

Societal Benefits of Pavement Preservation

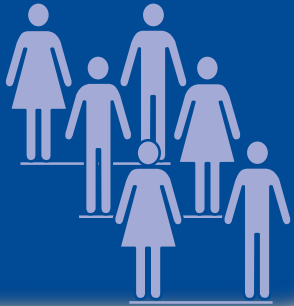
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Social and Economic Impacts

Social Impacts



Economic Impacts



Topic Outline

- **Social Impacts**
- **Economic Impacts**
- **Social & Economic Benefits of Pavement Preservation**
- **Market the Preservation Potential**

Social Impacts

- **The effect of an activity on the social fabric of communities and well-being of individuals and families.**



Social Impacts of Our Highway System

- **Democratization of Mobility**
Expanded options to travel within and between their communities.
mobility
- **Expanded Residential Freedom**
People have reduced travel time and broader options in residential locations from their work.

Social Impacts of Our Highway System

- **Expanded Employment Options**

People can pursue employment across far larger areas.



- **Lower Retail Prices**

Travel and shop wherever they like for bargains and larger selections.



Social Impacts of Our Highway System

- **Leisure Activities & Vacations**

People take longer trips on weekends and vacations.



- **National Defense**

Provides 'modal redundancy' for the mobilization of troops and equipment.



Economic Impacts

- **The effect on commerce, employment, or incomes produced by a decision, event, or policy.**



Economic Impacts of Our Highway System

- **Increased Economic Growth**
Lower transportation costs encourages job creation and promotes commercial expansion.
- **Higher Work Productivity**
Improves travel time and reliability of workers.



Economic Impacts of Our Highway System

- **More Trade and Exchange**



Expands the number of potential customers who can be reached.

- **Lower Business Costs**

Lowers transport costs, increases reliability, and the exchange of goods and services.



ROUGH ROAD AHEAD

THE ECONOMIC IMPACT OF AMERICA'S FAILING TRANSPORTATION INFRASTRUCTURE BY 2020

Families have a LOWER STANDARD OF LIVING.

American families would earn
\$700 less each year.

+

And spend **\$360 more**
each year.

=

Total impact on each family's budget:
\$1,060 per year.

American businesses and workers PAY A HEAVY PRICE.

America would lose
877,000 jobs.

Another **234,000** jobs exist only if
many more workers agree to paycuts.

Between now and 2020
transportation costs
increase \$430B.

AMERICA LOSES GROUND in the global economy.

U.S. exports would drop by
\$28 billion.

+

Exports drop in
79 of 93 different
tradable commodities.

=

America's gross domestic
product underperforms by
\$3.1 trillion.

FOR AN ADDITIONAL
INVESTMENT OF
\$94B PER YEAR
WE CAN:

+ Create
millions
of jobs

+ Protect
another 1.1
million jobs

+ Save 180
million hours
in travel time

+ Save each
family \$1,060
per year

+ Add \$10,000 in
GDP for every
person in the U.S.

ASCE
AMERICAN SOCIETY OF CIVIL ENGINEERS

Social & Economic Benefits



Social & Economic Benefits



Social & Economic Benefits of Pavement Preservation - Opportunities -

- Development of Asset Management Plans to:
 - Preserve asset and minimize whole life cost;
 - Operate in a financially sustainable manner; and,
 - Create a framework to improve performance on a long-term basis.



Social & Economic Benefits of Pavement Preservation

- **Lower Frequency of Construction**

Reconstruction is the most expensive intervention and can totally consume an agency's budget.

Preserving the pavement reduces the need for costly reconstruction.

Social & Economic Benefits of Pavement Preservation

- **Increased Level of Service**

Pavement condition is a measure of service for the motoring public.

Agencies can achieve the best LOS by preserving their highway network.

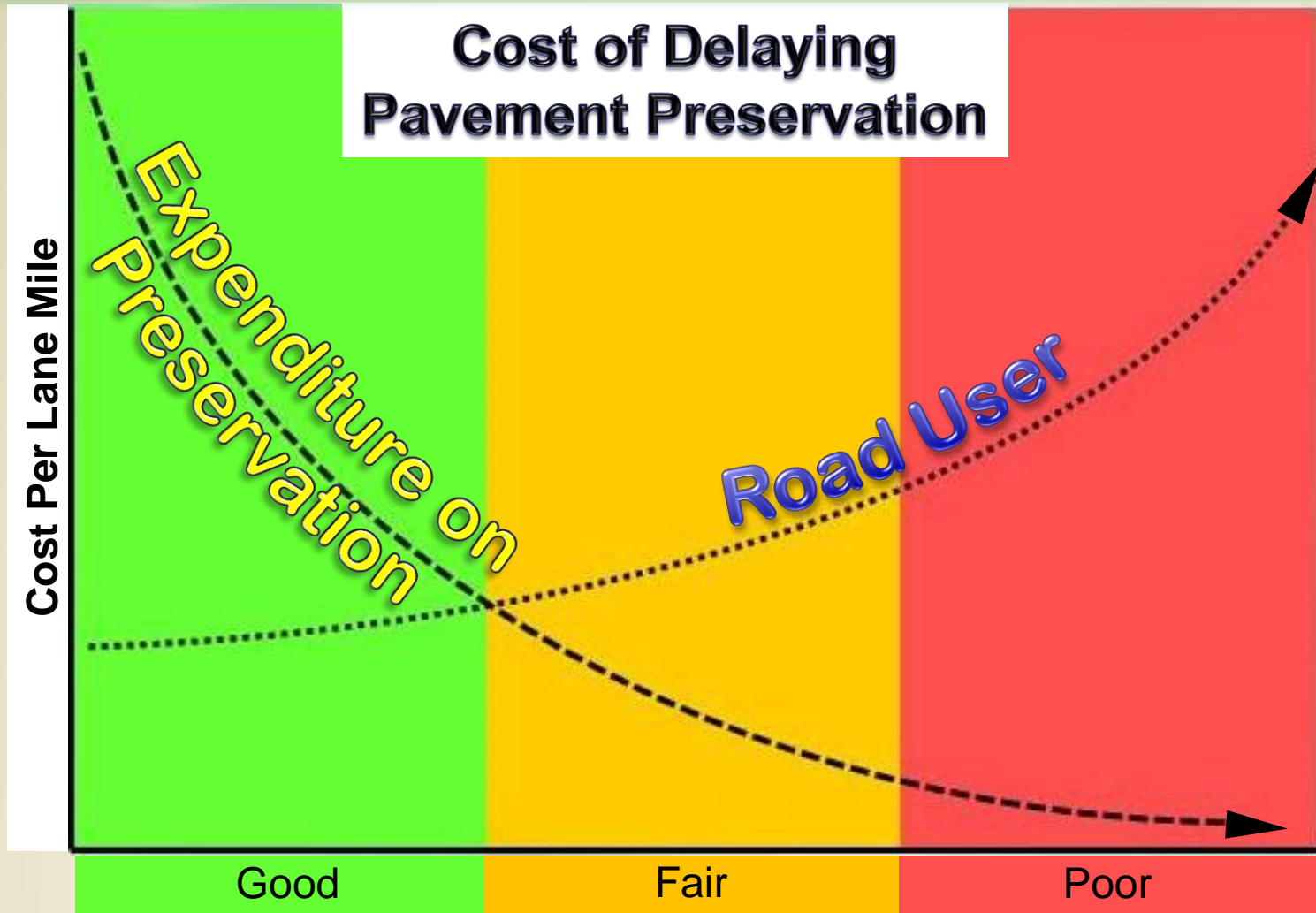
Social & Economic Benefits of Pavement Preservation

- **Higher Average RSL**
(RSL = remaining service life)

Increasing network RSL is similar to banking resources and creating a funding reserve.

A mix of fixes that includes pavement preservation will improve the RSL.

Social & Economic Benefits of Pavement Preservation



Social & Economic Benefits of Pavement Preservation

- **Lower Road User Costs**

Roads in poor condition cause damage and wear to vehicles.

Poor roads result in reduced vehicle speed, negatively affecting fuel consumption.

Social & Economic Benefits of Pavement Preservation

- **Higher Travel Time Reliability**

Roads preserved in good condition are more likely to provide a reliable travel time.

Reconstruction or rehabilitation require closures and detours, which can severely degrade travel time reliability.

Social & Economic Benefits of Pavement Preservation

- **Reduced Travel Delays**

Specific examples include:

- Reduced queues
- Decreased congestion
- Eliminated detours



Social & Economic Benefits of Pavement Preservation

- **Less Energy Required**

Pavement preservation treatments require substantially less energy than for reconstruction or rehabilitation.



Social & Economic Benefits of Pavement Preservation

- **Recycling**

Agencies can save costs by avoiding new materials and disposing of the present deteriorated pavement.



Social & Economic Benefits of Pavement Preservation

- **Greater Sustainability**

Allows the agencies to move closer to closing the gap between costs and resources.



Social Benefits of Pavement Preservation

- **Diminished Vehicle Crashes**

Less work zone time results in reduced injuries and deaths, that are intangible benefits to individuals, families and society.



Social Benefits of Pavement Preservation

- **Decreased Noise Duration**

Apart from being a general nuisance, excessive noise can pose health problems especially with nighttime construction.

Noise may violate compliance of local ordinances.

Social Benefits of Pavement Preservation

- **Less Greenhouse Gases**

Preservation generates less CO₂ emissions than reconstruction and rehabilitation.



Social & Economic Benefits of Pavement Preservation

- **More Job Creation**

Greater portion of preservation dollars reach the employees, because less materials are used.

Reconstruction and rehabilitation target a higher percentage of dollars for material costs.

Market the Benefits of Preservation

- **After 3 Days People Remember**
 - 10 % what they hear
 - 20 % what they see
 - 65 % what they hear & see



Market the Benefits of Preservation

- **Develop a Marketing Strategy that:**
 - Associates with the person's location or emotions
 - Links a chain of memories that connects one point with another
 - Builds through repetition

Summary

~ OUR STORY ~

The social and economic benefits of pavement preservation offer a great story to tell.



Questions

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