

## **I. General Comments and Themes:**

*This three-page memo discusses the issues raised in the class readings from Weeks 1-5 on the relationship between land use and transportation policy. On the first page, I comment generally and describe some overall themes of the readings. On page 2, I discuss the question of sprawl in relation to other debates, including the epistemology debate, in the literature. Finally on page 3, I consider transportation-land use market failures and the economists' solution - pricing of roads, congestion, emissions, parking, and more - in the context of climate change, peak oil, and recession.*

In line with much of social science, especially relating to public policy, the class readings on the transportation-land use (hereafter abbreviated TLU) connection seem to raise more questions than answers, present more problems than solutions, and afterwards leave the reader with more ambiguity than certainty. It can be disheartening to read about how the well-intentioned transportation and land use ideas of the 20th century were eclipsed by their negative externalities.<sup>1</sup> The literature of the 1990's attempted to catalog and understand past mistakes, and a New Urbanist aesthetic of higher density, transit-oriented, mixed use development rose to prominence.<sup>2</sup> Still, not everyone was swept away by unbridled enthusiasm for New Urbanism as a solution to all urban TLU problems,<sup>3</sup> and the debates continue over defining what is problematic about sprawl,<sup>4</sup> how to improve study methods and indicators,<sup>5</sup> refining economic models, road pricing and other policy prescriptions, and more.

Similar to the vague patriotic rhetoric of presidential candidates, the common ground for the authors in the TLU literature appears as common sense on the surface, but is also too vague to be very meaningful without elaboration. Everyone wants more transportation choices, more walking and biking, more access to places we want to go, more affordable housing, and less congestion, fewer traffic accidents, and less air pollution. Few people would quarrel with the typical metropolitan planning goals of greater economic prosperity, environmental quality, urban amenity, and cost of living.<sup>6</sup> No one is out campaigning for longer commutes.

The difficulties arise from the tradeoffs between recommendations. A commute in a denser area could be shorter by distance but longer by time. This is the New Urbanist tradeoff of "speed for livability."<sup>7</sup> The choice between a billion dollars of public investment spent on highways or transit benefits either car owners or transit takers (some of whom may be in both groups), and also has consequences for land use.

Although land use and transportation issues clearly overlap, several readings contend that the TLU connection has been overstated.<sup>8</sup> The potential danger is that if the connection is actually weaker than we think, or causality not specifically defined (higher density leads to walkability, but when the city is densified, people don't actually measurably get out of their cars), then the result could be giving up one amenity, but not receiving any benefit in return. A major lesson from the readings is to be cautious when deriving one-size-fits-all policies based on the TLU connection. Despite such caution, there are some things we can say about sprawl and market failures.

## II. Sprawl and What We Know

Are cars the enemy? No amount of empirical data can objectively answer this question, because only someone's opinion can define an enemy. A person spending more time in traffic may be more likely to agree than a person spending less time in traffic. The automobile as a technological advance contains the dual function of both alienating individuals from their community, and providing people a freedom of movement that was previously impossible. Even as critics deplore how cars encapsulate individuals, force them to compete for scarce roadway, and watch as freeways divide communities and encourage low-density suburbs with no town square, newly prosperous Chinese and Indians eagerly await the purchase of their first automobile as a sign of arrival to the good life. Cars are both good and bad, but what about sprawl?

Gordon and Richardson's article on the desirability of compact cities is provocative reading, especially for a group of planning students possibly drawn to their field of study and profession by a visceral dislike of sprawl. Gordon and Richardson state that the choice of millions of Americans to live in suburbia shows that they prefer it over central cities, and planners would ruin what people like about the suburbs if they succeed in densifying them. Crane and others' responded to their article by noting that the debate currently lacks a foundation of empirical studies on which to base claims on the superiority of either sprawl or compact cities. There is no control group for the United States showing how people would behave if they lived in denser or less dense cities.

While it is true that the supporters and opponents of sprawl talk past each other partly due to the limited quality and methodology of the empirical studies, another reason is simply that they have different values from one another. How important is empirical data when writers are talking about quality of life? Handy notes the importance of a "sense of community" and "street life" for advocates of neo-traditional development.<sup>9</sup> Creative analysis can develop proxy indicators for subjective measures, but an easier way to avoid criticism might be to devote more attention to VMT and other objective measures.

Our values may determine our opinions on sprawl, but the built environment and surrounding land use also helps determine our values. Moore states that the act of building a transit system alone does not ensure its success. The region's political culture must value transit in order to get out of their cars and change their commuting habits. But it may be more difficult to value something if you don't have it. A direct way to gauge the demand for transit is to put more transportation measures on the ballot. Measure R and Proposition 1A will be good tests of the California voter's interest in transit and high-speed rail in 2008.

Gordon and Richardson defend sprawl by saying there is an energy glut, but this was written in the era of cheap oil and SUVs, and without consideration of the consequences of peak oil and increased greenhouse gas emissions. Would this 21st century context change Gordon and Richardson's position, or would their values and opinions continue to provide the foundation for their arguments?

### **III. Market failures and pricing in the context of climate change, peak oil, and increasing fuel prices**

Moore makes a convincing case for pricing policies such as gas taxes, bridge and road tolls, congestion fees, and parking meters to solve persistent TLU problems. For what seems like decades, economists have been the lone advocates for paying the true costs of externalities, facing off against a politically hostile public and timid politicians, and losing. People like their freeways to be free. In the meantime, dual subsidies to both autos and transit provide mixed policy signals to consumers and result in gridlock.<sup>10</sup>

The previous page discussed the difficulties with objective versus subjective indicators for sprawl, which can also apply to many TLU issues. The concept of "sustainability" is often dismissed as too subjective. But a more objective measure, greenhouse gas emissions (GHG) often measured in tons of CO2 equivalent, may act as a proxy for sustainability, and can help jurisdictions determine their fossil fuel use for electricity, transportation, and other municipal and community-wide functions.

Peak oil and increasing fossil fuel prices may make density necessary, based on the original TLU economic theory of location demand as a function of transportation costs. Increasing transportation costs would strengthen the transportation-land use connection, if people begin searching for ways to reduce their fossil fuel consumption, moving closer to their jobs or looking for neighborhoods with better transit access. Policy makers are using New Urbanism as a strategy for implementing AB32, California's Global Warming Solutions Act, and other laws such as SB97 (regarding GHGs and CEQA) and SB375 (regarding including land use in regional transportation planning).

Perhaps climate change, peak oil, and sustainability will help close the gap between the economic policy prescriptions of the planning profession and the historical desires of the non-planner public. We'll know this is happening when gas taxes, congestion pricing, and parking fees move from the academic literature to the ballot box, and become laws and regulations. It sounds crazy, but not much crazier than \$147/barrel oil and \$4/gallon gas.

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<sup>1</sup> Kay 1994; Ewing 1997

<sup>2</sup> Moore, Thorsnes, and Appleyard 2007; Bookout 1992; Cervero 1995

<sup>3</sup> Wilson 1997

<sup>4</sup> Gordon and Richardson 1997; Ewing 1997

<sup>5</sup> Crane 1997; Boarnet and Crane 2001

<sup>6</sup> Moore et al Ch. 8

<sup>7</sup> Moore et al Ch. 5

<sup>8</sup> Giuliano 1995

<sup>9</sup> Handy 1991

<sup>10</sup> Mittelstaedt 2007