

this sometimes explosive realm, calling for as much attention to careful translation as to theory. Benefiting from the presence of a recent major review of the field by Samuel Yamashita, he treats work published since then in depth.

Janine Sawada's review of the related field of religious studies draws attention to both the considerable accomplishments of studies of major religious figures and sects, and the limitations of approaches that fail to consider both the eclectic nature of religious leadership/scholarship of the day and the more popular issues of religious practice in daily life. She argues persuasively that in addition to extending our view beyond the great thinkers, we need to think of religious life and thought as broadly eclectic rather than as self-contained, hermetically isolated sects.

In closing, I wish to acknowledge the people and organizations that made this conference possible. The conference received extensive financial and office support from the East Asian Studies Program, Ohio State University, and especially from its director at the time, C.M. Chen, his successor, Bradley Richardson, and Amy Weir-Ganan and Owen Hagovsky. Ohio State University's College of Humanities, the Center for International Studies, the Center for Medieval and Renaissance Studies, and the departments of East Asian Language and Literatures, History, and Art History all provided additional financial support.

Studies on Historical Demography and Family in Early Modern Japan¹

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Studies on historical demography and family in early modern Japan have dealt with the relationship between population and resources and the role of the family in mediating them. The research questions vary from the simple fact-finding of demographic and family behavior of commoners in early modern Japan to a more theoretical challenge: the roles of family and individual behavior on the Japanese economic development or how they contrast with behavior in other countries (e.g. pre-industrial Europe, developing countries). The field has advanced the understanding of the lives of ordinary people, not through institutional and governing structures but through the analyses of behavior and organization of individual men and women, married couples, and households.² This paper focuses on the development of the field since the postwar period and on works written in English, particularly those based on empirical observations. The overview of the field in the first section attempts to assess chronologically the development of the field by looking at significant achievements by period. The second section discusses merits and problems of sources and methods scholars have adopted in the field. The third section details some of the major issues and controversies that generated research which has increased our understanding of the commoner's lives in early

¹ This is based on the paper I presented at the State of the Field of Early Modern Japanese Studies, Ohio State University, April 21-23, 2000. I am grateful to Saitō Osamu, Philip C. Brown, Hayami Akira, Kito Hiroshi and Hamano Kiyoshi for helpful suggestions, and Barry Keith for editorial comments.

² Hayami, Akira and Hiroshi Kito "Living Standards and Demography," Chapter 7 in Hayami Akira (ed.) *Social Economic History II*, Oxford: Oxford University Press, Forthcoming.

modern Japan. The last section deals with current research and the challenges we face. The discussion centers on the developments in studies on regional diversity, especially studies involving with multi-dimensional analysis, and the challenge in developing comparative theoretical frameworks. To cover the abundant studies in the field, which I cannot cite in the text, I have attached a bibliography of English works at the end of this paper.⁵

I. Overview of Studies on Historical Demography and Family

The major source of early advancement of the field in the post-war period has undoubtedly been the systematic use of population registers, first promoted by Hayami Akira. In the late 1960s, Hayami applied the method of family reconstitution, developed by Louis Henry for the demographic investigation of French parish registers, to Japanese population registers.⁴ This approach has opened many possibilities to investigate demographic behavior of commoners at the micro-level: mortality, fertility, marriage,

and migration.⁵ In collaboration with the Cambridge group in England, household size, household structure, and domestic cycles have also garnered more attention.⁶

The empirical approach also provided a basis for a new interpretation of Tokugawa period history. Historians' view of the Tokugawa period until 1960s was negative, symbolized by the terms, "feudal, stagnated, impoverished, and backward." In this view, an oppressive government exploited fully the peasant population, levying high taxes and closely regulating their private lives.⁷ Since the macro

³ When necessary, other relevant bibliographies and work in Japanese are included in the notes. In the bibliography, some forthcoming and unpublished works are also included when necessary.

⁴ Some of his early work in English are "The Demographic Analysis of a Village in Tokugawa Japan: Kando-Shinden of Owari Province, 1778-1871," *Keiō Economic Studies* V (1968) 50-88; "Labor Migration in a Pre-Industrial Society: A Study Tracing the Life Histories of the Inhabitants of a Village," *Keiō Economic Studies* X:2 (1973) 1-17. His first comprehensive monograph is only available in Japanese: Hayami Akira, *Kinsei nōson no rekishi jinkōgakuteki kenkyū* (A historical-demographic study of early modern villages) (Tokyo: Tokyo Keizai Shinpōsha, 1973). Another monograph also in Japanese: *Kinsei Nōbi-chihō no jinkō keizai shakai* (Population, Economy and Society in Early Modern Japan: A Study of the Nōbi Region) (Tokyo: Ō, 1992).

⁵ For example, Hayami "Demographic Analysis;" "Labor Migration;" Hanley, Susan B. "Toward an Analysis of Demographic and Economic Change in Tokugawa Japan: A Village Study" *Journal of Asian Studies* 31:3 (1972); Hanley, Susan B. "Fertility, Mortality, and Life Expectancy in Pre-modern Japan." *Population Studies* 28:1 (1974) 127-142; Fruin, Mark "Farm Family Migration: The Case of Echizen in the Nineteenth Century." *Keiō Economic Studies* 10:2 (1973) 37-46; and Fruin, Mark "A Social Geography of Preindustrial Labour Migration in Japan: Tajima and Kurome Villages in the Nineteenth Century." *Journal of Historical Demography* 4:2 (1978).

⁶ Hayami Akira and Uchida Nobuko "Size of Household in a Japanese Country Throughout the Tokugawa Era," in *Household and Family in Past Time*, Laslett, Peter and Richard Wall (eds.) Cambridge: Cambridge University Press, 1972, 473-515; Smith, Robert J "Small Families, Small Households and Residential Instability: Town and City in Pre-Modern Japan," in *Household and Family in Past Time*, Laslett, Peter and Richard Wall (eds.) Cambridge: Cambridge University Press, 1972, 429-71; Nakane, Chie "An Interpretation of the Size and Structure of the Household in Japan Over Three Centuries," pp.517-543 in *Household and Family in Past Time*, Laslett, Peter and Richard Wall (eds.) Cambridge: Cambridge University Press, 1972.

⁷ Often quoted examples of this view are: Honjō Ejirō 1935 *The Social and Economic History of Japan*, Institute for Research in the

trend of population showed stagnation in the eighteenth century, the “first generation” of population historians emphasized that it was under Malthusian positive checks: population did not grow due to famine, epidemics and family limitation through infanticide, abortion or other means.⁸

In the 1970s, Japanese and American scholars challenged this view and reinterpreted population stagnation of the eighteenth century.⁹ Hanley and Yamamura’s *Economic and Demographic Change in Preindustrial Japan 1600-1868*¹⁰ and Smith’s *Nakahara: Family Farming and Population in a Japanese Village, 1717-1830*,¹¹ the two influential monographs published in English in terms of their perspectives and methodology, invited a series of debates and examinations that continue to this day. Scholars taking this approach, whether referred to as “revisionist historians” or the “second generation” of population historians, made full

History of Japan, Kyoto (reprinted 1965 New York: Russel & Russel); Sansom, G.B. 1931 *Japan: A Short Cultural History*, New York: Appleton-Century-Crofts (revised edition 1943).

⁸ Reviewing the development of the studies on population history Saitō identified the first generation of population historians to focus on “Malthusian positive check,” the second generation on “preventive check” (deliberate family limitation), and the third generation on the re-examination of evidence (Saitō Osamu “Infanticide, Fertility and ‘Population Stagnation’: the State of Tokugawa Historical Demography.” *Japan Forum* 4:2 (1992) 369-82).

⁹ This approach is reviewed in various articles including Hayami Akira “Population Changes,” in M. B. Jansen and G. Rozman (eds.), *Japan in Transition: From Tokugawa to Meiji*, Princeton: Princeton University Press, 1986, 280-317; Totman, Conrad “Tokugawa Peasants: Win, Lose or Draw?” *Monumenta Nipponica* 41:4 (1986) 457-76; Saitō “Infanticide;” Hayami and Kito “Living Standards.”

¹⁰ New Jersey: Princeton University Press, 1977.

¹¹ Stanford: Stanford University Press, 1977.

use of micro or macro population statistics to support their claims. The general conclusion reached by these empirical investigations indicates that “it is misleading to speak of ‘impoverishment’ of Tokugawa peasants; and that, despite sporadic outbreaks of nationwide and local famines and other disasters, the general trend in their living standards was unmistakably an upward one.”¹² Thus, population stagnation was attributed to a ‘non-increase’ resulting from the ‘rational’ behavior of Japanese peasants seeking to maintain or improve their standard of living.¹³ The rational behavior was also used to explain Meiji Japan’s rapid and ‘successful’ modernization. Hanley and Yamamura maintained that population control before industrialization was a crucial element in the ability to industrialize, as opposed to a phenomenon that occurred after industrialization.¹⁴ Hayami, however, opposed this view and emphasized the nature of economic development and population increase in Tokugawa farming villages which went hand in hand: “population stagnancy was definitely not a precondition of economic development” but was a “purely chance occurrence caused by exogenously induced population decreases in

¹² Saitō “Infanticide.”

¹³ Hanley produced a series of articles on living standard and cultural interpretation (See section on living standard in bibliography). Recently she made them into a monograph, *Everyday Things in Premodern Japan: The Hidden Legacy of Material Culture* (Berkeley: University of California Press, 1997). Also Smith later gathered his contribution to Tokugawa and Meiji economic and social history in a monograph: *Native Sources of Japanese Industrialization, 1750-1920* (Berkeley: University of California Press, 1988). Saitō reviews both of these work thoroughly: Saitō Osamu “Bringing the Cover Structure of the Past to Light” (review article) *Journal of Economic History* 49 (1989) 992-99; Saitō Osamu “The Context of Everyday Things” (Review article) *Monumenta Nipponica* 53:2 (1998) 257-63.

¹⁴ Hanley and Yamamura, *Economic and Demographic Change*, 333.

Tohoku and northern Kanto that offset gains in western Japan and Hokuriku.”¹⁵

Hanley and Yamamura, and Smith’s interpretation that families in Tokugawa Japan deliberately kept family size small through infanticide to maintain a relatively comfortable standard of living was not unchallenged, either.¹⁶ Mosk provided another interpretation, reducing the question from “why did population stagnate in the eighteenth century?” to “why was fertility so low in the eighteenth century?” Mosk maintained that during the Tokugawa era, there was a substantial negative gap between desired and actual surviving family size (i.e. the latter exceeded the former).¹⁷ Therefore, parents were forced to adopt strategies about the sex of the births they would permit to survive in addition to eliminating many weak and sickly offspring soon after birth. The low fertility was explained, in part, by low fecundity and poor infant survival due to poor nutrition (i.e. low calorie and protein intake).¹⁸ Based on estimates of statistical data on food consumption and physical characteristics between 1874-1877, Mosk found that as the standard of living gradually improved during the Meiji period, the gap narrowed and finally disappeared. Fecundity was suggested to have increased because of the improved diet.

These earlier studies covered a range of issues concerning the relationship between demographic events and the economy (local development and economic status of household). Numerous studies that followed used population registers of various localities and other materials and methods to support, extend, contrast, or criticize these earlier studies. In particular, re-examination of infanticide and famine has increased our knowledge (see later section on issues and

controversies).

In the 1980s, the rural household, as an economic unit or as part of the stem family system, became the center of comparative approach. Saitō applied proto-industrialization theory¹⁹ to the case of Japan and found that the impact of rural industry on population increase was relatively weak. He attributed this to the persistent division of labor between the sexes within the rural household. Hanley and Wolf edited a volume contrasting the historical experiences of Japan and China: *Family and Population in East Asian History*.²⁰ In their introduction, Wolf and Hanley offered a thought-provoking observation that “China is to Japan as Eastern to Western Europe.”²¹ They considered the Japanese stem family system the same as the Western European type. They also noted that the Japanese marriage pattern matched that of Western Europe.²² These points became a central theme for new research. Unlike Hanley and Wolf, Cornell challenged the household formation framework developed by Hajnal and attempted to identify a distinctive Japanese stem family

¹⁹ The view is that rural industrialization stimulated family formation through a decline in the age of women at first marriage, and hence led to a rapid growth in population (Saitō Osamu “Population and the Peasant Family Economy in Proto-Industrial Japan,” *Journal of Family History* (Spring 1983) 30-54).

²⁰ Stanford University Press (1985).

²¹ Wolf, Arthur P. and Susan B. Hanley “Introduction,” in Hanley, Susan B. and Arthur P. Wolf (eds.) *Family and Population in East Asian History*. Stanford: Stanford University Press, 1985, 3-4.

²² First theorized by Hajnal, Western European marriage pattern has the features of late marriage and a high celibacy rate (population remain unmarried until age 50) whereas the Eastern European pattern is characterized by early marriage and a low celibacy rate. Hajnal, John “European Marriage Patterns in Perspective,” in D.V. Glass and D.E.C. Eversley (eds.), *Population in History* (London: Edward Arnold 1965), 65-104.

¹⁵ Hayami “Population Changes,” 315.

¹⁶ Earlier debates among American scholars are summarized in Hayami particularly in relation to demographic transition theory (1986).

¹⁷ Mosk, Carl “The Decline of Marital Fertility in Japan.” *Population Studies* 33:1 (1979) 19-38.

¹⁸ Mosk does not deny the practice of abortion and infanticide that existed in the era.

formation.²³ She has succinctly stated the rule of household formation under this system: that the household contains any number of married couples, but it can have only one in each generation.²⁴ The relationship between population and the stem family household, as a unit of production, has thus become increasingly important to understand early modern life.

From the 1980s to the 1990s, this perspective developed further with empirical examinations of family relation and organization. The link between demographic constraints (e.g. having no son or too many sons) and the family ideal of continuation was examined through household events (succession and inheritance, and head's retirement) and individual events (marriage and adoption, migration, births and deaths). Conjugal and intergenerational relationships, life cycle, status and the role of women in farm households are some of the new issues that anthropological and gender perspectives treat.²⁵

In the latter half of 1990s, owing to the computer revolution and a project of international demographic comparison initiated by Hayami, the field appears to have opened yet another set of challenging research questions. The comparative studies and further compilation of population registers make possible the study of regional variation at the micro-level.

II. Sources and Method

This section reviews the statistical sources used since the post-war period. I will start with a description of micro-level sources and the

²³ Cornell, Laurel L. "Hajnal and the Household in Asia: A Comparativist History of the Family in Preindustrial Japan, 1600-1870." *Journal of Family History* 12: 1-3 (Jan-July 1987) 143-62.

²⁴ She proposed this as an expansion of Hajnal's concept of family formation system in which he dealt only with simple and joint households (Hajnal, John 1982. "Two Forms of Preindustrial Household Formation System" *Population and Development Review* 8: 449-94).

²⁵ See section on gender and women in bibliography.

problems inherent in the use of those sources. Special attention is given to the recent development in dealing with one of the crucial problems of micro data, i.e. under-registration of infant deaths. This will be followed by a discussion of macro data and methodological developments.

(1) *Shūmon aratame chō*

The principal source of data in the field has been the annual registers of religious affiliation compiled by local headman (*shūmon aratame chō*; hereafter SAC). The SAC was initiated in 1638 by the Tokugawa government as a measure to prevent the entry and spread of Christianity.²⁶ A similar population register, heavily used in the recent studies of northeastern Japan, is *ninbetsu aratame chō* (hereafter, NAC).²⁷ The NAC stemmed out of the SAC, but they usually exclude information on religious affiliation of individual villagers.²⁸ The quality, dates of compilation, and availability of SAC vary depending on the village, domain, and region. The more detailed listings include name, age, sex, relationship to household head, origins and destinations of migrants with an explanation (e.g. marriage, adoption or service), as well as

²⁶ For details, see Hayami Akira "Thank you Francisco Xavier: An Essay in the Use of Micro-data for Historical Demography of Tokugawa Japan," *Keiō Economic Studies*, XVI :1-2 (1979) 65-81; and Cornell, Laurel L. and Hayami Akira "The Shūmon Aratame chō: Japan's Population Registers," *Journal of Family History* 11:4 (Nov. 1986): 311-28.

²⁷ Two additional sources used to supplement or check SAC and NAC are *zogenchō* (ZGO) and *hōkōninchō* (HC). ZGO was the annual vital register and record of migratory movement. HC was a register of servants (*hōkōnin*) (for details, see Smith *Nakahara*, 15-32).

²⁸ Instead, they tend to have detailed information on population and households as northeastern Japan suffered from population decline and dwindling economic output during the latter half of Tokugawa era.

household landholdings. It is noteworthy that our European counterparts often have to link vital registers (parish registers of baptism, marriage and burial) to household information (e.g. tax records) to reconstruct "household" rather than "family."²⁹ In contrast, some good population registers in Japan (SAC and NAC) can provide information on both family and household circumstances.

While these local population registers provide the rare opportunity for revealing individual lifecourses and household cycles, they are not free of limitations. First, there is a constraint of time frame. Since most of the extant population registers are from the eighteenth century, the focus of study naturally falls into mid-eighteenth century to 1870. There are few villages whose records exist for the seventeenth century. For example, Yokouchi in Suwa region is one such example. It is a pity that we cannot deal with a hypothesis of population and economic expansion in the seventeenth century in relation to the change (or persistence) in the household size and structure and/or patterns, for example, of marriage and service.³⁰

Second, there is a constraint of locality. It is extremely time consuming and energy intensive to collect, transcribe and organize these local registers.³¹ For example, while some local

²⁹ The method of family reconstruction, developed by Louis Henry, uses parish registers and is therefore confined to analyses on complete families (i.e. marriages lasting until the end of the child-bearing age of wives).

³⁰ Nakane maintains that the household size in Japan has not changed over the last three centuries (Nakane "An Interpretation").

³¹ Hayami has been trying to overcome these constraints by promoting several projects (Keiō group at Keiō University, EurAsia Project at International Research Center for Japanese Studies and Tokyo Meeting at Reitaku University). He led collaborative work to discover and collect sources, transcribe good records into Basic Data Sheet (a form developed by Hayami to follow individual lifecourses linking annual household information) and to computerize data. Hayami has been extremely

history books provide transcribed SAC for a single year or for several villages, the samples are usually too small to bear any statistically stable analysis. In addition, good SAC series are not common even in manuscript collections. Thus, there is first and foremost a limit to the availability of good longitudinal data (i.e. continuous without missing years). Which village or domain one investigates, therefore, depends to some extent on a lucky encounter with good sources. Studies based on SAC and NAC are often titled "early modern Japan," "pre-industrial Japan," or "northeast/central/western Japan." In reality, however, most studies are based only on one or a few villages from one locality. How much we can generalize from village studies is a persistent question.

There were also differences in the level of detail in documents based on local government practice. For some domains, SAC was not always made every year. For other domains, only those after certain ages were registered (e.g. after age 15 for Maeda *han*, after age 8 for Kishū and Hiroshima *han*). Some only recorded the list of household members while others recorded details of their members' lifecourse events (e.g. birth, death, marriage, service) and landholdings. The old Tokugawa domain (*tenryō*) as well as the domains, which suffered population decline (e.g. northeastern area) tended to maintain better and more detailed records compared to other domains.³²

generous and instrumental in guiding and sharing his collection of data to both American and Japanese scholars (e.g. Cornell, Laurel L. *Peasant Family and Inheritance in a Japanese Community, 1671 to 1980*, Ph.D. dissertation, Johns Hopkins University; Kinoshita Futoshi *Population and Household Change of a Japanese Village, 1760-1870*, Ph.D. dissertation (1981), Department of Anthropology, University of Arizona, 1989). Cornell has also initiated the computerization of data from central Japan at Indiana University.

³² According to the survey compiled by Hayami Akira, some of the best sources, in terms of its quality and length (continuing more than one century with very few years missing in-

Because of these differences of locality in the investigation, at least a couple of questions require attention before one tries to utilize the data: whether a single group of people listed in these sources is actually a family or household; and whether or not the persons listed actually resided in the locality.³³ There is a general consensus to conduct observations of the unit described as *ie ikken* (one household) in the original documents as a unit of household. Yet caution is necessary for the type of SAC which records a legally domiciled (*de jure*) rather than the resident population (*de facto*) of the household. Hayami raises two examples of this problem: Nakahara in Smith's study (1977) and Nishikata in Hanley and Yamaura's work (1977). The SAC they used can contain excess numbers of elderly persons; for example, they out-migrated and possibly died elsewhere but they are still listed in their households of origin. This can produce higher estimates of life expectancy. Careful observation of the source is required to avoid such problems.

(2) Infant Mortality

The most serious flaw in SAC and NAC for demographic analysis is that they do not record infants who died between annual registration dates. Until recently, village population studies have used the degree of underregistration of births out of context of infant mortality, and a single inflation factor (e.g. 20%) has been used to adjust/inflate measures of fertility. In the last decade, attempts at dealing with these problems extended in several directions.

Jannetta and Preston turned to another source, the Buddhist temple death register, or *kakochō*--local, or regional, records that document the deaths of persons affiliated with a particular temple.³⁴ Basing their studies on a long series of

between) come from some villages in Nihonmatsu domain and Mino province.

³³ "The Myth of Primogeniture and Impartible Inheritance in Tokugawa Japan," *Journal of Family History* 8 (Spring 1983) 3-29.

³⁴ Jannetta, Ann Bowman and Samuel H. Preston "Two Centuries of Mortality Change in

death data of Ogen-ji, a Buddhist temple in the mountainous Hida region of central Japan, they concluded that the previously estimated birth and death rates were high and similar to those in Western Europe at the time. They attributed their results to the different data source, in which a high fraction of infant deaths were captured, events which were otherwise omitted in the analysis of village population registers. They claim that "birth rates and death rates of the order of 20-30 per 1,000 that have been reported for other farming villages during the period appear less plausible, or certainly less universal."³⁵ However, their estimates of infant mortality based on temple registers, have been viewed as too high.³⁶ The high estimates may likely be the result of their strong assumption of no-migration imposed on their analyses.³⁷

Recent studies using other sources (*kainin-kakiage-chō* matched with SAC³⁸) and estimation methods³⁹ drew a similar conclusion -- that the

Central Japan: The Evidence from a Temple Death Register," *Population Studies* 45 (1991) 417-36.

³⁵ Ibid.

³⁶ Saitō "Infanticide"; Tsuya, Noriko O. and Satomi Kurosu "Mortality Responses to Short-Term Economic Stress and Household context in Early Modern Japan: Evidence from Two Northeastern Villages," in Tommy Bengtsson and Osamu Saitō (eds.), *Population and Economy: From Hunger to Modern Economic Growth*, Oxford: Oxford University Press, 2000, 421-455.

³⁷ Saitō "Infanticide."

³⁸ Tsuya, Noriko O., and Ken'ichi Tomobe "Infant Mortality and Underregistration of Births in a Nineteenth Century Japanese Village: An Analysis of Pregnancy Registers," paper presented at the Eurasian Project Nuptiality Conference, Beijing, November 25-29, 1998.

³⁹ Kinoshita Futoshi "Shūmon Aratame chō niokeru shusseito nyūjishibō no kashō kiroku: Nihon rekishijinkōgaku no nokosareta kadai (Underregistration of births in Aratame chō: A longstanding unsolved issue in Japanese historical demography)," *Jinkōgaku Kenkyū* 25, 1999, 27-39 (abstract in English). Kinoshita estimated infant mortality from the SAC by using

degree of underregistration of infant deaths depends on the level of infant mortality, but falls into somewhere between 12-18%. These studies also suggest seasonality of births and infant deaths and therefore, the timing of enumeration of local population registers influences the degree of underregistration of births. While these studies are limited to several localities, we have a much better idea, than say, a decade ago, about the incidence of infant deaths and underregistration in Tokugawa Japan.

(3) Macro statistics

Two types of macro level statistics deserve mention here. Paralleling the use of SAC, bakufu surveys of 1721-1846 have been used to examine national population trends and regional variations at the provincial level. Starting with a shogunal order in 1721, the domainal populations were reported by local lords and to the government every six years. The method of enumeration differed by domain. For example, the age at which children were to be included was left to the direction of the individual daimyo and past customs of the *han*.⁴⁰ Although some provincial numbers appear unreal, the extant surveys serve to reflect national and regional patterns of the period.⁴¹ Macro statistics do not exist from 1846 until 1872 when the Meiji government started their enumeration. Demographers tend to stay away from the population statistics prepared by

early vital statistics of the Japanese government; and also examined the level of birth underregistration in the SAC through microsimulation.

⁴⁰ Sekiyama Notarō, “Tokugawa jidai no zenkoku jinkō ni kansuru gimon to kōsatsu” (An examination of and problems concerning the national population of the Tokugawa period), *Shakai Keizai Shigaku* 11(11-12): 172. See Chapter 3 of Hanley and Yamamura (*Economic and Demographic Change*) for discussion of the explanation and evaluation of these materials in English.

⁴¹ Hanley and Yamamura *Economic and Demographic Change*; Hayami “Population Change.”

Meiji government as they are calculated by adding and subtracting their original survey in 1872.⁴² With caution, however, Hayami promoted the use of some of the detailed Meiji statistics. Several studies used the 1886 population and household table to uncover regional variations in age at marriage,⁴³ rice price fluctuation and fertility,⁴⁴ and effect of *hinoeuma* (year of fire and the horse) on births and sex ratio.⁴⁵

(4) Methodological development

Since its inception, one of the main goals of this field has been to reveal the life of individuals; i.e. to *let the data speak*. Efforts were made to achieve this goal by developing information sheets to follow individual life courses by “reconstituting” families applying Lui Henry’s method. In the 1970s and 1980s, scholars made full use of the methods of demographic (e.g. calculation of crude rates, age-specific rates, and life expectancy) and economic analyses. Historical demographers and economic historians in the West influenced Japanese researchers’ method and approach: for example, Wrigley and Scofield for population and economic trends, and Laslett and the Cambridge group for household

⁴² The first survey of household registers in 1872 (Jinshin Koseki) is now closed to access for privacy protection.

⁴³ Hayami Akira “Another Fossa Magna: Proportion Marrying and Age at Marriage in Late Nineteenth-Century Japan,” *Journal of Family History* 12:1-3 (1987) 57-72.

⁴⁴ Feeney, Griffith and Hamano Kiyoshi “Rice Price Fluctuations and Fertility in Late Tokugawa Japan,” *Journal of Japanese Studies* 16:1 (1990) 1-30.

⁴⁵ Hinoeuma is a superstition that women born in the year of fire-horse cannibalize their husbands. See note no.64 for the result of the analysis (Kurosu Satomi “Sex Ratio and the Years of the Fire Horse: Cultural and Regional Experiences in Japan,” in Fauve-Chamoux and Soelvi Sogner(eds.) *Socio-economic Consequences of Sex-rations in Historical Perspective*, Milan: University of Bocconi, Italy, 1994), 77-90.

structure and family studies. Some original efforts are also observed in the use of the rich migration data in Japan--e.g., geographical mobility and the influence of migration on other demographic behaviors.⁴⁶

In the 1990s, owing to advancement in information technology, the application of sophisticated or rigorous statistical analyses to historical records became possible. Life table analysis provided not only the calculation of life expectancy but also dynamic observation of marriage and leaving home patterns.⁴⁷ Regional comparison at the micro level with accumulated data and studies also became available.⁴⁸

The application of the event history analysis or multivariate analysis is the latest development in the field.⁴⁹ It therefore deserves some explanation here. The analysis measures the

effects of different explanatory variables (or covariates) on an individual's probability of dying, giving birth, or getting married using a series of logistic regression models. A person-year is the unit of observation. The analysis looks at whether an interested social event occurs in the following year. The analysis allows us to observe the intricate mechanisms involved in the chance of the occurrence of an event. More importantly, it allows us to overcome the inherent problem of historical data--small sample size and censoring (i.e. we cannot follow individuals throughout their lives). In addition, the method deals effectively with the information that continues over time. While the conventional life table methods can provide dynamic interpretations of events (e.g. duration of years until marriage contrasting sub-categories), it is very difficult to determine how the variables influence each other, and as soon as the variables increase beyond two or three, the comparison becomes too complicated. It is here that event-history analysis becomes most powerful.⁵⁰

III. Issues and Controversies

(1) Population Trends and Patterns

To begin, let us consider the size of the population of Japan since the beginning of the Tokugawa period. Roughly speaking, the population of Tokugawa Japan has three phases: substantial growth at the beginning, a plateau in the middle, and moderate to substantial growth at the end. The population in 1600, "when the Tokugawa victory inaugurated an era of peace, security, and orderly government after many years of civil war, is uncertain."⁵¹ Estimates range from under 10 million to over 18 million. There is a general agreement, nevertheless, that the population grew substantially in the seventeenth century. When bakufu enumerated

⁴⁶ See section on migration in bibliography.

⁴⁷ The life table is a basic demographic tool for summarizing the mortality experience of a population. It also provides standardized comparisons of mortality experience for groups (e.g. sex, race, occupation). In studies for contemporary population, the basic method is applied to other contexts to study risks of events such as marriage, divorce, or entry into the labor force.

⁴⁸ For example, Hayami, Akira and Satomi Kurosu "Regional Diversity in Demographic and Family Patterns in Preindustrial Japan." *Journal of Japanese Studies* 27 (2001) 295-321; Kurosu Satomi, Tsuya Noriko O. and Hamano Kiyoshi "Regional Differentials in the Patterns of First Marriage in the Latter Half of Tokugawa Japan." *Keiō Economic Studies* XXXVI:1 (1999)13-38.

⁴⁹ For example, Tsuya, Noriko O. and Satomi Kurosu "Mortality Responses"; Tsuya, Noriko O. and Satomi Kurosu "Economic and Household Covariates of First Marriage in Early Modern Japan: Evidence from Two Northeastern Villages, 716-1870," in Catharine Caplone and Muriel Neven (eds.), *Family Structure, Demography and Population: A Comparison of Societies in Asia and Europe*, Liege: Laboratoire de Demographie de l'Universite de Liege, 2000, 131-157.

⁵⁰ Cornell, Laurel L. "Analyzing the Consequences of Family Structure with Event-History Methods." *Historical Methods* 23:2 (1990) 53-61. She discusses the usefulness of this method with systematic explanations.

⁵¹ Smith Nakahara 5.

the commoner population for the first time, the population of Japan was 26 million.⁵² From the sixteenth century in the Kinai region, and from the early seventeenth century in the rest of Japan, the pace of population growth accelerated. Hayami and Kito discuss that diverse factors, such as urbanization and the expansion of cultivated land, drastically altered the structure of agricultural households, resulting in rapidly growing population figures.⁵³ Afterwards, there was a plateau in the eighteenth century, the period often referred to as “population stagnation.” However, “stagnation” disguises sharply contrasting regional population changes.⁵⁴ In the Kanto and Tohoku areas, population decline was the rule; but in Kyushu, Shikoku, and Chugoku, increases predominated; and in central Japan, there was a slight decrease in the Kinki region⁵⁵ but an increase in Hokuriku’s population.⁵⁶

The population then began to increase again at the start of the nineteenth century and gained momentum after the 1850s. Hayami argued that a combination of moderate population increase

accompanied by economic development spread throughout Japan.⁵⁷ Irreversible domestic commercial advances plus the appearance of export-oriented industries after the opening of the treaty ports spurred on this process. And, population increases after 1850 stemmed mainly from a rising birth rate. After 1872, this trend became the sustained population growth that has continued to the present.

How do these macro observations relate to micro level observations? It is the latter half of Tokugawa where most SAC and NAC records become available and they are powerful tools for telling us a variety of stories at the micro-level.⁵⁸ Although there is a diversity of findings in the village studies, some common characteristics of eighteenth and nineteenth century became overt. First, fertility and mortality levels varied greatly by region but, in general, they were low (moderate) compared to European counterparts in the eighteenth century. Second, most regions witnessed a rise of fertility in the nineteenth century. A rise in the age at marriage is observed in various regions of Japan (particularly in the areas associated with the silk industry) in the nineteenth century. Third, although age at marriage varied, marriage was almost universal,⁵⁹ particularly for women. Divorce and remarriage were not uncommon. Third, peasants’ households were extremely adept in adding and removing (or replacing) household members via divorce, remarriage, adoption, and service. Thus, both macro and micro studies suggest a great diversity

⁵² Hayami Akira “The Population at the Beginning of the Tokugawa Period.” *Keiō Economic Studies* IV (1967) 1-28.

⁵³ I.e. Much of the resulting population growth was absorbed by the new cities and the increased land opened up for cultivation. They maintain, therefore, that throughout the seventeenth century, population control was unnecessary and growth continued to the very brink of what resources could support (Hayami Akira and Kito Hiroshi “Living Standards and Demography,” in Hayami Akira (ed.) *Social Economic History II*, Oxford: Oxford University Press, Forthcoming, Chapter 7).

⁵⁴ Hayami “Population Changes,” 291.

⁵⁵ Owing to the high death rate in cities, which teemed with workers who had migrated from the depressed countryside, the Kanto and Kinki regions (which included Edo, Kyoto, and Osaka) were subject to the negative-feedback function and thus their populations stagnated (Hayami 1986: 292-3).

⁵⁶ Hayami Akira *The Historical Demography of Pre-modern Japan*, Tokyo: Tokyo University Press, 2001, Chapter 3.

⁵⁷ Hayami “Population Changes,” 316-7.

⁵⁸ Hayami (“Labor migration”) found in the population in Shinshū Suwa, where the longest and oldest records at micro level are available, that the village population grew at an annual rate exceeding 1.4 percent starting from the 1620s with the formation of Suwa domain. At this point, this is the only village that provides micro level picture for the seventeenth century.

⁵⁹ With urbanization and the expansion of cultivated land, it became possible for all agricultural workers, so long as they reached adulthood, to marry and establish families by the seventeenth century (Hayami and Kito “Living Standards and Demography”).

of life among commoners by region and by period.

(2) Re-examination of Infanticide

Hanley refuted the Marxian interpretation and claimed that “peasants were deliberately limiting family size as a strategy to improve household income.”⁶⁰ Smith also claimed that the practice of infanticide “gives the impression of a kind of family planning.”⁶¹ They rejected the conventional pre-war historians’ view that poor families practiced infanticide. However, findings within the last two decades are mixed.⁶² The discrepancy of the findings can be attributed mainly to the different type of local population registers, or simply of statistical instability due to small samples. This latter point is serious indeed as the method to see parity specific control (control after the number of children reached the desired number) focuses on higher order parity. Parents may control fertility only after reaching a certain number of surviving children. Therefore, it is crucial to observe the fertility behavior of parents with at least one or more surviving children. In some villages where the number of births is small, the examination of higher order parity is statistically difficult. Second, it may be a true regional or local variation, or that of the period studied, which then requires explanation. Recent findings indicate at least two possibilities. First, infanticide was not as important in explaining overall moderate fertility or population stagnation as scholars previously believed. Second, nevertheless, there was a great regional diversity in the practice of infanticide and the practice might have been very important in Tohoku.

A couple of recent studies deal with these points and reached a similar conclusion, that

⁶⁰ Hanley, Susan “Tokugawa Society : Material Culture, Standard of Living, and Lifestyles,” in *The Cambridge History of Japan*, vol.4 edited by John Whitney Hall. Cambridge: Cambridge University Press, 1991, 698-700.

⁶¹ Smith *Nakahara*, 147.

⁶² Saitō (“Infanticide”) summarizes the evidence.

fertility was not deliberately controlled (i.e. natural fertility). Cornell contrasts age-specific marital fertility rates for early modern Japanese villages to that of the Hutterites (an Anabaptist sect) who represent maximum human fertility.⁶³ Based on the comparisons, she concludes that peasant women in early modern Japan were not limiting their families by ceasing reproduction once they had reached desired number of children. Tomobe has estimated the Coale-Trussell indices and total marital fertility rates based on eighteen villages (forthcoming).⁶⁴ The Coale-Trussell model measures the level of fertility (M) and the degree of fertility control (m) under the standard schedule of age-specific marital fertility rates. The Coale-Trussell model compares the fertility experience of a given historical population with the standard schedule derived from empirical data for ‘natural fertility’ populations (i.e. populations

⁶³ Cornell, Laurel L. “Infanticide in Early Modern Japan? Demography, Culture and Population Growth.” *Journal of Asian Studies* 55:1 (1996) 22-50. She uses summary figures for villages for which age-specific marital fertility rates are readily available in previous studies: Nakahara, Nishijo, Kando-shinden, Yokouchi (Smith *Nakahara*, 60); Takayama (Sasaki, Yoichirō “Urban Migration and Fertility in Tokugawa Japan: The City of Takayama, 1773-1871,” in Hanley and Wolf *Family and Population*); Minami Oji (Morris, Dana and Thomas C. Smith “Fertility and Mortality in an Outcaste Village in Japan, 1750-1869,” in Hanley and Wolf *Family and Population*, 241); Yubunzawa, Kabutoyama, Yambe (Kinoshta *Population and Household*, 30).

⁶⁴ Tomobe, Ken’ichi “Natural Fertility Patterns in Early Modern Japan: Lessons from Comparative Historical Demography,” in Lee, James and Osamu Saitō (eds.) *Abortion, Infanticide, and Child Neglect in Asian Population History*, Oxford: Oxford University Press, Forthcoming. He used the list of age specific marital fertility compiled by Hayami and Kito (“Living Standards and Demography”) based on the previous micro level studies, and with the assumption of infant mortality 200 per 1,000.

believed to have practiced no family limitation). Tomobe tentatively concludes that natural fertility was found in rural Tokugawa although the level of fertility was much lower than the pre-transition level of England. At the same time, his estimates showed a considerable regional and local variation. He believes that Tohoku region was an exception where parity control was practiced.⁶⁵

This leads to another micro level finding. Tsuya and Kurosu found a clear and complex sex-selective control regardless of socio-economic class.⁶⁶ Based on the population registration of Niita and Shimomoriya 1716-1870 in Nihonmatsu (contemporary Fukushima prefecture), they calculated the sex ratio of marital births (male births per 100 female births) by number and sex composition of surviving children. Married women (couples) without surviving children were much more likely to have a girl, rather than a boy. Couples seem to have preferred to have at least one girl even if not as their first child. However, once couples had one girl, boys seem to have been favored much more strongly than were girls.⁶⁷ This finding suggests

that in the areas where infanticide was practiced, it shows widespread and sophisticated use of sex-selective and parity-specific infanticide to achieve a relatively small family size with a sex-balanced (and possible sex-ordered) offspring set.⁶⁸

These studies force us to go beyond a one-factor explanation. As Cornell proposed, there is an increasing necessity to investigate “multiple components of demography” which worked together to create the population patterns we observe in early modern Japan.⁶⁹ It requires bringing a more social view of the relationship between population and economic resources than those created by scholars who have emphasized economic objectives and individual choice.⁷⁰ Age at marriage, sexual networking, spousal separation, breastfeeding and other social determinants of fertility are some of the variables to examine. Cultural and institutional factors would also corroborate the statistical findings: For example, the attitudes towards and practice of reproduction including abortion and infanticide.⁷¹

⁶⁵ Tomobe’s finding relates to a study based on the skewed sex ratio of the Hinoeuma (year of firehorse) cohort. Kurosu (“Sex Ratio”) compared the sex ratio of normal years and those surrounding hinoeuma of 1846. Since unbalance of sex ratio (more males than females) appear only as response to hinoeuma superstition, she suggested that sex-selective measure (e.g. female infanticide, neglect) was not practiced in the end of Tokugawa period. However, Tohoku region was an exception in which sex ratio was unbalanced, regardless of Hinoeuma.

⁶⁶ Tsuya, Noriko O. and Satomi Kurosu “Patterns and Covariates of Fertility in 18th and 19th Century Rural Japan: Evidence from Two Northeastern Villages”, *EurAsian Project on Population and Family History, Working Paper Series* No.16. Kyoto: International Research Center for Japanese Studies, 1998.

⁶⁷ This indicates the widespread currency of well-known folk wisdom of “ichi hime ni tarō (one girl and two boys).” An alternative interpretation of this phrase is, first a princess, then a Tom. The shift in the interpretation is

linked to a large-scale campaign to promote contraception by a major pharmaceutical company in Japan in the early 1950s (Hanley and Yamamura, “Ichi hime, ni Tarō: educational aspirations and the decline in fertility in postwar Japan,” *Journal of Japanese Studies* 2 (1975)83-125.

⁶⁸ Tsuya and Kurosu “Pattern and Covariates of Fertility.”

⁶⁹ Cornell “Infanticide.”

⁷⁰ Cornell criticizes Hanley (“Tokugawa Society”) that although the interpretation may be different from that of pre-war historians’, the source of the population stagnation is the same: deliberate control of fertility by individuals through infanticide (Cornell “Infanticide,” 26).

⁷¹ Ota Motoko and Sawayama Mikako “From Infanticide to Abortion,” in Saitō and Lee (eds.) *Abortion*. London: Oxford University Press, Forthcoming; Ochiai, Emiko “The Reproduction Revolution at the End of the Tokugawa Period,” in Tonomura, Hitomi, Anne Walthall and Wakita Haruko (eds.) *Women and Class in Japanese History*. Ann Arbor: Center for

(3) Famine and Mortality Crisis

Famine and epidemics undeniably play important roles in population growth (Malthusian positive check). Those who attributed population stagnation primarily to peasants' voluntary family limitation⁷² took these roles less serious. Recent studies, however, try to recapture the effect of famine. Famine is of particular interest because there were no wars in Japan during the eighteenth and early nineteenth centuries, and serious epidemics seem not to have been an important deterrent to population growth during this period.⁷³ Using Ogen-ji temple registers, Jannetta analyzed the effect of Tempo famine by examining the mortality pattern of the famine year (1837) contrasting to normal years (1801-50 excluding 1837). Jannetta concluded that famine was an important deterrent to population growth because famines tipped the already precarious balance between mortality and fertility in favor of mortality.⁷⁴ Kinoshita also found that the mortality structure of crisis years significantly differed from that of normal years in his analysis of *shūmon aratame-chō* of Yambe, a farming village in northeastern Japan.⁷⁵ However, the details of observation differ in these two studies. On one hand, Jannetta attributes the cause of mortality crisis to starvation rather than epidemics based on the age and sex-specific mortality patterns and seasonality. Kinoshita, on

the other hand, stresses the random nature of mortality during the crisis period and in association with outbreaks of various epidemic disease (measles, smallpox, influenza, typhoid, dysentery and typhus) than with harvest failure. We need to consider the geographical locus (central vs. northeast) and the period (i.e. Kinoshita covers 1760-1870 while Jannetta focuses on circa 1840) variations in these observations. Indeed, Kinoshita warns us not to generalize because of the localized nature of crises.⁷⁶ Another important point of famine studies is that mortality crises broke out more frequently than previously thought and the three great famines *Kyōhō* (1732-33), *Tenmei* (1782-87), and *Tempo* (1833-38) were only three of many mortality peaks. Saitō takes this point further to suggest that the frequency of famines had a strong effect on population trends, particularly because the natural fertility level in Tokugawa Japan was low to begin with.⁷⁷ He shows the decline of the frequency of famines towards the nineteenth century and makes this as a strong case for the rise in natural increase towards the end of Tokugawa (particularly after 1840). Thus, while postwar revisionists' work questioned to view famines as the positive check of Malthus (i.e. strong control of population growth), these recent studies suggest the necessity of examining the effects of famines further. However, this new interpretation does not necessarily undermine the argument regarding the improvement of living standard in the nineteenth century. The reduced number of famines and improvement of weather probably set the stage for the rise of living standards. When one revisits this old issue, one can gain a new direction to explain a longer-term population trend.

Japanese Studies, The University of Michigan, 1999, 187-215.

⁷² For example, Yamamura, Kozo "Toward a Re-Examination of the Economic History of Tokugawa Japan, 1600-1867." *Journal of Economic History* 33:3 (1973) 509-46.

⁷³ Jannetta, Ann Bowman *Epidemics and Mortality in Early Modern Japan*, Princeton: Princeton University Press, 1987.

⁷⁴ Jannetta, Ann Bowman "Famine Mortality in Nineteenth-Century Japan: The Evidence from a Temple Death Register," *Population Studies* 46:3 (1992) 427-43.

⁷⁵ Kinoshita Futoshi "Mortality Crises in the Tokugawa Period: A View from *Shūmon Aratame Chō*," *Japan Review* 10 (1998) 53-71.

⁷⁶ Ibid.

⁷⁷ Saitō Osamu "The Frequency of Famines as Demographic Correctives in the Japanese Past," in Tim Dyson and Cormac O Grada, eds., *Famine De-mography: Perspectives from the Past and Present*. Oxford: Oxford University Press, May 2002.

(5) Stem Family Household

“While farmers sought to optimize the size of their holdings, they also acted in such a way as to create a family size that would maximize income and at the same time ensure the continuation of the family line.”⁷⁸ In the last decade, this point has been expanded via the studies on succession and retirement, adoption, children’s leaving home pattern, and marriage. Directly or indirectly, the studies are based on the premise of the stem family formation that the household contains any number of married couples, but it can have only one in each generation.⁷⁹ These studies brought a clearer understanding of the relationship between household organization and individual lives.

(4) Headship, succession and retirement

In the stem family system and in principle, the household head had important functions in his household and in the community, thus scholars have paid attention to the headship succession in the last few decades. Headship involved responsibilities to represent the household in the village organization, to sign contracts and negotiate agreements, to manage the family’s labor force and finances, to practice the religious rites of the family.⁸⁰ Further, household heads had to obtain and train capable heirs for the survival of the family line.⁸¹ Several characteristics of headship succession in early modern Japan have become clear from a number of empirical studies.⁸² First, headship transfer

occurred either upon retirement or death/out-migration of head. The inclination towards the transfer upon retirement seems to be influenced by demographic constraints. High mortality and low fertility encouraged northeastern families to plan the transfer upon retirement during their heads’ earlier ages, compared to central villages. Second, although succession by the eldest son was most frequent, succession was also possible from a wide range of family members, including adopted sons, sons-in-law, other male kin, and females. Third, headship of the household by a woman was temporary and informal. While this was the case regardless of the region, the proportion of female household heads was larger in central Japan than in the northeast. It was connected with their participation in the labor market and their economic status.⁸³

The socio-economic and regional differences observed in these studies warn us that a simplified view of succession and inheritance is misleading. Hayami uses this to discredit the rule of primogeniture.⁸⁴ However, transfers that followed the retirement of a household head, which appears to have been the most well planned strategy, prove that heirs were almost exclusively natural sons and in the absence of sons, adopted sons or sons-in-law, even in the central area he studied.⁸⁵ It is safe to say that by mid-eighteenth century, the stem family system as rule or ideal was well established, but the demographic conditions (mortality and fertility) did not allow some regions or classes to pursue this goal, and thus produced multiple strategies.

⁷⁸ Hanley and Yamamura *Economic and Demographic Change*, 323.

⁷⁹ Cornell “Hajnal and Household.”

⁸⁰ Okada, Aoi and Satomi Kurosu “Succession and the Death of the Household Head in Early Modern Japan: A Case Study of a Northeastern Village, 1720-1870,” *Continuity and Change* 13:1 (1998) 143-66.

⁸¹ Nagata, Mary Louise “Balancing Family Strategies with Individual Choice: Name Changing in Early Modern Japan,” *Japan Review* 11 (1998) 145-66.

⁸² Hayami “Myth of Primogeniture;” Cornell “Retirement, Inheritance;” Cornell,

Laurel L. “Age at Marriage, Female Labor Force Participation, and Parental Interests,” *Annales de Demographie Historique* (1989) 223-31; and Okada and Kurosu “Succession and Death.”

⁸³ Hayami *Historical Demography*.

⁸⁴ Hayami “Myth of Primogeniture.” He also uses the analysis of the division of landed property between households to challenge the argument that customs of impartible inheritance contributed to Japan’s industrialization by limiting population growth.

⁸⁵ Okada and Kurosu “Succession and Death.”

(6) Adoption

Adoption was one such strategy. It was an indispensable element of the Japanese stem family system under demographic constraints (i.e. low fertility regime). Families with no sons (or sons of an appropriate age) adopted sons, if they had daughters, they recruited adopted sons-in-law as a way to compensate for the lack of a male heir.⁸⁶ Further, the number of siblings surviving to adulthood was clearly larger among the households in higher economic status in contrast to those in lower ones, and thus they adopted their “surplus sons” out to other households.⁸⁷ As Hanley once suggested, adoption was a strategy for a household to assure an heir by the recruitment of a son, but it was also a strategy for taking care of excess sons among the households whose successorship was already assured.⁸⁸

What would become of the sons who were adopted out? This answer has to be approached from an individual perspective. Kurosu examined adoption practices from the perspective of the individual life course using a longitudinal population register (1716-1870) from an

agricultural village in northeastern Japan.⁸⁹ By shifting the observation from households to individuals, several new findings came about: adoption did not mean automatic headships because adopted sons were often sent back to their original households before acquiring headship. Even if they attained headship, they did not keep it as long as native sons did. The headship of adopted sons was not as strongly supported by the village or kinship organization as folklore studies surmise.

(7) Leaving home

An individual lifecourse approach can take us further in understanding the relationship between village, household, and individuals. Smith found in Nakahara that there was deliberately controlled timing in the release of children vis-a-vis the timing of in-marrying.⁹⁰ What he called a ‘hold-and-release policy’ was a precursor to Cornell’s description of a stem household formation: marriage brings the crucial transition point at which one of the siblings stays and brings his or her spouse into the household, while all the others leave for other households.⁹¹ This arrangement was necessary to keep the family farm and property intact,⁹² to secure the farm’s labor force, in the household and by-employment;⁹³ and to assure living space and privacy in order to avoid

⁸⁶ The adoption of sons-in-law (mukoyōshi) was the major adoption practice in spite of its marginality in Chinese and Korean practice. Adopted sons were recruited from a large geographical market (as large as those of brides were). This may be the natural consequence of Japanese adoption being able to include “both kin and non-kin of the head and his wife (Nakane, *Chie Kinship and Economic Organization in Rural Japan*, London: The Athlone Press, 1967, 4).”

⁸⁷ Kurosu Satomi and Emiko Ochiai “Adoption as an Heirship Strategy Under Demographic Constraints: A Case from Nineteenth-Century Japan,” *Journal of Family History* 20:3 (1995) 261-288. They made use of an unusually large dataset for premodern period: 2,057 households in 35 villages in Tama (West of Tokyo) 1870 Household Register. This made a rigorous statistical analysis of adoption possible.

⁸⁸ *Ibid.*, 220.

⁸⁹ Kurosu Satomi “Marriage in a Stem Family System: Inheriting Daughters and Non-Inheriting Daughters in Two Northeastern Villages 1716-1870,” in Fauve-Chamoux, Antoinette and Emiko Ochiai (eds.) *House and the Stem Family in EurAsian Perspective*, 245-69. Proceedings of the C18 Session of the Twelfth International Economic History Congress, Madrid, 1998.

⁹⁰ Smith *Nakahara*, 140-45.

⁹¹ Cornell “Hajnal and Household,” 152.

⁹² Smith *Nakahara*, 134-5.

⁹³ Saitō Osamu “Marriage, Family Labour and the Stem Family Household: Traditional Japan in a Comparative Perspective.” *Continuity and Change* 15:1 (2000) 17-45.

unnecessary tension.⁹⁴

A recent study on children leaving home⁹⁵ found in that sons and daughters followed a schedule (customarily/regionally set timing) in departing from home (via adoption, marriage and service) contingent on their sex and sibling composition.⁹⁶ Within the standard schedule, however, sons and daughters were retained or released for the advantage of the family: In-marrying brides replaced sisters, as Smith found in Nakahara; brothers were kept in the home until the next generation was secured (i.e. after heir had his first child). Kurosu examined this further, applying multivariate analysis to two northeastern agricultural villages.⁹⁷ Children were less likely to leave for service at the time of economic hardship in the region; however, children were more likely to leave for service upon the death of the household head; they left for marriage and adoption regardless of the economic conditions at the community and household levels. Thus, sons and daughters in the life-cycle age between maturity and marriage were tightly bound to the household under the Japanese system of the stem family.⁹⁸

⁹⁴ Cornell, Laurel L. "Retirement, Inheritance, and Intergenerational Conflict in Preindustrial Japan," *Journal of Family History* 8 (Spring 1983) 55-69.

⁹⁵ Leaving home is defined as the first migratory move of sons and daughters away from their parental home to live elsewhere.

⁹⁶ Kurosu Satomi "Leaving Home in a Stem Family system: Departures of Heirs and non-Heirs in Pre-Industrial Japan," *The History of the Family: An International Quarterly* 1:3 (1996) 329-352.

⁹⁷ Kurosu Satomi "Who Leaves Home and Why? Daughters and Sons in Two Northeastern Villages, 1716-1870," in van Poppel, Frans, James Lee and Michel Oris (eds.) *The Road to Independence. Leaving Home in European and Asian Societies*, Forthcoming.

⁹⁸ Saitō "Marriage, Family Labour."

IV. New Directions in Current and Future Research

To keep the arguments concise, I have limited my discussion predominately to the studies of Tokugawa peasants. This does not mean there is no studies on the aspect of demographic and family studies on Samurai, merchants, and urban life.⁹⁹ However, due for lack of comparable data¹⁰⁰ in Tokugawa, studies on Samurai and merchants' lifecourses are rather limited in the English literature. Also, the comparison among these classes is lacking. While it is easy to see the classes in entirely different realms, demographic and economic approaches should allow us to see the parallel development or patterns in lifecourse which are shaped in the eco-demo system of the region in which they lived. Further, studies on the interaction of village and city lives (for example, via service migration) should give us a larger and more dynamic

⁹⁹ For example, on Samurai, Hanley and Yamamura *Economic and Demographic Change* and Moore, Ray "Adoption and Samurai Mobility in Tokugawa Japan," *Journal of Asian Studies* (1970) 617-632; and on urban life, Hanley, Susan "Urban Sanitation in Preindustrial Japan," *Journal of Interdisciplinary History* 18:1 (1978) 1-26; Sasaki "Urban migration," Saitō Osamu "The Changing Structure of Urban Employment and Its Effects on Migration patterns in Eighteenth- and Nineteenth-Century Japan," in van der Woude, Ad, Akira Hayami and Jan de Vries (eds.) *Urbanization in History: A Process of Dynamic Interactions*, Oxford: Claredon Press, 1990, 205-219.

¹⁰⁰ One of the main sources for the demographic study of Samurai is the Kansei Revised Samurai Genealogies (Kansei chōshū shokafu). Using the genealogies compiled in 1641 as a base, about 50 hatamoto in 1799 set out to compile genealogies for all persons who became either daimyo or hatamoto after 1641 (Hanley and Yamamura *Economic and Demographic Change*, 63). The main source for merchants is SAC. At this point, the number of SAC discovered for urban areas is quite limited compared to those for villages.

understanding of how “economic development, subsequent urbanization and the flow of labor to the cities kept the rural population from growing, and not crop failures or economic distress,”¹⁰¹ or alternatively, how the cities maintained its population even with its (supposed to be) low fertility and survival rate.

As we learn more about the regional diversity of demographic and family behavior, the understanding of economic and geo-social environments becomes more important. Multi-dimensional and inter-disciplinary approaches are increasingly valuable. For example, to explain low fertility in the eighteenth century and the rise in nineteenth century, attitudes towards reproduction, institutional effects (i.e. domain or village policy), nutritional matters, female work patterns, as well as ecological and economic backgrounds are all necessary considerations. At the same time, our rich historical records can provide a lot more insights into questions, which otherwise may not be addressed. Family and gender relations, crisis management upon economic stress, are just a few of the intriguing questions we can examine further.

To conclude, I would like to point out some of the current research that I believe promises further advancement of the field. Since the previous section discussed the developments for major topics, the discussion here focuses on more general directions in the studies on regional diversity, the multi-dimensional approach, and challenges of developing comparative theoretical frameworks.

Reassessment of Regional Variation

Hayami once proposed “another Fossa Magna” in the variation of age at marriage.¹⁰² Based on the prefectural data compiled by the

¹⁰¹ Hayami, Akira “Rural Migration and Fertility in Tokugawa Japan: The Village of Nishijo, 1773-1868,” in Hanley and Wolf *Family and Population*, 132.

¹⁰² “Another Fossa Magna: Proportion Marrying and Age at Marriage in Late Nineteenth-Century Japan.” *Journal of Family History* 12:1-3 (1987) 57-72.

Meiji government in 1886, he found that the age at marriage was low in the east and high in the west with the line dividing the two regions running through Shizuoka, Nagano, and Toyama. The division of the east and the west perfectly matched with the Fossa Magna (a great structural depression on the earth’s crust running through the Chubu region).¹⁰³ More recent studies distinguish “at least” three regions by their demographic patterns and family structure: northeast, central and southwestern region. In fact, Hayami himself revised his view from a dichotomous to a trichotomous (or possibly more) differential. Based on a simulation study, he “traced” how regional demographic and family patterns changed over time.¹⁰⁴ This approach and interpretation was further developed based on the micro-level studies of the three regions--northeast, central and southwest.¹⁰⁵ It was found that the varying level of regional socio-economic developments influenced the necessity of maintaining the ratio of working persons in households; and consequently, shaped the demographic-family patterns.¹⁰⁶ Tohoku families, for example, tried to maintain the highest possible ratio of working-age persons in order to avert economic crisis in the harsh weather (long and cold winters with deep snow). Tohoku families achieved this via early marriage (as a way to add a wife as a part of

¹⁰³ Ibid.

¹⁰⁴ Hayami *Historical Demography*, Chapter 6; Hayami Akira and Emiko Ochiai “Household Structure and Demographic Factors in Pre-industrial Japan,” in Liu, Ts’ui-jung, James Lee, David Sven Reher, Osamu Saitō, and Wang Feng (eds.) *Asian Population History*. Oxford: Oxford University Press, 2001, 395-415.

¹⁰⁵ Hayami and Kurosu “Regional Diversity.”

¹⁰⁶ It was suggested that the variation of the demographic-family patterns can be explained on the basis of existing evidence by the diversity of ethnological origins of the people who settled in the three regions combined with later adaptations to the physical environment and economic conditions (Hayami and Kurosu “Regional Diversity”).

the household labor force) and limiting the number of children. The narrower age differences between a head of household and his successor, in contrast to other regions, was made possible with the combination of early retirement of household head,¹⁰⁷ early marriage¹⁰⁸ and early stoppage of child-bearing.¹⁰⁹ A recent micro-level study on three regions demonstrated variations in the outcome (i.e. duration of marriage, reasons for dissolution, and likelihood and tempo of remarriage) of the first marriage, thus suggesting co-existence of a multiple number of nuptiality and reproductive regimes in pre-industrial Japan.¹¹⁰ Although the samples in these studies may not fully represent each region, the indication is clear enough to warrant further investigation.

Village, Household and Individual Life-course

Recent studies are particularly successful in showing the effects of short-term economic stress (as measured by rice price fluctuation of a region), household landholdings, and household circumstances on mortality, fertility, and nuptiality.¹¹¹ For example, a study on mortality in two northeastern villages showed that the mortality responses to short-term economic stress from harvest failure and the death of household head varied greatly according to the sex and life

stage of the individual villagers.¹¹² Tsuya and Kurosu also found the importance of the household context (e.g. household resources and general sanitary environment) and that of control over household resources on the likelihood of survival, especially for men. When men and women aged and became frail, their survival was strongly influenced by the amount of familial protection they could obtain. The event history method of investigating mortality has been applied to other regions.¹¹³ As it can introduce factors involved at different levels (i.e. village, household, individual factors), it presents a great opportunity to examine how individual actors' lives were shaped via local environments and family relations. It also presents a chance for a detailed regional comparison to advance discussion of the regional diversity in early modern Japan.

Comparative Framework

From the beginning of recent demographic studies on early modern Japan, the findings were often placed in the framework of more general theories, or in broader comparisons. After all, we cannot determine whether the levels are high or low unless we compare them with those in other societies or periods. While previous studies tried to place Japan in the theoretical framework developed in the West, current research reveals more ambitious undertakings in which authors try to go beyond established parameters. Two such examples are Cornell¹¹⁴ and Saitō¹¹⁵. They

¹⁰⁷ Okada and Kurosu "Succession and Death."

¹⁰⁸ Kurosu et al. "Regional Differentials."

¹⁰⁹ Tsuya and Kurosu "Patterns and Covariates of Fertility."

¹¹⁰ Kurosu et al. "Regional Differentials."

¹¹¹ Tsuya and Kurosu "Mortality Responses;" "Economic and Household Covariates;" Tsuya, Noriko O. and Satomi Kurosu "The Mortality Effects of Adult Male Death on Women and Children in Household in Eighteenth and Nineteenth Century Rural Japan: Evidence from Two Northeastern Villages," in van Poppel, Frans and Michel Oris (eds.), *When Dad Dies*, Bern: Peter Lang S.A., Editions scientifiques europeennes, Forthcoming, 273-311.

¹¹² Tsuya and Kurosu "Mortality Responses."

¹¹³ Kikuzawa, Saeko "Family Composition and Sex-Differential Mortality among Children in Early Modern Japan: Evidence from Yokouchi, 1671-1871," *Social Science History* 23-1 (Spring 1999) 99-127. She attempted to reveal sex differential mortality among children in Yokouchi 1671-1871. Her results were mixed. It is perhaps due to the specification of the models--particularly uncontrolled period effect of the long 200 years of observation requires reconsideration.

¹¹⁴ Cornell "Hajnal and Household."

¹¹⁵ Saitō Osamu "The Third Pattern of

attempt to identify marriage and family patterns found in early modern Japan as “stem household formation” and “the third pattern,” respectively, as opposed to the models discussed earlier by Hajnal.¹¹⁶ Saitō also encourages the studies on marriage and remarriage patterns in relation to servanthood, gender and work.

Because the method of historical demography (i.e. family reconstitution) was developed in the West, analytical questions tend to center around the questions appropriate to Western societies; for example, marital fertility and infant mortality. Population registers in Japan can bear more diverse questions than that. Migration, divorce, remarriage, adult and elderly mortality are some of the areas Japanese data performs much better, and in turn, can be a basis of a theoretical framework in a multi-dimensional approach to the family and population history.

Another comparative effort has been made among scholars on the pre-industrial period in Eurasian societies (Japan, China, Italy, Belgium, and Sweden).¹¹⁷ It attempts to link the study of family systems and household structure to the analysis of demographic behavior. The longitudinal data at both individual and

household levels allow an adaptation of a dynamic perspective. The product of these comparisons can take us a step further in our understanding of how community and household can shape individual life courses. The population registers of Japan are readily available for rigorous and detailed examinations in this light.

Historical demography in Japan has come a long way since the start of the systematic use of population registers in the late 1960s. Micro studies based on a few villages have accumulated now to suggest some strong regional variations. Demographic questions addressed in earlier studies are also tied into a framework of demofamily system, and further to comparative frameworks of pre-industrial societies. Lifecourse is starting to be scrutinized in relation to individuals' constellation in, and configuration of, household, village organization, and socio-economic changes. While this advancement, to a large extent, is due to the recent advancement in information technology, we owe much to the rich sources of micro and macro data from the Tokugawa era. Utilization of these data allows us to re-examine the simple dichotomy of pre-modern and modern societies in family and demographic behaviors that is often emphasized in Western theories. It also permits us to take a multi-dimensional approach to family and population history. Finally, studies can be extended to link peasants' lifecourse observed in these records to other historical materials and concerns in order to see the history from “bottom-up.” The life course of peasants in early modern Japan are now placed on the central stage of understanding the early modern living standard and demographic behavior in pre-industrial societies.

Marriage and Remarriage: Japan in Eurasian Comparative Perspectives,” in Engelen, T. and A.P. Wolf (eds.) *Marriage and the Family in Eurasia: Perspectives on the Hajnal Hypothesis*, Forthcoming.

¹¹⁶ See notes no.11-12.

¹¹⁷ EurAsian Project on Population and Family History. For five years (1995-1999), Japanese EAP team was headed by Hayami Akira, and was sponsored by the Ministry of Education, Science, Sports and Culture, Japan. International members include James Lee, George Alter, Tommy Bengtsson, Michel Oris, and Marco Brescci. The products of the international comparison have been presented at international conferences (e.g. Social Science History Association and Population Association of America, International Economic History Meeting). A series of publications is being prepared for mortality, fertility, nuptiality, and migration.

to as paintings – thereby sewing misunderstanding of the significance of the artifact concerned - and that all the figures are taken from secondary publications, even though it would have been easy to obtain clean reproductions taken from the originals.

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