UC INSTITUTE OF TRANSPORTATION STUDIES POLICY BRIEF GUIDELINES AND TEMPLATE

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A policy brief is a concise document highlighting key research findings relevant to policymaking. Policymakers, as an informed but non-technical audience, are more likely to read a brief that is visually appealing, interesting, relevant, and easy to read. A good policy brief provides adequate context and background for the issue without overwhelming the audience with detail.

Characteristics of a Good Policy Brief:

- CONCISE AND FOCUSED At approximately two pages, the brief should be short and to the point. Aim for approximately 3,800 characters.
- EMPHASIZE OUTCOMES Focus on key findings from the research, not the methods.
- UNDERSTANDABLE Policymakers are unlikely to be specialists. Language should be simple and easily
 understood by those outside academia. Replace academic jargon with explanations of concepts.
 Language should be professional, rather than academic.
- VISUALLY APPEALING Use at least one design element such as a photograph, graph, or chart.
- PRACTICAL AND FEASIBLE Link findings from the research to current policy discussions. Explain why
 your findings are important and make the case for why policymakers should care.
- ACCURATE Include citations and link to a full report and/or other materials where a reader can learn more.

General Guidance

- Use the policy brief example provided at the end of this document as a template to start your policy brief.
- Choose a title for your brief that is short, informative, and catchy. In some cases, a policymaker will only
 read your title so use your title as an opportunity to communicate a key finding or message from your
 research, or pose a question your research is aiming to address.
- Provide names and affiliations of all authors and identify at least one person as the point of contact for follow up questions.
- Use <u>first person</u> (me, we) when writing your brief. This is a departure from previous guidance, which was to use third person.

Policy Brief Structure:

Draft the policy brief in Microsoft Word (or similar program) using the example provided at the end of this document as a template for starting your own policy brief. Organize the policy brief into the following main headings / sections: Issue, Key Research Findings, and More Information. You may also consider including a Conclusions section or Policy Implications section. Guidelines for each heading / section are as follows:

Issue

- o Approximately 1 paragraph that introduces the reader to the policy context and specific issue your research is addressing. Include references to policy if possible and appropriate. Describe the urgency of the issue, the importance of addressing the issue, and the scale of the problem / issue.
- Finish this section with a short paragraph describing your research, which will serve as a bridge to the next section (Key Research Findings). Example: "To better understand the equity implications of different pricing strategies, we examined X, Y, and Z."

Key Research Findings

- o Emphasize key takeaways and/or messages from your research. Select three to four top level takeaways and "bold" these statements followed by explanatory and supportive text. See the policy brief on the next page as an example.
- o Provide only essential information for a reader to understand your key takeaways and implications. Highlight notable stats in this section that support your key takeaway.
- o Avoid jargon.
- o Use an effective visual to reinforce and convey your findings (e.g., text, bar graph, pie chart, graph, etc.)

More Information

o At minimum, reference your UC ITS report and if you like, include one to two additional sources. Also list who a reader should contact (along with that person's email) if they have questions and/or want more information.

Review Process and Checklist:

- If the policy brief is prepared by a student or postdoc, then the research advisor (PI, major advisor, etc.) for the project must review and approve the draft before it is submitted.
- Submit your brief for internal review and copyediting using this form. Once the brief has been reviewed, it will be sent back to you (the PI and any others on the research team) for review and final approval. After comments and edits are incorporated into the policy brief, use the same form to submit a final version. This version will go through final design and processing. Any questions? Contact Sandra Hemingway at shemingway@ucits.org.

POLICY BRIEF EXAMPLE / TEMPLATE

Below is an example of a policy brief you can use as a template / guide in preparing your own. Organize your policy briefing under the headings – Issue, Key Research Findings, and More Information. If you would like to include a "Conclusion" section or "Policy Implications" section, then that is fine and should be inserted after the Key Research Findings heading. To view more policy briefs examples, visit the UC ITS eScholarship page.

Increasing Highway Capacity Unlikely to Relieve Traffic Congestion

Susan Handy, Ph.D.

Department of Environmental Science and Policy, University of California, Davis

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Issue

Reducing traffic congestion is often proposed as a solution for improving fuel efficiency and reducing greenhouse gas (GHG) emissions. Traffic congestion has traditionally been addressed by adding additional roadway capacity via constructing entirely new roadways, adding additional lanes to existing roadways, or upgrading existing highways to controlled-access freeways. Numerous studies have examined the effectiveness of this approach and consistently show that adding capacity to roadways fails to alleviate congestion for long because it actually increases vehicle miles traveled (VMT).

An increase in VMT attributable to increases in roadway capacity where congestion is present is called "induced travel". The basic economic principles of supply and demand explain this phenomenon: adding capacity decreases travel time, in effect lowering the "price" of driving; and when prices go down, the quantity of driving goes up.¹ Induced travel counteracts the effectiveness of capacity expansion as a strategy for alleviating traffic congestion and offsets in part or in whole reductions in GHG emissions that would result from reduced congestion.

Key Research Findings

[*Note that main points are bolded with explanatory text following.]

The quality of the evidence linking highway capacity expansion to increased VMT is high. All studies reviewed used time-series data and sophisticated econometric techniques to estimate the effect of increased capacity on congestion and VMT. All studies also controlled for other factors that might also affect VMT, including population growth, increases in income, other demographic factors, and changes in transit service.²

Increased roadway capacity induces additional VMT in the short-run and even more VMT in the long-run. A capacity expansion of 10% is likely to increase VMT by 3% to 6% in the short-run and 6% to 10% in the long-run. Increased capacity can lead to increased VMT in the short-run in several ways: if people shift from other modes to driving, if drivers make longer trips (by choosing longer routes and/or more distant

¹ Noland, R.B. and L.L. Lem. (2002). A review of the evidence for induced travel and changes in transportation and environmental policy in the US and the UK. *Transportation Research D*, 7, 1-26.

² Noland, R.B. and L.L. Lem. (2002).

destinations), or if drivers make more frequent trips.^{3,4,5} Longer-term effects may also occur if households and businesses move to more distant locations or if development patterns become more dispersed in response to the capacity increase. One study concludes that the full impact of capacity expansion on VMT materializes within five years⁶ and another concludes that the full effect takes as long as 10 years.⁷

Capacity expansion leads to a net increase in VMT, not simply a shifting of VMT from one road to another. Some argue that increased capacity does not generate new VMT but rather that drivers simply shift from slower and more congested roads to the new or newly expanded roadway. Evidence does not support this argument. One study found "no conclusive evidence that increases in state highway lane-miles have affected traffic on other roads" while a more recent study concluded that "increasing lane kilometers for one type of road diverts little traffic from other types of roads".

Increases in GHG emissions attributable to capacity expansion are substantial. One study predicted that the growth in VMT attributable to increased lane miles would produce an additional 43 million metric tons of CO₂ emissions in 2012 nationwide.¹⁰

Capacity expansion does not increase employment or other economic activity. Economic development and job creation are often cited as compelling reasons for expanding the capacity of roadways. However, most studies of the impact of capacity expansion on development in a metropolitan region find no net increase in employment or other economic activity, though investments do influence where within a region development occurs.^{11, 12}

Conversely, reductions in roadway capacity tend to produce social and economic benefits without worsening traffic. The removal of elevated freeway segments in San Francisco coupled with improvements to the at-grade Embarcadero and Octavia Boulevards has sparked an on-going revitalization of the surrounding areas while producing a significant *drop* in traffic.¹³ Many cities in Europe have adopted the strategy of closing streets in the central business district to vehicle traffic as an approach to economic revitalization,¹⁴ and this strategy is increasingly being adopted in cities in the U.S., from New York City to San Francisco.

³ Noland, R.B. and L.L. Lem. (2002).

⁴ Gorham, R. (2009). Demystifying Induced Travel Demand. Sustainable Urban Transport Document #1. Transport Policy Advisory Services on behalf of the Federal Ministry of Economic Cooperation and Development, Bonn, Germany. Available: http://www.cleanairinstitute.org/cops/bd/file/gdt/49-GTZ-SUT-TD-ITD10.pdf

⁵ Litman, T. (2010). Generated Traffic and Induced Travel: Implications for Transport Planning. Victoria Transport Policy Institute. Available: http://www.vtpi.org/gentraf.pdf

⁶ Hansen, M. and Y. Huang. (1997). Road Supply and Traffic in California Urban Areas. *Transportation Research A*, 31(3), 205-218.

⁷ Duranton, G. and M.A. Turner. (2011).

⁸ Hansen and Huang. (1997).

⁹ Duranton and Turner. (2011).

¹⁰ Handy, S. (2005). Smart Growth and the Transportation-Land Use Connection: What Does the Research Tell us? International Regional Science Review, 28(2): 1-22.

¹¹ Handy, S. (2005).

¹² Funderberg, R., H. Nixon, M. Boarnet, and G. Ferguson. (2010). New Highways and Land Use Change: Results From a Quasi-Experimental Research Design. Transportation Research A, 44(2): 76-98.

¹³ Cervero, R., J. Kang, and K. Shively. (2009). From Elevated Freeways to Surface Boulevards: Neighborhood and Housing Price Impacts in San Francisco. Journal of Urbanism, 2(1), 31-50.

¹⁴ Hajdu, J.C. (1988). Pedestrian Malls in West Germany: Perceptions of their Role and Stages in their Development. *Journal of the American Planning Association*, 54(3). 325-335.

Further Reading and More Information

This policy brief is drawn from the report "Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions" prepared by Susan Handy with the University of California, Davis and Marlon Boarnet with the University of Southern California. The report can be found here: http://arb.ca.gov/cc/sb375/policies/policies.htm. For more information about findings presented in this brief, please contact Susan Handy at slhandy@ucdavis.edu.

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