

FY 2010 RESEARCH PROBLEM STATEMENT

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TITLE ([more info](#))

Effect of bicycle facility type on cyclist stress levels

PROBLEM (Description of need) ([more info](#))

Many cyclists experience some level of stress while bicycling on roadways. The stress they experience contributes to their comfort on a bicycle, and thus to their willingness to choose that mode. Beyond anecdotal evidence, we do not have a measure for comparing bicyclists stress levels on different bicycle facility types.

PROPOSED RESEARCH, DEVELOPMENT OR TECHNOLOGY TRANSFER ACTIVITY ([more info](#))

This study will develop a methodology to measure cyclist stress levels (through monitoring biological signs, interviews/surveys, or other methodology as determined by the research team). Cyclists of different experience levels will be recruited to ride on different types of bikeways (including multi-use pathways, bicycle boulevards, bike lanes on streets with a variety of vehicular volumes, wide outside lanes, and untreated roadways with a variety of vehicular volumes). The stress they experience will be determined for each type of bikeway.

BENEFITS ([more info](#))

This study will develop a quantitative measure of bicyclist stress, also known as comfort. Bikeway types that reduce stress (increase comfort) are more likely to attract new users. Thus, this measure can and should be used in cost-benefit analysis and project prioritization to ensure the maximum usage of installed facilities.

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Problem Statement Number: