Implementation of Sustainable Modes of Transportation on Campuses: CSUMB’s new Capstone Class

Dr. Daniel M. Fernandez
First, a little background on the bigger picture motivation for this effort…

The CSUMB Sustainable City Year Program – nationally, EPIC-N
Educational Partnerships for Innovation in Communities Network (EPIC-N)

• A national network of higher educational institutions adopting the University of Oregon’s Sustainable City Year Program (SCYP) model

• A dozen current programs, plus another dozen or more getting ready to launch
The radically simple SCYP model

• Connect *existing* faculty teaching *existing* courses with *existing* projects to real-world projects that address an individual community’s pressing social, economic, and environmental needs
The City of Salinas – Our First Partner, from 2015-2017

5 project ideas

Population ~ 150,000
Project 2: Implementation of Transportation Elements

Design transportation projects related to bicycle, mass transit and pedestrian movement on surface streets
2015-2016 School Year

- A Fall and Spring Class (which I taught) where I integrated a class project that addresses Salinas’ Project 2.
Fall 2017

I integrated the Sustainable City Year Model into two of my classes!

One of them: A new capstone class for Environmental Studies Majors tailored to the Sustainable City Year Program (to be taught each fall).
Students self-organized into 3 groups, each doing 2 projects.

• Project to assist the City of Salinas
• Project to assist CSU Monterey Bay, their home campus.
CSUMB: How is Zipcar being adopted and how can we increase use of the program on campus?

Salinas: What can be done to increase pedestrian and cyclist use of streets in the City of Salinas?
Results

- Only 9 out of 119 university members surveyed indicated that they are Zipcar members.
- Of those 9, 8 live on campus - campus residents are crucial for Zipcar’s success.
- The main two transportation needs survey takers expressed were leaving campus for work and groceries.
Salinas - Background

Population: 157,000

Main roads: 4 lanes designed to move large volumes of vehicles quickly

Link between Health and Transportation

1.2 million dollar grant from the Active Transportation Program (ATP)

Eucalyptus and East Market St.
Description & Current State of Issue

- Pedestrians safety
- Children crossing alone
- Lack of lighting

Towt and Market (Fremont Elementary School)
Improve the Market St road diet.

- **Proposed Intersection Improvements:**
  1. Convert two existing all-way stop to traffic signal control
  2. Upgrade curb ramps to ADA compliance
  3. Install high visibility crosswalks
  4. Bulb-outs at each corner

- **Proposed Bike Lanes:**
  Install 6-ft painted Class II bike lane on both sides of E. Market St.

- **Proposed Crosswalk Upgrade:**
  Upgrade existing crosswalk with lighted high visibility crosswalk

- **Protected Bike Lane:**
  Class II bike lane along school frontage side to include 3-ft wide physical barrier

Legend:
- Existing Condition Description
- Existing Sidewalk: 6 Feet Wide
- Existing Sidewalk: 8 Feet Wide
- Existing Sidewalk: 4 Feet Wide
- Existing Sidewalk: 5 Feet Wide
- Existing Sidewalk: 5 Feet Wide

East Market St Road Diet (Stars indicate count locations)
How do We Fit In?

- Pedestrian/Cyclist Counts
- Distributed flyers
- Talked one-on-one

Flyer passed out in Spanish
Flyer we posted
Current Community Engagement

- Need for surrounding community to be more involved
- Meetings involve translators
- Methods of reaching out
  - Letters
  - Utilized Students to go door-to-door

Flyer passed out
Results

Pedestrian counts
- Very Low number of cyclists
- Correlated with both nearby schools start and end time.

Bell Schedule

<table>
<thead>
<tr>
<th>Grades</th>
<th>Regular Day</th>
<th>Wednesday</th>
<th>Minimum Day</th>
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</thead>
<tbody>
<tr>
<td>Kinder Group A</td>
<td>8:15-12:20</td>
<td>8:15-11:50</td>
<td>8:15-12:20</td>
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<tr>
<td>Kinder Group B</td>
<td>9:45-2:40</td>
<td>9:15-1:40</td>
<td>8:15-12:20</td>
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<tr>
<td>1st-6th grade</td>
<td>8:15-2:40</td>
<td>8:15-1:40</td>
<td>8:15-1:10</td>
</tr>
</tbody>
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Team “Otter Wheels”

Developing a Bike-Share Program for Salinas and CSUMB

Brittany Whalen
Ryan Blackman
Madison Hare
Monica Mata

Capstone - Fall 2016
Professor Daniel Fernandez
Introduction

- What is a bike-share program?
- Would a bike-share program be beneficial for CSU Monterey Bay’s expanding campus?
- Could Salinas benefit from a bike-share program?
Salinas Bike Share Familiarity

- 35%: Yes, I am familiar with Bike Shares
- 25%: Yes, I know what a Bike Share system is, and I want Salinas to have one!
- 13%: I do not know what a Bike Share is, but I want to learn more
- 8%: I do not know what a Bike Share is, and I would not care to know more
- Remaining: I have heard of Bike Shares, but I do not know how they work
Salinas Bike Riding Dislikes

- Unsafe: 73%
- Do Not Like Bicycling: 16%
- Traffic: 9%
- Uncomfortable: 2%
CSUMB Bike Share Familiarity

- 16% I know what a Bike Share system is, and I want CSUMB to have one!
- 15% I do not know what a Bike Share is, but I want to learn more
- 18% Yes, I am familiar with Bike Shares
- 33% I have heard of Bike Shares, but I do not know how they work
- 16% I do not know what a Bike Share is, and I do not care to know more
- 2% Other
CSUMB Willingness to Pay

- Free for the first half hour, less than $1 for the first full hour, etc: 49%
- Free with Tuition, like MST/Jazz Bus: 17%
- Free for the first half hour, more than $2 for the first full hour: 14%
- Free for the first half hour, but $2 for the first full hour, etc: 11%
- I would not use this system even if it was free: 5%
- Other: 2%
Recommendations

- CSUMB could start a bike share as early as this spring if they made a partnership with Zipcar
- Salinas needs to prioritize fixing roads and improve infrastructure before they are ready, but the demand is there but eventually have the same bike-share program as the rest of the county, like TAMC suggested
- Community outreach!
Promoting Sustainable Transportation: Campus Car Policies and Public Outreach

CSUMB | Sustainable City Year Project | Salinas, CA
Fall 2016

Michelle dela Cruz
Stephanie Samos
Kelcey Tern
Nathaniel Todd
Focused on Two Projects this Semester

California State University Monterey Bay (CSUMB)

Salinas: Monterey-Salinas Transit (MST)
CSUMB Campus Policy Proposal:

No first year students may be permitted to register a personal vehicle to campus.

*Exceptions will be made on a case by case circumstance with proof of vehicle requirement.
Data Collection

2015-2016 Transportation Survey
CSUMB Campus Planning and Development Department

- 6,646 total student population
- 503 total participants
  - 305 students participated
    - Freshman: 57
    - Sophomore: 47
    - Junior: 109
    - Senior: 92
Data Collection cont.

2016-2017 Campus Freshman Survey
CSUMB Concurrent Data from Fall 2016

- 802 Total First Time Freshmen
- 205 Freshman participants
  - FYS courses
  - Residential Advisors
  - Facebook Class of 2020
Survey Results

- 25% of the population in this sample
- 30 out of 49 students who have cars but don’t know how to use the buses
- Reasons for cars on campus
  - Commute home 22
  - Work 13
  - Dislike public transit 10
  - Suggestion 4
Salinas: Survey and Public Outreach

Partnered with MST

- Assist with public outreach
- Illustrated How-to-Ride booklet for public transit

Hartnell College

- 10 question survey:
  - Services
  - Knowledge
  - Inconveniences
  - Useful resources
Survey Results

- 160 students know how to ride the bus
  - 56 travel by bus
  - More travel by car solo
    (73 responses)

- Helpful resources by desire
  (210 responses)
  - Website   97
  - Person    88
  - Booklet   79
  - Brochure  67
  - Video     64

- Most confusing aspects
  (131 responses)
  - Schedule   82
  - Locations  61
  - Transferring  61
  - Fares     38

- What deters ridership
  (213 responses)
  - Too slow     80
  - Long wait time  75
  - Crowded  61
  - Inconvenient  54
  - Late       54
Goal

Help increase ridership on Monterey-Salinas Transit through public outreach.

Sample pages from our illustrated booklet
How to Ride the Bus
(To the Beach!)
An Illustrated Public Outreach Project

Monterey-Salinas Transit
CSUMB Environmental Studies
Fall 2016

Michelle dela Cruz
Lessons Learned – Sustainable City/Campus Program

• Generate enhanced participation, enthusiasm, and, mostly, goodwill.
• Established new and powerful connections for students and community.
• Student work accomplished, in addition to fulfilling academic requirements, can be very helpful and offer new perspectives.
• Time frames can be challenging.
• Finding venues/events to insert students into community can help to engage all parties.