

Highway 101 leading into San Jose, CA has been nicknamed "Blood Alley" because of the high number of head-on crashes on the undivided 4-lane highway. CalDOT is evaluating a proposal to rebuild Highway 101 as a divided highway. The initial cost of the project is \$230 million and maintenance costs will be \$350,000 per year. It is estimated that the number of fatalities will drop by 6 per year. If each life saved is valued at \$4.9 million, is this project justified on a benefit-cost basis? Assume the cost of capital for the project is 4% per year and the highway improvements are permanent.