

Prof. Tatsuo Oyama

Prof. Tatsuo Oyama is a Professor at National Graduate Institute for Policy Studies. He received the B.S. and M.S. in Mathematical Engineering from University of Tokyo, Tokyo, Japan in 1969 and 1971, respectively. He earned his Ph.D. in Operations Research from School of Operations Research and Industrial Engineering (ORIE), College of Engineering, Cornell University in 1977. He was at the Central Research Institute of Electric Power Industry, Economic Research Institute, from 1971 to 1980, then at Saitama University, Department of Arts and Science as an Assistant Professor in 1980-1981, Associate Professor in 1981-1988, Professor at the Graduate School of Policy Science, Saitama University in 1988-1997. Then moved to the National Graduate Institute for Policy Studies as a Professor in 1997. He has been Dean of GRIPS since April 2000 and Vice President since 2003. His research interests include mathematical programming, combinatorial optimization and mathematical modeling of social systems. He is currently interested in apportionment problem and location problem. His papers appeared in *Journal of Combinatorial Theory*, *IEEE Transactions on Power Systems*, *International Transactions on Operational Research*, *Asian-Pacific Journal of Operational Research*, *Journal of Operational Research Society of Japan*, *Transactions of the Japan Society for Industrial and Applied Mathematics*, *Journal of Civil Engineering Society*, *Japan Journal of Industrial and Applied Mathematics*, *OPSEARCH*, *International Journal of Higher Education*, and others.

Talk 7: Recent OR Activities in Public Sector of Japan

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Abstract:

We first review the education and research activities of OR for both central and local public sectors, and then introduce some OR applications and results for the private sector. We find that each public sector segment is described by a huge amount of statistical data that are obtained by various forms of processes: surveys, sampling, and other collective means. But, such “reliable” data needs to be used more efficiently and effectively, as we now find the need for various kinds of policy planning, implementation, and evaluation becoming more important. However, the past contributions of OR, both theoretical and technical, has not been strong enough in these areas, even though it has contributed in some degree. Here OR can be applied more actively and positively, and, thus, we see a bright future for OR in Japan, especially in the public sectors.

Japanese central and local governments send many young officials to a large number of different training institutions and graduate schools. We describe the recruiting and training systems for government officials. The training courses and curricula sometimes include systems analysis and OR. Moreover, in some major graduate schools that have policy-related research programs, statistics and OR courses are offered. We describe a brief history and outline of research activities and their outputs.

Operations Research Society of Japan (ORSJ) celebrated its 50th anniversary in 2007. We have reviewed all presentations given at the annual ORSJ spring and fall meetings for the past 48 years, and categorized them by the speakers’ affiliation and academic areas in OR. These results show interesting trends and characteristics related to OR in terms of education and research activities in the Japanese public sectors.

Policy evaluation has become more necessary, important, and also very common with the emerging attention to the new public management. (so-called NPM) Also, much quantitative data has been gathered and prepared by all Japanese governmental organizations. However, we note that OR theory and techniques that take advantage of this data have not been applied effectively so far (this is also the case for public sector research in other countries). These global problems arise in the areas of environment, energy resources, complex societal problems such as recycling, information technology industries, natural disasters and other emergent risk situations; they all require appropriate policy decision making. They are worthy challenges to OR researchers.