

## **Pay-As-You-Drive Insurance**

### **Overview**

Pricing creates inefficiencies when it is divorced from consumption. This is the case with standard auto insurance policies, which cost about the same whether the car is driven a little or a lot. In this situation the market does not function to optimize consumption, which drives costs up for individuals, businesses and government.

A solution is usage-based or pay-as-you-drive (PAYD) auto insurance. With accurate price signals, drivers will optimize travel by combining or eliminating trips or using other modes of transportation. Studies show that those paying insurance by the mile would reduce vehicle miles traveled by about 8 percent on average.<sup>1</sup>

Today, however, some states explicitly bar PAYD insurance, and most have not reviewed their regulations to ensure they make such policies practical. States may consider promoting PAYD policies by offering modest financial incentives to early adopters.

### **Benefits**

- Reduced emissions will help attain ozone standards and state and national greenhouse gas goals. The policy is one of the most effective low-cost, short-term climate policies available.<sup>2</sup>
- Most motorists will save money on insurance, fuel and vehicle depreciation. Social costs for road maintenance, road expansion, congestion, air quality and foreign oil dependence will also decline. One study estimates such benefits at \$257 per vehicle, or \$59 billion for the nation if all vehicles were covered with PAYD.<sup>3</sup>
- PAYD benefits lower-income drivers the most. These drivers tend to drive less than those with higher incomes. Paying by the mile will reduce costs for lower-income drivers.<sup>4</sup>
- The reduction in driving will translate into a reduction in crashes, saving 5,000 U.S. lives a year and avoiding thousands of injuries and resulting medical and lost-work costs.<sup>5</sup>

### **Costs**

Auditing odometer readings may cost \$5-10 per year for each policy.<sup>6</sup> Mileage tracking by electronic device may cost more; Progressive Insurance, which offers mileage-based policies in some states, charges a \$5 per month “technology fee” for its device.<sup>7</sup>

If PAYD becomes popular, premiums would decrease for all but high-mileage drivers. It is important to note that because rural drivers are in a different risk class, they will not be disproportionately harmed by the policy.<sup>8</sup>

### **Public perceptions**

Interest in PAYD has grown in recent years as some insurance companies have launched pilot programs and as policy makers look for affordable solutions for climate change; Urban Land Initiative's "Moving Cooler" report is a recent example of the latter discussion.<sup>9</sup> California's rule-making (Cal. Code Regs. 2008-00020) on PAYD has generated generally positive media attention.<sup>10</sup>

Some critics have worried about privacy concerns installing electronic devices. Recording mileage is relatively uncontroversial, but there are concerns that the devices could go beyond that to "transmit back to the insurance companies all sorts of data about car motion (acceleration, braking, and so forth) as well as driver behavior (steering and seat-belt wearing)."<sup>11</sup> Odometer audits raise fewer such concerns.

### **Examples of implementation**

- Several companies have experimented with mileage-based policies. In some states, Progressive<sup>12</sup> and GMAC<sup>13</sup> offer policies with substantial discounts for low-mileage driving; both rely on electronic devices to monitor mileage. In Texas, MileMeter offers a truly by-the-mile policy based on odometer readings.<sup>14</sup>
- State regulations on PAYD vary, and the most recent available study, from 2002, showed that in many states such insurance would be difficult absent legislative or administrative changes.<sup>15</sup> States are implementing these remedies, however. For example, in 2001, Texas' amended the statutes to permit PAYD,<sup>16</sup> and, in 2009, California's insurance commissioner released new rules aimed at facilitating PAYD, to go into effect later in the year.<sup>17</sup>
- In 1988, California passed a proposition requiring the use of mileage as an insurance rating criterion, but the effect has been limited, and low-mileage drivers continue to overpay.<sup>18</sup>
- Oregon in 2003 passed a \$100 per policy tax credit for PAYD insurance.<sup>19</sup>

## **Fix it First**

### **Overview**

Fix-it-first (or system preservation) policies prioritize investments in the maintenance and reconstruction of existing infrastructure over the construction of new road capacity.

### **Benefits**

- Repair and rebuild projects create 16 percent more jobs than new bridge and road construction, largely due to avoided costs of right-of-way acquisition.<sup>20</sup>
- Stimulates the economy more effectively by taking advantage of “shovel-ready” projects. Money is spent more quickly on fix-it-first projects than on new capacity, because new capacity projects require land purchases and more extensive review and permitting.
- Encourages business and residential investment in areas already served by transportation infrastructure, supporting more compact development, reducing vehicle miles traveled, and helping to slow the increase in greenhouse gas emissions.<sup>21</sup>
- Keeping transportation infrastructure in its current footprint leaves more land for taxable development and agriculture.
- The policy avoids costly new capacity that would increase the state’s maintenance and repair costs.<sup>22</sup> In addition, prioritizing maintenance can extend roadway life, saving millions of dollars. According to AASHTO, spending \$1 on maintenance can preclude spending up to \$14 on rebuilding.<sup>23</sup>

### **Costs**

System maintenance strategies avoid creating new infrastructure that would increase the state’s maintenance and repair costs. Prioritizing maintenance can extend roadway life saving millions of dollars. According to one report, \$1 of spending on maintenance can save a state \$14 by forestalling major rebuilding projects.<sup>24</sup>

Some argue that the costs of congestion can justify new highway capacity, but new lane miles often induce new driving, eventually raising costs to users and the government.

### **Public perception**

A 2009 survey asked U.S. voters to rank transportation priorities. Fifty percent ranked fixing existing roadways as the top priority, while just 16 percent favored new lane miles.<sup>25</sup>

Opposition to fix-it-first comes primarily from development and road-building interests, and from residents who perceive congestion as a major concern.

**Examples of implementation**

- Connecticut, North Dakota, South Dakota and Vermont all invested 100 percent of their Surface Transportation Program dollars from the 2009 American Reinvestment and Recovery Act (ARRA) on highway system preservation.<sup>26</sup>
- In her 2002 campaign, Michigan Gov. Jennifer Granholm promised to fix Michigan's roads. Within three months of taking office, she freed up \$400 million for repairs by delaying nearly 40 expansion projects, and she later used a line-item veto to preserve the transfers. In April 2003, the Michigan DOT formalized its Preserve First program, aimed at having 95 percent of freeways and 85 percent of non-freeways in "good" condition by 2007 and to increase the life of roads to 50 years.<sup>27</sup> In 2009, Michigan spent 83 percent of its ARRA transportation funding on the preservation of existing highway system, considerably more than the national average of 63 percent.<sup>28</sup>
- New Jersey enacted a fix-it-first policy as part of its 2000 Transportation Trust Fund reauthorization, which was reinforced with a 2003 executive order (McGreevey, EO #43) to affected agencies. Outcomes have included livelier Main Streets, more sensible land use, streets that meet community needs, more transportation options, and lasting returns on investment of taxpayer dollars.<sup>29</sup>

## **Complete Streets**

### **Overview**

“Complete streets” policies require that streets, roads and highways be designed to accommodate pedestrians, bicyclists and transit users, as well as motorists. Such designs vary depending upon the nature of an area, but can include sidewalks, bike lanes, bus lanes, frequent crossing opportunities and median islands.

### **Benefits**

- A Federal Highway Administration review found that streets with sidewalks, raised medians, better bus stop placement, traffic-calming measures, and treatments for disabled travelers improve pedestrian safety.<sup>30</sup>
- In metro areas, more than a quarter of car trips are a mile or less. Complete streets can convert many of these short trips to other modes of transportation, lowering emissions.<sup>31</sup> The National Conference of State Legislators found “the most effective policy avenue for encouraging bicycling and walking is incorporating sidewalks and bike lanes into community design.”<sup>32</sup> Increasing bicycling from 1 percent to 1.5 percent of all trips would save 462 million gallons of gasoline each year.<sup>33</sup>
- Complete streets can improve public health. According to one study, every additional hour spent in a vehicle increases the likelihood of obesity by 6 percent, while each kilometer walked per day reduces the likelihood by 5 percent.<sup>34</sup> Another report found that 43 percent of people with safe places to walk near their homes met recommended activity levels, compared to 27 percent of those without.<sup>35</sup> When sidewalks are present, safe crossings available, and school zone speed limits enforced, children are more likely to walk or bike to school, increasing physical activity levels.<sup>36</sup>
- Complete streets can be an economic driver by shaping healthy retail corridors. For example, Valencia Street in San Francisco was slimmed to slow traffic and to accommodate other users, and 40 percent of business owners on the street subsequently reported an increase in sales.<sup>37</sup>

### **Costs**

With early planning for complete streets, either for new capacity or for reconstruction, the designs add little to no additional cost to the project.<sup>38</sup> In addition, there are numerous costs savings associated with complete streets policies:

- Complete streets strategies can prevent the need for costly retrofitting later. After several deaths and a wrongful death lawsuit in Cary, IL, the state DOT was forced to spend nearly \$900,000 to retrofit it with a new bridge and a side path.<sup>39</sup>

- Complete streets policies can connect more people to the transportation system at a reduced cost. For example, the Maryland Transit Administration estimates that a year of paratransit service for an individual with disabilities costs \$38,500. One-time basic improvements to enable the same people to access existing public transportation can cost as little as \$7,000 per person.<sup>40</sup>
- Planning to accommodate complete streets can actually reduce overall project costs. For example, Brown County, WI, rebuilt a four-lane road as a three-lane street with bike lanes, replacing signals with roundabouts and saving \$347,515 or 16.5 percent of the original estimate.<sup>41</sup>

### **Public perception**

Complete streets have shown to be consistently popular with the American public:

- According to a 2004 survey, 72 percent of Americans say sidewalks and places to walk are high priorities in their selection of a place to live.<sup>42</sup>
- A 2002 survey showed that 70 percent of U.S. residents with access to bike lanes were satisfied with their communities' bicycle safety, while only 30 percent of those without access to bike lanes or paths were satisfied.<sup>43</sup>
- Nearly half of Americans would like to see some changes made in their community to better accommodate bicyclists.<sup>44</sup>

### **Examples of implementation**

- At least 15 states around the country have taken the initiative to pass complete streets legislation or issue executive orders. For example Florida mandates that “[b]icycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any state transportation facility.”<sup>45</sup>
- Wisconsin’s 2009 complete streets law wisc.stat.84.01 (35) requires that the Department of Transportation “ensure that bikeways and pedestrian ways are established in all new highway construction and reconstruction projects funded in whole or in part from state funds or [specified] federal funds.”<sup>46</sup>
- Boulder, Colorado’s complete streets network helped reduce single-occupancy vehicle travel, while boosting bicycling and transit over a 13-year period.<sup>47</sup>

## **Better Located State Offices**

### **Overview**

Downtown location laws require that new or relocated government office space be situated in downtown cores or near transit centers. Some policies also give priority to locating government space in historic buildings.

### **Benefits**

- By locating government facilities near public transit or downtowns that are transit hubs, state employees and constituents have alternatives to driving. This decreases vehicle miles traveled and reduces greenhouse gas emissions.<sup>48</sup>
- Locations that are easily accessible by transit are more accessible to constituents, especially lower income families. Transit also improves American Disability Act access.<sup>49</sup>
- Increasing employment density can sustain and create ancillary businesses such as restaurants and grocery stores, further stimulating local economies.<sup>50</sup>
- Locating government buildings centrally reduces sprawl, preserving wilderness and farmland. Newly situated government buildings can form an integral part of new transit-oriented development.
- Increased transit access can lower parking costs, both economic and environmental.

### **Costs**

Upfront costs to locate state offices in urban cores or near transit infrastructure will vary depending on location and the condition of regional economies. However, even where upfront costs are higher, long-run net costs may be lower in transit-accessible central locations, given the benefits referenced above.

### **Public perception**

In locations where such rules exist, there has been little controversy on this issue.

### **Examples of implementation**

At least seven state governments and the federal government have some variation of a downtown location law. Examples include:

- California's Executive Order D-46-01 instructs the Department of General Services to consider siting agencies centrally, with proximity to public transit and affordable

housing, and pedestrian access to retail and commercial facilities. The order states, “This policy is designed to support sound growth patterns in California's cities and towns, by using existing state-owned assets, reducing costs to the state and its taxpayers in leases and operating expenses, ensuring accessibility to state services and facilities for both customers and employees, reducing traffic congestion, and improving air quality.”<sup>51</sup>

- Oregon’s law (ORS 276.001 to ORS 276.990) requires locating government buildings downtown or in other mixed use centers. Should the Department of Administrative Services determine that another location is acceptable, it must be placed close to public transit if it exists.<sup>52</sup>
- Vermont’s policy, expressed in an executive order (Kunin EO #15), gives precedence to placing government offices in existing and historic buildings where possible, and provides for coordination with local government’s policies. Tom Torti, Vermont's former head of the Department of Buildings and General Services, stated “The executive order is 100 percent effective. There is really no need for a state agency to go anywhere except downtown...the policy helps to sustain downtown.”<sup>53</sup>
- Pennsylvania enacted a downtown location law (1999 HB 728) in 2000, prioritizing restoration and reuse of existing downtown business stock, and requiring consideration of transit access.<sup>54</sup> “State government is prepared to do our share to preserve open space and vibrant downtowns,” Gov. Tom Ridge said at the time. “Locating a state office in an existing central business district encourages additional private investment, leads to renovations of neighboring buildings, and preserves open space elsewhere.”<sup>55</sup>

## **Metropolitan Planning Organization Reform**

### **Overview**

Since the early 1990s, federal law has increased the authority of Metropolitan Planning Organizations (MPOs),<sup>56</sup> and pending federal legislation is likely to give them additional spending powers and responsibilities.<sup>57</sup>

Yet, as important arms of local government, MPOs are problematic. In part this is because their powers are often limited to listing road projects without power to implement a systematic plan, or to make land-use decisions in concert with transportation decisions.<sup>58</sup> And most MPOs are highly undemocratic, without population-proportional board membership. In most cases cities are underrepresented and suburban or exurban areas overrepresented.<sup>59</sup> This situation skews outcomes; for example, boards with balanced membership tend to fund transit at higher levels than do boards skewed toward suburban/exurban membership.<sup>60</sup> Finally, MPOs have little responsibility for state and national policy goals regarding environment, equity, or economic development.<sup>61</sup>

Some MPOs produce laudable outcomes,<sup>62</sup> but most do not live up to their potential to foster efficient, equitable and environmentally sound metro areas.<sup>63</sup> Most could benefit from reforms that:

1. Give MPO's sufficient authority to guide regional planning rather than to simply approve or veto local requests for federal funds.
2. Establish elected board members or population-proportional appointments.
3. Institute performance standards aligned with state and national policies.

### **Benefits**

- Traffic congestion, travel costs, environmental quality, access to jobs, housing affordability and many other determinants of the metro-area economy and quality of life are all affected by transportation and land-use planning. Poorly functioning MPOs can degrade metro areas' economies and living standards. Improving MPO function will become more critical as MPOs get additional federal funding and duties.
- As federal interest in MPOs increases, effective MPOs will be well-positioned to attract new funding for data collection in support of new performance standards.<sup>64</sup> They will also be able to shape future federal policy regarding MPO functioning and goals.

### **Costs**

Reforming MPOs so that their planning is more effective should save money as transportation becomes more efficient. But moving from undemocratic and ineffective forms may involve transition costs, and may involve a political battle as overrepresented governments and interests try to keep their advantage.

### **Public perception**

Public awareness of MPOs varies with the metro area, but is often very low, as ineffective MPOs without taxing authority attract little interest. Strengthening MPOs with new powers would certainly raise their public profile.

### **Examples of implementation**

- States can enable or establish MPOs as regional institutions with land use, transportation and growth management powers. Two MPOs with such powers are Portland's Metro and Minneapolis-St. Paul's Metropolitan Council. These organizations have experienced greater employment growth and less fiscal inequality amongst localities than those of peer MPOs.<sup>65</sup> Another example of change in this direction was the 2003 California law (S.B. 1703) consolidating San Diego's transit agencies with its MPO, SANDAG.<sup>66</sup>
- The structures of most large MPOs are grandfathered and not subject to modern federal rules that require population proportionality and mandate that board members be elected officials or agency heads. Only newly created MPOs and those that are voluntarily reconstituted face such scrutiny. As an example of the latter, the Madison, WI, MPO was relocated from one agency to another. This move forced a board reorganization in 2007 that added representation for municipalities and reduced representation for unincorporated areas to better match the population. In addition the change installed local decision-makers as appointed members.
- Some states have specified board membership. In Stats. 339.175 (3) (a), Florida requires that "[t]he voting membership of an M.P.O. shall consist of not fewer than 5 or more than 19 apportioned members, the exact number to be determined on an equitable geographic-population ratio...."<sup>67</sup>
- States can charge MPOs with advancing important policy goals. California's S.B. 375, enacted in 2008, requires that MPOs adopt "sustainable communities strategies" to reduce greenhouse gases. The plans, which guide subsequent funding decisions, must be approved by the California Air Resources Board.

## **VMT Reduction Goals**

### **Overview**

When individuals and businesses must travel a great deal to meet their needs, economic and environmental costs are high. The most efficient transportation and land use systems are those with low vehicle-miles traveled (VMT) per person or per unit of economic activity. Travelers can make short, convenient vehicle trips, or use transit or walking to get to important destinations.

Unfortunately, many long-standing policies incentivize higher levels of travel, and VMT has grown over recent decades as motorists have had to drive further and more often. States cannot undo overnight decades of low-density, high-mileage development. But they can begin to rationalize their policies. Setting an explicit goal to improve transportation efficiency as measured by reduced VMT can provide agencies and other stakeholders with a clear policy direction.

### **Benefits**

- VMT reductions can be accomplished through rationalized pricing, better land-use planning, and provision of non-auto choices. A recent report by Cambridge Systematics/Urban Land Institutes' finds that netting implementation costs and travel savings yields dramatic net savings in most cases.<sup>68</sup>
- Studies have estimated that cost-negative policies could reduce fuel use and resulting greenhouse gas emissions from surface transportation by as much as 35 percent by 2050.<sup>69</sup> Ozone-forming emissions would also decline.
- Reduced VMT will lessen the cost of building and maintaining highway infrastructure, help preserve agricultural and open land, leave more land for taxable development, reduce storm water pollution, and reduce injuries and deaths from crashes.<sup>70</sup>
- With gasoline taxes shrinking, VMT taxes are an opportunity to establish a consistent revenue stream for infrastructure maintenance.<sup>71</sup>

### **Costs**

Costs to achieve lower VMT vary with the strategy chosen. Some, such as provision of new transit service, have substantial upfront and on-going costs, but most strategies or combinations of strategies create long-term savings.<sup>72</sup>

### **Public perception**

Strategies chosen to implement VMT reduction will activate the traditional supporters and opponents of transit, development reform and highway spending. Setting the overarching goal is more abstract and less controversial, and has drawn support from urban interests and environmentalists, among others, and opposition from businesses that worry some measure may affect their investment.<sup>73</sup>

In policy circles, some libertarians have equated VMT reduction goals with government interference with private choice, e.g. imposing greater housing density on unwilling citizens.<sup>74</sup> These arguments are not widely held in the policy community – advocates for VMT goals point out that density is already determined by government via zoning, and that if anything, higher density housing is undersupplied in the market<sup>75</sup> – but they are likely to be used by opponents and should be considered when VMT policy is messaged.

### **Examples of implementation**

- In 2008, the State of Washington enacted H.B. 2815, which set a goal of reducing VMT per capita 50 percent by 2050, with intermediary goals in 2020 and 2035. Large trucks are exempt. The legislation sets up a process of agency and stakeholder consultation on implementation strategies.
- California in 2008 enacted S.B. 375 which sets greenhouse gas targets at the local level and gives a state agency the power to review plans for conformity to those goals. Because local governments cannot substantially affect vehicle efficiency or motor fuels, the targets can only be achieved through VMT reduction.
- Pending Congressional legislation (H.R. 2427 and S.B. 1036) would set national VMT reduction goals, which may be incorporated into the federal transportation act reauthorization in late 2009 or 2010.
- Various state and regional climate-change task forces have embraced VMT reduction goals. For example, a forthcoming report by the climate stakeholder group of the Midwestern Governors Association recommends a 40 percent regional reduction goal in per capita VMT by 2050.

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