expanded in scope to include businesses within the estimated travel area surrounding each bike share station.

THANK YOU