**Investigating the Relationship between**

**Road Safety and Deprivation in the United States**

The relationship between economic deprivation and road safety has been illustrated thinly in the literature, but the results have been consistent. Those living in areas that are economically depressed have a greater than expected number of fatalities and injuries. While this type of relationship is often expected in developing countries, it also appears in developed countries including the United States, Canada, and the United Kingdom. In the United States in particular, this phenomena is observed both in areas of urban poverty (e.g. Philadelphia) and rural poverty (e.g. West Virginia and Kentucky).

Most of the analyses exploring this relationship are at the level of a census tract or smaller, but all are area-based models. Another common occurrence is the accidental discovery of this phenomenon in the pursuit of other conclusions, illustrating the somewhat “sticky” nature of this relationship. Examples of the different models can be found in each of the articles in the attached list of references. There are many causal speculations for this finding including:

* More pedestrian exposure in areas
* Older vehicles lacking the most modern safety equipment or ideal maintenance
* Longer durations for and/or less qualified emergency response
* Poorer access and quality of medical care as a whole
* Poorer health status or particularly vulnerable populations making the local population more susceptible to fatal injury
* A more slack attitude to personal safety

These causes are pure speculation. We really do not know the why of this observation. Yet it seems as if this is the type of subject matter that could meaningfully impact the lives of the most vulnerable users of the transportation network. With that in mind, this would appear as if it would make a good topic for papers at next year’s meeting as a podium session with directed solicitation of papers, particularly in light of the release of the 2010 census results and new data from the National Household Travel Survey.

**List of Resources**

Abdalla, I.M., Raeside, R., Barker, D. & McGuigan, D.R.D. (1997, September). An investigation into the relationships between area social characteristics and road accident casualties. *Accident Analysis and Prevention 29*(5), 583-93.

Aguero-Valverde, J., & Jovanis, P. P. (2006). Spatial analysis of fatal and injury crashes in Pennsylvania. *Accident Analysis & Prevention,* *38*(3), 618−625.

Cubbin, C. & Smith, G.S. (2002) Socioeconomic inequalities in injury: Critical issues in design and analysis. *Annual Review of Public Health 23*, 349-75.

Kim, K., Pant, P., & Yamashita, E.Y. (2010). Accidents and accessibility: Measuring the influences of demographic and land use variables in Honolulu, Hawaii. *Transportation Research Board Annual Meeting 2010* (Paper #10-2901).

Kirk, A.J., Pigman, J.G. & Agent, K.R. (2005). *Socioeconomic analysis of fatal crashes*. (KTC-05-39/TA19-05-1F). Lexington, KY: University of Kentucky/Kentucky Transportation Center.

Males, M. (2009, January). Poverty as a determinant of young drivers’ fatal crash risks. *Journal of Safety Research 40*(6).

Noland, R.B. & Quddus, M.A. (2004, November). A spatially disaggregate analysis of road casualties in England. *Accident Analysis & Prevention 36*(6).

Oliver, L. & Kohen, D. (2009). Neighbourhood income gradients in hospitalisations due to motor vehicle traffic incidents among Canadian children. *Injury Prevention 15*(3), 163-9.