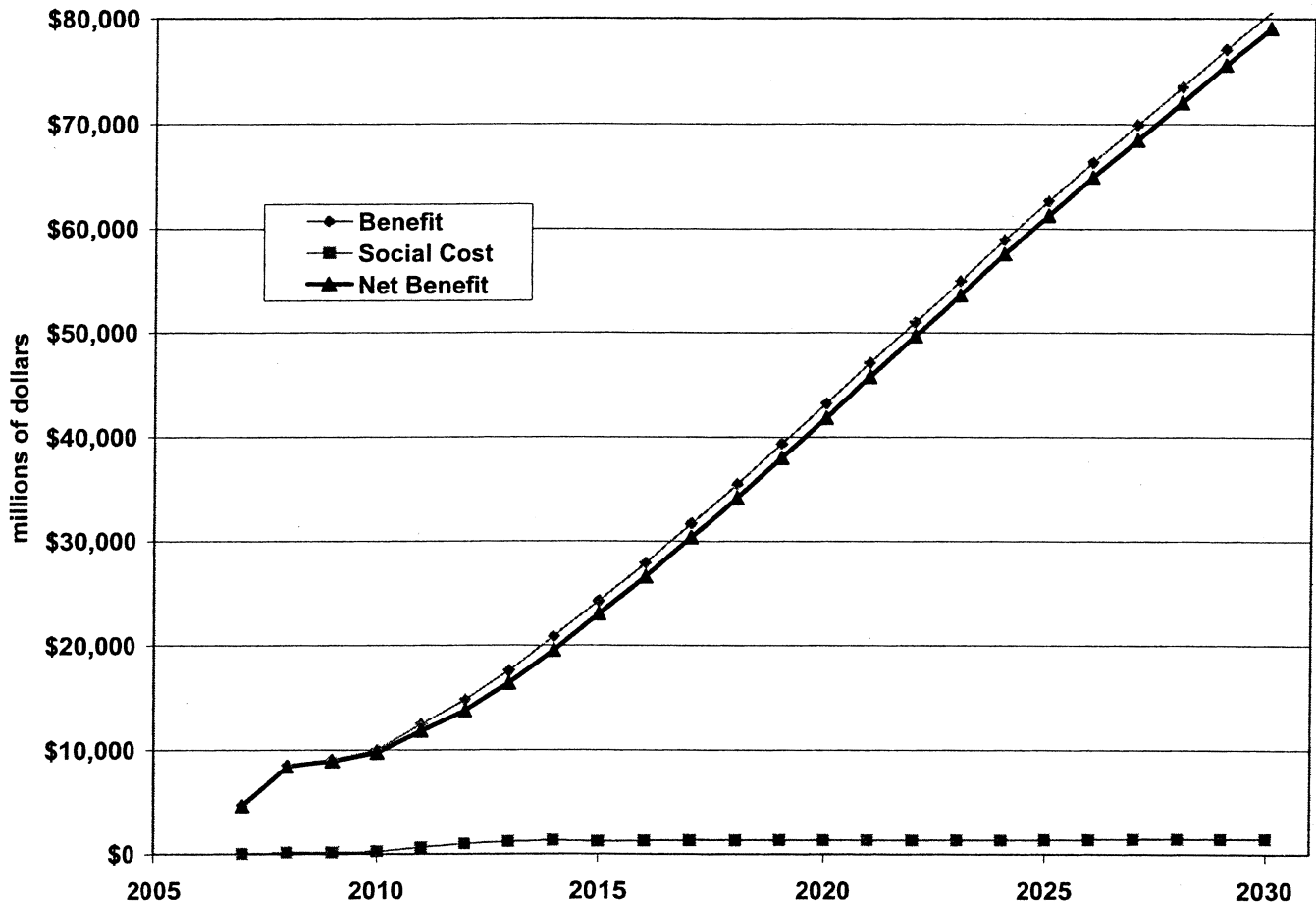


**FIGURE V.E-1 -- STREAM OF BENEFITS, COSTS, AND NET BENEFITS OF THE
PROPOSED NONROAD DIESEL ENGINE AND FUEL STANDARDS**



**TABLE V.E-4.—NET PRESENT VALUE
IN 2004 OF THE STREAM OF BENEFITS,
COSTS, AND NET BENEFITS FOR THE
PROPOSED NONROAD DIESEL ENGINE AND
FUEL STANDARDS**
[Billions of 2000\$]

Social Costs	\$17
Social Benefits	550
Net Benefits	^a 530

Notes:

^a Numbers do not add due to rounding.

2. What Was Our Overall Approach to the Benefit-Cost Analysis?

The basic question we sought to answer in the benefit-cost analysis was, "What are the net yearly economic benefits to society of the reduction in mobile source emissions likely to be achieved by this proposed rulemaking?" In designing an analysis to address this question, we selected two future years

for analysis (2020 and 2030) that are representative of the stream of benefits and costs at partial and full-implementation of the program.

To quantify benefits, we evaluated PM-related health effects (including directly emitted PM, SO₃, and NO_x contributions to fine particulate matter). Our approach requires the estimation of changes in air quality expected from the rule and then estimating the resulting impact on health. In order to characterize the benefits of today's action, given the constraints on time and resources available for the analysis, we adopted a benefits transfer technique that relies on air quality and benefits modeling for a preliminary control option for nonroad diesel engines and fuels. Results from the modeled preliminary control option in 2020 and 2030 are then scaled and transferred to the emission reductions expected from the proposed rule. We also transferred

modeled results by using scaling factors associated with time to examine the stream of benefits in years other than 2020 and 2030.

More specifically, our health benefits assessment is conducted in two phases. Due to the time requirements for running the sophisticated emissions and air quality models needed to obtain estimates of the benefits expected to result from implementation of the rule, it is often necessary to select an example set of emission reductions to use for the purposes of emissions and air quality modeling. In phase one, we evaluate the PM and ozone related health effects associated with a modeled preliminary control option that was a close approximation of the proposed standards in the years 2020 and 2030. Using information from the modeled preliminary control option on the changes in ambient concentrations of PM and ozone, we then conduct a