



A Resilient Suburbia? 2: Cost of Commuting

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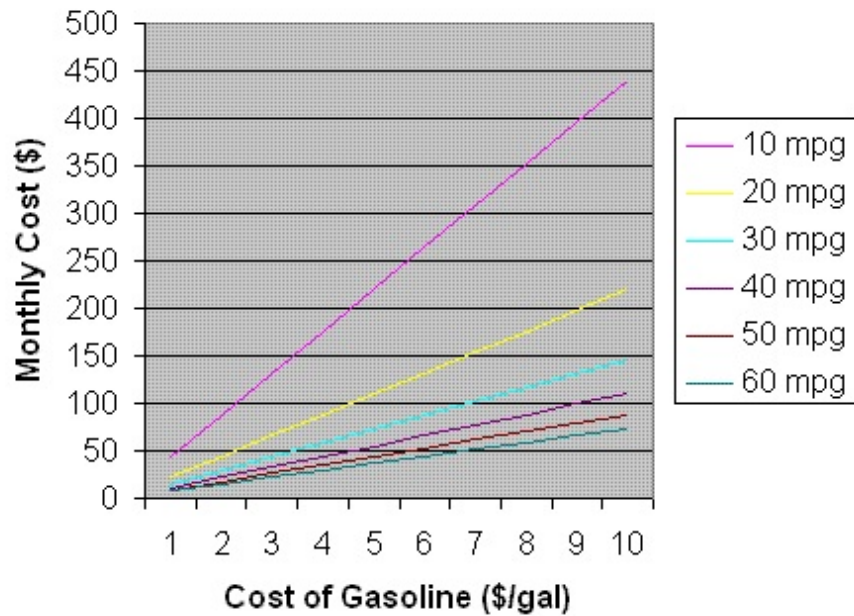
In the second post in [this series](#) on suburbia and peak oil, I'll consider one of the threats that peak oil poses to suburbia: the increasing cost of commuting to and from work for suburban residents. My conclusions may surprise readers: suburbanites aren't particularly vulnerable to the rising cost of gasoline. Instead, like all of us, they are vulnerable to general economic shocks that may be caused by peak oil, but the elasticity of their commuting budgets may better position them to deal with these shocks than urban residents.

The first thing that comes to mind when people discuss peak oil and suburbia is the massive amount of gasoline used to commute to and from work. I think this is also the least problematic. However, to the extent that it is a problem it won't result in the abandonment of suburbia —rather, it will act as a catalyst to reshape the economic structure of suburbia.

For the purposes of this article, I'll discuss the hypothetical suburban commuter who drives 10 miles to and from work 22 days each month. I realize that many suburbanites drive farther than

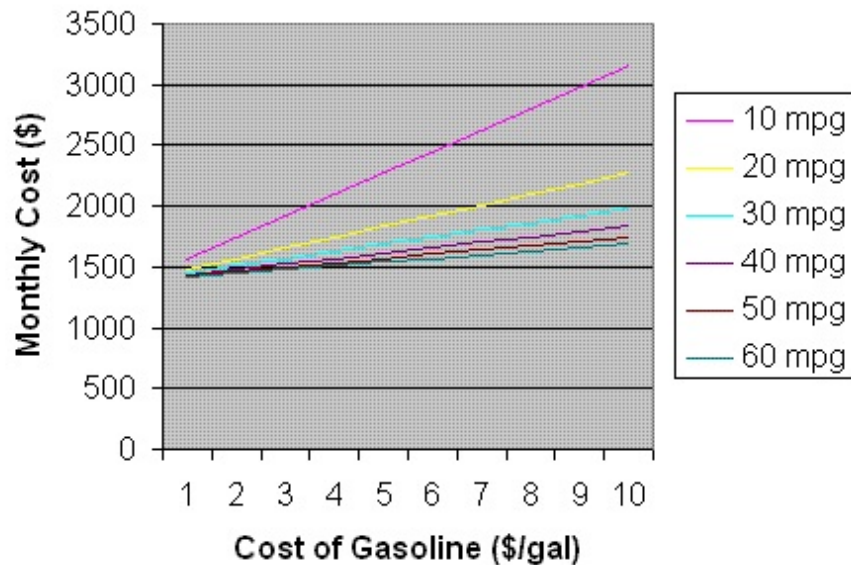
this, and that some drive shorter distances, but it's an easy number to work with. Here's a graph of what that commute costs each month at varying prices of gasoline and vehicle MPG figures:

Gasoline Cost of 10 Mile Commute



Not very scary, is it? It's important to remember that most suburbanites drive more than just to and from work, that most suburban families are two-income/two-commute families, and that there are more costs of commuting than just the gasoline (auto depreciation, parking, etc., though these don't generally increase with increasing gasoline costs). So let's make a more extreme, scary, and arguably realistic graph. Here's the cost to a family that drives two cars 40 miles each per day, plus 48.5 cents per mile (the IRS business deduction) as an approximation of cost of car-ownership, plus \$10 per day for parking for each commuter, plus \$100 for insurance for both cars (that's \$1394/mo baseline plus the cost of gasoline):

Cost of 2 x 20 Mile Commute (Gasoline + Other Costs)



There's a number of take-aways from these graphs: 1) these numbers are higher than average cost of commuting, 2) to the extent that they're accurate, commuting is VERY expensive, 3) the majority of the cost of commuting is the base cost, not the gasoline, 4) for most suburbanites, the ability to afford life in suburbia is more a function of the shape of the overall economy (e.g. the earning power of suburbanites) than it is a function of gas prices in isolation.

What are the options to commuting? First, looking at the graphs above, it should be clear that eliminating a suburban family's need for one of their two cars will have a greater effect than doubling the miles per gallon of both of their cars. There are many ways to do this: ride sharing, mass transit, and telecommuting are the most obvious.

Ridesharing (Carpooling): For all the talk about improving vehicle efficiency, there are few solutions that are simpler, more elegant, and more practical than putting more than one person in each car. For our hypothetical suburban family in the example above, if the happy couple can drive to work together and only maintain, insure, and park one car, they would save \$697 after-tax dollars per month--and this is assuming no reduction in car-miles driven. Similarly, workers can organize car-pool clubs, etc. The downside of ridesharing is inconvenience. It's convenient to only go straight from your house to work and not pick anyone up along the way. It's convenient to pick when you commute. It's convenient to have access to a car while at work in case you need to run an errand, etc. If, for our hypothetical family above, they can afford \$32/day and the convenience gained is worth more than that, then it probably makes financial sense to drive alone (ignoring environmental arguments, etc.).

Mass Transit: Mass transit is another option for most suburbanites. Again, the viability of mass transit is a matter of weighing the cost savings against the inconvenience. In some cases, mass transit may actually be more convenient, but for most suburbanites it 1) takes longer, 2) is less flexible, and 3) doesn't address the "last mile" and still requires one car (and its associated costs) per commuter.

Telecommuting: Working from home, one or more days per week, is another approach to making suburbia viable. This is already a common practice, and the ability to expand upon it [has been](#)

I sense that, at this point, many readers will be a bit baffled by my focus on the base cost of commuting rather than the variable cost of commuting caused by higher gas prices. This is, after all, an article about peak oil and suburbia. I think it's critical to focus on this differentiation--the base cost of commuting vs. the variable cost.

If the variable cost (as gasoline gets more expensive) of commuting is what will kill the finances of suburbanites, then urbanites will be far better positioned to adapt to the impact of peak oil. They don't have these long commutes, they often don't have a need to own one car per family, let alone 2+. However, if it's the base cost that is the primary issue (as I argue here), then we need to envision the scenario where suburbanites can no longer afford this base cost. This is even more true to the extent that America's auto fleet gradually improves in efficiency (a topic I have largely ignored).

As long as suburbanites maintain their present income levels, they should be able to afford their present costs of commuting--in most cases rising gas prices won't break the bank, and can largely be addressed through improved efficiency. However, a sharp economic downturn has the potential to dramatically reduce these income levels. Here's the key: a sharp economic downturn will most likely reduce urbanites' income levels by a similar amount. So while these economic troubles may make life in suburbia much more difficult, it will also make life in urban areas much more difficult. Precisely because the issue is base cost of commuting, not variable cost, this economic impact is felt equally in suburban and urban areas. In fact, because there are so many viable (if inconvenient) options for suburbanites to reduce base commuting costs (outlined above), it may be easier for suburbanites to adapt to a sharp economic downturn than urbanites. Cutting down from two commuter cars to one could cut a suburbanite's total expenditures by 10-20%+ per month without great change. That's a large chunk of suburban budgets that is quite elastic, and lends a great deal of resiliency to suburbanite finances. How many urban households can cut expenses by this much merely by doing something as simple as carpooling?

My purpose in writing this series is not to make a partisan stand in favor of suburbia. Rather, my intent is to push the debate beyond "suburbia sucks" to the more important question of how we will address its weaknesses. As I argued last week, it isn't practical to think that we'll simply abandon suburbia in favor of some preferable urban option. This week, my conclusion is that suburbia may actually be no worse situated to deal with the economic impact of peak oil than urban areas. It is the base cost of commuting, not the variable cost, that most impacts suburban finances--suburbanites have already (by definition) budgeted for this cost, and have more viable options to reduce this cost than urbanites have viable options to comparably reduce their expenditures. Next week I'll argue that suburbia may be more than on equal footing with urbia--it may actually be better positioned to deal with the more extreme potential impacts of peak oil such as food shortages, water shortages, and energy shortages.



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