

CHAPTER 2

MARRIAGE AND FERTILITY THROUGH FAMILY RECONSTITUTION

1. Family Reconstitution

As I have already explained family reconstitution on several occasions, there is probably no need for me to repeat it in detail here. More than anything, this is a methodological basis from which vital rates can be derived. In Christian societies, parish registers have been used successfully to obtain accurate information regarding both fertility and marriage since the sixteenth century. In Japan, while the character of historical sources used is also nominative, in contrast to parish registers, with some exceptions, either the family or the household has already been recorded in the historical sources in question.

Consequently, “family reconstitution” can even be called an inappropriate word for the work to be done with Japanese historical records. However, family reconstitution is not merely a word for the data compilation itself, but is used broadly to refer also to the results obtained by applying this methodology. For this reason, there should be no objection to the use of the term for the same type of observation as is done in European family reconstitution.

European family reconstitution is founded mostly on following the life histories of couples through marriage and production of offspring by linking individual names which appear in baptisms, burials, and marriages recorded in the parish registers. Research undertaken by Louis Henry of INED (Institut national d'études démographiques), France, et al. was made possible for the first time by the development of this method of pursuit at the end of the 1950s.¹ Family reconstitution was a revolutionary research technique, establishing as a science the new field of historical demography.

The method has already been discussed elsewhere, but, in simple terms, the process of family reconstitution is as follows. Baptisms recorded in parish registers include their date, the name of the child, and of the parents. Since baptisms are normally carried out as soon after birth as possible, it is possible to regard a record of baptism as a record of the birth itself. As burials record death in the same way, if the person baptized and

1 Henry 1956; Gautier and Henry 1958.

the one buried can be confirmed to be one and the same, the length of his life can be established. Moreover, with regard to marriages, the names of the couple getting married and, on occasion, their occupations are recorded. When the people concerned are literate, the individuals themselves will have signed the register, and when they are illiterate, the attending minister will have signed, so that it is possible to estimate the percentage of illiterate people in the community.

By linking individual birth, marriage, and death records relating to one and the same person, it is possible to compile a record of the start of married life for a couple, the birth of their children, and the end of their marriage with the death of one member of the union. This is the work of family reconstitution, and the sheet on which this data is recorded is called a Family Reconstitution Form (FRF). These FRFs are compiled for each parish, and through statistical processing, it is possible to obtain detailed indices of both age at marriage and duration of marriage, age-specific fertility, birth intervals, and so forth. At present, automatic linkage is carried out using a computer from the individual sheets relating to birth, death, and marriage, and a system is being developed that can even compile and analyze FRFs. Research carried out in single parish units at the initial stage is now being expanded to regional research that includes multiple parishes.

Of these, research into more than four hundred parishes in England by E. A. Wrigley

Fig. 2-1 Sample FRF (Family Reconstitution Form)

分類		8		CF		00		8		姓名		No				
夫名	妻名	出生年月	結婚年月	出生年月	結婚年月	出生年月	結婚年月	出生年月	結婚年月	姓	名	番	号			
小石原 甲	小石原 乙	1780	1780	1779	1779	1780	1780	1779	1779	小石原	甲	58-006	2-006			
小石原 丙	小石原 丁	1780	1780	1779	1779	1780	1780	1779	1779	小石原	乙	58-007	58-007			
結年	代	1798	代	1837	結年	代	1837	結年	代	FD	出	入	出			
記号	年齢	結婚	出生	姓名	性別	出生	母	出生	死亡	結	結婚	結婚	家	婚	番	人
	15以下			初 弥	M	1800	22	2-	1857	58	1838	39	68A-2		1800年	58-012
	16~20	0.5	0	次 乙	F	1805	25	3-	推	推	推	推	大石町		1805年	58-013
	21~25	5.0	2	幸 幸	F	1805	27	2-	推	推	推	推	大石町		1805年	58-014
	26~30	5.0	2	徳 弥	M	1807	29	2-	-	-	1838	32	58-6	Y	58-015	
	31~35	5.0	2	惣 弥	M	1810	32	3-	1811	2	-	-	-		58-016	
	36~40	5.0	2	工 乙	F	1813	35	3-	-	-	推	推	水取町		1808年	58-017
	41~45	5.0	1	乙 乙	F	1815	37	2-	-	-	1835	21	23-5	Y	58-018	
	46~50	5.0	0	果 弥	M	1818	40	3-	1837	20	-	-	-		58-019	
	51以上	8.5	0	子 乙	F	1820	42	2-	-	-	1839	20	古石町	Y	58-020	
	合計	39.0	9													
	男															
	女															
	16~50	30.5	9													
	男															
	女															
身分				家格		職業			9,233%							
									5,265							

and R. Schofield of the Cambridge Group for the History of Population and Social Structure established by Peter Laslett in 1965 in the U.K. has already been published.² They published a second volume utilizing the registers of twenty-six parishes which included long time spans and induced a lot of valuable demographic indices of the past.³ These are the achievements of historical demography to explore a new, previously undeveloped sphere.

Incidentally, these FRFs are compiled according to an almost universal format. For this reason, international comparisons of the results obtained from them are very easy. The FRFs used by scholars at present are similar to the one shown in Figure 2-1. Broadly speaking, these records are broken down into four parts: (1) records relating to both husband and wife individually; (2) records relating to their marriage; (3) records relating to the birth of their children; and (4) records relating to the children themselves following their birth. In addition, when it is possible to use SACs, it is also possible to record the landholdings, social status, and so forth for each individual household.

2. Sources and Methods of Compilation

There are no documents in Japan equivalent to the parish registers in Christian societies. If pushed, it is possible to use Buddhist temple death registers (*kako-chō*) as records of death and, on occasion, birth.⁴ It is extremely difficult, however, to compile an FRF from these and conduct a higher order of analysis. Nevertheless, in the case of Tokugawa Japan we have the SACs—extremely useful sources for either historical demographic or family sociological research—and by using these, it is possible to pursue not only family reconstitution, but even the activities of individual men and women.

However, in order to conduct such research, it is essential to be able to use SACs continuously over a long period of time in the same geographical location. Although organized information on a nationwide scale cannot be obtained, almost continuous samples spanning fifty years or more are believed to survive in considerable numbers. This chapter cites the results of the examination of sources targeting the Nōbi region, where it has been possible to reconstitute and analyze the families from some seventeen villages and, moreover, for several villages, it has been possible to extend the examination to a period of one hundred years.

Naturally, with this type of quantitative research, there is nothing better than a large

2 Wrigley and Schofield 1981.

3 Wrigley et al. 1997.

4 Suda 1987 can be cited as an excellent example of demographic research using the death registers from Buddhist temples.

number of usable cases. When research is limited to only one village or with rates from only a small number of cases, there are times when it is difficult to judge whether or not these rates are truly representative of the region in question, and one must recognize the risk that some accidental occurrence will skew the statistics, causing confusion. Single-village family reconstructions, which have been the practice hitherto, have now produced a considerable body of data.⁵ So, on the one hand, there is a need to unify these results, but, on the other hand, there are also major variances between regions in both the makeup and fluctuation of the population in recent generations. This being the case, there is an urgent call for intensive examination of the sources in one given region, and for regional historical research into the population, in particular family reconstitution analysis.

Upon engaging in either family reconstitution analysis or tracing individual movement from SACs, one must first establish an effective methodology suited to the sources.⁶ I have already published articles explaining some aspects of this issue, but here I would like to introduce a methodology which is proceeding at present under the auspices of the author.

First of all, the entries in a SAC for successive years are transferred to one BDS (Basic Data Sheet) for each household, taking one 25-year period as a single block. Because this process forms the basis of all future work, all items written on the source are recorded. Figure 2-2 shows an example of this. Entries adjudged to be errors in the primary source, for example the misrecording of somebody's age, which occurs from time to time, are also entered as found in the source. This is because such erroneous entries can themselves be considered as one type of source from a historical point of view, and to say that, just because there are many erroneous entries, the source cannot therefore be used would be pessimistic in the extreme.⁷

The BDS also renders possible the compilation of population statistics (population count, gender, composition by age, etc.) and dynamics (birth, death, marriage, movement, and other statistics which vary annually) through cross-sectional analysis. Its merits lie in the possibility of grasping in time series the movements of households, husbands and wives, and individuals by reading the sheet "vertically." By means of this, one can also say that it becomes possible both to inspect and elucidate the deep strata of history that do not appear in the sources directly, because they are not apparent in the records for a single year.

5 References are as follows: Yokouchi-mura, Shinano domain (Hayami 1973, Chapter 12); Kando-shinden, Owari domain (this book, Chapter 4); Iinuma-mura, Mino domain (this book, Chapter 5); Nishi-jo-mura (this book, Chapter 7). See also Akimoto 1973b for Asakusa-naka-mura and Nekoji-shinden, Mino domain; Kitō 1974 for Yubunzawa-mura, Shinano domain; Kitō 1978 for Kabutoyama-mura, Musashi domain; Narimatsu 1985, Chapter 9, for Shimomoriya-mura, Asaka-gun, Mutsu domain.

6 Of these, research regarding personal history surveys was first published in Hayami and Uchida 1972. Reprinted in revised form in Umemura et al. 1976, pp. 67–97.

7 For details of errors in age and missing records concerning 144 years of the 201 years of SACs in Yokouchi-mura, Suwa-gun, Shinano province, see Hayami 1973, Chapter 7.

The lower left-hand side of the FRF below records information concerning births. The mother's age is calculated for five-year intervals over the child-bearing period, which is taken to be from age sixteen to fifty. For each interval, both the number of years the woman has been married and the number of births are recorded. When a marriage continues through a particular interval, the period is naturally five years, but when a marriage either begins or ends during one such period, if the actual date can be determined, it should be inscribed in such a format such as 2/10 or 10/22, etc.

However, such dates are not recorded in the majority of SACs, and there is the problem of how to handle leap years in the old lunar calendar, so these cases are assigned a universal rate of 0.5. For example, if the wife marries at eighteen and that marriage continues until she is at least aged twenty-one, the continual number of years entered in the 16 to 20 column will be 2.5.

Because the number of births is taken solely from the data appearing in the primary source, it is only natural to expect that the figure rendered is somewhat lower than the actual number of births. In certain cases, however, there are records of births on an attached piece of paper, so there are cases of births not being entered in the main text. These indicate infants who had died by the time the next SAC was compiled. The SACs that we normally use are memos from the village. Since they are filled with this kind of important information, even if the pure form of the original source presented to the lord of domain still exists, there are times when these memos are a far more abundant source of information.

The section concerning the subsequent history of children born, which occupies the most space, follows the BDS through to the end, so some time is required in order for the column to be completed. An individual may subdivide a house or forge new ties somewhere within the village. In such cases, shadowing them by means of the BDS requires that we also examine other households as well. The bottommost column probably requires no explanation, except that it is essential to record all changes in the land ownership of that household, since this was an important indicator of economic status.

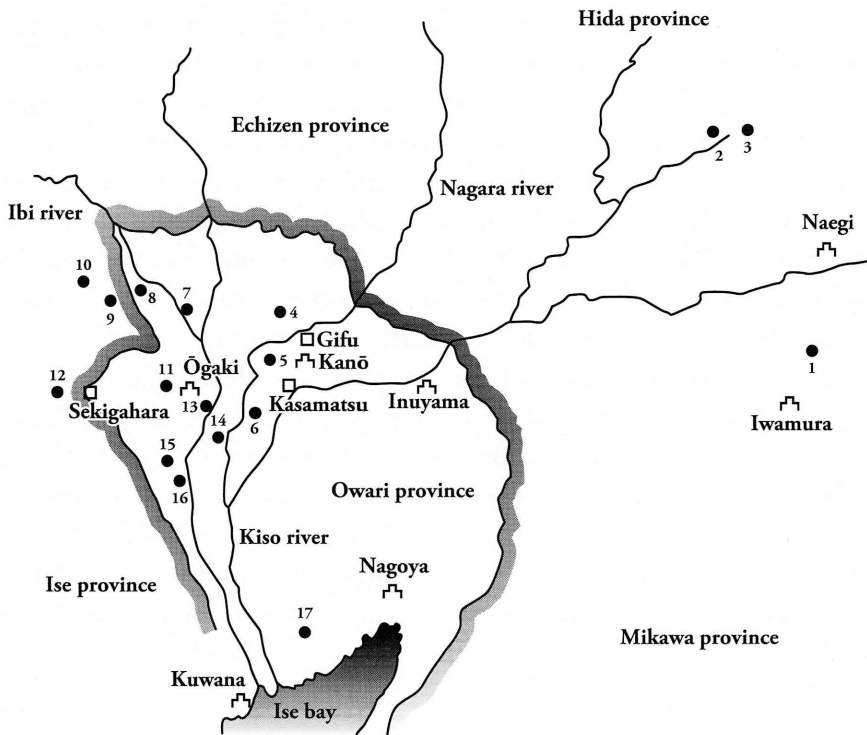
In this way, the compilation of a single FRF may be completed either easily or not quite so easily, but, in either case, once the BDS has been completed, it is possible to complete one FRF in an average time of approximately ten minutes by hand. What is problematic are mistakes in people's ages, giving birth at an impossibly high or young age, the birth of a child whose parents are unknown according to the sources, the sudden documentation of children from the age of three or four, and so forth, but there is nothing else to be done other than to process these according to fixed criteria. In this author's experience, depending on the village, the number of cases where this happens is not particularly large, so these issues do not form a decisive barrier to the work of compiling an FRF.

3. Locale and Context

In my surveys of SACs from the Nōbi region, I have acquired sources from fifty towns and villages that fulfill the conditions required for general analysis.⁸ Of these, seventeen villages have records of sufficient longevity and continuity to permit family reconstitution. These are: (1) Iinuma-mura, Ena-gun, Mino province; (2) Gōdo-mura, Kamo-gun Mino; (3) Oppara-mura, Kamo-gun, Mino; (4) Higashikaiden-mura, Katagata-gun, Mino; (5) Kitakosaba-mura, Atsumi-gun, Mino; (6) Hongō-mura, Haguri-gun, Mino; (7) Shikanomura, Ōno-gun, Mino; (8) Ueno-mura, Ikeda-gun, Mino; (9) Kashi-mura, Ikeda-gun, Mino; (10) Tanemoto-mura, Ikeda-gun, Mino; (11) Makino-shinden, Fuwa-gun, Mino; (12) Yamanaka-mura, Fuwa-gun, Mino; (13) Koizumi-mura, Anpachi-gun, Mino; (14) Nishijo-mura, Anpachi-gun, Mino; (15) Ario-shinden, Tagi-gun, Mino; (16) Nekoji-shinden, Tagi-gun, Mino; and (17) Kando-shinden, Kaisai-gun, Owari province.

These villages extend from the mountains to shore areas reclaimed from the sea and are certainly not uniform; they include land directly controlled by the Tokugawa government, territory of daimyo (domain lords), and territory of *hatamoto* banner men.

Fig. 2-3 Villages Reconstituted



8 See Chapter 5 of this book.

The numbers appended above to each village name correspond to the numbers in Figure 2-3, which shows the locations of the villages. The period covered is mostly from the eighteenth century, although there are also villages where monitoring can begin from considerably earlier.

Of these, villages (1) Iinuma, (2) Gōdo, (3) Oppara, (9) Kashi, and (10) Tanemoto are in the mountains, and (12) Yamanaka is a village along the Nakasendō highway, close to the border with Ōmi province. (17) Kando-shinden is a newly-reclaimed village along the Ise bay, and the remaining ten villages are all located in the flatlands of western Mino. Although I have referred to them as located in the Nōbi region, they are exclusively concentrated in Mino, and their distribution, from the mountains to the flatlands should permit us to view the total statistical rates as representative of nearly all of Mino as a whole.

The periods covered by the SACs from these villages that were used in the task of family reconstitution are shown by village in Figure 2-4, with the population by sex for both the first and last year of each sample. These seventeen villages include very small villages with populations that remained less than 100 throughout the period under scrutiny, such as Kashi-mura, and large villages with populations in excess of 1,000, such as Gōdo-mura, but, on the whole, the average village ranged in population between 300 and 500.

It should be noted that, as is usual with historical sources of this period, the SACs differ in content and format depending on the authority carrying out the survey, so that, upon compiling population statistics, there are imbalances that cannot be ignored. I have already written in detail about this issue elsewhere, so I shall not delve into it here.⁹ By far the greatest problem is whether the population recorded is, in modern parlance, the population *de jure* (registered population—people who have their official residence registered in the village whether or not they are actually present in the village) or the population *de facto* (resident population—people actually present in the village).

Quite a few men and women left the houses of their birth and lived in other towns and villages for extended periods of time as migrant laborers or for other reasons.¹⁰ When this information is not recorded and these people are entered in the SAC at their place of family registry, the population represented has more of the character of a population *de jure*. Conversely, if the records either omit non-residential population, such as those working away from home, or they have been omitted for any reason, it is possible to monitor the population *de facto*. In either case, making calculations and comparisons between indicators derived from sources differing in this way will produce flawed results.

9 *Nihon komonjo kōza 7, kinsei hen II* (Yūzankaku Shuppan, 1979); see article on “Kokō” (Household Population), pp. 52–60.

10 In the case of Nishijo-mura in Mino, 50% of boys and 62% of girls who reached eleven *sai* left the village of their birth and experienced servitude in another town or village. See Chapter 8 of this book.

Luckily, however, in the case of family reconstitution, such hindrances can be disregarded as comparatively few, at least for the issue of marriage analysis. Further, with regard to births, even if there are cases in which an absentee working away from home marries and has children at their place of work, such a person ought to be considered as excluded from the records of population dynamics of the destination village. In practice, men and women working away from home either return unmarried to their home village, or else if they established a household at their work destination and lived there permanently, in many cases steps were taken to classify them as having “moved,” and all trace of them was removed from the original village sources. Newborn infants have almost a score of years before they leave to find work outside, during which time they are recorded in the SAC. This practice is the same no matter whether the SAC is of the population *de jure* or the population *de facto*. However, as compared with marriages, it must be admitted that the accuracy of birth recording is somewhat inferior since SACs only register infants present at the time of registration.

The crude birth and death rates (the number of births and deaths in any given year divided by the population in the middle of that year) will, in all probability, be lower in the case of the population *de jure*, because this will include people who are in reality working away from home.

The biggest problem is the question of just how accurate the birth records are. In the majority of cases, there are no records for nursing infants who die between the time of their birth and the first compilation of a SAC, so making estimates of these figures is difficult. According to results calculated from the “pregnancy annals,”¹¹ or estimated from the mortality rate of children who have reached at least two *sai* (see Appendix for explanation of age),¹² the actual number of births is considered to be the number of births recorded in the SAC (more accurately, the boys and girls who first appear either at age one or two *sai*) plus an additional 20 to 25%. However, such an adjustment is only necessary when comparing these estimates with results based upon data¹³ where births are accurately recorded. There is no need to consider such comparisons when only using SACs that have the same flaws, nor have the rates in this chapter been adjusted in this way.

Keeping the above cautions in mind, the objective of this chapter is to observe and analyze the demographic behavior of the aforementioned seventeen villages, a total of 4,610 FRFs or, in other words, 4,610 married couples. The term “completed family,” which is used throughout in the figures and tables, indicates a husband and wife whose marriage began when the wife was under thirty *sai* and continued at least until she was

11 Estimating from the cases in Yokouchi-mura, the mortality rate up to one *sai* reached from 200‰ to 250‰ in the early period. Hayami 1973, pp. 51–52.

12 From Kitō 1972.

13 Even in parish registers there is often a gap between birth and baptism, so the number of births cannot be accurately determined. It is assumed that the margin of error may reach 30%. See Yasumoto 1976, Table 3, p. 333.

Table 2-1 Classifications of FRFs

Villages	Iinuma	Gōdo	Oppara	Higashi- kaiden	Kita- kosaba	Hongō	Shikano	Ueno
Total numbers	588	731	314	269	180	288	62	371
Completed families	154	54	32	60	17	25	5	30
Semi-completed families	16	56	24	13	18	20	3	19
Sub-total	170	110	56	73	35	45	8	49
Non-completed families	418	621	258	196	145	243	54	322
Birth cohorts (women)								
②1626–1650	2		14					
③1651–1675	34		45					
④1676–1700	74		73	3		6	3	
⑤1701–1725	72		108	26		56	14	1
⑥1726–1750	66	4	73	37	4	68	16	45
⑦1751–1775	84	75		55	18	96	20	124
⑧1776–1800	69	186		54	55	62	9	130
⑨1801–1825	95	261		54	67			71
⑩1826–1850	86	194		40	36			
⑪1851–	3	9						
Uncertain	3	2						
Marriage cohorts (women)								
④1676–1700			13					
⑤1701–1725	47		77					
⑥1726–1750	72		116	29			11	
⑦1751–1775	54		53	37		64	17	
⑧1776–1800	83			53		88	22	84
⑨1801–1825	75	76		42	36	47	3	128
⑩1826–1850	95	262		51	67			47
⑪1851–	73	173		44	31			
Uncertain	89	218	55	13	46	89	9	112

no longer able to bear children (taken in this book to be fifty *sai*). The ages used in this chapter are all full-year ages.

First of all, Table 2-1 classifies the 4,610 FRFs compiled from among seventeen villages according to various criteria. Completed and semi-completed families (families in which the marriage continued until the wife was fifty years of age, but no information could be obtained as to when the marriage ended because it continued beyond the final year of sources that were usable) were the best cases for obtaining indices of fertility. Naturally, the longer the period covered by the sources, the greater the proportion of these

Kashi	Tanemoto	Makino-shinden	Yamanaka	Koizumi	Nishijo	Ario-shinden	Nekoji-shinden	Kando-shinden	Total
57	227	87	231	84	322	214	348	237	4610
10	25	4	72	15	50	48	49	46	696
0	15	5	8	5	13	9	18	12	254
10	40	9	80	20	63	57	67	58	950
47	187	78	151	64	259	157	281	179	3660
						3			19
		3				24			106
2			26	2		40		1	230
11	1	8	25	4	20	52		1	399
6	23	15	43	20	49	50	13	18	550
8	45	30	36	16	70	37	55	34	803
21	67	21	36	25	67	8	101	53	964
9	71	13	39	17	58		111	70	936
	20		22		56		68	57	579
					2			3	17
		1							6
									13
					1	38			163
			23		21	45			317
10		4	36	15	52	50			392
10	16	21	35	15	70	41		29	567
18	62	28	37	23	61		103	57	796
8	78	2	37	15	58		79	66	865
	9		19		52		66	50	517
11	62	32	44	16	7	40	100	35	978

types of families among the total number of cases.

When data is combined for Iinuma, Higashi-kaiden, Yamanaka, Nishijo, Ario-shinden, and Kando-shinden—six villages where surviving sources cover spans of one hundred years or more—that percentage reaches 26.9%, in striking contrast with the 15.8% total for the eight villages of Gōdo, Kitakosaba, Hongō, Shikano, Ueno, Tanemoto, Makino-shinden, and Nekoji-shinden, where surviving documents cover comparatively short periods. On a related point, the high rate of SACs that can be used continuously over long periods of time is also shown. The percentage of completed (including semi-

completed) families across these two groups is a total of 20.6%.

The wife's birth and marriage cohort columns, in the lower part of the table, represent the FRF distribution by age when the wife gave birth and married respectively, delineated into periods of 25 years. Obviously, this corresponds to the periods of the surviving documents, but as can be seen from the total in the right-hand-most column, the greatest frequencies are for the wife's birth cohort peak between 1776 and 1800, and for the marriage cohort between 1826 and 1850. Fifty-nine percent of the FRFs which reveal the age at birth are concentrated in the 75 years or so surrounding the peak, and 61% of the FRFs are concentrated in the 75 years prior to the peak for marriage cohorts.

Consequently, taken as a whole, our observations can be taken to reflect the state of mid- to late Tokugawa period peasant life. Although the cases cannot be called plentiful, observations are still possible for wives who gave birth prior to 1700 and those who married before 1750, so it is also possible to note changes across the period.

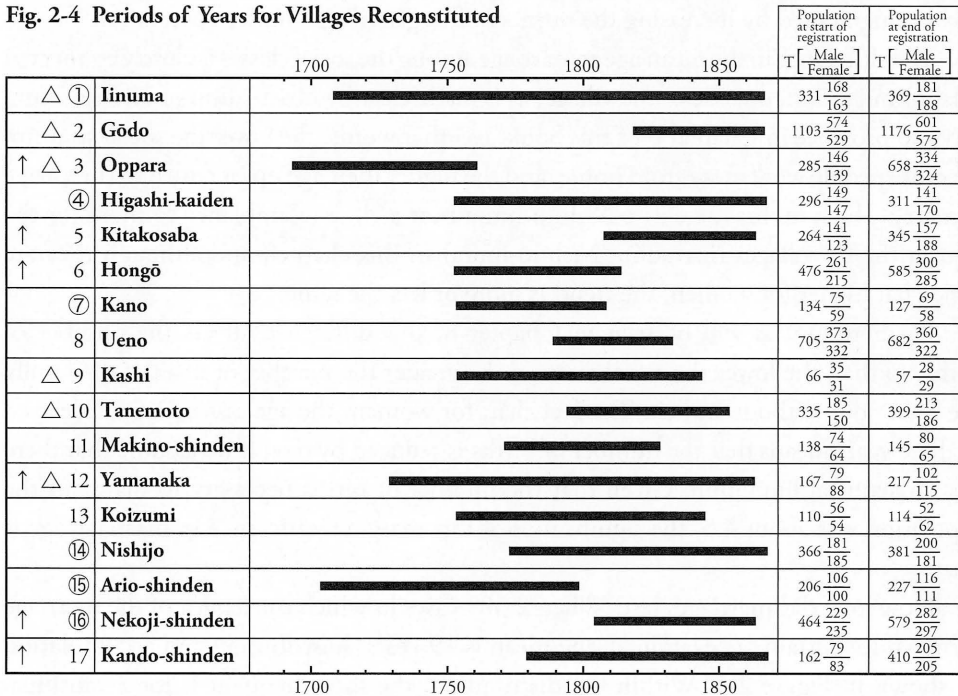
In this chapter, while making some observations across the Nōbi region as a whole, I shall seek as many demographic indices as possible for distinct social strata, which have seldom been distinguished in this kind of research to date, and I shall examine whether or not there are differences among these strata. If any striking differences between the social strata are unearthed, the pattern of activities of the inhabitants of rural villages in recent generations will be shown to differ between classes, and in future research, one should pay attention to this point. If no such difference is detected, "Tokugawa peasants" will be shown to have engaged in homogenous demographic activity, regardless of their social status.¹⁴

4. Marriage

Figure 2-4 shows the mean age at marriage for men and women broken down according to social class for the six villages where such observation is feasible, that is, where the sources record landholdings. Since these figures represent landholdings of the individual's household at his or her time of birth, it is essential to consider the possibility that holdings might have changed by the time of marriage. However, as predicted, the higher the social stratum, the younger the age at marriage. This tendency is particularly marked for women.

14 For cases of the demographic analysis of rural residents during the Tokugawa period by class, see the cases of Nishijo-mura, Mino in Chapters 6, 7, and 8 of this book. Also, see Smith 1977. Therein, for example, a clearly significant difference can be seen regarding the age of the wife upon her first marriage in "Nakahara" village (see Table 6.5 in the relevant volume, p. 94, *ibid.*). Moreover, see Hanley and Yamamura 1977. Here, the sex ratio at birth by landholding class is determined for Okayama domain, but, because the sample is small, the hypothesis is not necessarily sufficiently proven. In any case, it is difficult to guarantee a sufficient sample for observations by class in any analysis limited to a single village, and, if this is broken down by period, the difficulties increase even further.

Fig. 2-4 Periods of Years for Villages Reconstituted



Note) ↑ =Population increasing, △=Mountain villages, ○=Villages where households can be grouped by social class

Table 2-2 Age at First Marriage and Landholdings
(Figures in parentheses are the number of cases.)

Landholdings in <i>koku</i>	Male		Female	
	First marriages (definite cases only)	Probable first marriages	First marriages (definite cases only)	Probable first marriages
0-1.9	28.1 (486)	29.5 (698)	21.1 (200)	23.4 (791)
2.0-9.9	28.1 (250)	28.7 (331)	19.9 (92)	21.8 (350)
10-	27.8 (109)	28.1 (126)	18.7 (38)	20.0 (148)
Total	28.0 (845)	29.2 (1155)	20.5 (330)	22.5 (1289)

The reason the number of cases that can be clearly judged first marriages are few for women is that, when a woman has married into the village from outside, it is impossible to determine whether this is her first marriage or not. In such cases, I have provisionally assumed marriages for women under the age of thirty as first marriages, and recorded these cases in the column "Total cases excluding clear remarriage." In this instance, because the rate is elevated considerably compared with clear cases of first marriage, as expected, in order to determine accurately the age at first marriage, it may be necessary to limit ourselves to cases which can be proved beyond doubt to be the first marriage, using the FRF. The reduction in the number of cases for women occasioned by this decision can

only be augmented by increasing the number of target villages under observation.¹⁵

This difference in the mean age at marriage among the social classes is closely connected to labor migration, outside of the village, as is made clear by observation of Nishijo-mura in Mino province in Chapter 6 of this book. In other words, the lower the social stratum, the more people work away from home, and the higher their age upon return to the village to marry. The rates for the entire Nishijo-mura bear a close resemblance to those for the men in the six villages (including Nishijo-mura) in this chapter, and although they are somewhat higher for women, the trend is more or less the same.

Furthermore, as will be seen in Chapter 8, this difference affects the number of births, so that, the lower the social stratum the greater the number of cases of the family line dying out without an heir. The fact that, for women, the age at marriage is delayed by three years means that the number of births is reduced by one, if we assume that there was no artificial limitation. Given that the number of births necessary to maintain the population was about 4.5, the significance of this marginal difference in marriage age is great.¹⁶

How long did marriages last? When 2,309 cases in which the length of the marriage is known for certain are examined, the mean is 19 years. Distribution and accumulation are shown in Figure 2-5. Within the distribution, the most frequent is for a continual period of 1 year, with up to 5 years occupying the top five places in increasing order, making 22% in total. Beyond this, the statistics are almost stable, with 16 years crossing the cumulative 50% line. In other words, only 50% of all cases exceed a continuous 15 years of marriage. Marriages that were able to celebrate 25 years, or their silver anniversary in modern parlance, were approximately a mere third of the total, and only 3% ever saw 50 years, or their golden anniversary. In this way, the period of continuous marriage should in general terms be considered as short.

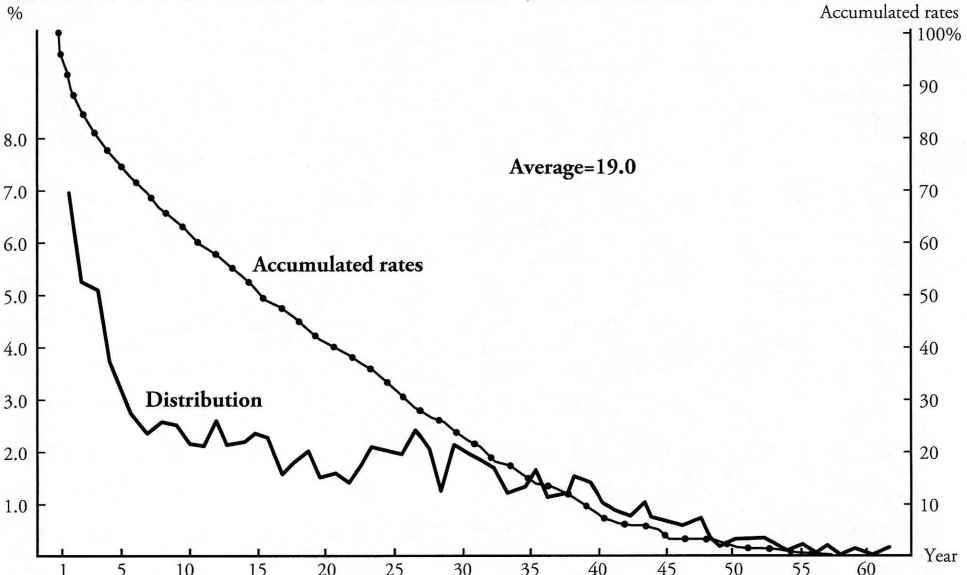
Even compared with the cases which the author uncovered in Yokouchi-mura, Shinano province, this is clearly too short.¹⁷ In Yokouchi-mura, in the 233 cases of marriage cohort between 1671 and 1750, the mean duration of marriage was 27.7 years, and similarly, in the 198 cases between 1751 and 1800, it was 24.7. Furthermore, when the distribution is examined, 1 year is certainly the most frequent, followed by 2 years and 3 years, but this becomes comparatively stable thereafter, and it is 28 years that crosses the accumulative 50% line. In other words, in Yokouchi-mura, at least half of the married

15 Hayami 1979b. Observations were made mainly for age at first marriage and the proportion with spouses. When the mean age at first marriage is considered, a general analysis yields the following: men 26.4 *sai*, women 20.5 *sai*. However, measurements made using family reconstitution yield 28.4 *sai* and 21.2 *sai* respectively.

16 In the results of measurements made in the case of Nishijo-mura, the age of marriage for women necessary to maintain a net reproduction rate of 1.0 is 24 *sai*. However, because in reality people both remarry and give birth out of wedlock, calculations of the overall capacity to maintain the village population are complicated.

17 See Hayami 1973, pp. 213–214.

Fig. 2-5 Distribution of Length of Marriages and Accumulated Rates



couples celebrated their “silver wedding anniversary,” and 10% even went so far as to reach their “golden wedding anniversary.” This clearly tells a story of different patterns, at least so far as the continuity of marriage is concerned, between the two regions.

At the moment, this phenomenon can only be explained impressionistically. That is, it may be partly due to absolute level of mortality, but might be viewed more as the result of a high divorce rate resulting from the high levels of population movement and the wealth of employment opportunities in the Nōbi region.

Table 2-3 shows the 2,739 marriages for which the date of termination can be clearly ascertained, classified by the reason for their termination. The 1,040 marriages in the bottommost column are those that continued beyond the final year available in the sources. When only cases of divorce or separation by death are taken, for purposes of comparison with Yokouchi-mura in Shinano province,¹⁸ the number is 1,699. Of these, the proportion unambiguously accounted for by divorce is 16%, but, because in actuality there were a certain number of additional cases in which it is unclear whether the reason was the death of a spouse or

Table 2-3 Termination of Marriages

Husband's death	599
Husband's death or divorce	20
Wife's death	446
Wife's death or divorce	214
Husband's or wife's death	29
Divorce	274
Other reasons	74
Moved out	43
Continued beyond end of SACs	1040
Total	2739

18 Ibid., Table 12-13, p. 215.

Table 2-4 Women's Age at Marriage and Number of Births

Landholdings in <i>koku</i>	0-1.9		2-9.9		Over 10.0		6 villages sub-total		17 villages total	
Woman's age at marriage	Cases	Births	Cases	Births	Cases	Births	Cases	Births	Cases	Births
15	3	5.67	6	3.33	2	5.50	10	4.20	23	5.43
16	6	5.00	3	5.67	5	6.40	16	5.69	24	5.88
17	11	5.27	8	5.13	4	7.50	23	5.61	36	5.58
18	11	4.00	8	5.38	5	5.80	27	4.96	58	5.21
19	16	4.63	14	4.79	4	7.00	30	4.83	80	5.18
20	17	5.47	10	5.40	1	10.0	26	5.58	71	5.51
21	13	4.69	13	4.23			31	4.71	59	4.71
22	13	4.85	9	4.11	3	7.00	26	4.88	53	4.60
23	22	5.41	6	4.17	1	8.00	28	5.21	61	4.50
24	20	4.75	7	4.14	5	6.00	33	4.85	69	4.57
25	12	4.33	6	4.50	1	5.00	20	4.50	45	4.22
26	10	3.50	6	4.50	2	3.50	20	4.05	47	3.96
27	13	3.00	7	2.43			22	3.09	44	2.98
28	14	4.29	6	2.83			21	3.95	38	3.5
29	10	3.50	5	3.60			16	3.69	35	3.00
30	9	1.56	2	1.00			11	1.45	24	1.92
31	12	2.25	2	2.50	1	4.00	15	2.40	32	2.56
32	9	1.33	2	3.00			11	1.64	17	1.76
33	8	1.88	2	4.00			11	2.64	19	2.05
34	3	1.33	3	0.33	1	2.00	7	1.00	18	1.72
35	5	0.80	1	4.00			6	1.33	10	1.30
36	2	0.50	2	3.00			4	1.75	10	1.90
37	3	0.67					3	0.67	10	1.20
38	2	2.00	1	0.00			3	1.33	14	1.71
39	3	0.33	1	1.00			4	0.50	10	0.60
40	5	0.20	1	2.00			6	0.50	11	0.91
Over 41	9	0.56	6	0.00	2	0.50	17	0.35	32	0.51
16-20	61	4.90	43	5.16	19	6.79	122	5.28	269	5.39
21-25	80	4.88	41	4.22	10	6.40	138	4.85	287	4.54
26-30	56	3.27	26	3.16	2	3.50	90	3.41	188	3.20
31-35	37	1.68	10	2.40	2	3.00	50	1.96	96	2.03
36-40	15	0.60	5	1.80			20	0.90	55	1.29
Total	261	3.70	137	3.86	37	5.89	447	3.95	950	3.96

divorce, the divorce rate may be higher. Since the divorce rate determined in the same way for Yokouchi-mura was 11%, the marriage pattern in the Nōbi region should, as predicted, be viewed as differing on this point also from Yokouchi-mura itself.

As a bridge between this and the discussion of fertility in the next section, Table 2-4 shows the relationship between the number of births and the age of the wife at marriage, classified by landholdings measured in *koku*, the standard measure of rice yield. These are the rates for 950 completed families. The story told by this table is significant. Families of higher strata (defined by landholdings at the time of the marriage) experienced a greater number of births than did other families, regardless of the age at marriage. A difference of this size, however, cannot be discerned between middle-class and lower-class families. Between these, the number of births appears to have been determined by differences in age at marriage.

Furthermore, there is no great difference between the total rates for all seventeen villages together and the total rates of the six villages that recorded landholdings. Consequently, here, it is possible to determine the recurrent coefficient of the number of births and the age at marriage, inclusive of all classes. The results, if limited to an age at marriage of between sixteen and thirty-five inclusive can be shown as $y = (\text{number of births}) = 9.94 - 0.24 \times (\text{age at marriage})$. The coefficient of the determinant r^2 , which shows the statistical reliability of the formula, proves to be as high as 0.95. This formula shows in linear form the effect of the age at marriage on the number of births. When viewed from the high coefficient of the determinant, the range for these ages at marriage seems suitable. For example, for the

Fig. 2-6 Age at Marriage and Births

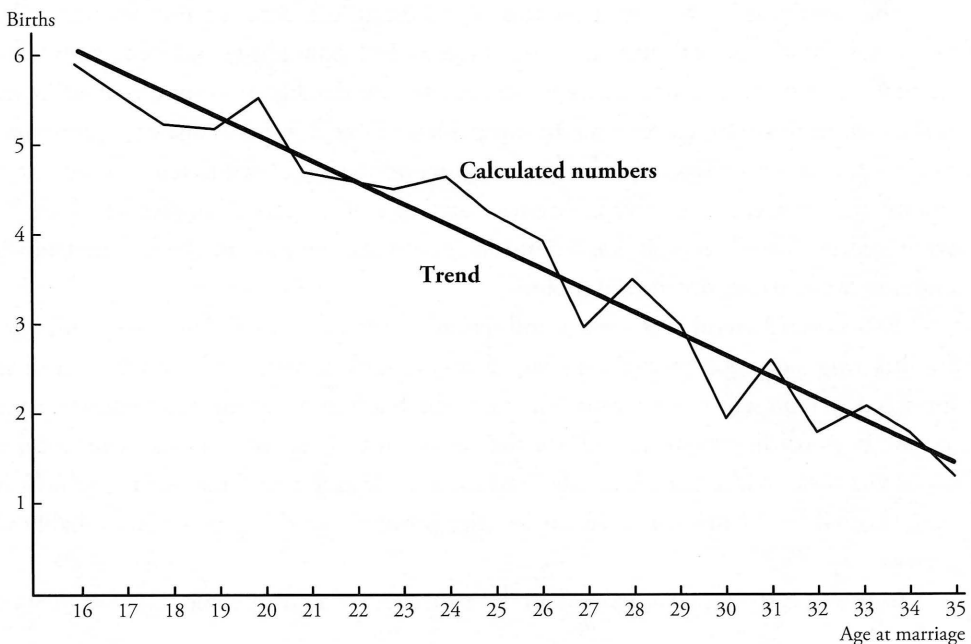


Table 2-5 Interclass Mobility of Couples

Marriage cohort ranks (landholdings)	⑤	⑥	⑦	⑧	⑨	⑩	⑪	Total	Ratio
A=A	6	5	23	34	15	17	12	112	73.2
A → B		2	7	6	9	1	4	29	19
A → C		1	4	2	3	1	1	12	7.8
B → A	1	4	1	8	5		1	20	5.2
B=B	12	32	41	56	48	54	31	274	71.5
B → C	3	7	12	17	22	18	10	89	23.2
C → A		2	2	4		1		9	1.1
C → B	18	11	21	38	25	39	21	173	20.2
C=C	35	53	45	96	147	151	146	673	78.7
Uncertain	12	4	1	6	10	2	8	43	
Total	87	121	157	267	284	284	234	1434	
No changes	53	90	109	186	210	222	189	1059	76.1
Upward mobility	19	17	24	50	30	40	22	202	14.5
Downward mobility	3	10	23	25	34	20	15	130	9.3

Ranks: A=over 10 *koku*, B=9.9-2.0, C=under 1.9. Lefthand column shows landholdings at the beginning of the marriage, the righthand at the end of marriage.

Marriage cohorts: ⑤=married between 1701 and 1725 ⑥=1726 to 1750 ⑦=1751 to 1775 ⑧=1776 to 1800 ⑨=1801 to 1825 ⑩=1826 to 1850 ⑪=1851 and after

number of births (y) when the age at marriage (x) is twenty-one, from the formula on the right, we get 4.83, which is remarkably close to the estimated rate of 4.71. Figure 2-6 shows both the observed rates and the estimated rates with regard to both the number of births and the age at marriage for each age.

The classification by social stratum is taken at the time of the marriage. After marriage, a family may of course increase or reduce its landholdings and move between the aforementioned three strata. If that movement is considerably pronounced, classification at the time of the marriage loses all meaning. Here, Table 2-5 shows just how pronounced the movement was between the three social strata between the time that a marriage started and the time that it ended. This table cites a total of 1,462 married couples, of which 76% evidenced no interclass mobility. Attention should also be paid to the fact that upward mobility far surpasses downward mobility.

This upward trend was greatly influenced by the fact that the largest number of families originally occupied the lowest stratum, ranked as C (which may reasonably supposed to represent tenant-farmers), from which a significant number moved upwards to rank B. According to the records for this region, it was the custom that, when a branch house was formed, the branch family lived for a while as tenant-farmers, after which they were allotted land from the main house. The influence of this practice is probably also present.

In any case, the fact that more than three-quarters of all the people stayed as they were

leads to the conclusion that such mobility was not so great as to render meaningless the social classifications at the time of the start of a marriage, as shown in Table 2-5.

5. Fertility

The objective of FRF analysis is, essentially, to measure fertility and, in fact, a highly accurate index can be obtained of all kinds of fertility. First of all, let us look at age-specific fertility in five-year intervals for all seventeen villages in the region. Table 2-6 and Figure 2-7 show the age-specific fertility for all completed and uncompleted families. As usual, the figure is key-shaped, but the bulging protrusion in the upper right may be thought of as being due to the absence of any effective form of artificial birth control. The number of samples is sufficient, but in the age 31 to 35 bracket and lower, the figures for uncompleted families are somewhat lower than for completed ones.

As has already been shown in Table 2-3, in the case of uncompleted families, a large number of marriages ended due to the death of one partner, and it is reasonable to consider that at the time immediately preceding the end of the marriage, fertility was either low or nonexistent due to illness, so this disparity may be readily understood. However, since the difference between the two is not so great, and the shapes of the graphs are perfectly parallel, I should like to make no distinction between the two in the following observations.

If we now move on to examine whether or not there is a difference in age-specific fertility according to the age of the wife at marriage, we can see in Figure 2-8 that, no matter what the age is at marriage, the number of marriages that take place within that particular age group is higher than the marriages that have come before. This is due to the fact that the period between the marriage and the first birth is short when compared with the period between the second and all subsequent births. However, this difference converges with the next age group, and from the age 36 to 40 group upwards, the difference is so slight as to be virtually nil.

Next, let us consider differences by region. When the fertility rate is broken down according to whether the village in question is situated on the flatlands or in the mountains, as in Figure 2-9, a significant difference can clearly be seen. This difference is 0.06 per year for the most fertile group, the age 21 to 25 range, which tells us that wives in this age group who live in the flatlands have 0.3 children more than those in the mountains during five years. In the case of a completed family in which the wife married at 16 *sai*, the difference in number of births throughout her life between a woman in the flatlands and a woman in the mountains would be greater than one.

In other words, a woman from the plains would have one child more than a woman from the mountains. This difference was due either to a natural difference in fertility or as

Table 2-6a Age-specific Marital Fertility Rates

1. Completed Families

Women's birth cohorts	② Before 1650			③ 1651-1675			④ 1676-1700			⑤ 1701-1725			⑥ 1726-1750			⑦ 1751-1775		
Age groups	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility
Under 15							1.5	0	0	4.5	0	0	2.5	0	0	3.5	0	0
16-20							52.5	10	0.19	83.5	18	0.216	80.5	20	0.248	138.5	32	0.231
21-25				4	1	0.25	141.5	49	0.346	186	50	0.269	231	65	0.281	443	120	0.271
26-30				14	2	0.143	215	48	0.223	265.5	70	0.264	360	91	0.253	706	175	0.248
31-35				27.5	9	0.327	269	69	0.257	344	70	0.203	431.5	92	0.213	892.5	192	0.215
36-40				32	6	0.188	300.5	38	0.126	386	57	0.148	481.5	70	0.145	970.5	147	0.151
41-45				42	7	0.167	320.5	27	0.084	409	55	0.134	515.5	41	0.08	991	81	0.082
46-50				45	1	0.022	333.5	9	0.027	424	11	0.026	534	11	0.021	1004	15	0.015
Over 51				122	0	0	834	0	0	1007	1	0.001	1207.5	6	0.005	2048.5	5	0.002
16-50				164.5	26	0.158	1632.5	250	0.153	2098	331	0.158	2634	390	0.148	5145.5	762	0.148

Women's birth cohorts	⑧ 1776-1800			⑨ 1801-1825			⑩ 1826-1850			⑪ After 1851			Total		
Age groups	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility
Under 15	1.5	0	0	6	1	0.167							19.5	1	0.051
16-20	163.5	45	0.275	129	38	0.295							647.5	163	0.252
21-25	632.5	195	0.308	546.5	163	0.298							2184.5	643	0.294
26-30	952.5	242	0.254	908	234	0.258							3421	862	0.252
31-35	1080	251	0.232	1067.5	209	0.196							4112	892	0.217
36-40	1133.5	192	0.169	1139.5	172	0.151							4443.5	682	0.153
41-45	1182	102	0.086	1188.5	91	0.077							4648.5	404	0.087
46-50	1224.5	26	0.021	1193.5	32	0.027							4758.5	105	0.022
Over 51	2386	5	0.002	1573	4	0.003							9178	21	0.002
16-50	6368.5	1053	0.165	6172.5	939	0.152							24215.5	3751	0.155

Table 2-6b Age-specific Marital Fertility Rates

2. Uncompleted Families

Women's birth cohorts	② Before 1650			③ 1651-1675			④ 1676-1700			⑤ 1701-1725			⑥ 1726-1750			⑦ 1751-1775		
	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility
Under 15										6.5	0	0	12	1	0.083	16	1	0.063
16-20							92	19	0.207	160	36	0.225	253.5	42	0.166	340	82	0.241
21-25				5	3	0.6	230.5	63	0.273	370	93	0.251	600.5	166	0.276	898.5	232	0.258
26-30				44	13	0.295	321	90	0.28	464.5	112	0.241	820	191	0.233	1227.5	285	0.232
31-35				110.5	31	0.281	374	74	0.198	532.5	109	0.205	745	157	0.211	1375	262	0.191
36-40				185.5	41	0.221	358.5	53	0.148	565	95	0.168	642	90	0.14	1351.5	223	0.165
41-45				236.5	38	0.161	307	24	0.078	514	41	0.08	456.5	42	0.092	1144	106	0.093
46-50	10	1	0.1	274	5	0.018	209.5	4	0.019	425.5	6	0.014	407.5	7	0.017	874.5	18	0.021
Over 51	171.5	0	0	490	0	0	455.5	0	0	1569	4	0.003	1576	4	0.003	2426.5	0	0
16-50	10	1	0.1	855.5	131	0.153	1892.5	327	0.173	3031.5	492	0.162	3925	695	0.177	7210	1208	0.168

Women's birth cohorts	⑧ 1776-1800			⑨ 1801-1825			⑩ 1826-1850			⑪ After 1851			Total		
	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility
Under 15	29.5	6	0.203	31.5	6	0.19	34.5	5	0.145	6.5	0	0	136.5	19	0.139
16-20	457	103	0.225	554.5	124	0.224	543	138	0.254	30.5	7	0.23	2430.5	551	0.227
21-25	1395	385	0.276	1568	436	0.278	1468.5	431	0.293	1	0	0	6537	1809	0.277
26-30	1952.5	455	0.233	1909.5	425	0.223	1592	366	0.23				8331	1937	0.233
31-35	1978	388	0.196	1611.5	319	0.198	1175	205	0.174				7900.5	1545	0.196
36-40	1668.5	284	0.17	1276.5	171	0.134	599	79	0.132				6646.5	1036	0.156
41-45	1252	102	0.081	892.5	81	0.091	122.5	5	0.041				4925	439	0.089
46-50	744	10	0.013	331.5	4	0.012	5.5	1	0.182				3282	56	0.017
Over 51	1226	7	0.006	58.5	0	0							7973	15	0.002
16-50	9447	1727	0.183	8144	1560	0.192	5505.5	1225	0.223	31.5	7	0.222	40052.5	7373	0.184

Table 2-6c Age-specific Marital Fertility Rates

3. Total

Women's birth cohorts	② Before 1650			③ 1651-1675			④ 1676-1700			⑤ 1701-1725			⑥ 1726-1750			⑦ 1751-1775		
Age groups	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility
Under 15							1.5	0	0	11	0	0	14.5	1	0.069	19.5	1	0.051
16-20							144.5	29	0.2	243.5	54	0.222	334	62	0.186	478.5	114	0.238
21-25				9	4	0.444	372	112	0.301	556	143	0.257	831.5	231	0.278	1341.5	352	0.262
26-30				58	15	0.259	536	138	0.257	730	182	0.249	1180	282	0.239	1933.5	460	0.238
31-35				138	40	0.29	643	143	0.222	876.5	179	0.204	1176.5	249	0.212	2266.5	454	0.2
36-40				217.5	47	0.216	659	91	0.138	951	152	0.16	1123.5	160	0.142	2322	370	0.159
41-45				278.5	45	0.162	627.5	51	0.081	923	96	0.104	972	83	0.085	2135	187	0.088
46-50	10	1	0.1	319	6	0.019	543	13	0.024	849.5	17	0.02	941.5	18	0.019	1878.5	33	0.018
Over 51	171.5	0	0	612	0	0	1289	0	0	2476	5	0.002	2783.5	10	0.004	4475	5	0.001
16-50	10	1	0.1	1020	157	0.154	3525	577	0.164	5129.5	823	0.16	6559	1085	0.165	12355.5	1970	0.159

Women's birth cohorts	⑧ 1776-1800			⑨ 1801-1825			⑩ 1826-1850			⑪ After 1851			Total		
Age groups	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility	Years	Births	Fertility
Under 15	31	6	0.195	37.5	7	0.187	34.5	5	0.145	6.5	0	0	156	20	0.128
16-20	620.5	148	0.239	683.5	162	0.237	543	138	0.254	30.5	7	0.23	3078	714	0.232
21-25	2027.5	580	0.286	2114.5	599	0.283	1468.5	431	0.293	1	0	0	8721.5	2452	0.281
26-30	2905	697	0.24	2817.5	659	0.234	1592	366	0.23				11752	2799	0.238
31-35	3058	639	0.209	2679	528	0.197	1175	205	0.174				12012.5	2437	0.203
36-40	2802	476	0.17	2416	343	0.142	599	79	0.132				11090	1718	0.155
41-45	2434	204	0.084	2081	172	0.083	122.5	5	0.041				9573.5	843	0.088
46-50	1968.5	36	0.018	1525	36	0.024	5.5	1	0.182				8040.5	161	0.02
Over 51	3612	12	0.003	1631.5	4	0.002							17151	35	0.002
16-50	15815.5	2780	0.176	14316.5	2499	0.175	5505.5	1225	0.223	31.5	7	0.222	64268	11124	0.173

Fig. 2-7 Age-specific Marital Fertility Rates

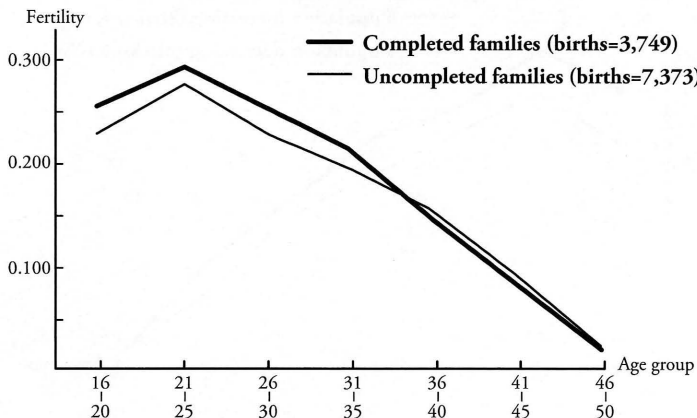


Fig. 2-8 ASMFR by Wife's Age at Marriage

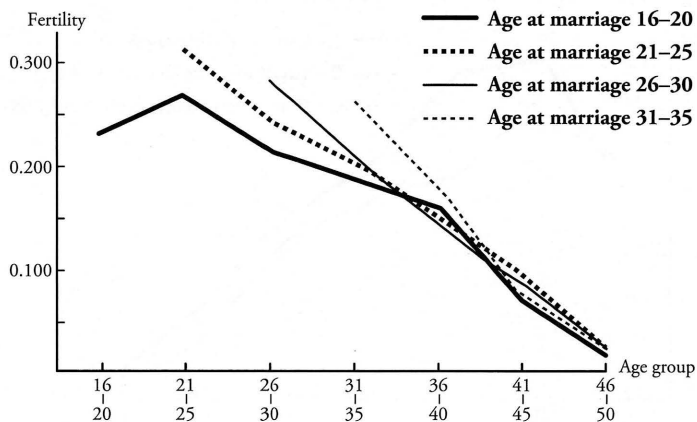


Fig. 2-9 ASMFR by Topography

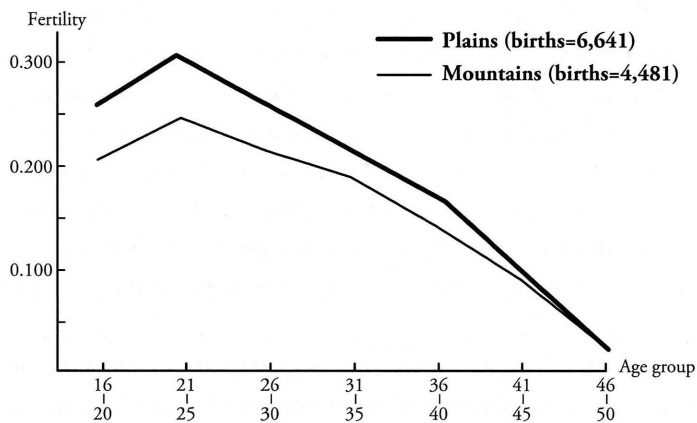


Fig. 2-10 ASMFR by Village's Population Trends

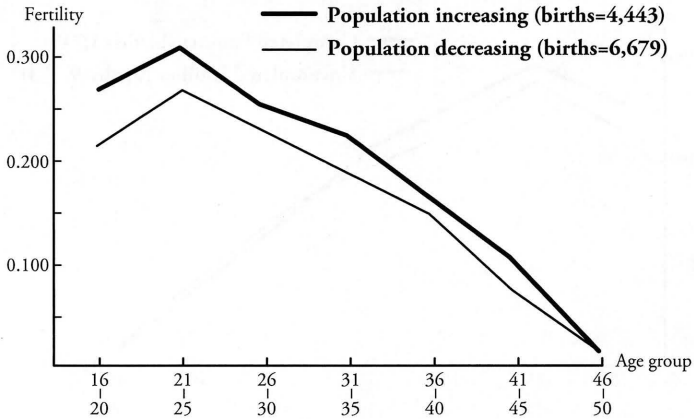
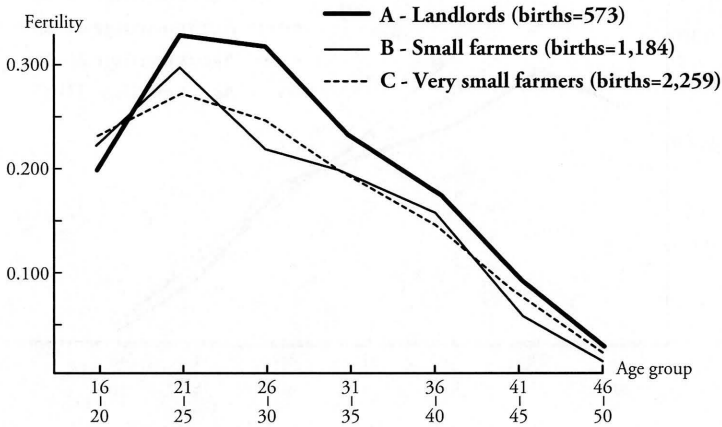


Fig. 2-11 ASMFR by Class at Time of Marriage



a result of artificial birth control, which may have been practiced in the mountains, but there is no evidence either way. All we know is that the opportunities for mobility and employment were clearly much greater on the plains than in the mountains.

A similar difference can also be seen between villages where the population is increasing and those where it is not. In a sense, this is only natural, but because the fluctuations in population for a specific region are also determined by factors other than the relative fertility rate, specifically, the mortality rate and the size of the trends in mobility, Figure 2-10 shows the size of the percentage accounted for by population fluctuation for each village in the region individually.

Figure 2-11 shows the fertility rate per social stratum at the time of marriage. As could be predicted from the number of births per social stratum examined above, with

Table 2-7 Total Marital Fertility Rates

Age at marriage	By class			By region		By population change		Average	Completed families
	A	B	C	Plains	Mountains	Increasing	Other		
16	6.8	5.9	6	6.6	5.5	6.7	5.8	6.1	6.4
17	6.6	5.7	5.8	6.3	5.3	6.5	5.5	5.9	6.1
18	6.4	5.5	5.6	6.1	5.1	6.2	5.3	5.6	5.9
19	6.2	5.3	5.4	5.8	4.9	5.9	5.1	5.4	5.6
20	6.0	5.0	5.1	5.6	4.7	5.7	4.9	5.2	5.4
21	5.8	4.8	4.9	5.3	4.5	5.4	4.7	4.9	5.1
22	5.5	4.5	4.6	5.0	4.2	5.1	4.4	4.6	4.8
23	5.1	4.2	4.3	4.7	4.0	4.8	4.1	4.4	4.5
24	4.8	3.9	4.1	4.4	3.7	4.5	3.9	4.1	4.2
25	4.5	3.6	3.8	4.1	3.5	4.2	3.6	3.8	3.9
26	4.2	3.3	3.5	3.8	3.2	3.8	3.3	3.5	3.7
27	3.9	3.1	3.3	3.5	3.0	3.6	3.1	3.3	3.4
28	3.6	2.8	3.0	3.2	2.8	3.3	2.9	3.0	3.2
29	3.3	2.6	2.8	3.0	2.6	3.1	2.6	2.8	2.9
30	3.0	2.4	2.5	2.7	2.4	2.8	2.4	2.6	2.6
31	2.7	2.1	2.3	2.5	2.2	2.6	2.2	2.3	2.4
32	2.4	1.9	2.1	2.2	2.0	2.4	2.0	2.1	2.2
33	2.2	1.7	1.9	2.0	1.8	2.1	1.8	1.9	2.0
34	1.9	1.5	1.7	1.8	1.6	1.9	1.6	1.7	1.7
35	1.7	1.3	1.5	1.6	1.4	1.7	1.4	1.5	1.5

Class A=Landlords, B=Small farmers, C=Very small farmers

one exception, the upper strata (with ten or more *koku*) evidence higher fertility, regardless of the age bracket. Because the middle and lower strata fluctuate within a range thought to be due to statistical error, it is best to consider them as though there is no difference in the level between the two.

The discovery that there is a difference in the fertility rate itself between social strata in this way seems highly significant, leaving aside the question of whether it is natural—that is, for example, caused by differences in the level of nutrients absorbed—or artificial, reflecting the possibility that one segment practiced artificial birth control. This phenomenon betrays the popular belief that “the poor have many children,” for if the landholdings were high and, consequently, the family had a high degree of wealth and power, their fertility rate was also high.

Table 2-7 estimates the lifelong fertility by age at marriage using the fertility rate for each age bracket, as shown in Figures 2-7 and 2-8. For example, a couple with landholdings worth ten or more *koku* who married at 20 *sai* will have six children, only one more than the five children a family with between two and ten *koku* would have. In addition to this difference, there is the additional factor of the mean age at marriage, so that there is a large difference in the number of children between the upper and lower peasant strata. In

the case of Nishijo-mura, for which detailed observations can be made, as will be seen in Chapter 6, because the mean age at marriage for a wife from the land-owning classes (with ten *koku* or more) was 21.6 *sai*, the number of births she would have, following the figures in this table, would be 5.4.

The mean age at marriage for the tenant-farmer strata was 24.7 *sai*, and their mean number of children was 3.7, giving rise to a difference of 1.7 children. A difference in the number of children born opens up between the landowning and tenant-farmer strata as a result of multiplying the difference in the age at marriage and the difference in age-specific fertility. It is worth noting that the results obtained in this way exceed the difference caused by either one factor or the other alone.

6. Other Indices and Conclusions

Table 2-8 shows the distribution of the age at last birth for 842 cases of completed families. There is, as expected, doubt over the authenticity of claims for births when the wife is 51 *sai* or more, but it can be understood from this table that approximately 60% of all births are concentrated in the age 37 to 45 bracket. This is around four years older than when compared with the case of Yokouchi-mura in Shinano province.¹⁹ In this Nōbi region, births continued to a comparatively late age, or, viewed differently, maybe we should say that the births stopped early in Yokouchi.

Figures 2-12 and 2-13 show the order of births and the infant and child mortality rates (death up to the age of five) depending on the age of the mother at the time of the birth, taken from the FRFs. Although there is no particularly striking trend, mortality increases considerably for higher order births, or the higher the age of the mother at the time of the birth. The number of cases is insufficient to separate out by social stratum or region, or by the period in question, but they can be viewed with justification as generally predictable results.

The FRF analysis is in no way complete simply from the above. Rather, the observation results shown above are no more than an introduction, and the potential observations are wide and diverging. However, I would like to leave the details of observations for each village to Part II, and finish by showing the sex ratio of births when classified according to each category in Table 2-9. The total number of births is 9,786, with a sex ratio of 103.7. According to this table, the sex ratio is gradually zigzagging downwards. Although the sex ratio is somewhat low in villages where the population is increasing, it is high in villages where the population is not, so female infanticide can be presumed to be taking place.

19 Ibid., Table 12-18, p. 222.

The fact that the sex ratio is somewhat higher in the mountains than in the flatlands is easy to understand. In the classification indicated in the bottommost section of the table, however, the figure is high for the landowning stratum, which contradicts expectations if we take the sex differential as evidence of artificial controls. However, it is possible that in the landowning classes, male children were prioritized. In a sample of this size, the numbers may not be sufficient to attach meaning to the birth sex ratio. For this issue as for others, it is essential to obtain a large number of cases before making any definitive claims.

Table 2-8 Distribution of Age at Last Birth

Age at last birth	Number/ sub-total	Age at last birth	Number/ sub-total
18	1/1	35	32/208
19	3/4	36	33/241
20	1/5	37	62/303
21	0/5	38	53/356
22	2/7	39	56/412
23	4/11	40	46/458
24	6/17	41	54/512
25	4/21	42	69/581
26	5/29	43	58/639
27	9/35	44	48/687
28	12/47	45	43/730
29	12/59	46	33/763
30	21/80	47	15/778
31	26/106	48	19/797
32	18/124	49	14/811
33	27/151	50	11/822
34	25/176	Over 51	20/842

Table 2-9 Sex Ratio at Birth

Marriage cohorts*	Sex ratio	Births
⑤	112.8	547
⑥	101.1	750
⑦	108.1	949
⑧	102.2	1755
⑨	107.4	2499
⑩	97.7	2325
⑪	102.9	907
Villages with increasing population	100.3	3858
Other	106.0	5928
Plain areas	103.0	5715
Mountain areas	104.7	4071
Rank A (for 6 villages)	107.6	573
Rank B (for 6 villages)	101.5	1189
Rank C (for 6 villages)	103.0	2272
Total	103.2	4034

* Cohorts and ranks, see Table 2-5.