

Appendix 1. Methodology of Site Selection, Sampling, and Data Collection Using a Household Survey

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Sampling Frame

The Canadian sampling frame for the New Rural Economy Project (NRE) formed the base for collecting primary data in this Canadian-Japanese comparative study. The original Canadian frame was designed as a two-stage sample for the comparative study of lagging and leading rural economies. The first stage was a stratified sample of Census Subdivisions (CSD). Thirty-two were selected, 16 lagging and 16 leading with consideration of regional balance and other design criteria used to modify the random sample from each stratum. Sites were identified from the 1991 boundary files for Census Subdivisions, ranging in size from 130 to 5,997 residents, across all provinces and two territories in Canada. The second stage was to sample households within the selected CSDs.

Two lagging and two leading sites were selected from among the 32 NRE sites to compare with one lagging and one leading site in Japan. Criteria for determining lagging or leading status were based on a number of census questions originally used in the NRE work in Canada, but which were not possible to replicate in Japan. A method for determining categories of lagging and leading communities in Japan was then developed based on extensive reviews of Japanese Census data and familiarization with the NRE criteria, followed by a workshop in Tokyo in January 2001.

The selection of the two sites in Japan was based on the following three criteria: income, population and local investment in revitalization. For the purpose of comparison with the Canadian sites, one Japanese municipality would have below average income levels and the other an average income level. In addition each of the municipalities must have a population of fewer than 20,000 residents and be located in intermediate topography with mountainous areas. Finally, it was important that in both municipalities progress was being made in the revitalization of each community.

The two municipalities selected were Iitate Village (*Mura*), which has the lowest per person household income in all of Fukushima Prefecture, and Awano Town (*Machi*), a town with relatively good job conditions and high income that is located in an intermediate and mountainous region of Tochigi on the outer edges of the Kanto Plain where Tokyo is situated.

The major concern was that the two selected Japanese rural communities were generally much larger in population than the Canadian communities. The matter was addressed by characterizing the local hamlets (*shuraku*) within Awano and Iitate as lagging or leading. The initial plan was to stratify the population of households into the lagging and leading categories from municipal data about households. Data for this procedure was not available, so the following method to establish lagging and leading strata was applied instead.

Researchers asked 20 key informants from each of Awano and Iitate, performing a variety of community roles, to classify the very small local hamlets (*shuraku*) as leading and lagging. The overall criterion was the amount of revitalization activity over the past 10 years.

The key informants were those who worked in a variety of areas: the tax collection office; chairpersons of local hamlet assembly meetings; Jr. High School principals; heads of chambers of commerce; managing directors of agricultural cooperatives; five heads of sections in municipal offices; five young employees of municipal offices; chiefs of elderly care homes; and presidents of the hamlets' alliances. Each was asked to rank the hamlets using a scale of 1-10 for each of a number of characteristics. If a *shuraku* received fewer than 3 points it was considered to be lagging and if greater than 7 points, leading. The committee considered group activities and agricultural production as a part of this measure.

The two Ontario sites and two Québec sites were selected to be as similar as possible to the comparable Japanese site, considering income, population and agricultural prosperity. In Ontario, Tweed is a town that, like Iitate, placed an emphasis on relations between rural communities and urban areas, while Usborne is a town with a more prosperous agricultural industry and a higher proportion of farmers in the population than in Tweed.

The leading site from Quebec was St-Damase, relatively close to Montreal. St Damase is a suitable town to compare with Awano because it has agriculture, but other secondary industries as well, such as chicken, vegetable and cheese processing plants. These secondary industries go some way to matching the economic diversity of Awano, despite being mostly dependent upon local/regional agricultural commodities. Ste-Françoise was chosen as the lagging site to join Tweed for comparison with Iitate. Ste Françoise is a more remote community on the south shore of the Lower St Lawrence River with an agricultural and forestry base. See Appendix 2 for detailed descriptions.

Household Survey Methodology

The data for the comparisons in the CJ Project were drawn from the Japan and Canada Census and a survey of households in the six sites. The primary data for the Canadian sites were obtained from a much larger sample of 1,995 households in 20 of the 32 research sites. Five dimensions relevant to the economic performance of rural economies were used in the sampling frame when selecting sites: the extent of exposure to the global economy, the relative stability of the local economy, the adjacency to large metropolitan centres, the level of social and institutional infrastructure, and the extent to which the site is lagging or leading on a number of socio-economic variables (Reimer, 2002). In the strict sense, no inference may be drawn from the analysis relative to the general population of rural households in Canada because the first-stage sample was designed for strategic purposes.

Inference may be drawn however about the population of households within each site. The sampling unit in the second stage sample was a household, defined as people living in the same dwelling who are economically interdependent (Handbook for Interviewers, May, 2001:2). To permit generalization of findings to all households in each of the sites, the goal was to have accuracy (precision) of +/- 7.5% at a .05 level of confidence. The appropriate sample size for the second stage sample was determined for each site to achieve this goal. Hence, the number of households surveyed varied across the sites. Bias was not expected and not tested.

The original Canadian Household Survey Interview Guide contained 54 questions designed to elicit information regarding the organization, challenges, and strategies of rural households. Information was collected regarding the household organization and labour force

characteristics, major changes they have faced and how they responded to them, use of services (both formal and informal), local participation, media use (including the Internet), perception of local relations, local and regional networks, informal exchanges of goods and services, and aspirations for the community. The design combines closed questioning with a few open-ended questions.

During the summer of 2002, many parts of the Canadian household survey were replicated in the two CJ/NRE sites in Japan. Not all questions were the same. The comparable questions across the datasets have been matched and analysed for the CJ research. The focus for the work reported in this book is the comparison of Iitate with Tweed and Awano with St Damase. The two additional Canadian sites of Usborne and Ste. Françoise were used by some authors to provide some added depth to their discussion. Household data from all six sites were used extensively in the Sawada et al. chapter that examines perceptions and profiles of households.

One of the challenges of blending the site data sets from the household surveys lies in cultural and language differences. Of the six sites, two are English speaking, two are French and two are Japanese. Each language group had its own separate interview guide and while the questions were intended to be identical and were pre-tested, some caution must be exercised in the analysis of the responses based on slight cultural differences, which may have unintentionally altered the meaning and understanding of questions.

Differences in questionnaire content and its administration, and in the selection of the respondent must be acknowledged when interpreting the data. The household survey in Japan was based on the questionnaire from the survey conducted in Canada. But only subjects that were considered for practical and meaningful comparison with Japanese rural households were selected from that survey. Researchers in Japan also added in a few unique items of their own.

The printed questionnaires with envelop were distributed to the Japanese respondents selected from voters' lists of adults 20 years of age and older as a proxy for identifying households. The completed questionnaires were collected from the respondent in the sealed envelop. This method is familiar to people in rural Japan.

Interviews for the Canadian households were scheduled in advance over the telephone, often by a local site resident. The households were randomly selected from individual site sources such as the voters list or property tax assessment records. Trained interviewers conducted the interviews. The respondent chosen was the household resident 18 years or older with the most recent birthday. Other household members were allowed to be present during the interview and to provide input; however, the key respondent answered preference and opinion questions. Interviews lasted approximately 45 minutes. Upon completion, interview forms were reviewed immediately by the interviewer and, shortly thereafter, by the field site coordinator to check for clarity and completeness. Details regarding the theoretical rationale, procedures, instruments, and results can be found via the New Rural Economy website (<http://nre.concordia.ca>). Other slight differences were accommodated in the way the survey was carried out in each country.

Data Analysis

The analysis of the secondary Census data, key informant data and the data from the household surveys was carried out in their own ways by individual research teams. Their results are reported in this book.

All data were entered into SPSS files. The files from Canada and Japan were combined into one comparable database. The teams all had access to this data base and were aware of the need for caution in all comparisons due to differences in language and culture.

Reference to Canadian or Japanese aggregate generalizations may appear in some chapters for contexts specific to the authors' subject matter. However, for the most part such generalizations have been carefully edited in preparing the book.

References

Reimer, Bill. (2002). "A Sample Frame for Rural Canada: Design and Evaluation." *Regional Studies* 36(8), 2002.