

PAVING^{the}WAY

A PUBLICATION OF THE PLANTMIX ASPHALT INDUSTRY OF KENTUCKY AND THE KENTUCKY ASPHALT PAVEMENT ALLIANCE

Opinions Count . . .

Hey buddy, can you spare a dime

The panhandler's lament from Depression era days could have new meaning for Kentucky's transportation infrastructure. That dime represents what would be necessary just to keep pace with inflation based on the last increase in the state motor fuels tax.

Kentucky has not had an increase to the road fund gas tax since it was set at 15 cents in 1986. Since that time, 1.4 cents was added and earmarked for the underground storage tank fund. There have been no other increases since then, although nearly everything else related to transportation has changed drastically:

- The number of vehicles in the United States has increased by 99 percent;
- The number of miles driven annually has increased by 148 percent; and
- Even in Kentucky, which remains relatively rural, the volume of traffic in the last 10 years alone has increased by 50 percent.

But the gas tax, which contributes almost 40 percent of revenue to the state's road fund has not increased at all.

Hey buddy, can you spare a dime?

This is all occurring at a time when Kentucky roads are falling into disrepair:

- Nearly one-third of Kentucky's interstate highways are in poor condition;

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Life Cycle Cost Analysis

The buzzword in pavement selection these days is "Life Cycle Cost Analysis." Life Cycle Cost Analysis (LCCA) is an analysis tool that attempts to evaluate the present-day and long-term costs associated with alternatives. The selection of pavement type is a complicated process and is based on as many as 14 different factors. LCCA is one of the tools available to designers to assist in this engineering decision.

There is little argument that asphalt is less expensive in terms of initial costs. However, hot mix asphalt (HMA) is often stereotyped as a high maintenance product. The inference is that while it is less expensive to build, it does not last as long and therefore isn't the best value for taxpayers.

Contrary to claims by competing products, HMA typically offers the lowest initial cost and the lowest life cycle cost. In other words, it is, in fact, the best value for the taxpayers. In addition, asphalt offers the smoothest driving surface available, improves fuel efficiency, and reduces roadway noise.

LCCA takes into consideration initial construction costs, maintenance, future rehabilitation and salvage value at the end of the pavement life. The analysis also looks at user delay costs, which are intangible costs associated with traffic delays from lane closures and construction backups.

A recently completed project in Kentucky offers a great example of LCCA. The Kentucky Transportation Cabinet Division of Highway Design performed a thorough pavement design and LCCA for the project. The analysis indicated both initial cost savings and

long-term (life cycle) cost savings with HMA.

The Kentucky Transportation Cabinet advertised alternate pavement designs, HMA overlay of the existing concrete pavement versus a concrete overlay of the existing concrete pavement. The analysis suggests that the life cycle costs of the HMA would be approximately \$3 million less than the LCCA for the concrete pavement. In short, a three million-dollar value to the taxpayers of Kentucky. Along with lower life cycle costs, there was a significant advantage in initial cost as well. This is another important factor to consider as our state faces budget shortfalls. When a product offers the lowest initial cost and life cycle cost for a project, selecting the pavement type should be easy.

And when the dust settled, asphalt pavement was chosen for the project. Lower life cycle costs are one of the many reasons why 95 percent of road surfaces are paved with asphalt. The fact that asphalt usually offers lower initial costs and lower life cycle costs demonstrates that it is, by far, the best value for taxpayers. From beginning to end, asphalt costs less.

"Hot mix asphalt typically offers the lowest initial cost and the lowest life cycle cost."

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- 45 percent of parkways are in poor condition;
- 30 percent of all bridges are structurally deficient or functionally obsolete; and
- Driving on Kentucky highways costs motorists about \$627 million a year in extra vehicle repairs and operating costs—about \$233 per motorist.

Spending money on road and bridge improvement is expensive, yes. But it's more expensive to ignore the infrastructure and allow it to deteriorate.

If the motor fuels tax were increased by 10 cents—which again, just keeps it adjusted for inflation from the last time it was raised—the average motorist would pay an additional \$35 per year to save \$233 in unnecessary repairs and maintenance.

But it's not just about saving money; better roads mean better business. A USDOT study projects that almost \$6 in economic benefits result from every dollar invested in new construction or highway enhancement. A 10-cent increase in the motor fuels tax would add \$220 million in additional construction funds and, by extension, \$1.32 billion in overall economic improvement.

Kentucky currently has the fifth lowest gas tax in the nation. Among the six states that Kentucky shares significant borders with, the average gas tax is 23.5 cents; Kentucky's, as a reminder, is 16.4 with only 15 cents going to the road fund.

Currently, there are nearly \$2 billion in state-funded projects in the six-year road plan. But without additional revenue, more than half of these projects will have to be stopped or put on hold. Meeting maintenance needs will also be in jeopardy.

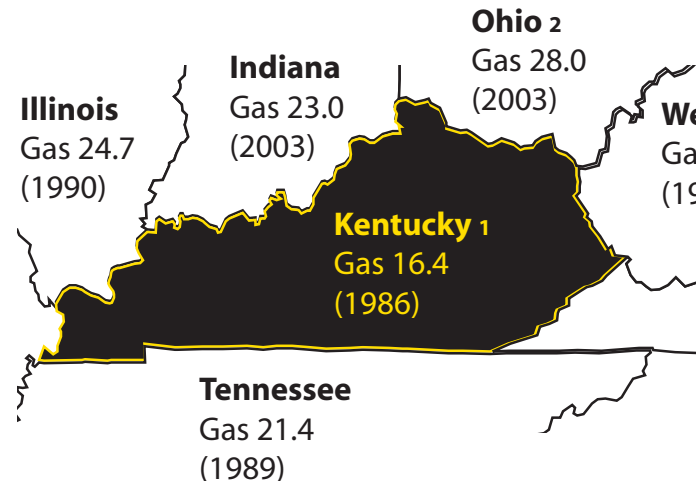
The cost of building and maintaining Kentucky's highway and transportation infrastructure is significant. The cost of not doing so is even more significant. Kentucky needs a healthy transportation network to foster economic improvement in rural areas and enhance safety everywhere. Highway arterials are the lifeblood of the state's economy and its ability to move manufactured goods and products, transport raw materials and agricultural crops for processing, and to provide safe and convenient access for our vital tourism and service economies.

It's time for the citizens of this Commonwealth to consider the overarching fact: Kentucky is losing the battle to maintain a competitive edge in transportation. We've fought the good fight for a long time, but being outgunned by other states is starting to catch up with us. Significant change will be required to build and maintain safe highways and bridges. That change needs to happen now.

Hey buddy, can you spare a dime?

— **Dean Blake, executive director of PAIKY**

Motor Fuels Tax cents per gallon (year tax last increased)



UK Announces Awards for Civil Engineering

Brian Wood, assistant executive director for PAIKY, and James M. ("Mac") Yowell, state highway engineer, were recently recognized by the University of Kentucky College of Engineering during the Civil Engineering Awards Reception and Banquet held on April 26.

Wood was awarded the Young Civil Engineer of the Year Award. Civil engineering is a legacy for Wood, whose father, grandfather and great grandfather were also involved in the field. Wood graduated from the civil engineering program at the University of Kentucky and earned a masters in civil engineering through the Kentucky Transportation Center's Advanced Transportation Institute. He is a resident of Prospect, Ky., with his wife Jennifer and daughter Olivia.

Yowell was honored with the Civil Engineering Career Achievement Award. Yowell has worked in the field since his graduation from the University of Kentucky's Civil Engineering program in 1959. Yowell's experience and skills have also been dedicated to various committees on engineering and highways. He has served as the State Highway Engineer since his appointment by Governor Brereton Jones in 1992 and re-appointment by Governor Paul Patton. Yowell is a resident of Versailles, Ky.

PAIKY Remembers Former Presidents

Former PAIKY presidents, Jack E. Ruth (1963) and Bill Sparks (1973), recently passed away. Ruth and Sparks were major contributors to the field during their careers and time with PAIKY. Both men were lifetime honorary members of PAIKY.

Ruth, a leader in the Kentucky highway industry, died on June 7. He is survived by two children, Vickie and Jackie, and five grandchildren. Ruth left high school at age 17 to work for his father's company, Ruth Brothers. In 1942, he entered the military. Later, he helped to reorganize his family's struggling company into Kentucky Road Oil and Company. East Kentucky Paving was formed as a division of that company, with Ruth as the president. East Kentucky Paving completed major projects that greatly contributed to Kentucky's highway progress, such as the construction of I-64 in Rowan, Carter and Boyd counties (1964-1973). It was during that era when Ruth became president of PAIKY. Ruth was also a chairman of the Kentucky Association of Highway Contractors. He was most recently involved in Hamilton, Hinkle & Ruth. This asphalt-paving company is active in central Kentucky and was very involved in projects to widen I-75 in Georgetown.

Sparks died at home on July 10. He is survived by one daughter, Lee and her husband Ned; two granddaughters and two sisters. Sparks was president and general manger of Ashland Asphalt Paving Company for 30 years before forming Tri-Cities Paving and Contracting. Sparks served as PAIKY president in 1973 and also contributed time to other trade and community organizations, such as the Ashland Rotary Club, Greenup Masonic Lodge #89 and was a chairman and lifetime member of the Kentucky Association of Highway Contractors. He was also a veteran of the Korean War.

"We thank Mr. Ruth and Mr. Sparks for their involvement with PAIKY," said Dean Blake, executive director of PAIKY. "We honor these legends in our industry and will miss them greatly."

Federal Tax Gas 18.4

West Virginia
Gas 25.4
(1989)

Virginia
Gas 18.1
(2001)

- 1 *In Kentucky, only 15.0 cents goes to the road fund.*
- 2 *In 2003, Ohio passed an incremental gas tax that increases two cents each year up to 28.0 cents in 2005.*
- 3 *In Virginia, some areas charge a two percent sales tax in addition to the gas tax.*

State Road Fund

Where does it come from?

	Percentage
Motor Fuels and Motor Fuel Use/Surtax	40
Motor Vehicle Usage and Rental	38
Weight Distance Tax	7
Truck/Passenger Car License	4
Truck Registration	3
Investment	3
Tolls	1
Other	4
TOTAL	100

Where does it go?

	Percentage
State Construction	24
Maintenance	17
Debt Service	14
Federal Aid Match	9
Rural Secondary Roads	8
County Road Aid	7
Resurfacing	5
General Administration and Support	5
Municipal Aid	3
State Police/Other Non-KTC Agencies	3
Vehicle Regulations	2
Highway Operations	2
Other	1
TOTAL	100

Web Site Provides HMA Learning Resources

The National Asphalt Pavement Association (NAPA) along with PAIKY and other state asphalt pavement associations have worked together to create an educational Web site, www.beyondroads.com.

The Web site contains general information about the hot mix asphalt (HMA) industry and plants, with sections specific to teachers, students, researchers, journalists and the general public. It is a useful tool in learning about the HMA industry.

www.beyondroads.com

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