Smart Travel

Now that's what I call intelligent transport...

American journalist RANDY SALZMAN's trip to Australia turned out to be more of a voyage of discovery than he had anticipated. Not only was its transport network greener and more environmentally friendly than his home country's, it was a whole lot smarter, too

Test train on the Southern Suburbs Railway in Perth, Western Australia

Photo Danny Brennan/Motive Audio Visual

The data's overwhelming: for the USA to address greenhouse emissions, something must be done about the effect of individual transportation by the nation's 300m citizens. But what?

First the facts, most of which are unreported in American mainstream media. Over the past 20 years, according to the Energy Information Agency, greenhouse emissions from the income-producing sectors of the economy - industry and commerce - have decreased at an average rate of 1.9 per cent compared to the rise in GDP. "From 1990 to 2005, U.S. greenhouse gas intensity declined by 25 per cent," the EIA reported bluntly in November 2006, and then added: "Transportation is the largest end-use sector to total emissions."

Although 2005's 13.7 per cent increase in ethanol consumption masks transportation's true effect, according to the EIA, transportation still emits 1,959 million metric tons of CO2, 33 per cent of the U.S. total, by far the highest percentage in the world. In the United Kingdom, comparatively, transportation accounts for one-fifth of greenhouse emissions.

Americans, less than one in five world citizens, provide almost half of the world's automotive carbon dioxide emissions, according to the Transportation Center at the University of Massachusetts. About eight in 10 tons of America's transportation CO_2 derive from auto fuel while US car mileage is increasing about two percent annually, the EIA reports. Consequently, unless America pushes all remaining manufacturing out of the country, along with the best-paying blue collar jobs, and grounds the airlines, individual transportation behavior is the key to American greenhouse reductions.

Political football

Politicians, however, are terrified of offending drivers, most of whom are voters. The 'suburban soccer mom' in her SUV today dominates American politics because she is a consistent voter enticed by both the Democratic notion of "compassion" and the Republican notion of "protection." No candidate can see any political future in angering her by saying what the data are loudly proclaiming:

"At the same time you've got to cut back your air conditioning, you need to get out of your car and still get

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your kids to school and still get to work. Oh, by the way, still go shopping a lot but not in your car."

The bottom line is that Americans use too much carbon per capita – double what the European uses, six times what individual Chinese use, according to the Department of Energy – and much of that is burned in driving 2.9 trillion miles annually in 211 billion trips, by far the highest numbers in the world. Nine of the world's 10 most transportation inefficient cities are American.

The political issue is so daunting, meanwhile, that even Al Gore barely mentions personal vehicle usage in "An Inconvenient Truth" and failed to mention autos in his Nobel acceptance speech. And he's not presently a politician. When he was, during the 2000 campaign when gasoline prices spiked at US$1.81 (€1.20) a gallon, his fear of suburban soccer moms in SUVs caused him to demand that President Clinton release petroleum from the Strategic Oil Reserve, undermining the sole success in America's continual quest for "energy independence."

Meanwhile, politicians of both political parties regularly suggest rebating the meager 18.5 cent national fuel tax whenever there is any sudden gasoline price hike and President Bush's 2005 announcement that Americans are "addicted to oil" was ignored. Every single American politician who has ever considered a serious national gasoline tax – the solution offered by most economists – has gone down to not-particularly-glorious defeat.

Ethanol, furthermore, is hardly the answer because the production of it requires almost as much energy as ethanol provides and the use of it still produces CO_2. Ethanol produced carbon dioxide, however, is not counted against overall emissions because the growing of corn to produce ethanol acts like a greenhouse sink by transforming carbon dioxide into oxygen. But the growing of any plant - even if the land lies fallow and goes back to grass, trees and bushes – is a greenhouse sink.

With America's auto fleet turning over about eight per cent a year, future Corporate Average Fuel Economy (CAFE) increases, plus building hydrogen and fuel cell cars which require huge investments in infrastructure, can be only a drop in the bucket. In the seven years the Intergovernmental Panel on Climate Change now predicts the world has to stabilize CO_2 emissions before risking a quarter of plant and animal species, only half of America's 226mn vehicles would be replaced – and the replacements would still pollute if, perhaps, not as much.

The history of CAFE, furthermore, indicates that any pollution gains through higher efficiency will be wiped out by a corresponding increase in miles driven. Although it's counter-intuitive, this "rebound effect," as labeled by economist David Greene, works in much the same way that building more highways to solve congestion makes congestion problems worse. As one Virginia study put it, it's a "futile exercise" to try to build out of congestion because more highways makes driving easier, which makes suburban life more attractive, which moves residences further from stores and jobs. One study indicates that 90 per cent of new urban and suburban freeways are overwhelmed within five years.

Clockwise from top left: Perth Skyline; TravelSmart call centre in operation;WTA bus in Washington State with livery designed by school chidren; Over the past 20 years, Western Australia has constructed bicycle paths to supplement commuter rail, like this one along the 20 miles from Freemantle to Perth along the Swan River ;TravelSmart's SmartCar and bicycles; WTA bus with wintery paintwork; South Perth bus at a stop; TravelSmart's low-tech but highly efficient delivery system.

So what can be done?

The answer may lie in Western Australia, where in a modern car culture of freeways and urban sprawl, Perth and its surrounding suburbs have spent a decade promoting alternative transportation through a German-conceived marketing and research program named "TravelSmart."

Not only has Perth – a city of 1.6m with a booming economy - decreased car-miles driven yearly by 14 percent through the marketing of individual households, they've done it at the unheard of benefit-cost of 67:1. The experience showing people how to conserve auto fuel – plus their health and the lives of their cars – by walking, biking and using public transportation has been so successful that Western Australia is expanding the concept into water, energy and recycling in 2008.

"People want to be part of the solution, they just don't know how," explains Werner Brög, the founder of the concept. "Across three continents, we've found that people always underestimate the time and cost of using the car and overestimate the time and cost of using environmentally-friendly modes.

"Our philosophy is that we never tell them what to do. We empower people to do what they can do by addressing those misperceptions."

Because each individual makes an autonomous decision, transportation economist Ian Ker argues that decreased car use from TravelSmart marketing sticks and, even multiplies, over years. He notes there has been little, if any, bounceback from the first individualized marketing project in South Perth in 1997.

"When we started off with TravelSmart, it was not something that was mainstream anywhere," he says. "Travel management was seen as managing supply or in terms of pricing. Nobody was thinking that people might willingly get out of their cars, but that's what happened and, most importantly, they're staying out."

In December, Perth opened an over-budget and behind-schedule 88-mile Southern Suburbs Railways with an amazing 90-per cent approval rating, indicating – as OECD reports illustrate – the huge public relations carryover of "soft policies" for decreasing congestion. Yet compared to American cities – which lose US$63billion and 3.7 billions hours annually to congestion, according to the Texas Transportation Institute – Western Australia's million citizens faced little traffic backup when they approved the commuter project just after the turn of the century.

Perth began thinking outside the asphalt box before its highways clogged up - though it came close to congestion disaster.

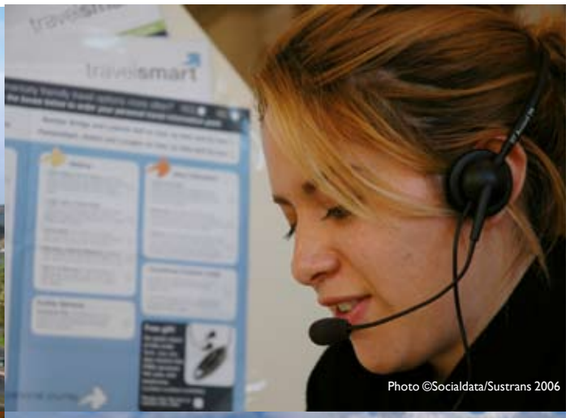

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Photo ©Socialdata

The first train arrives at Mandurah Station on the Opening Day of the Southern Suburbs Railway

Photo Danny Brennan/Motive Audio Visual

In 1974, an academic, Peter Newman, formed "Friends of the Railways" in a last ditch effort to save the area's sole remaining commuter rail. Newman and his friends initially failed as the highway lobby succeeded in sucking up all of Western Australia's transportation funding but they did get government, with the help of the 1974 and '79 oil embargoes, to expand thinking beyond single occupancy vehicles. Newman served a few terms on the city council of Fremantle, Perth's largest satellite community, and later became an advisor to the state government pitching the idea of substitutions for the drive-everywhere mentality.

His research into world cities illustrated a dozen ways to decrease automobile usage and build stronger communities at the same time. American cities, he discovered, don't have a monopoly on wealth but, with a few world exceptions, American urban areas do have a monopoly on transportation inefficiency. Atlanta drivers, for example, annually use 782 gallons of auto fuel per capita to get around but people are socially and financially better off - at 1/10th the fuel consumption -- in Copenhagen which has been shutting roadways and decreasing downtown parking for three decades.

What kind of a city did Perth and its suburbs want to be? Newman pointedly asked area policymakers. The eventual response was a new rail system that has taken 100,000 vehicles off the road.

Perth re-birth

By 1997, when Ker and fellow transportation planner Bruce James sniffed out Brög's success changing auto behavior in Western Europe, however, only a couple commuter rail lines were back up and running. The pair's first TravelSmart pilot, for AU$35,000 was not connected to any infrastructure improvements. Yet it, and all subsequent Western Australia TravelSmart programs -- a total of 350,000 citizens -- show extensive behavioral change.

"TravelSmart has been analyzed to death, more than any other transport change that I know of and I've been in transportation planning for 40 years," Ker, now retired, says. "There's nothing else that comes close to it. People look at the cost and think it's a lot of money – about US$60-70 per household – but the return on it is enormous, up to 70 to one.

"If you look at any other transport project, they're lucky to get four to one."

Today, working out of an imposing 1860 convict-built prison, Brög's TravelSmart crew spend hours on the phone to Perth-area citizens. Instructed carefully not to push, and carefully not to formally market, and indeed to talk about pretty much anything in, first of all, making a personal connection, TravelSmart callers conclude each initial phone call by asking if the household used, or would consider using, alternative transportation.

If the answer is "no," the caller hangs up and the person is only bothered by a mailing explaining the importance of a tuned automobile engine and fully aired-tires. He is not contacted again. If the answer is "yes" or "well, maybe," that household is marketed with a huge variety of information based on the location of the household and where its members need to go and when. Respondents can get, for example, the exact schedule for the nearest bus stop, plus a free transit starter pass; a bike map plus a discount at the closest bicycle shop; a walking tour of the neighborhood and the nearest downtown; a free pedometer. Basically, though the package differs from project to project, respondents receive whatever they think might help them choose any mode of transportation other than the single occupancy vehicle for any regular trip.

That information is delivered by a dedicated environmentalist on a bicycle and then, if desired, expanded on by a home visit from an area bus driver. A respondent can be individually marketed as many as 12 times through personal visits, telephone calls, thank you backpacks and water bottles, and letters: TravelSmart does not use email or computers in its marketing, or in its before and after surveys, because, Brög says, the "personal touch" is key.

"Many things that might make life easier for you the researcher but harder for the respondent, we don't do," Brög explains. "We do everything for the good of the respondent. First priority: respondent. Second priority: respondent. Third priority: respondent.

"We ring back to 80-90 per cent and clarify every detail. We provide feedback. We say, 'Great, thanks, but there's one little thing missing.' Then, we've started a relationship with that household. When that relationship exists, you can do things that you could never do in the beginning."

"It's really hard to ask your city purse-string holders to invest in a full-scale project that they've never heard of"

Smart thinking

With a stunning response around the world to the initial, pre-marketing survey – as much as 90 per cent in Western Europe – TravelSmart mines the initial data by getting some 10 per cent of respondents to do a one-day travel diary and then gets another ten percent of those to agree to in-depth, face-to-face interviews. In this manner, researchers can compare actual alternative transportation experiences with area-wide perceptions and suggest, for example, what infrastructure improvements will give transportation planners the most bang for the buck.

The follow-up survey, in the same neighborhoods as the marketing -- but not necessarily the same people as the initial survey or the marketed households -- indicates that people who have changed their auto behavior become apostles for change. In some 200 projects over three continents, including four pilots in America, Travelsmart programs have averaged decreasing driving better than eight percent annually.

The cost, comparatively, is so negligible that the United Kingdom announced plans last fall for a nationwide project similar to TravelSmart at the equivalent cost of building 17 miles of interstate highway.

In Bellingham, Washington, Susan Horst and the staff at the Whatcom County Council of Governments, have been diligently seeking funds to further their 2004 pilot and expand on "SmartTrips," a travel demand management derivative of the original pilot.

"All the people we seek money from drive cars and whenever we talk to them, they think about what I call the 'personal filter effect,'" Horst says. "But we hope to get TravelSmart on the city-wide scale because we've built a (transportation) system that we can't afford to maintain and people are still trying to expand it. It takes a huge pot of money to fix potholes.

"At the same time, it's really hard to ask your city purse-string holders to invest in a full-scale project that they've never heard of especially when they think that Global Warming and Peak Oil are someone else's concerns."

Me, me, me

There's more than one "Catch 22" in seeking funds for a marketing project which has no place to hang the sign, "Your tax dollars at work." First, the decisions must be made locally to benefit primarily national and international problems, so local thinkers must seek dollars from state and federal governments in an odd kind of "earmark" from which the sponsoring politician receives no identifiable photo opportunity. Secondly, politicians, aware that political leadership is often defined as "figuring out which way the parade is going and getting in front," can't lead when the parade doesn't form.

And the parade can't form until the politicians and media spread the word and individuals realize that "I" am part of the problem.

Again, Western Australia provides some kind of an answer.

Perth's first pilot project snuck into the budget because politicians thought "TravelSmart" was a type of high-tech electronics – like better coordination between stop lights -- which would instantly make all drivers, like themselves, happier. When the success became apparent, TravelSmart operators got politicians to sign the letters accompanying the delivery of the free backpacks and water bottles so that citizens began to see themselves as doing something good and being praised, and physically rewarded, for it by area politicians.

Today, all written contact comes from state and local politicians.

"We started out under a Liberal (the Republican equivalent) state government and for the past several years, it's been Labor (or Democratic) so we've survived and grown through a change in governments," explains Colin Ashton-Graham, who is leading TravelSmart's migration into energy, water and recycling.

"Interestingly, the people give credit to the city, to the government for the changes they've made. They don't say, 'I did it,' even if that person is personally driving a lot less. They tell politicians, 'What a wonderful thing you've done.'"

In the end, as Ker says, Western Australia is expanding TravelSmart as fast it can because – on all levels – "it works. People like it, so politically it's good 'no news,'" he says. "There's no element of compulsion and for people who change their travel behavior, they get to feel better and to save money.

"I challenge you to find any other product that you can say that about." TH