THE CONTRIBUTION OF PUBLIC INTEREST RESEARCH TO TRANSPORTATION POLICY

– Seen in the Activities of the Institute for Transport Policy Studies –

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(Received June 14, 2002)

Established in 1995 with the basic philosophy of serving as a bridge between research and practice, the Institute for Transport Policy Studies conducts activities in support of transportation policy research in the public interest. This paper aims to describe the contribution of public interest research to transportation policy as seen in the Institute's activities. Touching first on the context and events leading to its establishment, the paper then describes the Institute's guiding principles, organization and staff and summarizes research and other activities.

Key Words: Transport policy, Public interest

1. INTRODUCTION

Established in July 1995, the Institute for Transport Policy Studies (ITPS) began its activities in earnest in April of the following year with the addition of Tokyo University's Professor Dr. Hideo NAKAMURA as Director. Under the Director's leadership, the Institute has acted in accordance with its basic philosophy of serving as a bridge between research and practice by supporting transportation policy research and policy proposals in the public interest. As the Institute celebrated its sixth anniversary in April of this year, its activities have established a strong reputation, earning the respect of those in transportation-related fields. Before discussing the contribution of public interest research to transportation policy as seen in the activities of the Institute over the last six years, this paper first reviews the context and events that led to the Institute's establishment in order to facilitate the reader's understanding of these activities.

2. UNTIL INCEPTION

2.1 Background to establishment

(1) Reform of the Japan Transport Economic Research Center

The primary context for the inception of the Institute for Transport Policy Studies was the need to revitalize the Japan Transport Economic Research Center. In the later 1960s, then-Minister of Transportation Yasuhiro NAKASONE hoped to transform the Ministry of Transport, largely relegated to providing approvals, into a policy-making arm of government. To this end the Ministry implemented the following three reforms to make the shift from an administration of departmental approvals to one providing overall planning and guidance.

- Establish a forum for debate of comprehensive transportation policy;
- Strengthen the Ministry of Transport's planning division;
- Establish an institution for comprehensive transportation research.

The Japan Transport Economic Research Center was founded in 1968 to address the third point above and, with academic, government and private sector support, it primarily conducted research supporting the development of transportation policy. Many projects were carried out based on this research, much of which contributed to national and regional transportation policy and planning. Indeed, the Institute played no small role in the development of Japan's transportation system and economy. When discussions began concerning an Institute for Transport Policy Studies, the Japan Transport Economic Research Center was already more than 25 years old and numerous problems had come to light, including the following:

- Research, conducted almost entirely on topics requested

by the Ministry of Transport or local governments, lacked independence;
- Few proposals addressed policy issues with a long-term perspective and there was little research critical of existing policy;
- An inadequate system of guidance and oversight for research;
- Inadequate researcher recruitment and development;
- A dearth of public information activities.

There was a need to overcome such problems by reforming the organization as a public-service corporation that could play an effective social role.

(2) The Limits of Policy Research by Universities and the Central Bureaucracy

Around 1992, when the idea of creating the Institute for Transport Policy Studies was first discussed, there was great uncertainty among the Japanese people. With the promotion of deregulation, collapse of the 1955 party system, declining stock markets and the massive bad bank loans that came to light in the aftermath of the bubble economy, the country faced the first great change in socioeconomic conditions experienced since the period of rapid economic growth. There were great changes occurring in the field of transportation polices, too, as evidenced in trends such as privatization, controls on regulation of supply and demand, and a reevaluation of fare controls.

The central bureaucracy has been called Japan's largest think tank, responsible for most economic, financial, diplomatic and other policy planning. Its experience in planning and executing policy, ability to secure talented personnel, use of mass media coverage to influence Diet deliberations and advisory boards, access information from related industries and capacity to analyze it are advantages that universities and private sector think tanks cannot possibly match. Nevertheless, the following problems were also noted at the time:
- The two to three year rotation cycle at the core of bureaucratic human resources policy makes it impossible to sustain a specialized research function. Further, much of the research results are forgotten when the person responsible is rotated, inhibiting the accumulation of knowledge;
- The central bureaucracy possesses an overwhelming volume of information that makes it impossible for university and other research agencies to compete on a level playing field in terms of analysis and research. The resulting lack of competition and criticism inhibits the overall development of higher-quality research;
- The tendency is to concentrate on relatively short-term policies; long-term research themes are limited;
- Little research is devoted to policies opposing those currently in force and there are difficulties in conducting research related to the work of other ministries and agencies;
- Analytical ability is limited (for example, a low capacity to perform quantitative analysis) so policies tend to conclude with abstractions rather than concrete measures;
- Policy decisions are made based on a mix of scientific fact and policy judgement, making the decision-making process appear opaque to the citizenry.

The other type of organization in Japan supporting policy-related research is the university. Academic research on transportation conducted by universities, in terms of its applicability to actual transportation policy, has been criticized for the following reasons:
- Research does not always address topics where there is a social need;
- Frequent introduction of unrealistic assumptions and oversimplification means research must often be restructured to be of any use in policy formulation or evaluation;
- Research labs are often divided into small units less suited to broad-gauge and all-inclusive research;
- Individual research labs are severely limited in terms of available funding and staff.

(3) Desire for a Think Tank Capable of Making Policy Proposals

In this way it was clear that the central bureaucracy and universities, though they had played a predominant role in conducting Japan's transportation-related research and analysis, had reached their limits in terms of research supporting higher-level policy development. It was apparent that breaking out of the siege mentality born of flagging socioeconomic conditions and reestablishing a dynamic Japan required an open debate about policy proposals originating from numerous organizations, not only to the central bureaucracy. Against this background, the transportation field confronted the need for a private, independent non-profit think tank that could freely make policy proposals, and the need to reform the Japan Transport Economic Research Center from this standpoint.

2.2 Deliberative process

Internal deliberation on reform of the Japan Transport Economic Research Center quickly gained depth

with the almost immediate establishment of an exploratory committee composed mostly of learned persons from the outside. Interviews and surveys also generated input from others in the transportation field. Internal deliberations can be of limited effectiveness but the Institute in its current form took shape in deliberations informed by objective outsider opinions.

(1) Establishment of a Committee

An Exploratory Committee* was formed of people from the Ministry of Transport and other learned persons, meeting for the first time in April 1994.

Building on the results of interviews and surveys of experts – and unfettered by existing frameworks – the Committee engaged in direct, constructive and lively debate about the ideal think tank, drawing up the basic structure for the new research institute.

(2) Interviews

In addition to the learned persons on the Committee, interviews** with university professors, scholarly organizations, research organizations and other organizations also yielded valuable advice.

(3) Questionaires

380 universities, local governments, transportation businesses, manufacturers, financial institutions and research organizations were asked to evaluate the past activities of the Japan Transport Economic Research Center and provide input about the role to play and research themes to pursue in the future.

(4) Case Research on Existing Research Organizations

Case research on existing research organizations was conducted to provide reference for the new research institute. Literature-based research on the activities of the major overseas institutes supplemented site visits to existing domestic institutes.

2.3 Fundamental strategy (Think Tank Development Plan)

The deliberations above led to the creation of a Think Tank Development Plan, which set things in motion for the establishment of a new research institute. The Plan was composed of the following four parts:

Part 1 Basic Scheme,
Part 2 Establishment of the New Institute,
Part 3 Revitalization and Role of the Japan Transport Economic Research Center,
Part 4 The Ministry of Transport's Role in Think Tank Development and Change in Mentality.

The model for the current Institute for Transport Policy Studies is laid out in Part 2 above, the main points of which can be summarized as follows:

(1) Basic Philosophy

Grasping the real state of transportation, evaluating current policy and proposing policies that envisage the future can stimulate further improvements to transportation policy overall. Such improvements can contribute to the development and exchange of the transportation economy both domestically and abroad, and ultimately to world peace. A particular contribution can be made in the Asia-Pacific region, whose relationship with Japan will grow even closer in the 21st century.

(2) Basic Principles

a Carry out research that contributes to the development of the transportation economy and to improvements in transportation policy.
b Autonomous organization and management.

*__Committee Members__ (titles at time of involvement)
Kiyoshi OKADA, Chairman (Professor, Seijo University)
Takahiro SUZUKI (Research Assistant, The Sasagawa Peace Foundation)
Hisao TAKAHASHI (President, Japan Airport Terminal Co. Ltd.)
Sadayuki TERADA (Advisor, Aero Asahi Corporation)
Shoshi HASHIMOTO (Board Member, New Tokyo International Airport Authority)
Yozo MATSUKI (President, Light Motor Vehicle Inspection Organization)
Shigeru MORICHI (Professor, Tokyo Institute of Technology)
Kozo YOSHIDA (Managing Director, East Japan Railway Company)
Toshiaki OMORI (Director, Policy Division, Transport Policy Bureau, Ministry of Transport)
Goro KAWAKAMI (Director, National Planning Division, Transport Policy Bureau, Ministry of Transport)

**__Advisors Outside the Committee__ (titles at time of involvement)
Yutaka KOZAI (Chairman, Japan Center for Economic Research)
Yohei SASAKAWA (President, The Nippon Foundation)
Junichi SUZUKI (Former Director General, The Japan Society of Transportation Economics)
Ushio CHUJO (Professor, Keio University)
Toru NAKAMURA (Director, Japan International Transport Institute, Japan Transport Economic Research Center)
Noboru MAKINO (Senior Advisor, Mitsubishi Research Institute, Inc.)

In addition to the members above, many others provided their guidance and support leading up to the establishment of the Institute, including the following:
Minoru TOYODA (Director General, Transport Policy Bureau, Ministry of Transport)
Takao NAGAI (Deputy Director General, Transport Policy Bureau, Ministry of Transport)
Tsutomu AIHARA (Deputy Director General, Transport Policy Bureau, Ministry of Transport)
Takeju OGATA (Director, Department of General Affairs, The Nippon Foundation)

c Secure and mentor personnel.
d Ensure a forum for and atmosphere of free debate.
e Reach out broadly both domestically and overseas.
f Maintain an environment capable of supporting activities.

(3) Priority Measures

a Ensure independent research.
b Evaluate research results.
c Secure personnel capable of acting as ambassadors for the organization.
d Secure and mentor researchers.
e Engage in exchange with domestic and international research organizations.
f Announce research findings.
g Improve data-gathering and access methods.
h Host lectures, seminars and symposia.
i Publish attractive in-house journals and publications.
j Create an environment guaranteeing unfettered research.
k Obtain work space and improve OA systems.

(4) Organization

Director, Policy Committee, Evaluation Committee, Researchers

2.4 Inception

(1) Selection of a Director

The first task undertaken was selection of a Director. All involved in the search knew that the success or failure of the Institute would rest on the selection of the Director.

In the Basic Plan, the following guidelines were provided for selection of a Director:

A person who can serve externally as an ambassador for the Institute and a champion of its research finding and internally to stimulate free and active debate at the Institute; one versed in a broad range of fields in addition to transport economy and possessing the knowledge to respond to the future.

After careful review, a list of more than 100 respected candidates was reduced to just ten. Requirements for the position were further clarified as follows and the list narrowed again.

- Socially influentialv;
- Familiar with transportation policy;
- Possessing a critical mind with broad interests not limited to the transportation field;
- A strong leader also capable of evaluating research results.

Based on these requirements then-Tokyo University School of Engineering Professor Dr. Hideo NAKAMURA was ultimately chosen to serve as Director.

(2) Leaving the Dock

With the Director in the lead, ten researchers were recruited from academia, government and the private sector and the Institute for Transport Policy Studies was officially born. In May 1996 the Institute literally "left the dock" with an international symposium hosted on the luxury liner Fuji-maru with three well-respected guest academics from Europe and America.

This April, the Institute celebrated the sixth anniversary of its foundation and the next section summarizes the activities of the Institute over that time.

3. THE ACTION POLICY OF THE INSTITUTE FOR TRANSPORT POLICY STUDIES

The fundamental action policy of the Institute is described below.

(1) Area of Research and Selection of Themes

① Independent Selection of Themes
Selection of research themes should not be entrusted to or directed by other organizations but guided by the social consciousness of those involved in the research.

② Research to Encompass All Traffic and Transportation Issues
Research may address any areas of transportation including road traffic as well as general problems in closely interrelated fields such as regional issues, urban problems and environmental problems.

(2) Research Method and Approach

① A Bridge between Academic Research and Practical Application
The research method is close to the academic one. At the same time, since the research targets policy problems raised by real world issues it must also bridge the gap to practical applications. Care must be taken to ensure that it does not become too academic, and in the process disengage from policy realities.

② Research Informed by a Multi-Disciplinary,

Practical and International Perspective
Research is to be conducted through a combination of multi-disciplinary approaches and researchers. The participation not only of academics but also of those with rich practical experience in government and private corporations is essential. In addition, it is also of great importance that Japanese researchers who have been brought up in the same social environment in Japan be supplemented by the participation of international researchers who can introduce the perspectives of other regions.

③ Coordination with Domestic and International Research Organizations
Those affiliated with universities and other outside research organizations will be invited to participate in the Institute's activities as visiting researchers. Close cooperative relationships are to be maintained with international research organizations, with which personnel exchanges and collaborative research shall be pursued.

(3) Release of Results

Research results are to be announced to the wider social community using the best means as determined by the Institute and those involved in the research.

(4) Formation of a Base for a Network of Persons Involved with Transportation

Opportunities are to be created for deeper understanding of transportation policy problems and measures by universities, government, transportation corporations, the mass media and the general populace. In addition, assisting international researchers and experts will deepen the understanding overseas of Japan's domestic situation.

(5) Evaluation of Results

In order for the Institute's activities to continue to be socially relevant, it must maintain a level of tension that can be achieved by asking for outside evaluation of the Institute's various activities and suggestions for research topics from a broader perspective.

4. ORGANIZATION AND STAFF

4.1 Organization

The organization has gone through minor modifications since establishment. The current structure is illustrated in Figure 1.

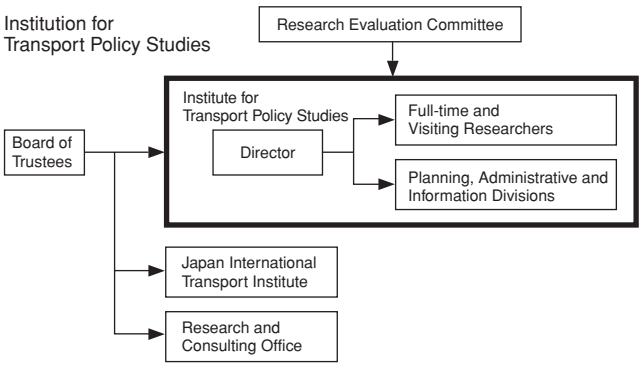

Fig. 1 Organizational chart

4.2 Staff

(1) Researchers

Researchers include full-time researchers affiliated with the Institute, visiting researchers affiliated with universities or other outside organizations, and guest researchers invited from overseas universities or research organizations. The Institute's activities can only be successful if it secures talented researchers. One of the Director's most critical tasks is to ensure that it does. Through Director Nakamura's network quality personnel were gathered smoothly in a short period of time and activities began at the start of the Institute's first fiscal year with ten full-time researchers and eight visiting researchers on staff. Subsequently, as the Institute's activities became better known the number of full-time researchers increased and as of end of March 2002 there were 16 full-time researchers, five visiting researchers and one guest researcher. Researchers are generally taken on for a term of two to three years. Since inception, the Institute has hosted a total of 35 full-time researchers, 14 visiting researchers and two guest researchers. Among them has been a significant international contingent, including three from countries in Europe and five from countries in Asia. With the progress of globalization today the nationality of our researchers is perhaps not so significant but the perspec-

tive of researchers from overseas has been a breath of fresh air for Japan's transportation field, so often criticized for its sluggish internationalization.

Consistent with the Institute's research stance of serving as a bridge between academic research and practical application, it recruits researchers involved with a broad range of transportation issues from universities, government, research organizations and the transportation industry. For example, among full-time researchers, 15 came originally from universities, ten from government (the old Ministry of Transport), five from research organizations and four from the transportation industry. Furthermore, with regard to specialties, 19 came from engineering backgrounds while 16 came from social science backgrounds. Fourteen researchers have doctorates. Researchers leaving the Institute must be provided with attractive positions that enable them to capitalize on their activities at the Institute if we are to continue to be able to secure skilled personnel in the future.

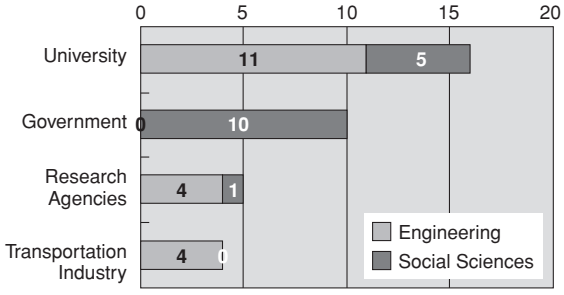

Fig. 2 Background of full-time researchers (April 1996–2001)

(2) Administration

Planning, Administrative and Information Divisions have been established to support the activities of the Institute. Each division works to support research activities as well as the Symposia, Transport Policy Colloquia and Transport Policy Seminars; produce the Transport Policy Studies' Review and other publications; collect and catalogue information and materials; take responsibility for logistics and office work and generally ensure the Institute runs smoothly.

4.3 Research Evaluation Committee

The Research Evaluation Committee* is the body that evaluates the research activities of the Institute and provides advice concerning research themes. Complacency with regard to the Institute's activities is resisted through such outside review as well as by publishing research reports and submitting research findings to journals.

5. RESEARCH ACTIVITIES

Having been authorized as a public-service corporation by the Ministry of Transport, the Japan Transport Economic Research Center was effectively limited to research themes that fit within the structure of Ministry business. The Institute for Transport Policy Studies, however, unconfined by a government framework, has been able to pursue a broad range of traffic and transportation research, including that concerning road traffic, with one eye also on the close interrelationships with regional, urban and environmental issues. A few years after the Institute's founding, responsibility for major traffic-related issues was unified in the Ministry of Land, Infrastructure and Transport. In this way the Institute was perhaps a bit ahead of the Ministry.

From the time of establishment, the Institute was subject to great expectations from those in transportation-related fields. The gap between these expectations and the activities that could be supported by the Institute's limited resources was a source of great pressure and stress. Both the Research Evaluation Committee and the participants at Research Symposia were frequently critical. In this context, the Institute had addressed more than 60 research themes.

This section provides an overview of the Institute's research activities, though space makes it impossible to introduce the specifics of all individual research. First, themes have been categorized and summarized in Table 1. Each theme is addressed below and the essence of its research findings summarized with examples. Research findings have been released in a number of ways including publication in the Transport Policy Studies' Review (discussed further below) and in lectures at research symposia. Interested parties are encouraged to refer to these sources for details.

5.1 Research on systems

Reform of enterprise systems, including transportation enterprise models and the role of central and regional governments in projects, is an important policy issue fac-

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Shuhei KONNO (Professor, Osaka Sangyo University)
Hisao TAKAHASHI (Senior Advisor, Japan Airport Terminal Co. Ltd.)
Ryosuke HIROTA (Senior Managing Director, Kajima Corporation)
Hisayoshi MORISUGI (Professor, Tohoku University)
Hiroyuki YAMADA (President, Hagoromo University of International Studies)

Table 1 Research themes (1996–2001)

	Operations and Policy During Reform Period			Efficient Transportation Investment		Progress of Globalization	Environmental Preservation, Disaster Prevention, Safety	Total
	Systems	Management/ Economy	Technology/ Information	Return on Investment/ Finance Systems	Consensus Building/PI			
General Transportation	6	2	6	2	2	2	3	23
Railroads and Stations	3	4	1	6	3		1	18
Automobiles and Roads	2	1					2	5
Aviation and Airports	2	3				2		7
Shipping and Seaports		2		1		3	1	7
Distribution and Logistics			3			1		4
Tourism	1	1				1		3
Total	14	13	10	9	5	9	7	67

ing Japan as it promotes deregulation and decentralization of political power. "An Analysis of Urban Public Transportation Systems in France" looked at efforts to decentralize transportation authority in France, which like Japan has pursued a system of centralized authority. Paying particular attention to the role of self-governing bodies in urban public transportation, this research provided important information relevant to recent Japanese efforts to decentralize.

Improving urban railway service, though an important issue for Japan's urban policy, is nevertheless difficult to pursue due to various constraints such as those on space and financial resources. "Vertical Separation through Public Construction and Private Management of Railways in Major Metropolitan Areas" proposed a concrete scheme for Japan's implementation of a new vertical separation model based on EU railway policy. A great deal of similar research was conducted at the time and two new lines built in the Kansai area adopted the model.

Sustaining support for regional public transportation services is an unglamorous but important theme. In particular, local bus services in the post-deregulation era is a common source of headaches for transportation officials around the nation. "Sustaining Support for Regional Public Transport Service through Resident Cooperation" focused on the value of having or being able to use local buses, substitute value, legacy value and other non-user values. It also presented theories and examples of compensatory mechanisms for gaining the financial assistance of those living along routes and prerequisites for implementing them.

"The Effect of Functional Differentiation in Multiple Airport Systems" proposed a desirable differentiation of function for the multiple airports existing in major metropolitan areas. This research analyzed the benefits for consumers, airport managers and airlines of functional division among multiple airports by international/domestic or long-haul/short-haul flights, and built a model for measuring such benefits. Functional differentiation is a major policy issue in regions with multiple airports like the Tokyo, Osaka and northern Kyushu metropolitan areas. These research findings were of great interest to those involved in airport policy at the national and regional government levels and have been used as baseline data in policy deliberations.

5.2 Research on management and the economy

Analyzing the effects of improved transportation service on regional economies and corporate management is an important issue for transportation policy, as is efficient management incorporates such effects, particularly those taking advantage of private sector vitality.

"Freight Railway Transport Issues and How to Address Them" examined freight rail transport, an area often expected to play a big environmental role in Japan though such hopes are rarely realized, and presented quantitative measures for increasing efficiency in railway management. This research was conducted in cooperation with the Ministry of Land, Infrastructure and Transport,

the Japan Freight Railway Company and others concerned with rail freight and had a major impact on the management of the Japan Freight Railway Company.

Against a background of deregulation and a drive to improve management efficiency, two pieces of research looked at the possibility of adopting in Japan the sort of airport privatization taking place overseas: "Performance of Liberalization and Privatization in Civil Aviation" and "An Investigation of Airport Management Systems in Japan." The former suggested that airport privatization would have positive effects such as lowering costs and increasing investment. Based on an analysis of the effects of the deregulation on Japanese airlines and the privatization of airports overseas, it concluded that privatization would require drastic deregulation measures and the elimination of cross subsidy systems. The latter made proposals for management of Japan's airports based on an international comparison of Japanese and overseas airport operations – based on factors such as income, expenses and productivity – and on an evaluation of the success of privatized airports overseas.

Much Institute research has focused on tourism. "Evaluating the Attractiveness of Tourist Areas" experimented with the creation of a mechanism for introducing competitive market forces into tourist area management to make Japanese tourist areas more attractive. This attempt to develop an objective measure for evaluating the attractiveness of tourist areas and using it to evaluate Japan's major tourist destinations was picked up by the mass media and generated a great response from local governments that represent tourist areas. Since then, this evaluation method has been used when drawing up plans for tourist area development.

5.3 Technology and information

The progress of technical innovation and computerization holds out the possibility of dramatic change to our economy and society, and proactive adoption of these forces in the transportation field is an important policy issue.

"An Automated Freight Transport System" examined the feasibility and effectiveness of replacing truck freight transport on highways with an automated freight transport system using new technology as a way to improve freight transport service and its response to environmental concerns. The research presented a conceptual design for such a system on the Second Tomei Expressway and the Meishin Expressway, calculating the costs and benefits to the national economy resulting from reductions in environmental impact and traffic accident related damage. "Home Parcel Delivery Systems: Will e-Business Set a Precedent for Solving Distribution Problems?" was a unique bit of research analyzing a Japanese example and recommending its adoption in Europe and America. It showed that the strategy of Japanese home parcel delivery services of joining forces with convenience stores – an outstanding kind of delivery system for individual customers – could be a business model applicable to Europe and America.

"Research on New Ways to Prepare Traffic and Transportation Statistics" reevaluated current statistical systems against a background of rapidly changing needs for transportation statistics and proposed ways to improve them for the future. "Development of a Data Collection System for Travel Behavior by Applying Information & Communication Technology" followed the same trend, developing methods of transportation research employing information technology that should improve both the efficiency with which information is collected and its accuracy.

5.4 Return on investment and finance systems

In order to ensure that Japan's scarce natural resources are used efficiently, in recent years there have been stronger calls to examine the cost-effectiveness of public investments and appeals for transparency in the investment-making standards and processes used. Furthermore, finding policy approaches that ensure adequate financial resources to pursue important infrastructure improvements at a time when the financial picture is tough for both government and the private sector is an important challenge for the transportation field.

"Optimal Method for Phased Development of Large-scale Expressway Networks and its Application" devised an optimal method for traffic network development and applied it to Japan's expressway system. This research proposed an optimal development process and a way of determining which routes best to develop from the perspective of cost-benefit, profitability and balanced regional development. There is a great deal of debate – not all of it necessarily objective – about expressway development these days. By presenting a method for quantitative analysis and making the case for debate based on its adoption this research received a great deal of attention from concerned parties.

The problems of financial pressure due to rising infrastructure costs and reduced rates of facility use are frequently raised with regard to seaport development. "The Effectiveness of Key International Seaports and Their Future" examined the feasibility of combining facilities at the key seaports for container freight. Based on a survey of why users choose given seaports, this research constructed a model of shippers' seaport choice, then proposed

a policy for combining freight facilities at key seaports and examined its efficacy through model analysis.

Of the many urban renewal projects that have been proposed, those for railway station plazas are among the most important. Despite the fact that many metropolitan railway stations are critical traffic hubs, many are undeveloped or cramped, leading to problems with peak time congestion and the risk of accidents. "Evaluation and Development of Station Plazas in the Tokyo Metropolitan Area" compared the shared public space at the railway station plazas in the Tokyo metropolitan area with what would be necessary based on traffic demand. Finding that the level of development was extremely low, the research analyzed systemic improvements, focusing on planning methods, multiple sources of funding and cost sharing of expenditures.

5.5 Consensus building

Construction of transportation facilities often impacts on citizens and numerous other entities with a variety of different values, making consensus building a challenge. As a result, many projects require a long time to complete. Moving projects smoothly forward requires building consensus by providing easy-to-understand information to citizens, local governments and companies, listening to their reactions and incorporating these into the enterprise. Nevertheless, compared to countries overseas, Japan is inexperienced at such consensus building and the people's understanding of the issues is inadequate.

Using the impact on the surroundings of elevated expressway structures as an example, "Evaluating Non-Market Values When Improving Traffic Infrastructure" explored the applicability of the Contingent Valuation Method (CVM) to traffic planning. Also, to provide citizens with easy-to-understand information on rail service, "Rating Tokyo Metropolitan Rail Transport Service by Region" presented visual representations of the differences in rail service quality by region using the Geographic Information System (GIS) and suggested the needs and direction of future investment based on these results.

"Problems with Transportation Project Land Procurement Systems and Measures for Improvement" addresses systematic improvements to solve the oft-maligned problem of delays in Japan with procurement of land for public use. Focusing in particular on transportation projects, this research reveals the current state of land procurement and systematic problems while analyzing the process of transportation projects, the state of land procurement and its mechanisms in Germany. It presents issues and a direction for transportation project land procurement in Japan as well as procedural systems and ways to mediate competing interests.

5.6 Progress of globalization

Globalization is proceeding rapidly in numerous industrial fields in many nations around the world. In response, members of the international community need to develop policies that contribute to society, and the transportation field is no exception.

"Research on the Future Organization of Aviation and Airports in the Asian Region" responded to the diversification of international aviation markets in the Asian region by developing a quantitative model for measuring the effect on travel of changing aviation service. This model was then evaluated using a simulated network based on presumed airline cooperation.

Also, "WTO Negotiations on the Liberalization of Marine Transportation" examined changes in marine transportation policies in America and the EU and made recommendations in hopes of achieving a breakthrough at future WTO negotiations. The research included a number of scenarios, particularly for negotiations with the United States.

"Strategies for Encouraging Foreign Tourist Travel to Promote Regional Development" recommended various policies to promote foreign tourism based on a review of tourism policy history, an international comparison, an analysis of measures being taken around the country and an explanation of the reasons to promote foreign tourism in Japan. These included policies to build and stimulate demand for travel to Japan through declarations of intent and policies to improve the convenience and enjoyment of staying in Japan through better reception and treatment at the regional level.

5.7 Environmental preservation, disaster prevention and safety

Debate on environmental issues is flourishing, particularly that concerning global warming. How to maintain the quality of environmental resources and pass them on to future generations is a common global problem. There are many areas for the transportation field to address.

The analogy of a health exam was applied to the investigation and diagnosis of transportation pollution, aiming that the transportation and environmental experts in developing countries could make a simple, systematic diagnosis and planning of countermeasures. "A System to Support the Diagnosis of Transportation Pollution in the Major Cities of Developing Countries and the Planning of Countermeasures" presents this environmental diagnostic system, bringing together a manual for investigation

and a database of examples of existing countermeasures.

"Comparative Research on Lifecycle Carbon Emissions from Expressways and the Shinkansen" developed a lifecycle analysis model and conducted a comparative analysis of the amount of energy and carbon emissions needed for transportation facilities – including construction, operation and amortization – using the Tohoku Shinkansen and the Tohoku Expressway as case studies.

"An Analysis of Differences between the Assessment for Automobile-related Taxes and the Effective Reduction of CO_2 Emissions through Tax Balance" examined the tax system's influence on reducing CO_2 by modeling a mechanism for how the assessment rate for automobile-related taxes can influence CO_2 emission during automobile acquisition, ownership and use. This research concluded that a combination of increased surcharges for fuel taxes combined with a progressive assessment of acquisition and ownership taxes for larger vehicles would be effective. The results of this research were presented to the Council for Transport Policy for consideration as a green tax.

In order to further enrich research content, seminars are held at the Institute on a roughly weekly basis. The lively debate is extremely helpful in raising the level of research.

6. RESEARCH SYMPOSIA, TRANSPORT POLICY COLLOQUIA AND TRANSPORT POLICY SEMINARS

The Institute, in order to remain an organization open to the outside, hosts research symposia, Transport Policy Colloquia and Transport Policy Seminars that have to date been attended by a total of more than ten-thousand people involved in transportation. We believe that wide-ranging debate concerning the research findings reported at these gatherings by participants with varied perspectives or with government and practical experiences makes an important contribution to further policy refinement.

6.1 Research symposia

Research symposia are held twice annually to provide an opportunity to release the Institute's research findings and subject them to criticism. At each symposium, a keynote address by a learned person from Japan or abroad is sandwiched by research reports from seven or eight of the Institute's researchers. People involved with transportation attend the symposia from diverse fields including academia, government, research organizations,

Table 2 Well-attended Transport Policy Colloquia and Seminars

Theme	Lecturer	Commentator	Attendees
Multiple-Airport Systems (MAS) for Large Metropolitan Regions	Shinya HANAOKA	Hideyuki KANENARI Misuhiko OHTA	144
Toward a More Comprehensive and Consistent Evaluation of Transport Projects	Hisayoshi MORISUGI	Nobuhiro OKUNO	133
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Note: As of March 2002

the transportation industry, financial institutions and the construction industry, and their number grows with each session. Attendees' candid reactions to Institute research serves as valuable advice motivating researchers to deepen their work. In 2000, to commemorate the 400th anniversary of Japan-Dutch cooperation, symposia were held in Nagasaki and Tokyo in cooperation with The Netherlands Research School for Transport, Infrastructure and Logistics (TRAIL). These symposia were attended by numerous members of the Dutch government, including the Minister of Transport, and people from the private sector in the Netherlands.

6.2 Transport Policy Colloquia and Transport Policy Seminars

The Transport Policy Colloquia are forums for free and academic debate centered on research reports by researchers from universities and research organizations, including those from the Institute, and remarks in response from a commentator. Attendees engage in active debate about the transportation policy of tomorrow. Meanwhile, Transport Policy Seminars are lectures and question-and-answer sessions concerning a specific issue presented by a speaker with operational responsibility with government or industry.

Transport Policy Colloquia have been held at a pace of roughly once per month since the Institute's establishment, reaching a total of 54 sessions by March 2002. Transport Policy Seminars take place at appropriate intervals and have been held 18 times. Average attendance is approximately 80 people from diverse fields including academia, government, research organizations, the transportation industry, financial institutions, the construction industry and manufacturing. Discussion benefits from the varied perspectives brought by the numerous opinion leaders in attendance from a broad range of fields. Beer is served to Transport Policy Colloquia attendees as a prop to ensure that the sessions retain their unrestrained atmosphere, and it does seem to help stimulate discussion.

Other research organizations, inspired by the Institute's symposia, Transport Policy Colloquia and Transport Policy Seminars, have begun to adopt similar practices in an unexpected spillover effect from the Institute's activities.

7. PUBLICATIONS

7.1 Transport Policy Studies' Review

The Institute began publishing the Transport Policy Studies' Review in Summer 1998 with the following goals:

- To present research findings that address and analyze a broad range of traffic and transportation issues from a variety of perspectives;
- To aim with such findings for a high academic standard;
- To report analyses of traffic and transportation issues as well as on the activities of the organization generally.

To ensure a high quality journal, editorial responsibility for the Review is vested in a committee whose members include both university researchers and persons with practical experience in government and private industry. Papers published first undergo a thorough review by referees.

The Review is published seasonally four times a year and runs papers from domestic and international researchers as well as research findings from Institute researchers. As of the Spring 2002 issue the Review has been published 16 times. Papers of three types are published: research, reports and editorials. Through Issue 16, 76 papers had been published: 38 in research, 22 reports and 16 editorials.

Currently, the Transport Policy Studies' Review has a subscription base of over 1,000, a large number for a specialized journal. Subscribers are a diverse group, coming from universities and schools, government and other public agencies, think tank consultants, foundations and incorporated associations, public corporations and the transportation, construction and manufacturing industries.

7.2 Library of Transportation Policy Research

As a way of exposing its research findings not only to experts and researchers but also the general populace, the Institute publishes the Library of Transportation Policy Research. Efforts are made to use plain language as much as possible to aid understanding by readers probably not well versed in the issues. To date, three volumes have been published: "Distribution EDI," about the adoption of information technology in the distribution field; "Domestic Tourism for a New Age," about evaluation of tourist spots and adoption of an evaluation method; and "Airport Management," about new directions in Japan's airport management.

7.3 Publication of the UITP magazine in Japanese

The Union International des Transports Publics (UITP), based in Belgium, is an international organization dedicated to the development of public transportation that engages in a broad range of activities including conducting public transport research, hosting international congresses, providing information and publishing reports. The Institute for Transport Policy Studies supports the activities of the UITP by producing the Japanese version of its magazine: Transport Public International. This helps introduce those involved with public transport in Japan to public transportation improvements being made in Europe and America and also supports recruitment of Japanese UITP members while providing a forum for submission of papers on public transportation authored by Japanese.

8. COOPERATION WITH DOMESTIC AND INTERNATIONAL RESEARCH AGENCIES AND SOCIETIES

8.1 Information and personnel exchange with domestic and international research organizations

Pursuing close interaction with domestic and international research organizations such as those below through information and staff exchanges is effective in ensuring high quality research results. The Institute contributes to international cooperation and the strengthening of its staff by proactively accepting overseas researchers through, for example, its participation in the Science and Technology Agency's fellowship program.

- The Netherlands Research School for Transport, Infrastructure and Logistics (TRAIL);
- Korea Transport Institute (KOTI);
- Union International des Transports Publics(UITP; Headquartered in Belgium).

8.2 Linkages with domestic and international societies

If the Institute is to aim for policy research grounded in scientific research, its research activities must achieve a certain level of academic excellence. By pursuing linkages with domestic and international academic societies such as those below and participating proactively in their activities it gains the opportunity to benefit from their review and to share its contributions.

- The Japan Society of Transportation Economics;
- Japan Society of Civil Engineers;
- World Conference on Transport Research Society (WCTRS);
- Eastern Asia Society for Transportation Studies (EASTS).

9. FINANCES

Financing for the Institute for Transport Policy Studies comes from a grant from The Nippon Foundation, which has shown a deep understanding of and strong support for the activities of the Institute in the public interest.

10. CONCLUSION

The above summarizes the background and purpose for the establishment of the Institute for Transport Policy Studies and provides an overview of its activities, focusing on research. The Institute has been able to achieve more than originally expected due to a number of factors. These include Director Nakamura's leadership, broad knowledge and extensive worldwide network of connections; work day and night by our researchers; the hard-working efforts of Institute staff in support of research activities; the cooperation of other Institute officers and employees; and the strong support of the Ministry of Land, Infrastructure and Transport, the Nippon Foundation and many other related organization and people.

There are of course many challenges facing the Institute in the future. For example, continuing to conduct broad research and make policy proposals; securing skilled researchers and other human resources; finding effective publicity methods to stimulate broad-ranging policy debate; developing financial resources to make long-term activities possible; and expanding our cramped office space.

Nevertheless, the most important challenge is to maintain among parties internal and external to the organization an understanding of the social significance of an institute bridging university research and practical application through policy proposals informed by research grounded in academic methodology, and to further expand these activities. There is no doubt that paying ef-

fort for them will generate the energy needed to raise the activities of the Institute to an even higher level.

REFERENCES

1. Hideo NAKAMURA, "A Retrospective of Institute Activities." Report to the 11th Symposium on Transport Policy Studies. (2001).
2. Hideo NAKAMURA, "Preface." MOBILITY, Spring Issue, Japan Transport Economic Research Center. (1996).
3. Shigeru MORICHI, "The Role of Research in Contributing to the Formation of Transport Policy." MOBILITY, Spring Issue, Japan Transport Economic Research Center. (1996).
4. Hisao TAKAHASHI, "In the Midst of a Shift in Transport Policy." Issue in Commemoration of the 5th Anniversary of the Japan Transport Economic Research Center, Japan Transport Economic Research Center. (1973).
5. Committee to Study Establishment of a Think Tank, "Plans for Establishing a Think Tank." Japan Transport Economic Research Center. (1994).
6. Takahiro SUZUKI and Makiko UENO, "Think Tanks of the World's" Simul Publishing.