BUILD CALIFORNIA BETTER

Options For Long-Term Road And Highway Funding

An ACEC California Infrastructure Discussion Paper

ACEC California
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ACEC
American Council of Engineering Companies
California

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ACEC California is committed to advancing dialogue on infrastructure-related issues facing California in the 21st century. This white paper on long-term road and highway funding is the first in a series of discussion documents we plan to issue over the next few years.

California's problems with funding transportation improvements are not going away, even as the overall economy itself improves. Finding the funds to make sure our roads and highways are well maintained becomes an even higher priority than it was during the economic downturn. The pressure on our roads, highways and bridges, the daily wear and tear, the constant repairs and the dire need for roadway improvements to reduce commute times will only become greater as California's resurging economy adds jobs and vehicle traffic increases. While the move toward greater fuel efficiency should be applauded as it benefits our long-term environment, it will do nothing to relieve the wear and tear on our roadways. As cars use less gasoline, funding for transportation paid as a tax per gallon will continually erode, while non-gasoline vehicles wear out roadways without paying a fair share. Federal and state gas taxes are already insufficient to keep pace with needed highway improvements and gas tax increases required to meet these needs are unlikely to be palatable to the state's taxpayers.

The state gas tax was designed as a user fee. Only those who used the roads paid the tax. But it is a user fee that is reaching its natural limit. It's time to rethink the way we fund highway infrastructure and develop sustainable and practical user fees to compensate for the growing shortfall in funding from the gas tax. This paper raises the question and looks at some of the alternatives being put forward in California today as well as the approaches taken in other states.

We hope you find the ideas presented in this white paper informative and illuminating. ACEC California will continue to contribute to the important discussion taking place today so that Californians can make informed decisions and create more sustainable jobs as we Build California Better.

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BUILD CALIFORNIA BETTER:

OPTIONS FOR LONG-TERM ROAD AND HIGHWAY FUNDING

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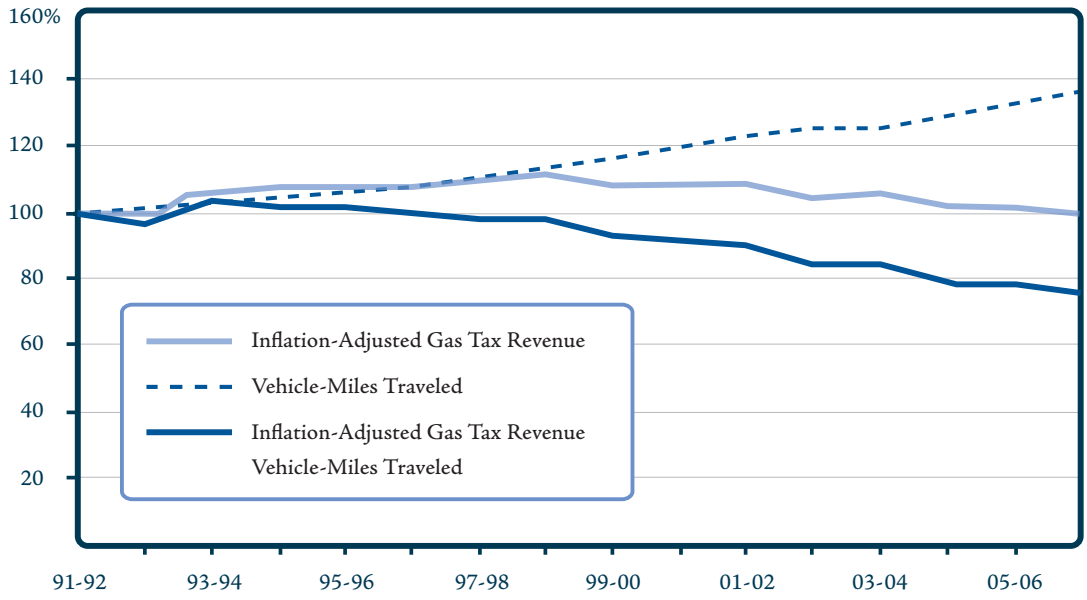
California's transportation infrastructure is at a crossroads. The average pavement condition in a majority of counties is considered "at risk,"[1] and the California Department of Transportation (Caltrans) has projected a US$290 billion shortfall through 2020 for the maintenance and expansion of roads and highways.[2] Caltrans also is preparing for fewer funding options. The successful $20 billion Proposition 1B bond program that financed transportation projects over the last several years is ending. Meanwhile, state and federal revenue for future transportation funding is expected to drop by about 40 percent, compared to the 2008 through 2013 time period.[3]

Like many other states in the country, California lacks a long-range plan to raise the funds necessary to maintain its transportation infrastructure, let alone improve it to handle future needs. California's business leaders and politicians, however, recognize that the state's economic growth depends on a sound transportation system. Subsequently, they have begun to search for sustainable funding solutions as it becomes clear that the fuel tax model to raise transportation revenues is becoming obsolete.

Real Gas Tax Revenues Have Not Kept Pace With Road Use



Source: California Legislative Analysts Office, 2008

While raising the state's current 39.5-cent excise tax on a gallon of gas could temporarily help bridge a funding gap, many view this tax as unfair since not all users pay. Even if the public were to approve such a tax increase, the relief would be short-lived as more fuel-efficient vehicles increasingly populate the roads and bypass the gas pump. Not only must carmakers nominally achieve an average of 54.5 miles per gallon across their passenger fleets by 2025 to comply with aggressive Corporate Average Fuel Economy (CAFE) standards set by the Obama Administration in 2012, but California also leads the nation in the push to expand the number of electric, hybrid and alternative fuel vehicles on the roads. In his 2014 State of the State address, for example, Governor Jerry Brown proclaimed that the state was on its way to putting "a million electric vehicles" on the road as part of his proposal to fund electric automobile programs with a portion of the $200 million raised in cap and trade auctions. This puts the state at the forefront when it comes to delivering sustainable, environmentally responsible transportation, but according to some estimates, it could also result in the loss of more than $400 million annually in state gas tax revenue. That funding needs to be replaced since electric cars cause the same degree of wear and tear on roads as gasoline-powered vehicles.[4]

What's more, the federal Highway Trust Fund, which is financed by the 18.4-cent federal excise tax on fuel and provides about $46 billion annually to state and local governments, is rapidly depleting its reserves and could be insolvent by the end of the summer. One reason for this is that people are driving less.[5] But a bigger factor is that inflation has eroded the value of

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gas tax receipts by 30 percent since it was last raised in 1993.[6] By 2030, as much as half of the revenue collected via the gas tax is projected to be lost to inflation.[7] Transfers from the general fund have propped up the highway fund for the past several years, and at least $16 billion in additional revenues are needed annually to simply maintain current funding levels. The Obama Administration has proposed boosting the fund over the next four years with $150 billion raised through corporate tax reform, but viable reform options were never proposed and the proposal was largely considered dead on arrival. It would be a dangerous gamble for state leaders to assume that the federal government will continue to pour money into the Highway Trust Fund as spending for Social Security, Medicare and other entitlements continues to increase.[8]

With those challenges in mind, the California organization of the American Council of Engineering Companies, a nonprofit association that has been representing private engineering and land surveying businesses for more than 50 years, is endeavoring to advance the discussion concerning future road and highway funding solutions. ACEC California consulted research issued by respected transportation policy analysts and interviewed national and local experts who are leading efforts to find new ways to finance infrastructure.

This report looks at a handful of new and not-so-new funding possibilities, highlights the experience of states that have tried them, and provides some of the benefits and drawbacks of each. The programs are by no means the only potential solutions available, but they are currently among the best candidates, as indicated by funding experiments and debates occurring nationwide. ACEC California recognizes that persuading taxpayers to embrace new ideas when it comes to solving transportation funding needs will be a difficult challenge requiring education and patience, but it believes that stakeholders must pursue every opportunity available to secure the future of California's critical transportation infrastructure.

Mileage-Based Fees – An Idea Whose Time Has Come?

The potential solution receiving the most attention from the media and policy experts today is the mileage-based fee, also known in some states as the vehicle mileage tax (VMT). In its simplest form, this solution charges drivers for each mile traveled. The concept's nature as a true user fee—those who use the roads most pay the most—and its detachment from the gas pump have endeared it to forward-thinking transportation minds nationwide. But privacy concerns in an era of surveillance drones and National Security Agency eavesdropping revelations have thus far limited a more robust debate.

Nevertheless, states and the federal government are beginning to explore the concept more aggressively.

"The consensus among transportation researchers is that given the unknown array of vehicle power sources that will be used over the next 50 years, it really makes sense to get away from a per-gallon tax on gas and diesel and go to a system of charging by the mile," said Robert Poole, Jr., Searle Freedom Trust Transportation Fellow and Director of Transportation Policy at the Reason Foundation. "What's not going to change is the fact that people are still going to go from point A to point B—there are going to be wheels on the road—so they should pay for the roads they actually use."

"The concept's nature as a true user fee — those who use the roads most pay the most…[has] endeared it to forward thinking transportation minds nationwide."

In California, ACEC California and others support the concept of establishing a mileage-based fee pilot program by January 2016.[9] While still early in formulation, it would authorize Caltrans, the California Department of Motor Vehicles and other agencies to track vehicle miles.

The Southern California Association of Governments has estimated that a fee of 5 cents per mile beginning in 2025 would raise $110.3 billion across the association's six counties.[10] Still, officials in Riverside and San Bernardino counties have expressed skepticism about a mileage-based

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fee because their residents are forced to drive longer distances due to expansive geography and great distances between populations.[11]

California's endeavor would follow Oregon's lead, which has conducted two short-term VMT pilot programs with some 385 subjects over the last eight years. The first program was GPS-based and drivers paid at the gas pump. While Oregon's Road User Fee Task Force came away with favorable impressions, it held off on legislation amid citizen concerns over privacy.

In its second experiment, Oregon gave drivers options such as paying a high up-front fee for unlimited miles or using a private vendor to track mileage through a smartphone to determine in-state and out-of-state driving. It also provided the volunteers with a fuel tax credit. (The second pilot program included drivers and transportation departments in Nevada and Washington.)

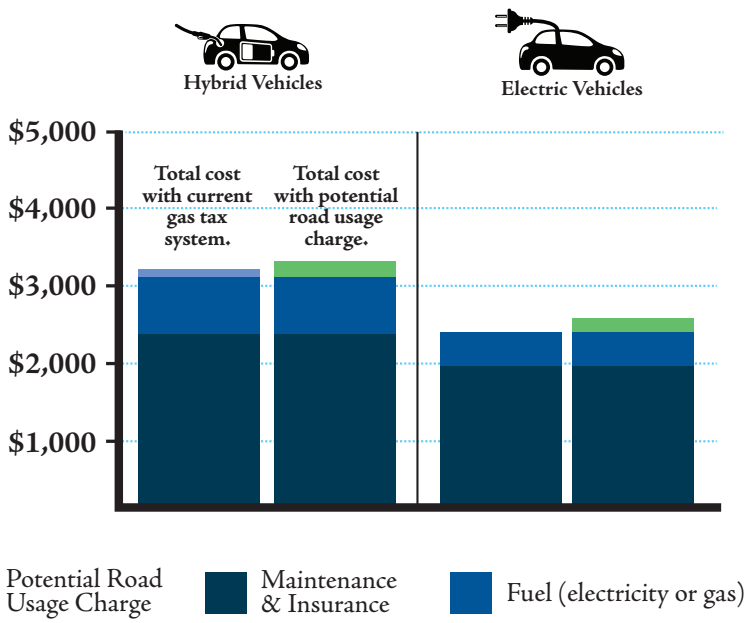
Among other results, the state concluded that a VMT system with different options could be easily administered; a private market for service providers exists; and a fee of 1.56 cents per mile was generally acceptable as a price point.[12] Oregon also found that the per-mile charges generated 28 percent more revenues in 121,371 miles traveled when compared with the anticipated yield of the state's fuel tax of 30 cents a gallon. The pilot vehicles averaged 24.7 miles per gallon.[13]

On July 1, 2015, Oregon will launch a program that will charge 5,000 volunteers 1.5 cents per mile and provide fuel tax rebates for vehicles. It will also give drivers a range of options for mileage collecting and reporting, including one that does not use vehicle location technology. To alleviate privacy concerns for GPS-based systems, the state plans to destroy mileage data 30 days after payment or a collection dispute is resolved.[14]

The Cost of Driving and Oregon Gas Tax in Perspective

Gas taxes and a potential road usage charge represent a small portion of the annual cost of driving.

Costs based on 12,000 miles driven per year at $3.50 per gallon of gasoline and assumed electricity cost of $.035 per mile for electric vehicles, based on national average price per kWh. Assumed fuel efficiency is 50 MPG for hybrids. Maintenance and insurance costs were estimated for 2012 model year representative vehicles using Edmunds.com data for both classes of vehicle above. The current Oregon state gas tax rate is $0.30 per gallon and the road usage charge is $0.0156 per mile; the road usage charge for each class of vehicle above is the same, as the annual mileage travelled was assumed to be the same for each.



Source: Oregon DoT

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Similarly, the University of Iowa conducted a federally funded two-year field study involving 2,600 volunteers nationwide using GPS systems. Researchers determined that a nationwide system is feasible and found that participants' impression of the mileage-based fee concept improved as the study advanced.[15] Minnesota has also conducted a limited mileage-based fee experiment, and

along with Florida, Michigan, Nevada, Texas, and Wisconsin continues to give the idea serious consideration.[16] North Carolina is considering a pilot program,[17] and U.S. Rep. Earl Blumenauer from Oregon continues to pursue legislation that would require the federal government to set up a national mileage-based fee experiment. [18]

Proponents of a mileage-based fee system face a handful of challenges to sway public opinion. Not only would the assemblage of such a program need to alleviate concerns over privacy, but it would also have to overcome driver resistance to paying a direct tax bill versus paying a "hidden" tax at the pump. For those reasons, providing drivers with several options, from annual odometer readings to cell phone-based tracking, is critical to its acceptance.[19] The notion that a miles-based fee program could lower insurance costs by creating policies and rates more precisely tailored to time on the road—similar to the "safe driver discount" concept —could be an additional selling point.[20]

Among other drawbacks, the costs involved in administering a widespread mileage-based fee system are still largely unknown. Oregon's pilot programs, for example, were too small to make any reasonable cost assumptions,[21] although it is anticipated that just setting up a program would require a long lead time and incur high costs.[22] What's more, any program would have to consider potential issues such as rebates or credits for miles driven out of state, a task accomplished more easily with location-tracking devices than odometer readings.[23]

Toll Roads – A Usage Fee Alternative

Tolling is another concept that, like the mileage-based fee, would charge the most frequent users of highways and roads, but it is one that has generally met with resistance, particularly from trucking interests. Still, the managed-lane concept is generating increasing analysis and discussion, so much so that the Obama Administration in April floated a proposal to lift a ban that prevents states from establishing tolls on interstates. While lawmakers from both sides of the aisle swiftly rebuffed the idea, it nevertheless reflects the need for new highway funding sources. The Reason Foundation, for example, maintains that it will cost $1 trillion in net present value over the next 20 years to replace or repair the interstate system—one that accounts for only 2.5 percent of the nation's highway lane miles but that handles 25 percent of all vehicle miles of travel.[24]

Several states and local jurisdictions have already begun to pursue modern, all-electronic toll road projects expansions, primarily to relieve congestion using High Occupancy Toll (HOT) lanes. Colorado, Florida, Georgia, Minnesota, and Washington are among other states that operate HOT lanes.[25]

In California, HOT lanes are operational in the Bay Area, Orange County, San Diego, and Silicon Valley.[26] Additionally, the Metropolitan Transportation Commission is developing a regional "Express" or HOT Lane network that will extend from Sonoma County in the north to Gilroy in the south, and the governor's office is looking to develop a broader managed-lane program.[27] Organizations such as the Self Help Counties Coalition support proposed legislation that, under the state's managed lane policies, would give local agencies control of revenues generated within their corridors for use in those corridors.[28]

"Reason Foundation…maintains that it will cost $1 trillion in net present value over the next 20 years to replace or repair the interstate system."

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"We need to look at how people who use the roads pay for the roads, and tolling is going to be part of our future," said Keith Dunn, Executive Director of Self Help Counties. "Whether it is a large or small part will play out, but it is something we should not ignore."

As those and other projects like Colorado's E-470 toll road demonstrate, the technology to track usage through transponders or license plate imaging is replacing the need for toll booths, allowing authorities to seamlessly charge drivers and collect fees. A 2012 study of three all-electronic tolling systems in Colorado, Florida, and Texas, found that the costs to collect tolls amounted to about 5 percent of the revenue.[29]

Additionally, toll roads could facilitate infrastructure funding by providing financing through private-public partnerships (P3s). In a P3, private investment can be secured to advance capital costs and pay off the debt using future tolling proceeds. Tolling could also be used in a two-tiered system that would collect tolls from vehicles using major highways and then levy a mileage-based fee on all other roads.[30]

Unlike the mileage-based fee concept, public concerns about an expansion of toll roads center around the use of fees rather than privacy. Truckers especially reject the notion that existing highways should include tolls and have been able to point to instances where proposed tolls on a stretch of highway would be used for other road projects in the state. The public also suspects that states will divert toll revenues to other uses, such as mass transit projects or tourism promotion, and can cite a number of examples. Additional wariness focuses on the prospect of double taxation—paying tolls in addition to the fuel tax—and the possibility of shifting more traffic to free parallel routes.[31]

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Special Fees for Transportation

Another solution that officials in California and several states are exploring is earmarking revenue raised through higher annual vehicle registration fees or retail surcharges for transportation infrastructure. Such measures are akin to an incremental middle-of-the-road approach: they link infrastructure improvements to vehicle administration or everyday economic activity. Like the notion of raising gas taxes, however, the efforts have received mixed reviews from a public that's wary of any proposed tax increase, regardless of its purpose.

Transportation California, a coalition of construction-related business organizations and labor unions, including the California Alliance for Jobs, spearheaded a recent effort to increase the annual vehicle registration fee of 0.65 percent by 1 percentage point over five years. It proposed to target the additional revenue for transportation spending, and was expected to eventually raise $3 billion annually.[32] Transportation California sought to put the measure on the November 2014 ballot, and it received support from transportation interests as well as city and county organizations. Yet as proponents were finalizing the ballot language, public polling predicted that it would probably not pass, and the proposal was tabled. [33]

Virginia lawmakers, on the other hand, last year successfully passed a package that is expected to raise $3 billion for transportation funding over the next five years.[34] The state replaced its fuel tax of 17.5 cents a gallon with a wholesale fuel tax of 3.5 percent on gasoline and 6 percent on diesel. It also boosted its non-food sales tax to three-tenths of a percentage to 5.3 percent for most of the state (the Northern Virginia and Hampton Roads regional authorities have higher sales taxes), earmarking the additional revenue as well as other sales tax receipts in the general fund for transportation projects. Additionally, Virginia increased vehicle title fees to 4.15 percent from 3 percent.

Still, one part of the effort failed dramatically. In an attempt to make up for lost gas tax revenue resulting from more efficient vehicles, lawmakers approved a plan to charge hybrid owners an additional $64 registration fee. While that was down from the original proposal of $100, thousands of hybrid owners in the state petitioned for a repeal of the fee, arguing that they shouldn't be penalized for making "green" or cost-saving choices. Early this year, the state scrapped the surcharge on hybrids although all-electric car owners still pay it.[35]

Nevertheless, Colorado, Nebraska, North Carolina, and Washington have instituted registration surcharges for all-electric vehicles ranging from $50 to $100.[36]

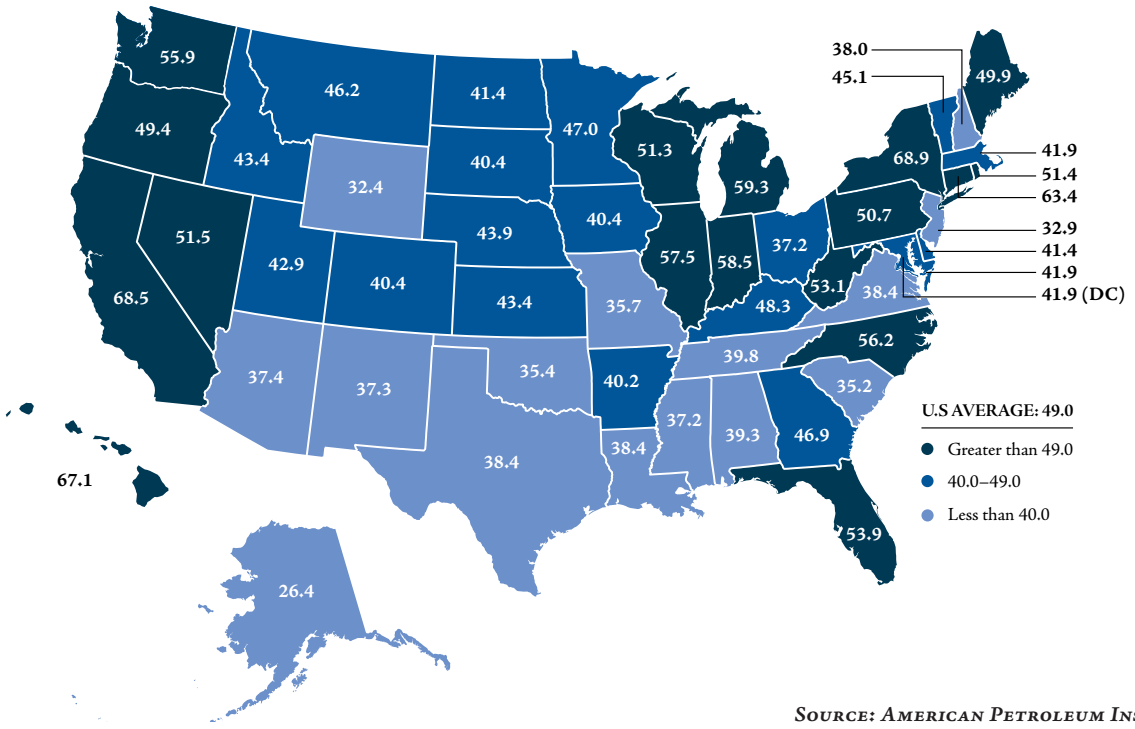
Other states that have enacted extra charges for transportation include Pennsylvania, which has boosted a number of fees related to vehicle registration and the licensing of drivers.[37] Meanwhile, Michigan lawmakers are negotiating a plan to raise some $450 million in road funds by generally retooling annual registration fees and replacing the 19-cent per-gallon gas and 15-cent per-gallon diesel taxes with a wholesale fuel tax of at least 6 percent, which would likely grow over time.[38] Some Michigan lawmakers are backing a competing transportation funding proposal to increase the gas tax to 49 cents a gallon. In November, Missouri voters will decide whether to accept a 10-year, three-quarter cent sales tax increase that is expected to raise $534 million annually for transportation projects.[39]

Returning to the Pump

Despite the unpopularity of raising the gas tax and expectations that such a move would result in diminishing returns, some state and federal lawmakers continue to advocate lifting rates. The solution could best be viewed as a stopgap measure to maintain transportation funds until taxpayers become more amenable to long-term mechanisms like a mileage-based fee.[40]

Six states and Washington, D.C., have raised gasoline taxes in the last year, including Wyoming, which increased it by 10 cents to 24 cents a gallon to raise around $70 million a year.[41] New Hampshire's gas tax will increase 4 cents on July 1, and is expected to raise $30 million annually. Legislators are also mulling proposed increases in Delaware and New Jersey, among other states. Some federal lawmakers have pushed for a hike in the federal fuel tax of 3 to 4 cents a gallon each year for four years

Combined Local, State and Federal Gasoline Taxes (Cents per Gallon), April 2013



Source: American Petroleum Institute

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and then indexing the rate to inflation. A bipartisan plan put forward this month in the U.S. Senate by Chris Murphy (D-Conn.) and Bob Corker (R-Tenn.) would raise the federal gas and diesel taxes each by 12 cents over the next two years (in increments of 6 cents each) and then index to keep pace with inflation.[42]

To gain support for fuel tax increases, state and federal politicians are increasingly pointing out that inflation has eaten away at the levy's effectiveness. In California, the combined state and federal gas taxes amounted to roughly 17.2 percent of the price of a gallon of gas in 2011, down from 32 percent in 1970.[43]

California transportation interests recognize that state lawmakers lack the political will to raise fuel taxes amid heightened skepticism about the government's ability to deliver big projects in light of recent snafus, such as the cost overruns and construction issues related to the eastern expansion of the Bay Bridge.[44] Additionally, officials realize that any increase would only serve as a short-term fix, and could inflict particular pain on lower wage workers who often drive long distances in older, less fuel-efficient vehicles.

Conclusion

As the state auditor noted in 2013, California's infrastructure is the backbone that connects businesses, communities and people. It drives the state's economy and improves the life of its residents. But as elsewhere in the country, roads and bridges have fallen into disrepair as a result of budget constraints and declining gas tax revenues. For transportation stakeholders, settling on a long-range transportation funding plan is the first critical step to ensure that California remains one of the country's most powerful engines of economic growth.

While several options to ultimately replace the gasoline tax exist, they're still largely viewed as experiments. None have proved themselves over the long haul. Officials in some states have opted to increase sales taxes or registration fees and/or raise the gas tax or convert it to a wholesale tax. But a growing number acknowledge that user fees tied to miles traveled or tolling instead of the gas pump are perhaps the fairest and most equitable methods to generate revenue.

California is no different considering the fact that various organizations are supporting state legislative efforts that would establish a mileage-based fee pilot program as well as provide local agencies with the ability to control and use funds derived from toll lanes for transportation spending within the managed-lane corridors. The governor's backing of mileage-based fee experiment further suggests that it is the most likely path for the state to follow. As the University of Iowa and Oregon pilot results found, participants over time viewed the concept with increasing favor, and concerns about privacy can be allayed if programs include options and policies designed to mitigate state intrusion.

With the gas tax's dwindling effectiveness and the federal Highway Trust Fund's looming insolvency, the urgency in finding a solution has hardly been lost on California's transportation interests. Jim Earp, Executive Director with the California Alliance for Jobs, suggests that infrastructure stakeholders could unify behind a plan in the next year or two. But then they would have to persuade voters to back it.

"California is a big state, and it's hard to deliver a unified message to voters without proper resources," he said. "That's where the rubber meets the road."

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