

University of California, Davis

## Economic Analysis for Alternative Transportation Program and Parking



In conjunction with Bay Area Economics, Nelson\Nygaard undertook a study to examine the potential for UC Davis to expand its Alternative Transportation Programs (ATPs) as a means of reducing the number of people driving cars to campus, which would force the need to construct additional parking facilities, in anticipation of campus growth.

Working with campus, city and community stakeholders, Nelson\Nygaard presented a range of options for expanding existing ATPs. This “menu” covered infrastructure, operations, and pricing and marketing strategies currently affecting the university’s bicycle, pedestrian, parking, transit, rideshare, car share and residential programs. From this menu, stakeholders selected three packages of options representing basic, medium and high transportation demand management.

These scenarios were then analyzed with respect to projected parking demand, parking operational costs, ATP implementation costs and required revenue per parking space. The results of each scenario were compared to baseline results in order to estimate the level of parking demand and the cost to the university. Scenarios offering the lowest cost per space were considered the most cost effective to the university since they required the lowest parking charges to university affiliates.

This analysis provided a strategy for managing multimodal transportation resources at a campus facing increased enrollments amidst land and revenue constraints. The strategy provided a tailored approach to effecting additional mode shift at a campus with strong existing bicycle and pedestrian programs (over 40% of students commute by bike). The strategic analysis reflected the potential effects of altering a complex parking permit system, and responded to concerns expressed by the surrounding city.

The analysis indicated that future parking demand at UC Davis could be reduced by 30% through a series of incremental changes to strengthen bicycle, pedestrian, and transit access, adjust parking fee structures and accelerate campus housing development.



**Project Duration:** 2004

**Total Budget:** \$26,500

**For more information:**

Transportation and Parking Services  
University of California - Davis  
1 Shields Avenue  
Davis, CA 95616

**Contact:**

Cliff Contreras  
Director  
530-752-5435  
[cacontreras@ucdavis.edu](mailto:cacontreras@ucdavis.edu)