

7. Transportation Planning



RESEARCH TEAM: Valuing bicycling and walking as an alternative means of transportation

Grand Challenge: Promoting Bicycling and Walking

Key Terms:

Bicycle advocacy, active commuting, multi-modal transportation, social capital

Student Leader: Brady Ruebusch

Student Members:

- Sara Ortiz - Mobility Programs: San Diego County's Road to Active Commuting
- Cory Anderson - Cost Benefit Analysis of an Intermodal Bus and Bicycle Network (IBBN) in San Diego County
- Carol Feucht - The role of bicycle advocacy groups in shaping public policy and planning in San Diego County
- Brady Ruebusch - Bicycle Lanes Effects on Social Capital

Mentor(s) Leader:

- Chris Kluth

Research Team Narrative:

Introduction

Historically, the relatively low cost and ease of constructing roads and highways has enabled automobiles to dominate as the most common means of transportation. Automobile dependent development has paralleled urban sprawl as people move further and further away from centers of employment. In turn, this leads to isolation and

discouragement of physical activity which increases the rates of health problems in addition to reducing the amount of face-to-face interactions and the use of other cost-effective alternative means of transportation. This trend is especially evident in the western United States where many cities have developed within the last 100 years. Southern California is especially known for its sprawling communities and extreme automobile dependency. The research team described in this narrative concentrated on the grand challenge of promoting bicycling and walking. In various but related ways we focused our studies on the benefits of bicycling and walking as well as various ways to implement policy and programs that promote these benefits.

Research Methods

To examine specific benefits of individual and community health and social capital, Sara Ortiz and Brady Ruebusch focused physical design elements around neighborhoods and schools that discourage children, families, and groups from using alternative forms of transportation. Sara Ortiz conducted a series of informal interviews with parents or guardians who were dropping children off at school in individual automobiles.

Complementing this research, Cory Anderson utilized interviews and case studies to create an inter-modal bicycle and bus network (IBBN) which encourages these benefits. Carol Feucht researched minutes of meetings of the grassroots organization, San Diego County Bicycle Coalition, to see what plans they have been pursuing and which ones came to fruition in other transportation documents and interviews. These were the primary forms of research that were used to achieve the desired goals.

Individual Projects

Cory Anderson

How will an inter modal bicycle and bus network in San Diego effect it's roadways, congestion, commute times, and public health? Through my research on this question, I explored methods and techniques San Diego utilize in implementing a stronger, more efficient bicycle network working in conjunction with the bus routes and stops. I completed research investigating the Netherlands, Germany, UK, San Francisco, New York, and other case studies which point to the kinds of bicycle infrastructures and policies which could benefit San Diego. Findings from the research include: adding bike racks near to bus stops, construction of type I and II bike paths, and the availability of bikes-on-any mode of public transit. These improvements will allow for San Diegans to have increased options when choosing their method of commute, when utilizing public transit, and when choosing to enjoy the great outdoors San Diego offers year round.

Carol Feucht

With an increase in commuting in the San Diego region, alternative means of transportation, such as bicycling, need to be explored to alleviate congestion. While there are many benefits to bicycling, it can be dangerous without the proper facilities, infrastructure and supportive policy. Based on direct observation, inference, literature, and interviews, my study explored key challenges and successes that bicyclists face in San Diego in shaping bicycle-related public policy and planning outcomes. By looking specifically at the San Diego County Bicycle Coalition (SDCBC)—an advocacy group—and its work, my research analyzed how bicyclists can better mobilize and influence policy and how policy makers can better meet bicyclists' needs. While the paper

hypothesizes that the SDCBC has been mostly unsuccessful with limited policy influence, research points to some key victories with newer transportation projects and a coalition that is steadily gaining momentum for bigger projects and goals that deal specifically with existing infrastructure. One key finding is that the SDCBC—through years of bureaucratic work that includes attending countless transportation, community, and policy meetings—has formed relationships with other policy and planning groups that enable to have a greater voice and more influence. Another key finding is that awareness is essential in bicycle advocacy. Bicycling advocates often work against the stigma of the irresponsible bicyclist. Events and campaigns that educate both bicyclists and automobile drivers on bicycling laws are important tools in bicycle advocacy that complement planning and policy-making. Lastly, the SDCBC would like to grow stronger and influence the already existing infrastructure. Down the road, partnerships are essential in order for the SDCBC to make a bigger impact on the San Diego landscape.

Sara Ortiz

My senior research project was about mobility programs for school children. The focus was on active commuting to school through walking and/or bicycling. My hypothesis was that the built environment played the biggest role in preventing children from actively commuting. However, it was determined that although the built environment does play an important role a variety of different factors like the lack of community partnership and the need for a density of cross collaborations were responsible for some of the barriers. My findings demonstrate that in order to successfully increase and implement programs that promote active commuting, increased bottom up participation by all stakeholders along with cross collaborations are necessary in order to increase the number of children who actively commute.

Brady Ruebusch

Have neighborhoods benefited from installing bicycle lanes in more ways than simply providing for an alternative form of transportation? My research hypothesizes that the construction of bicycle lanes in a neighborhood increases social capital by providing a buffer to the street which encourages the use of bicycles lanes, sidewalks, and front yards as well as provides members of the neighborhood and outsiders a means for planned and spontaneous interaction. Proving the beneficial effects of bicycle lanes on communities may shift the focuses of master plans, limiting sprawl and facilitating bicycling—the most efficient and healthiest form of transportation—as the primary mode of transportation. This research suggests that San Diego’s Bicycle Master Plan is a good start but insufficient on its own to allow this form of transportation to flourish. In addition, bicycle lanes increase the number of interactions and thus social capital but not to the extent needed to be truly significant to policy makers.

Conclusion

Our studies begin to shed light on a significant a new movement towards healthier communities and a less automobile dependent society. Our work integrates perspectives from literature about the physical design of neighborhoods, the microeconomics of traveling, and community-based advocacy. Our findings suggest that much more needs to be done to by bicycling enthusiasts nationwide to encourage policy makers to address their needs. Through realizing the benefits of bicycling, learning how grassroots organizations can advocate for improved policy, and then having an example design of

inter-modal bicycle and bus network, individuals and groups can begin to push for more bicycle programs and routes.

Further research must still be conducted in order to provide even more concrete benefits and means for individuals to influence their local planning institutions. For instance, expanding the size of IBBN is a good logical step and perhaps emphasizing the physical design of stops. One might further study the types of advocacy that grassroots organizations can pursue. More work needs to be done to better understand the costs and benefits of various design elements aimed at implementing alternative forms of transportation and realizing associated health benefits. This is a great new area that deserves more research, especially in a country focusing more on environmentally friendly lifestyles and desperately needing new ways to improve its general health.

References:

Portney, K. (2005). Civic engagement and sustainable cities in the United States. *Public Administration Review*. 1 September 2005, Vol. 65 Issue 5, p579, 12p.

Physical Activity Levels of Children Who Walk, Cycle, or Are Driven to School (2005); Ashley R. Cooper, Lars Bo. Andersen, Niels Wedderkopp, Angie S. Page, Karsten Froberg; American Journal of Preventive Medicine. Pucher, John. 1999.

Bicycling renaissance in North America? Recent trends and alternative policies to promote bicycling. Department of Urban Planning, Rutgers University, New Brunswick, NJ. San Diego. Department of Transportation Planning. City of San Diego Bicycle Master Plan. San Diego: San Diego, 2002. <
<http://www.sandiego.gov/planning/programs/transportation/mobility/bicycleplan.shtml>>

Links:

1. San Diego County Bicycle Coalition

Available at: <http://www.sdcbc.org/>

2. Safe Routes: National Center for Safe Routes to School

Available at: <http://www.saferoutesinfo.org/>

3. BUPA Health Information

Available at:

http://www.bupa.co.uk/health_information/html/healthy_living/lifestyle/exercise/cycling/cycling_health.html

4. Best Bicycling Cities 2006

Available at: <http://www.bizjournals.com/portland/stories/2006/01/23/daily31.html>

