

Session 3: Dr. Thirayoot Limanond

Presentation entitled: “Transport Demand Elasticity of Bangkok and Nakorn Ratchasima: Effects of Oil Price on Gasoline Consumption and Travel Behavior”

Biographic Data of Speaker



THIRAYOOT LIMANOND

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EDUCATION:

Ph.D. Civil Engineering, University of California, Davis
October 1997 to September 2001
Major in Transportation Engineering, Minor in Statistics

M.S. Civil Engineering, Arizona State University
January 1996 to August 1997
Major in Traffic Engineering

B.Eng. Civil Engineering, Chulalongkorn University, Bangkok
June 1990 to June 1994

WORK EXPERIENCE:

Lecturer December 2005 to Present
Suranaree University of Technology, Nakorn Ratchasima, Thailand

- Teach undergraduate and graduate classes in School of Transportation Engineering.

- Conduct research on travel demand, transportation planning, traffic engineering and vehicular pollution emission.
- Provide consultancy service to various government offices:
 - Co-develop a traffic and transport master plan for Saraburi and Lopburi Municipalities.
 - Propose engineering improvement measures on selected rural highways to improve road safety.
 - Formulate a formal accident investigation unit in Nakorn Ratchasima

Asia Project Coordinator

September 2005 to Present

GTZ – Sustainable Urban Transport Project, Bangkok, Thailand

- Promote sustainable urban transport in Asia by offering expert opinions and conducting training courses for various municipalities.
- Formulate the concept, and develop a proposal to pursue international grants for financing appropriate sustainable transport projects for cities.

Senior Traffic Engineer

February 2004 to August 2005

PlanPro Co., Ltd, Nonthaburi, Thailand

- Forecasted and evaluate traffic impact of two major road improvement projects in inner Bangkok, including the widening of Ratchadapisek Road between Petchaburi Road and Sukhumvit Road from existing 4 lanes to 6 lanes, and the construction of a new arterial connecting Ratchadapisek Road and Sarasin Road.
- Provided consulting service to the Royal Police Office of Thailand, to prepare a technical specification of the Red Light Enforcement Camera project. The project is to install such enforcement system at 30 major intersections in Bangkok.
- Developed a conceptual plan of two ITS systems to facilitate the operation of the proposed bus rapid transit (BRT) services in the Bangkok Metropolitan Area. Those ITS systems are Transit Signal Priority and Passenger Information System.
- Developed a master plan for a traffic information system, reporting real-time traffic conditions on major surface arterials in Bangkok.
- Forecasted and evaluated traffic impact due to an opening of a new checkpoint (the Ban Prakob area) on the Thailand-Malaysia border.

Senior Transportation Engineer

November 2000 to December 2003

TJKM Transportation Consultants, Pleasanton, CA, US

- Evaluated short-term and long-term traffic impacts of a proposed development (e.g., a shopping center, a residential subdivision, a hospital) to the nearby roadway

system, and determine appropriate mitigation for the locations that would be significantly impacted.

- Developed signal coordination plans along main corridors in various jurisdictions in the San Francisco Bay Area.
- Gave advices to a number of public agencies, regarding traffic/transportation issues:
 - Suggest traffic calming devices on busy residential streets,
 - Recommend a posted speed limit for main road segments,
 - Develop a signal timing plan for new signalized intersections,
 - Determine time/day to close a freeway for construction/maintenance.
- Developed citywide travel speed monitoring system using GPS data and GIS application, and implement it for various Cities/Counties in California and Nevada.

Post Graduate Researcher

January 1998 to September 2002

Institute of Transportation Studies, University of California at Davis, US

- Performed policy testing; investigate how travelers would change their behavior in response to transportation policies.
 - Studied the impacts of regional setting, intra-neighborhood location on shopping travel behaviors of traditional neighborhood residents, using a nested logit model (Ph.D. dissertation).
- Conducted research on travel demand and vehicular pollution emission.
 - Developed a new way to estimate travel activity on unpaved roads for each California County using the combination of GIS and statistical methods,
 - Analyzed the variability in the three methods of collecting driving data and suggested the best protocol for future use.
- Served as a local GIS expert.
 - guided colleagues to use GIS applications for their research.

Class Reader

January 1997 to May 1997

Civil and Environmental Engineering Department, Arizona State University, Tempe, AZ, US

- Prepared handouts and graded assignments for Highway Geometric Design.

Consulting Engineer

August 1994 - June 1995

TT Planning & Design Co., Ltd., Bangkok, Thailand

- Acquired and analyzed traffic data for various projects aiming to alleviate traffic congestion in the Metropolitan Bangkok and other main cities in Thailand.
- Coded a City roadway network into a transportation planning software, SATURN.
- Translated the concepts of Traffic Engineering and Travel Demand Modeling Process from English textbooks into Thai.

COMPUTER SKILLS:

Platform: PC, MAC, UNIX

Languages: FORTRAN, BASIC, MATLAB, C++, AML (Arc Macro Language), AVENUE

Software: MS Office, MATLAB, Arc/INFO, ArcView

Statistical Software: MINITAB, SPSS, SST, LIMDEP

Traffic/Transportation Software: HCS (Highway Capacity Software), LOS, Traffix, Synchro, FREQ, SATURN Vers 8.1, TP+, Viper.

PUBLICATIONS :

Limanond T, Chookerd S, Roubtonglang N. Effects of countdown timers on queue discharge characteristics of through movement at a signalized intersection.

Transportation Research Part C 2009. (In Press)

Limanond T, Niemeier DA, Mokhtarian PL, Specification of a tour-based neighborhood shopping model. Transportation 2005; 32: 105-134.

Morey J, Niemeier D and Limanond T. Statistical Framework Using GIS to Estimate Unpaved Road VMT for PM₁₀ Mobile Emission Inventories. ASCE Journal of Urban Planning and Development 2004; 130(2): 83-93.

Limanond T and Niemeier D. Effect of Land Use on Decisions of Shopping Tour Generation: a case study of three traditional neighborhoods in WA. Transportation 2004 May; 31(2): 153-181.

Limanond T. and Niemeier D. Accessibility and Mode-Destination Choice Decisions: Exploring Travel in Three Neighborhoods in Puget Sound, WA. Environment and Planning, Part B Planning and Design 2003; 30(2): 219-238.

Morey J, Limanond T, Niemeier D. Validity of Chase Car Data Used in Developing Emissions Cycles. Journal of Transportation Statistics 2000; 3(2): 15-28.

CONFERENCE PAPERS AND PRESENTATION:

Limanond T (2000), *Effects of Household Structure, Neighborhood Setting, and Intra-Neighborhood Location on Shopping Travel Behavior of Residents in Well-Mixed Neighborhoods*, Abstract, 1st IGERT Graduate Student Research Conference, Davis, CA

TECHNICAL REPORTS:

Niemeier D, Limanond T, Morey J. *Data Collection for Driving Cycle Development: Evaluation of Current and Development of New Data Collection Protocols*, Draft Report 1999. Funded by California Department of Transportation, Institute of Transportation, Davis, CA.

Niemeier, D, Morey J, Limanond T. A New Methodology for Estimating Unpaved Road Miles and Vehicle Activity on Unpaved Roads, Vol. 1, Final Report 1999. Funded by California Air Resources Board, Institute of Transportation Studies, Davis, CA.

Niemeier D, Limanond T, Morey J. Using GIS to Estimate Unpaved Road Miles and Vehicle Activity on Unpaved Roads, Vol. II, Final Report (1999). Funded by California Air Resources Board, Institute of Transportation Studies, Davis, CA.