

Tokugawa Population: The Archival Issues¹

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While the surviving Tokugawa demographic data have been brought together in a number of studies, notably in Sekiyama's work published in 1958, the sources themselves as an archival residuum—as opposed to the actual figures contained in them—have never been analysed systematically. Scholars have ascribed primacy, as a source, to *Suijinroku*, published in 1890 by Katsu Kaishū, who had served both as a bakufu and Meiji government official. In addition, historical population research has proceeded on the assumption that Tokugawa secrecy policies were effective and resulted in a lack of circulation of information. For the han, some knowledge exists of how census returns to the shogunate were compiled. Processing by the shogunate is totally obscure. Apart from converting han data into *kuni* equivalents, no adjustments seem to have been made by shogunal officials to the han figures, which thus retain both the uncertainties associated with the raw returns and the original variations in coverage. Of the surviving summary tables for individual census years over the signature of an *ōmetsuke* and a *kanjō bugyō*, a mere four can be regarded as complete copies. Moreover surviving returns are not official documents (or copies by officials acting in an office capacity), but copies made privately, often from existing private copies. Copies usually relate to a single census, and a mere five or six examples incorporate data from more than one census. Time series of census data were unknown, and the long table of Osaka population constructed by a *machi bugyō* named Isshiki, who drew on registration data, is unique.

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1. Tokugawa Demographic Data

This paper originated in a study of Tokugawa statistics as part of a wider study of administration in the key 1790-1853 period when Japan showed that to a degree it could strengthen its institutions, and when the prompting came from the fear of a foreign threat.² While they do not relate directly to a foreign challenge, statistical sources are important in terms of assessing the nature of administration, and they also throw light on an important issue, i.e., the assumed hermetically sealed and secretive nature of government. In fact, administration was open in the sense that information was disseminated quite widely though privately.

While the surviving Tokugawa demographic data have been brought together in a number of studies, the sources themselves, as opposed to the actual figures, have never been analysed systematically. That is the object of this paper. A later paper will deal with trade figures. Apart from data relating to precious metals, trade statistics sparingly feature in Tokugawa sources. They emerged primarily from the Nagasaki *bugyōsho* 奉行所, and related to regulation of trade with the object of ensuring that the outflow of precious metals and copper remained within predetermined limits. Some of the figures appear in the *Tsūkō ichiran* 通航一覽, a vast compendium of documents on external relations compiled by the Hayashi family, in the early 1850s. *Tsūkō ichiran* illustrates how figures originally compiled in Nagasaki were available in copies made or kept in Edo, and still could be consulted one or two centuries later. For other branches of trade (coastal trade), statistics existed also at least in theory for both Edo and Osaka, as a result of decisions made at much the same time as shogunal population compilations for Japan began to emerge. Yoshimune, the eighth shogun, is central to both endeavors which corresponded to an attempt, with public welfare in view, to invigorate central administration.

In Meiji times, an interest in demographic statistics, or at least awareness of them, grew with Katsu Kaishū 勝海舟 or more accurately as a result of the publication of his compilation of documents from various sources. Before Katsu's population figures appeared in his *Suijinroku* 吹塵録 in 1890, some Tokugawa data were published in works by Yokoyama Yoshikiyo 横山由清, *Honchō korai toguchi kō* 本朝古来戸口考 (1879), Hosokawa Hiroyo 細川広世, *Nihon Teikoku keisei sōran* 日本帝国形勢総覧 (1883), and Komiyama Yasusuke 小宮山綏介, *Kinsei jinkō no hanshoku* 近世人口の蕃殖 (1889).³ The section in *Suijinroku* dealing with demographic data and for a much larger number of years than the preceding authors, had an immediate impact.⁴ The best evidence of this is the article on Tokugawa population by Garrett Droppers in 1894 in *Transactions of the Asiatic Society of Japan*, which brought together all the known gross totals of Japanese population (and which is widely quoted even in modern studies): his paper specifically acknowledged its debt to Katsu, and discussed his figures.⁵ In 1904, Inoue Mizue 井上瑞枝 published a series of papers in which, while presenting no data for years for which figures were wanting (and unaware of a few data for other years which had already appeared), the author provided fuller data for 1828, for which only summary data were at the time known.⁶ Honjō Eijirō 本庄栄治郎, a pioneering economic historian, from 1916 onwards presented the first really close analysis of population.⁷ In 1958, Sekiyama Naotarō 関山直太郎 provided a magisterial survey of the figures;⁸ his work remains the basic reference source of data for demographic study, and it appeared to make redundant any further look at the census sources themselves. Minami Kazuo 南和

男 made an important contribution notably with identifying and dating figures for 1840, a census year for which, before his paper appeared, no data appeared to survive.⁹ Takahashi Bonsen 高橋梵仙 also dealt with population in several works. His first contribution was a general account of population.¹⁰ His major contribution however has been to publish figures from sources in the han, notably Nanbu, Mito, Sendai, Tosa, for which long runs of figures can be built up.¹¹

Because Katsu was an official, and because he provided the most clear-cut (though far from complete) run of data, it has been assumed that he obtained his figures from official data to which he enjoyed privileged access. Sekiyama saw Katsu's data as originating in information provided by former *rōjū* or by shogunal officials.¹² In fact, while his own role as an official in the 1860s gave him an almost unique knowledge of and access to surviving documents of the 1860s (and to a small number of papers from Tenpō times) which he put to good effect when commissioned by the government to make a wide-ranging compilation of documents, Katsu was not particularly advantaged in terms of getting statistics. Modern work has been content to rely on the figures as assembled by Sekiyama rather than to rework the sources. Such reworking might not add to our statistical knowledge, but it should offer a partial answer as to how and in whose hands the rather meagre information had survived. The lack of ongoing review of the sources has reinforced belief in both Katsu's primacy as an authoritative source and the prevalence of Tokugawa secrecy, with its resultant lack of circulation of information.

Japanese population figures are superficially impressive, all the more so as they are based on returns from a large number of component administrative units. On a superficial basis they seem comparable to Scandinavian ones. National counts begin earlier, from 1721 in Japan as against ca. 1740 for Sweden and Norway. Doubts have long been expressed about their merits by Honjō Eijirō and more recently by Hayami Akira. But they are still widely used in surveys of population, are frequently quoted to reinforce a picture of relative demographic stability, and are sometimes incorporated in complex or sophisticated analyses such as James White's on *ikki*.¹³ The stability they suggest may in particular be spurious. While, as a statistical phenomenon, in theory stability could be an accurate mirror of reality, the probability evaporates when the trends at regional level are viewed, or when the apparent rate of growth between the last surviving count in 1846 and the first modern near-census count in 1872 hints at variable omissions from actual figures of the past.

2. Han Population Counts

The instructions for compiling the Tokugawa censuses from 1721 are known in outline from surviving later copies of the original instructions. The first stage in the compilation of national returns lay in action within the han. How this was done is not perfectly clear in detail, and the instructions left much latitude to the han as to how the counting was to be conducted and what was to be counted. Where *shūmon aratame chō* 宗門改帳 (the original purpose of which was the winking out of Christians) existed, the *modus operandi* is—or seems—perfectly clear. At village level, again at least in theory, public ceremonies—held once annually—recorded population in terms of affiliation to the three entities respectively of *goningumi* (five-household groups), village and temple. The latter dimension of the operation

provides the basis for the title of the documents, *shūmon aratame chō* (or SACs as for brevity in recent demographic literature in Japan they are referred to). However, not all han compiled *shūmon aratame chō*. In some han the exercise, it has been claimed, was not conducted annually, in others it appeared only later or else never existed in the literal sense. What existed in many han were *Ninbetsu aratame chō* 人別改帳 (or for brevity NACs), some examples of which preceded the SACs and the purpose of which (even if the term *shūmon* sometimes recurred in their styling) was not religious.

One copy of the outcome of the exercise, whether *shūmon*-type or otherwise, was retained by local officials at the village level, one forwarded to the han authorities. Of the second stage—the process of aggregating data from the registers at han level by officials in the castle town—we know less than for the first (or village) stage. Although the local registers—of which copies were sent to the han—were detailed and somewhat complex in structure, in theory the work in compiling a han-wide total for population should not, assuming that satisfactory returns were received for all villages, be a time-consuming exercise. Each register as returned to the han authorities ended with gross totals of population for the village. Nevertheless, doubts remain about how the han conducted its count. While surviving village registers on the internal evidence of successive documents in runs of records for individual villages can be seen as conscientious compilations, it has still to be proved that surviving series (emanating from village headmen and often surviving in the hands of their descendants) are representative, even within a han of all the returns from the villages. In other words, did—or could—deficiencies exist in the returns? And if deficiencies existed in the primary returns from villages, how were the gaps made up by han officials? Did they simply repeat a preceding year's figures? Did they use other sources, and even more importantly, as *shūmon aratame chō* or SACs were not universal, how were numbers counted, as we know they were, in han where SACs did not exist? For those han which supposedly held a SAC exercise but not every year, how were the counts which in some cases appear to have existed for intervening years compiled?

SACs appeared first in the *tenryō* 天領 and then spread to other han. The Shimabara revolt in 1637-38 has been seen also as the factor behind an impetus to their spread.¹⁴ They were therefore already fairly numerous in the central reaches of Japan by 1665 when the shogunate required them to be compiled nationwide (from 1671 annual compilation would be ordered). However, at this stage the requirement entailed no reporting to the shogunate, nor were any enforcement procedures prescribed; indeed for the *fudai* and *tozama* requirements for stringent application of specific rules were arguably not constitutionally possible. Han enjoyed wide latitude as to how they responded to the directive. Even in studies which postulate a widespread existence of *shūmon aratame chō*, an exception is conceded for the Tōhoku and for Kumamoto.¹⁵ Population counts did appear to become universal. (Nor were they a Tokugawa innovation. There were of course pre-SAC models for them.) That such counts were widespread is illustrated in the response to Yoshimune's request in 1734 to nine han for earlier population data: two han provided data as far back as 1665, one for 1669, and the remaining seven with one exception had a first count before 1700.¹⁶ With population counts becoming common or frequent (even outside the cases where SACs either existed or were maintained), a wide range of response became possible. Modern study is bedevilled by confusion in the terminology, which is not elastic enough to cover a varied range of response,

doubly so as the word *shūmon* was at the time often incorporated into the styling of exercises which did not have a religious objective for their operation. It is important to stress this, as it has been said that SACs were in principle universal: “Still, with the exception of clans like the Nihonmatsu clan, the population registers (NACs) mentioned earlier were compiled very sporadically and by very few domains, but the SACs were, in principle compiled annually nation-wide.”¹⁷ Repeating these views, Yamamura and Hanley noted that the exercise “was carried out on a nationwide basis, theoretically every year.”¹⁸ In Takahashi Bonsen’s formulation, the first returns were SACs but the exercise widened later in the century to serve two purposes. On this argument they were near-universal, but simply deepened in their coverage of information with the passage of time. Hayami likewise suggested that they had a dual purpose, being compiled not simply to stifle Christianity but to provide information about population and households.¹⁹ In a much-quoted article with Cornell, he stated that “after 1670 the information in population registers became more detailed.”²⁰ A formulation later in the same article that “a number of lords also took what amounts to a census (*ninbetsu*)”²¹ could imply, probably unintentionally, that two types of register had existed simultaneously. The assumption made by Sekiyama and others that two types of register blended is a rationalization of a situation, in which radically different types of register existed in Japan, if not necessarily at one time in a given place.²² It also can provide a basis for an assumption that two registers were kept simultaneously within a single han. There is no evidence of this, and there is the added challenge that such a transition would have to be dated. The relatively small number of surviving village registers and the very large gaps in their sequence make it possible to assume a complex pattern over the years, something added by a varied terminology, *shūmon aratame chō*, *ninbetsu aratame chō* and *shūmon ninbetsu aratame chō*,²³ styles which often do not quite correspond to the nature of the contents. A recent study by Takagi of the Sendai sources has argued that too much attention should not be attached to the incidental use of language, and that for Sendai at least the underlining motivation was the han urge to know more about its own population.²⁴ Hence, on this argument, while their title may vary somewhat, the documents, were essentially NACs. This seems to be supported by the evidence of Mito, where the 18th century registers are clearly not *shūmon aratame chō* in the more radical sense: whatever about earlier SACs, the eighteenth-century counts there seem to have been compiled as population counts.

The prospect of overlapping sets of SACs and NACs, or a conscious pursuit of two different objectives simultaneously, is somewhat unreal. While the original SACs had a distinctive purpose, they were so broad in their coverage that, where they existed, they made a supplementary exercise unnecessary. The *shūmon aratame chō* in extreme cases involved the ceremony of *fumie* and in all cases noted the population with the temple seal appended to the names of recorded inhabitants. The *ninbetsu aratame chō* even if in most cases their origins coincide with or follow closely on the orders of 1665 and 1671 (that is if we choose to ignore earlier precedents of population counting) were not an exercise in recording by formal ceremony inhabitants on a temple basis but a form of *koseki* or registration in some form or other of the population and which, as it could be used as a basis for collection of the rice levy, established itself as the basic form of record. This type of document was easier to compile and revise at local level than the complex and ambitious SAC exercise. Of course devoid of the public scrutiny (with or without *fumie*) which was the hallmark of the *shūmon*

aratame chō, they were capable of becoming fossilized as statistical sources traditionally have become in all societies.²⁵ That population registers existed universally is implied in the order of May 1870 to make a count of the number of individuals and households, “using existing population registers.”²⁶ In some cases there is little evidence that *shūmon*-type registers (i.e., registers enumerating the population on a religious basis) were ever compiled. This is the case for Tosa, and Satsuma.²⁷ However, they did compile registers of population. In another instance, Chōshū, known examples of the registers exist only for the nineteenth century²⁸ (which implies an earlier existence, even if now undocumented).

Given the latitude enjoyed by han, and lack of central supervision of the process by the shogunate, registers of population, either existing ones or new ones lacking the features of a *shūmon aratame chō* exercise in the complex and literal sense of the early SACs were widespread. As levies on rice output were the basis of the income of han authorities and of their samurai, registers of inhabitants (at least of *honbyakushō*) were essential for the guidance of han officials. In a sense if some form of register did not already exist, registers would have had to be invented. They could easily be used for a population count, where *shūmon aratame chō* were not compiled or even to replace them (hence the importance of precision about what records existed to eliminate any suggestion that two types of register existed simultaneously). The regular compilation of *shūmon aratame chō* themselves is said to have been onerous enough for some han like Mito and Kii, significantly both collateral Tokugawa houses, to compile them only every sixth year.²⁹ Through detailed information in some form of registers at the disposal of the han *daikan* (the officials responsible for supervising collection of levy on rice output), counts of population could easily be made. It was all the easier because with fief holders, who effectively managed their own land either already *fudai* han or becoming so, *daikan* increasingly took over direct superintendence of the entire rice output within han. In han such as Mito where officials calculated population in the intervals between formal han counts, while the title of documents remained unchanged, the exercise itself change its nature radically.

As revenue was a central preoccupation, if not for the original exercises in counting or registering population, then for their continuation, a distinction often came to be drawn within them between the rural population (subject to levy) and the rest of the population (who were not liable for the levy). In Mito, for instance, almost all the surviving available data are for the rural population alone.³⁰ Such coverage shows by definition that *shūmon aratame chō*, if they had existed in the literal sense there, had ceased to be the basis of counting.³¹ As revenue was a key objective in keeping registers up to date, a distinction between the commoner population existing on fiefs and that on directly retained land was also important. As a result, in a pattern which varied between han, aggregated figures of population in many han did not include the population resident on fief-holdings, or later came to exclude them, or for internal purposes han administrations even compiled two sets of figures, one comprehensive, the other confined to the population on the directly-held lands of the han. In Nanbu han (Morioka), as we will see below, confusion caused by the distinction in the records between figures including fief holdings and figures excluding them has become the basis for a modern assumption that two distinct types of counts of population existed simultaneously. In Sendai han, the basic regular count in han records is of *gunkata* (rural population). While this definition appears to exclude town population, much more importantly the returns omitted the

very large population residing in the fiefs. In Mito the decline in rural population between 1730 and 1770, almost unparalleled in its scale as a decline spread over several decades of the mid-eighteenth century, is probably a consequence of some shift in the treatment of fiefs and hence in counting commoner population in fiefs. As the trend was away from fief holding, it is more likely to reflect a decision to exclude from han totals existing lands held by fief-holding samurai or collateral branches of the daimyo family than an increase in fief-holding occupiers. Given the acute pressure on the straitened income of daimyo administrations, it is difficult to visualize a voluntary decision which would have the effect of worsening the fiscal plight of han by increasing fief holds. At the same time the scale of fief holding helps to explain why in many large han and chronically, the “fiscal” status of daimyo administration was so precarious.

As the basis of record keeping, whatever its original purpose, was to learn more about the population of the han, an urge to acquire further information about wealth was easily answered. Data about livestock and horses for instance were noted in many of the han aggregates which survive. Of the village of Kōriyama in Nihonmatsu han with a uniquely complete run of NACs from 1685 to 1871, in Hayami’s words, “it could be said that they are the most outstanding survey documents for that time.”³² An offsetting drawback to this easy method of population counting, was that it was all too easy simply to take the registers literally as a measure of household population: in other words, families were assumed to exist—or to survive—because the names of householders were already on the record—and survived—on registers. The collection of the levy on rice output was an ongoing annual activity. The aggregation of data for population counts however required some further clerical work, and it was easy either to take a shortcut or simply to follow the path of inertia. The consequence was two-fold. The first was that estimation of household size—the number of members within each household—if attempted, was often not an actual count but an arbitrarily or notionally derived one.³³ Secondly, the counts themselves could become static, with the registers adjusted only marginally, ignoring in the process both long term trends and short terms upheavals. The methodology would also explain why for major famines, the data are at times to a surprising degree insensitive. Their quality for these reasons could also vary between han. For Nanbu fossilization is clear-cut. For Sendai on the other hand, the recording of population in the registers was more sensitive. In particular it fell sharply in the crisis decades, thereafter recovering slowly. It did not however fall dramatically in the 1750s which suggests, if the quality of the han records is superior as seems to be the case, that the scale of the Tōhoku famine of 1755 may be exaggerated.

Counting of population even if rather notional, as in the case of Nanbu could also provide the vehicle of calculating aggregate figures of deaths and births for each year and of movement into and out of the han.³⁴ In the short term, the Nanbu figures fluctuated from year to year, suggesting that they were certainly not the rule-of-thumb counts that the gross population totals, visibly independent of them, all too often because. They reveal from year to year a somewhat indeterminate pattern of adjustment. They were however insensitive to demographic disasters, as net changes within the year are small. While Takahashi saw the Nanbu figures as reflecting for instance the impact of the famine of 1783,³⁵ that crisis is not in any meaningful sense visible in them. For what they are worth, the totals of births and deaths in the 1780s do not point to any real crisis, even if unlike the population totals they show fluc-

tuations—very modest ones—from year to year. For the very long term higher totals of births and deaths appeared in the few Nanbu counts surviving for the nineteenth century, which might suggest some improvement in the counts. How the figures were calculated is a matter of conjecture. Whether the exercise was good or bad, the real point of these observations is that some form of returns must have been made regularly from the villages of raw demographic data of births, deaths and movement, which were then aggregated in the han capital. Both the gross population data for Nanbu, because of its notional basis of little value as an indicator of short term change, and the totals of births and deaths (with the unanswered questions they raise) imply a poor sense, if any, of statistical realities. They suggest administrative functions executed mechanically, something entirely consistent with the remarkable failure of statistical counts to enter into Tokugawa discourse on social and economic problems.³⁶

Within the various han, the copies of returns from the villages sent to the han authorities do not survive at han level. At that level they were got rid of, sooner or later. The only exception is Suwa han in Shinano *kuni* or province, where the registers were kept till 1868, remarkably some of them then surviving subsequent vicissitudes.³⁷ In lands under the control of the shogunate, things may have been better. At any rate for the huge and competent Nagasaki shogunal administration, some registers survive. With these exceptions, what data survived in central administrations did so only by contemporary abstraction of the data (from returns which sooner or later were got rid of) and by their recording annually as isolated entries in various han journals. Where records survived in the families of headmen, even if the individual runs are sometimes impressive, the total number of registers is a mere fraction of what was compiled. In Sendai han for instance surviving NACs come from a mere three of the han's twenty-one *gun* or districts or, illustrating more strikingly their narrow range, from ten of the han's 970 villages.³⁸

Population figures were in effect simply a by-product of practical administrative purpose. As a result the coverage not only varied from han to han, but could vary over time within a han. As cultivating occupiers were growing in numbers in the seventeenth century, the relatively small number of counts for that century in individual han, in essence a mere listing of existing and new rice-levy-paying units, recorded a rise in population. In the eighteenth century as registered household numbers ceased to increase, the registers themselves inevitably became more or less static. To take the example of Nanbu, once the seventeenth- and early eighteenth-century growth of population had ceased, Nanbu returns were static with only minor adjustments: from 1752 they entered a plateau, which became even more rigid from 1762. From that date, significant subtraction from or addition to the household total for the han scarcely arose. Of course even data derived on such a defective basis does have a value, reflecting the seventeenth-century rise in population, and in the eighteenth century, anchored at least loosely to reality.

The figures present other difficulties. The *kuni* as historical provinces had invariable boundaries, and this was in essence the reason for the purpose of creating the shogunal grand total, of aggregating han counts into figures for *kuni*. Han were either smaller than *kuni*, or consisted of territories within several *kuni*. Their boundaries were very rarely coterminous with those of the *kuni*. A further potential source of confusion, not to contemporaries but to modern students, is that powerful families sometimes ruled over several *kuni*, the case notably for the rulers of Satsuma, Chosu and Kaga. Throughout the period returns by the Shimazu

family for their historical or hereditary base—the *kuni* (and han) of Satsuma—are small, not taking account of other territories ruled by the family. Satsuma as returned in the 1721 census was a mere 149,039 persons, dramatically smaller than returns in 1734 to the shogun for 1698 and 1732 (and which appear to include all the territory they administered). To take the opposite pattern, the territory administered by the daimyo of Mito han was only part of a much larger entity or *kuni* of Hitachi (twice the population of Mito). However, at least the profile for Mito han and Hitachi *kuni* is similar: a sharp fall a few decades either side of 1750, and an emerging stability, little ruffled statistically at least by the 1780s.³⁹

A lesser problem, though more for the seventeenth century than for the eighteenth, was that han boundaries could change: some han disappeared or were even created afresh; some han were or became mere creations of widely scattered territories or even of territories intermingled intimately with those of another han. These posed practical problems for the compilers, and could especially if processing was perfunctory have added to the arbitrary nature of the operation, whether in the primary return from the han or in later aggregation. We know nothing about the actual process whereby han figures were converted by the shogunate to *kuni* equivalents. It is unfortunately impossible as a general rule to compare data for han with the data for *kuni*. However within han records internal divides seem to have existed for the various districts within the han. A guess has to be that returns to the shogunate contained some form of breakdown that, as the need arose, guided shogunal officials in distributing population between different *kuni*. The most serious problem of all in the elusive attempt to compare han and *kuni* data is that all the han of the north-east were lumped together by the shogunate in a single grouping (taking an older and territorially larger definition of the *kuni* of Mutsu). That accounts also for the variations in modern documents in the number of *kuni*. They have been given variously as 66 to 71, but should more strictly be counted as either 69 or 74 if two aggregations of two and five *kuni* respectively are disaggregated into the component *kuni*.⁴⁰

Equally difficult is the question as to whether returns for the han and their subsequent conversion into *kuni* data were on a consistent basis. There is no documentary evidence to establish how they were adjusted by shogunal officials or whether the shogunal officials had any concern on this score. In fact, the very absence of any circulars issued over the period 1726-1864 regarding revisions of approach suggests that officials acted in a passive manner by processing figures in the form in which they were submitted. We can establish with confidence that Satsuma data were not adjusted to take into account the population account excluded in the han data (see Section 4 below). In the case of Bizen no *kuni* (Okayama) and Tosa, in both of which the han and *kuni* were almost identical in area, shogunal data (and hence the figures previously submitted by the han) seem to have omitted the population of the towns, itself about 10 percent of the han gross total.⁴¹ In the case of Mito the fact that shogunal census data for Hitachi followed the same profile as data from han sources for Mito hints in a crude way that shogunal figures in compiling the figures for the *kuni* of Hitachi automatically followed adjustments in the han data. For shogunal officials the han population figures may not have even had much practical significance. The *kokudaka* also was returned in every census. Whatever the limitations of *kokudaka* returns (which understated real output), they more certainly embraced the entire han (and in contrast to the population data the conversions onto a *kuni* basis were more consistent). They, not the population figures, were

already long before census figures began to emerge, the well-established basis for appraising the wealth or status of daimyo.

3. Han Counts: Methodology

Population totals could be compiled in several ways. First, they could be based on *shūmon aratame chō* returns (SACs), at least in theory universally made across the territory of many han, and carefully aggregated by han authorities. Secondly, they could derive from counts, which were or became in essence fiscal, of households and perhaps also (certainly the case for Sendai). of a count, more or less realistic, of the number of members within the household units. Thirdly they could consist of a mere count of the number of households (without an actual count of household members) with minor adjustments to the number of households from year to year or from census to census: the household count was converted into a population total by an arbitrary multiplier. The exercise could on occasion deteriorate even into identical returns from year to year. This procedure would also explain why in some instances, as has been noted by Hanley and Yamamura for Nanbu, the sex ratio remained invariably within a range of 1.1 to 1.2 for 160 years.⁴²

The really serious problem in these exercises is that certain categories were omitted. These problems have been well set out in numerous accounts from the 1920s onwards. In English there is a very good account from the 1930s by Honjō Eijirō, one of the pioneers of modern study of demographic sources: in more recent times Hanley and Yamamura summarize the problems succinctly but clearly.⁴³ Most famously the shogunal census omitted samurai, and in the case of commoner population also variably omitted the young at ages from below one or two up to below eight years (or even fifteen years). There were other exclusions in addition to these obvious omissions. As revenue was a prime purpose of the counts, the internal treatment of population was influenced by the consideration whether they provided revenue or not. In some cases the listing of rural population was confined to *honbyakushō*: craftsmen or the transient inhabitants of rural society were ignored. A more substantial omission was that of population resident in temple and shrine domains and in towns. The numbers in these categories were however not necessarily unknown: the categories were often counted or estimated. The real problem is that practice varied as to whether they were carried forward into a grand total for the han. Again this problem would be easier if there was consistency between han or within the individual han over time.

In quantitative terms a still serious problem, and, one that is understressed, or not recognized sufficiently in the literature about census omissions, is that where samurai fiefs existed, commoner population on fiefs was in many cases omitted. In other words, in some cases, the counts were confined to the population resident on directly retained lands—*kurairichi* 蔵入地—and whose revenues went into the coffers of the daimyo administration, and the population of fiefs—*kyūchi* 給地, or *chigyōchi* (also described as *kyūsho* 給所)—which would not provide an income for the han were omitted. This problem has been glossed over because it has been seen as a minor appendage to the exclusion of samurai which also comprehended their servants. However this is a misleading formulation, because far more was involved than servants. For stipendiary samurai (i.e., non-fief-holding samurai), especially those on lower incomes, resident in the castle town, it was certainly true that dependants would have been

mere household servants and hence the number per household small. However, for fief holders, what is involved is not primarily household servants but the peasants who worked their own fields, and paid a rice levy to their samurai fief holder. While samurai were few in the many small *fudai* han, the issue had larger implications for the *tozama* han where samurai were numerous, and some of whom also had large fiefs. The implications were all the greater because collateral branches of the daimyo family were or could be counted among the fief population for the same reason that they provided no revenue to the han. The problem is made more awkward by the fact that internal bookkeeping practice in han sometimes may have fluctuated in including collateral branches with the *kura* or han income of the han, or in excluding them as fiefs. In other words the overall problem may be not only the existence of a further category of exclusion, but a variety in population totals between han, or within a han variation over time.

The exclusion of urban population is relatively simple, though in internal counts itself lacking in clarity and in consistency. In the case of Nanbu in its retrospective return to Yoshimune in 1734, the population figures were 245,635 for 1669, 306,142 for 1703, and 322,109 for 1732.⁴⁴ While the first two figures are identical—or almost identical—with the data in the Nanbu han *nisshi*, the return for 1732, a shogunal census year, is lower than the figure of 345,825 in han records of that year, plausibly by not giving figures for the non-rural population. The fact that the very few surviving general counts for the early nineteenth century are below the figure for the han gross total, suggests that towns were still omitted. As we have no copies of returns actually made to the shogunate (and han figures are concealed in data for the huge *kuni* of Mutsu), this can not be verified on any regular basis. However the profile in the Mutsu figures suggests that, excluding towns or not, the returns were made on a consistent basis. The trend in the Tosa data (excluding town population, drawn from the now lost *nisshi*) is close to the returns as made to the shogunate.⁴⁵ This may be the case for Mito too, as almost all the surviving counts within Mito exclude town population.⁴⁶ For Sendai the figures for *gunkata* by definition appear to exclude towns.

These comments bear on omissions of urban population. Urban population was however a small percentage of total population. On the other hand commoner population on fiefs could be large. Fief population was excluded in Satsuma, and that exclusion was reflected in turn in the data assembled by the shogunate. Within Sendai, also, the exclusion of fief populations must have remained in the final version returned to the shogunate. The sharp rise in the population of the five *kuni* denominated under the single heading of “Mutsu” in 1846, to 2,294,915 in 1872 from 1,607,881 in 1846, suggests that all or most of the han that comprised this territory must have excluded fief-resident commoners from their returns to the shogunate. The inclusion in 1872 of Sendai’s former large fief-resident population of 200,000 would account for a substantial part of the rise. Other han in Mutsu, equally with large areas in fiefhold, would also have contributed to the rise. Nanbu (whose *kuni*, Rikuchū, was comprehended in the Mutsu total) likewise must have excluded its fief-resident population from its returns. There are of course dilemmas in the internal records of Nanbu, which regularly contain estimates for total population. For the few surviving internal returns for the early nineteenth century, the figures seem full ones, net of an amount which seems to equal the population of the towns. In other words, totals existed which included fief-resident population. That did not mean, however, that returns of gross population were made to Edo. As

will be seen in section 4 below, the existence of a variety of han totals in the internal records of Nanbu did not mean, as has been assumed, that returns to Edo involved a deliberate concealment of part of the population of the han. Nanbu's data are unusual only in the degree of detail which has survived. Returns such as Nanbu's for 1732, which was close to the han gross figure, or the ups and downs of Suruga and Kazusa totals—unparalleled in other *kuni*—in the surviving twelve full shogunal census returns, may hint at abnormalities or administrative uncertainties. But the evidence is that gross returns were the exception rather than the norm. Just across the frontier from Mutsu, in Mito, the large fall in numbers over the mid-eighteenth century suggests that action was taken to exclude a section of the population from han totals and hence automatically from *kuni* figures (in this instance probably through a shift of territories to collateral branches—in effect a process similar in its effects to enlarging the lands of fiefholders—of the ruling family). If the exclusion of fief-resident population in many cases (such as Satsuma, Mito, Sendai and Nanbu) is statistically significant, it was much less so for most *fudai* han and for the *tenryō*. In their case the number of samurai was usually modest, and they were also mainly stipendiary and castle-town resident (and hence the only dependants of samurai families were household servants). For han statisticians the difficulty was posed by the instruction to exclude samurai and dependants from the six-yearly returns to the shogunate. Fief-resident commoners, holding no direct link with officials acting on behalf of the han, were as much dependants as the house servants samurai were. While no revenue accrued to the central han administration out of agricultural production on fiefs, han administrations were nonetheless interested in household counts, partly because of the need to know about all their population and on occasion partly to measure the benefits that might accrue if they dared to degrade the status of enfeoffed samurai to that of mere stipendiary samurai. In a sense the census instructions which enjoined han to exclude samurai and dependants from returns to the shogunate involved the necessity of making a distinction between figures which served some internal purpose and figures for shogunal returns.

4. Nanbu and Mito Han

Nanbu and Mito han merit some special attention. In Nanbu's case it is because its records are both extensive and contain many subdivisions within the data; in Mito's case the question as to whether its population fall in the mid-eighteenth century was real or not is important not only for study of demographic sources but for comprehension of Mito's own economic history.

The population figures for Nanbu (Morioka) han, are available for 1653 and some decades later in relatively uninterrupted fashion from 1680 up to 1803; thereafter only for a mere four years up to 1840. It has even been suggested that two series of documents, *han nisshi* and *shūmon aratame chō* were simultaneously maintained.⁴⁷ The situation is confused by the fact that the term *kirishitan shūmon aratame chō* (Christian religious registers), while applied primarily to the earlier documents, is at times loosely applied in the abbreviated form simply of *shūmon aratame chō* (religious registers) to later documents.⁴⁸ These are, however, more properly described as *ninbetsu aratame chō* (registers of individuals); from ca. 1680, driven by a broader administrative curiosity, some han collected a wider range of information in these.⁴⁹ Population totals for Nanbu han survive in *han nisshi* (han journals), also

called *zassho* (records of miscellaneous subjects). The *zassho* in all comprise 192 *satsu*, or volumes, for the years between 1644 to 1841.⁵⁰ The very loose use of language in modern writing can mislead us into assuming that there were simultaneously two sets of records. A table of population for 1669-1790 constructed by Mori Kahee 森嘉兵衛 in a 1934 article in *Shakai-keizai shigaku*, which appears to give lower-bound figures for population for the years 1756-1790, identifies his source simply as *shūmon aratame chō* for the han.⁵¹ His figures for the years 1756-1790 contrast with higher-bound population figures in Takahashi's later study of Nanbu population, said to be drawn from the so-called *han nisshi* 藩日誌.⁵² Susan Hanley and Kozo Yamamura, in wrestling with this problem—the origins of which lay in the very terse identifications of the sources in the writings of Mori and Takahashi, and also in the *Iwate-ken shi*—based their arguments on the existence of two sets of figures, one drawing on the *nisshi* (or *zassho* 雑書, which Takahashi cited as his source), and one on *shūmon-aratame chō* (which Mori's 1934 article appeared to suggest as his authority). For the lower figures from the supposed *shūmon aratame chō*, a purpose was proposed:

Most domains based their regular population report to the Bakufu on the *shūmon-aratame* records and officials could well have doctored these records at the domain level in order to have the Bakufu believe that the domain was in straits and thus unable to bear the burden of additional Bakufu levies.⁵³

Elsewhere it is repeated that “one set was for Bakufu eyes, others for the domain's own internal use.”⁵⁴ The consequences of such an assumption are not small:

Thus, according to the figures compiled from the religious investigation records, the total population of the domain dropped by 33 percent during the half century from 1740 to 1790, in contrast to a fall of only 2.8 percent in the set of figures in the *Han nisshi*.⁵⁵

In actuality, there are neither two locations for the records nor two categories of sources. What Mori in his 1934 article actually stated was that the figures were drawn from a work by Nitobe Sengaku 新渡戸仙岳, *Kyū Nanbu han shūmon aratame chō* 旧南部藩宗門改帳, edited from sources for the history of Nanbu population and contained in a writing or writings in the archives of the former ruling family of Nanbu han.⁵⁶ The location of the surviving han records was identified more precisely by Takahashi as Kawai-mura in Shimohei-gun (presumably the residence of the daimyo's descendants); he added that the records were now held in the Morioka-shi Sangyō Bunka Kan.⁵⁷ The *Iwate-ken shi*, dealing with population at some length, identifies its sources simply as the *nisshi*, plus the works of Mori, Takahashi, and Nitobe.⁵⁸ For the years 1756-1790 its main population table, drawing on the han records at large, presented two sets of data, one identical to the lower-bound population figures used by Mori, and one identical to the higher-bound figures employed by Takahashi.⁵⁹ While lower-bound figures for population are lacking in Takahashi's tables, this is simply because his intention was to present a total population of the han. Published data on the number of households added unnecessarily to the obscurity of the situation: except for the year 1776, lower- and higher-bound figures for households appeared in the *Iwate-ken shi* only from 1781, when they make an appearance for a sequence of nine years. From 1781 to 1789 in addition to the ongoing two sets of figures for population, there are both lower and higher bound household

counts (in 1781 63,228 and 56,185 households with the lower-bound figure falling further from 56,082 households in 1783 to 45,527 in 1784). For 1790 a higher-bound figure alone appears for households (i.e., a lower-bound figure ceased to exist after 1789). On the other hand, for the year 1790—for the last time—both lower-and higher bound figures were given for population as opposed to households.

The precise distinction conveyed by higher and lower bound figures of population or of households, even in the case of the large change in 1784 is not set out anywhere explicitly in writing. From 1756 one series of han calculation (measured in the existence of upper-bound and lower-bound figures) excluded what would seem the commoner population of many samurai fiefs, and more briefly and more radically from 1784 of all fiefs. In all probability the dilemma must have been whether collateral branches were to be viewed as part of the ruling family, or, given their independent income which made no contribution to the receipts of the ruling house, simply as very large fiefholds. In a crude sense the population deductions excluded from the grand total of han population were some 54,000 commoners resident on fiefs in 1756 and an additional 61,000 in 1784. In terms of household counts, the exclusion in 1756 was approximately 7,000 households, a figure which rose to 18,000 households in 1784. A multiplier of five to seven members per household would give a crude total of 90,000-126,000 commoners (a total not far removed from the figure created by combining the 54,000 and 61,000 fief-residents excluded in two stages in 1756 and 1784 respectively). The bookkeeping calculations in 1784-89 were not made for idle or arbitrary reasons. The acute concern about the inadequacy of han income led, as detailed han calculations for 1790 suggest (see next paragraph), to a transfer in the 1780s of income from fiefholds to the *kura* or han administration.

Going back to the emergence of two runs of figures for population, in 1755 there had been a sole figure of 358,222; in 1756 alternative figures of 356,005 and 301,686 appeared. A fall in lower-bound population from 306,077 in 1783 to 245,963 in 1784 corresponded to a matching reduction in 1784-89 in the household count. In other words the lower-bound population figure did not at any stage purport to represent the total population of the han, and came from a distinction between total households within the han, and a total net of those resident on fiefholds which provided no income to the han authorities. The matter is made confusing by the fact that, while two sets of population figures exist, the corresponding lower-bound household figure is not given for early years, but is available in a regular fashion only for the years 1781-89. However, even if not made regularly, the distinction between *kura*—or *daimyo*—income and total income (which combined *kura* and *kyūsho*—or fief—income) existed before 1781, and even well before 1756. Detailed estimates of rural population for some years specifically distinguish fief and *kura* populations. Thus for 1683 in the case of a rural population of 247,053, the *kura* figure was 154,878 and the *kyūsho* population 92,175.⁶⁰ In 1712, in a total population of 350,596, the *kura* count was 178,138 and the *kyūsho* count was 114,876. In 1752, in a rural population of 286,877 (and total population of 353,725), the respective figures for *kura* and *kyūsho* were 165,089 and 109,183.⁶¹ For 1790, another calculation was made, no doubt to measure, inter alia, the outcome of a large-scale operation at the end of the 1780s in which many samurai were demoted from fiefhold status to mere stipendiary rank. The commoner population on *kura* lands showed a dramatic rise from 1752, to 217,493; on fiefhold lands it had fallen to 76,843. In other words, a considerable revenue-

increasing operation had taken place.⁶² Of itself the operation did not generate revenue, as the income received from the peasants in the first instance merely funded the stipends that had to be paid of han central funds to the former fief holders. Han income rose only to the extent that the number of samurai subject to deductions from stipends (a theoretically temporary practice that progressively became wider and quasi-permanent as the eighteenth century wore on) was now greatly increased. The apparent lack of further estimates suggests that no similar major operation occurred in later years.

From 1790, a higher-bound household figure alone is given, and from 1791, a sole population figure appeared (although for the year 1790 itself, despite the absence of a surviving lower-bound household total, lower and higher-bound data for population both appeared). The practice of adhering to a higher-bound figure only seems to be departed from in a reduced population figure of 326,262 for 1807 and 1816 (identical in both years!), a figure which implies an omission of a section of the population. That the reduced figure was itself not intended to represent the whole population can be seen in the fact that the household count itself continued to be given in the 63,000 range. The omissions in 1816, it was speculated in the *Iwate-ken shi*, included both town population and the temple/shrine population.⁶³ However, this is misleading; the shortfall very nearly matches the town population (ca. 30,000). Had it included other categories, the residual population should be still lower. In the only later years for which data have survived, the full population is 351,332 (in 1838), 357,207 (1839), and 356,269 (1840).⁶⁴

Higher-bound figures, whether of households or of population, where both higher-bound and lower-bound data exist in the *nisshi*, are invariably the intended basic figure for the total population of the han. The statistical weaknesses of both upper-bound and lower-bound figures, it hardly need be said, are identical, inevitably so as the mechanics of compiling the aggregates, for both lower-bound and higher-bound returns, were common to both sets of figures. In Nanbu the annual grand total for han population was to a remarkable degree stagnant. From 1762 it scarcely changed, adjustment from year to year being merely notional. Thus the figure of 358,857 in 1764 differs but slightly from 357,810 recorded in 1803. In some years even the small notional adjustments made from year to year, were not executed: there were identical figures for households in 1755 and 1756, and again in 1772 to 1777. For the years 1762-1840 the figures for households, the basis for calculating the total population, were (except in the few years in which both higher-bound and lower-bound counts exist), invariably some 63,000 with the addition at most of some odd hundreds.⁶⁵

The *Iwate-ken shi* noted in passing that the han returns were probably not realistic figures, though the reason advanced is that the population level was inconsistent with the high level of mortality for some years reported by contemporary officials.⁶⁶ Takahashi in his study simply noted that the population figures related primarily to the settled permanent population or *honbyakushō*.⁶⁷ Neither of these explanations is convincing or sufficient. As Hanley and Yamamura noted in relation to the comments in the *Iwate-ken shi*, contemporary reports of famine were exaggerated and could be countered with other and more sober recitals.⁶⁸ As for Takahashi's observation, even if the figures are in reality confined to the settled population, the stability from year to year is totally unrealistic. The han authorities routinely took the number of houses as more or less fixed, and adjustments for actual population—conducted on a basis of which we know nothing—produced little change in population from one

year to the next. Crisis years characterized by significant mortality (even if the alarmist figures of some officials are to be discounted) do not show up. The change in the 1780s—though coincidentally occurring in 1784 in the wake of the 1783 famine—is simply one of definition; this explains why, whether in lower-bound or higher-bound totals, the total remained unchanged immediately after the devastating 1786-87 famine.⁶⁹

In the case of Mito something similar is implied by the fact that the slide in population returns from the 1730s to the 1780s had ended by 1783. As a consequence the difficult decade of the 1780s is poorly reflected in the Mito figures also. Mito han, like Nanbu han, is an apposite case for the attempt to determine whether coverage of han figures was comprehensive or not. Whereas the population count from 1762 for Nanbu han was remarkably static in trends, the count for Mito han at this time was moving downwards. The population fell from 309,711 in Kyōhō 17 (1732) to 250,807 in An'ei 3 (1774).⁷⁰ This might arguably suggest a more conscientious recording of population, and hence could be construed as evidence both reflecting—and confirming—opinion about crisis in Mito. However, the matter is not that simple. Counts in Mito were not confined to the one year in six and to the *shūmon aratame chō* basis suggested by Hayami.⁷¹ There are, apart from earlier counts in 1697, 1702, and 1703, four surviving counts between 1729 and 1794 in years which were not shogunal census years.⁷² This may suggest that numbers were counted in simple manipulations of data in many and perhaps in all years rather than in more ambitious—and traditional—collecting operations. There is some confirmation of this in the relative stability of numbers between 1703 and 1732 (305,649 in 1703 and, with some limited variation in the interval, 309,711 in 1732), and in the still more pronounced stability from 1783 to 1828. A downward movement between 1732 and 1774 (or 1783) might at first sight seem evidence of a real trend. However, the figures in population data for Mito are of rural and fishing population only. This strongly suggests that they did not originate in SAC exercises, which would have sought to be more inclusive. If the count is based on tax registers, the probability of changes of definition or of omission of *kyūsho* cannot be excluded. In theory the movement could reflect a contraction in the number of *honbyakushō* on han registers: in Motoki village, for example, the number of *honbyakushō* fell from 103 in 1696 to 85 in 1772 and to 76 in 1813.⁷³ But there are also instances in Mito where the pattern is the reverse, and in any event changes either way of this sort would probably have been marginal to the total population. The existence of a substantial fief population would emphasize that a large segment of han output was beyond the control of the han administration, and would help to account for the penury which was a persistent complaint of the han authorities and its direct retainers.⁷⁴ Han population as noted above was increasingly stable from 1783 onwards (or equally from 1786, a shogunal census year). Significantly, despite famine in 1783 and 1786, the figures changed little either in the 1780s or at the outset of the 1790s. The parallel with Nanbu in the same years is arresting. In a crude sense, even after famine the counts reflect not mortality, but merely the fact that “taxable” households (either survivors or notional fiscal entries) remained on the books. Of course, by definition *honbyakushō* were better off, and hence less vulnerable to being wiped out, than marginal families of laborers and tradesmen. The suggestion of rigidity emerging in counts is very striking for the four surviving ones from 1810 to 1828; the total varied between a minimum of 227,170 and a maximum of 227,732.⁷⁵

5. Long Term Trends in Coverage in Han Returns

Nanbu, long characterized on statistical evidence by stable population, and Mito, with stability of population a feature from the 1780s, might be seen perhaps as exceptions. However, other han have figures showing stability or moderate increase. Tosa and Aizu are both cases in point. In the case of Tosa, figures survive for 1681-1798, 1834, 1841, 1842, 1854 and 1855.⁷⁶ The Tosa figures are upwards with no real dip. In Aizu han the figures surviving for 120 years within the period 1648-1805 remain relatively stable.⁷⁷ The figures for Sendai han offer an interesting contrast. Sendai was a well-administered han in which a range of figures survives in numerous han documents. Surviving *ninbetsu aratame* returns are fewer and more isolated: for instance for the post-1721 period, when national census taking began, they amount to a mere 32. The regularly collected figures in the central han records are for *gunkata* 郡方 (rural population), and they exclude figures for fiefs. More detailed calculations for a few isolated years reveal that the population resident on fiefs was about 26 percent (202,000) of the estimated population in 1695 of 770,000, and 22 to 23 percent of a population of 820,000 in 1742.⁷⁸ Though samurai numbers can not be readily quantified, the large number of retainers suggests that a high proportion resided in rather large fiefs (some of them certainly collateral branches of the ruling family rather than samurai, however exalted). *Gunkata* figures—the only systematically surviving figures and thus the basis of han population returns—while not figures of overall population, represent demographic trends meaningfully. The long-term trend emerging from the *gunkata* returns is one of stability or of a slight fall in population. However, in terms of short-term fluctuations, two things emerge. First, in contrast to data for other han, population figures were not stable. They fell in difficult periods, and then revived in subsequent years. The 1755 crisis is only modestly reflected in the figures. Tenmei population however declined by 20 percent and Tenpō by 14 percent. Second, in periods of population decline, the drop in households was less than the fall in population, a circumstance which suggests something of a real-life count.⁷⁹ All these considerations suggest that the Sendai data are relatively sensitive, though the comparative stability for the years between crisis periods is striking (yet explicable if a regime of relatively low fertility is assumed).

In summary, whatever the original reasons for registering population, the primary long-term concern was revenue. Han counts (and national ones) as already set out, in what are the best known omissions, did not list samurai, and excluded the young to a variable age limit. Hence, by definition the figure for han population was less than comprehensive. So far so good, and if this was the only complexity, the profile of population would be easy to comprehend. More seriously, han counts often excluded—for the same reason, i.e., that they were not sources of revenue—Buddhist and Shinto domains, towns, and the commoner population resident on fiefs of samurai themselves, and on the lands of collateral branches of the daimyo family. The significance of this is sometimes underestimated because accounts state simply that the servants of samurai were omitted. But the omissions were larger. Not only servants, but, in the case of fiefs, commoner landholders were left out. This problem is made the more treacherous by the fact that practice as to how the figures were presented could vary over time. The most interesting case is that of Nanbu where dramatic contrasts exist within han figures which is a subject of potential confusion in interpretation unless the reasons for

the deductions are understood. This did not pose problems for han administrators at the time as they were working with current or recent data. But modern tabular presentation will give an impression of confusion to a degree which did not exist among contemporary officials who had no concern of maintaining a consistent time-series with long term comparison in mind. The modern creation of tables is artificial. While the officials were not statistically-minded ones in the modern sense, they knew what they were doing, and their methods answered their requirements.

These problems are not only mirrored in but to a degree can be measured in comparison of the census counts of 1846 and the first modern style count from the registers for 1872 (returns from which were finalized in 1874). The populations of the Tōhoku and of Kyūshū appeared to rise sharply between 1846 and 1872, while at the other extreme the Kinki and Kantō rose little. In the Kyūshū and Tōhoku regions population rose by 42 and 38 percent respectively compared with preceding stagnation in these regions.⁸⁰ Kinki and Kantō, on the other hand, had a relatively static population from the 1780s to 1846 and by comparison only a relatively moderate rise occurred between 1846 and 1872. To some extent the contrast between on the one hand both Kantō and Kinki and on the other the *tozama* of more distant regions was an abiding consequence of the sharp reduction of samurai numbers in *tenryō* and subservient *fudai* during the seventeenth century. Henceforth not only was their number small, but in the smallest han, a mere vestigial administration existed. However, comparison between 1846 and 1872 is complicated less by the fact—real enough—of the omission of samurai than by the meaningful survival of fiefs in eastern and western regions of Japan. Satsuma had both numerous samurai and numerous fiefs. Sendai, on the other hand, while having modest samurai numbers, had a large population of commoner-residents on fiefs.

Total population in the case of some han—or *kuni*—appeared to rise dramatically in 1846-1872. The territories occupied by the Shimazu family provide the outstanding instance. The large domains administered by the Shimazu from their castle town of Kagoshima consisted of two *kuni*. The population of one of these, Ōsumi, appeared to rise by 159 percent, and that of the other, Satsuma proper, by 127 percent. From the 1750s onwards the population of Ōsumi had fallen somewhat. The population of Satsuma no *kuni* rose until 1786, then stagnated. Hayami has referred to the speculation by some that the profile of the data suggested that there may have been at some point in the past a decrease in the population of Satsuma.⁸¹ In the two cases, however, the data may not have been arbitrarily defective. The Shimazu family had the largest following of samurai in Japan, a majority living in the countryside. In essence they were fief-holders (hence recipients of rice from peasants below them and themselves free from paying a rice levy to a *daikan*). The census counts must have embraced only occupiers on the directly held domains of the lord, in other words in districts contributing rice to the daimyo's *kura*. The relative long-term stability of the figures also gives the impression that han officials worked from notional counts rather than from more laborious regular compilations. Rough estimates will give one an idea of the situation. In the Tokugawa census of 1846 the combined population of Ōsumi and Satsuma was 341,009; in 1872 it was 808,256. Samurai, who of course were not enumerated, would have been about 30,000, or including immediate family members (and servants) a total on the order of 150,000-210,000.⁸² Most though not all of this population would have been fief-resident. Deducting 150,000-210,000 for samurai and their families from the 465,247 rise in popula-

tion from 1846 to 1872 a balance of 255,247 to 315,247 still remains to be accounted for (if the deduction should be smaller to allow for samurai with their servants resident in the castle town, the residue would be even larger). The great majority of this residue of 255,247–315,247 would have been commoners resident on fiefs. In other words, the deficiency of 465,247 in comparing the census figure of 1846 with 1872 almost vanishes, if to the 1846 total are added the lower-bound estimates of 150,000 in samurai families (and servants) and of 255,247 fief-resident commoners, all of them unenumerated, in 1846. Under the watchful and harsh eye of so many small fief holders, the commoner population would have lived in debased conditions: in contrast to peasants elsewhere who cultivated with a degree of independence, they would have been little more than servants or laborers to rustic samurai. Evidence of harshly imposed targets in the output of commercial crops, for which Kagoshima is well known in the modern literature, would only have reinforced poverty. The low level of literacy in Kagoshima-ken in 1884 mirrors their degraded status. Kagoshima (i.e., Satsuma) was not of course alone in presenting problems in its census counts. Another case of a problem han is Suruga in central Honshū: in Hayami's view, the exceptional ups and downs in its census returns were a result of bad data.⁸³ However, the data could as easily reflect variations in the reckoning of *kura* and *kyūsho* lands, and which were repeated in the returns to the shogunate. Manipulations in Nanbu figures illustrate some of the distinctions which arose at least internally. In the census figures for Satsuma no kuni a rise in population between the 1750s and the 1780s could conceivably mirror some reduction from an even higher earlier total of fief-resident samurai.

In striking contrast to the rise in population in the Tōhoku and Kyūshū regions between 1846 and 1872, the change in Kinki and Kantō was modest. Population had fallen in Kinki and Kantō in the 1780s, and on census evidence that of the Kantō did not recover. In the Kantō, there was a decline in 1786 (sharper even than in the Tōhoku), persistent stagnation in subsequent returns (even the Tōhoku managed modest growth), a further fall in 1834 and an upswing from 1834 to 1846 (a period when population fell in Kinki). The Kinki was much the more stable of the two regions. Population decreased little in the 1780s and did not rise sharply between 1846 and 1872. Thus comparing Kantō and Kinki, on the statistical evidence, trends diverged in the 1780s; in 1834–46 they diverged again. Once more in 1846–72, they contrasted, when a modestly substantial rise of 16 percent in Kantō significantly outpaced a 6 percent increase in Kinki. While the graveyard theory has been suggested as an explanation of the comparatively low demographic profile of both regions (heavy migration to towns and high death rate), this does not explain the contrast between the two regions themselves. The fact that statistical stagnation in Kinki preceding 1846 was followed by a very modest rise between 1846 and 1872 suggests that the figures were close to reality, with only modest adjustment arising in 1872. A limited fall of 2 percent in 1834–46 was matched by a modest 6 percent rise in 1846–72. Kinki was a developed region, much of it highly regulated *tenryō* land, and as samurai were few, issues of including or excluding *kyūsho* (fief land) scarcely existed. While a highly developed pattern of tenancy, in other words rather large numbers of cultivators of non-*honbyakushō* status, also existed, the limited change between 1846 and 1872 suggests that registration was close to covering the entire population.

Kantō was both economically and geographically a more heterogeneous region. The population data of Mito, which are included in the population aggregates of the Kantō region

as defined in modern study, point starkly to the problems that the bare data can pose. The population of Mito appeared to fall in the middle decades of the eighteenth century, when comparable declines occurred nowhere else in Japan.⁸⁴ It has long been commonplace to seize on the figures for Mito as support for the picture painted from other evidence of a han beset by an extraordinary degree of crisis. The penchant to seize on poverty as a major explanatory factor for trends in contemporary statistical data is potentially dangerous to interpretation. The data and pessimistic contemporary comment have frequently been seen as reinforcing one another. Superficially the widespread decline in population in Kantō might be presented as a consequence of the 1783 famine (and of problems which persisted subsequently). However, as the data for Hōreki 6 (1756) can be compared only with data for Tenmei 6 (1786) (with the exception of some data for intervening years surviving at least readily only for Mito), too much weight is placed on a single year, and by no means all the provinces in Kantō stood in an identical situation in relation to the volcanic fallout from the eruption of Asama in 1783. What is striking about the post-1798 data for Kantō is that the performance of *kuni* varied widely. While the population of the region as a whole either stagnated or rose marginally, there is a contrast between two quiet difference statistical trends. On the one hand, Musashi, Sagami, and Awa rose, and Shimōsa remained stable; all were *kuni* where *tenryō* predominated. On the other hand, Shimotsuke and Kōzuke (both *kuni* with some *tenryō* but also a substantial amount land in small *fudai* han) trended downward over the period. To these should be added Hitachi where a substantial drop in 1834 and a very sharp rise in 1846 broke with the stability of immediately preceding decades.⁸⁵ In the case of *kuni* where *tenryō* predominated, Kazusa alone departed from the common profile: in a markedly unstable pattern its population fell in 1822, rose in 1828, fell again in 1834, and rose once more by 1846. These four *kuni* (Shimotsuke, Kōzuke, Hitachi, and Kazusa) contrast with a more stable situation in the rest of Kantō. In 1834 they recorded a sharp decrease not recorded elsewhere; they later experienced, compared with the rest of Kantō a relatively sharp increase in 1846-1872. All these factors suggest differences or changes in the comprehensiveness of the coverage within han, and automatically in the transference of data to the shogunate.⁸⁶ The prevalence of *tenryō* appears to be a factor in stable counting (though, as the case of Kazusa suggests, it did not give immunity from erratic processing).⁸⁷ Where *tenryō* and minute *fudai* han existed, samurai were inevitably few. Musashi, Sagami, Awa, and Shimōsa had some of the features of the Kinki region where the population of *kuni* was relatively stable both before and after the 1780s. In other cases, though the proportion of *tenryō* was large, the pattern was unstable. This may suggest the possibility of variations in treatment of the commoner population on land held by collateral branches of the daimyo or on fiefs. However, in the case of Kazusa, as beyond Kantō for Suruga, instability rather than any clearly defined trend is the striking feature of what are the two extreme instances among all the *kuni* in Japan.

6. National Figures

These considerations remove any confidence about the shogunal figures as a useful guide to trends at han level. At best, over time, the quality of the figures varied widely between han and within han, their profile on occasion influenced by adjustments introduced in administrative circumstances of which we know little. How closely the intrinsic quality of the data

supplied by the han were scrutinized in Edo at the stage of compiling national aggregates, is a matter of conjecture. However, we can be confident from the detail that no effort was made to adjust the han figures to make them fully comprehensive; urban populations and commoner populations on fiefs in many instances were omitted.

The only figures for Japan as a whole which survive are figures in summary tables for all the *kuni* (depending on the actual count of *kuni* or some bunching in modern tables, the unit count would have been properly between 69 and 74), returned to the *rōjū* over the signature of an *ōmetsuke* 大目付 and a *kanjō bugyō* 勘定奉行. The absence in the surviving documents of any papers at an intermediate stage in the processing, or of contemporary tables containing sequences of census years, suggests that the treatment in Edo was casual. If there was sometimes enough curiosity for unofficial copies of individual census returns to be made, the total absence of tabular data from the records that are left for us is arresting. It suggests that tables were not circulated and may never have existed. Where comparisons were made, they are likely to have been with the preceding census alone. Matsudaira Sadanobu's observation of the change in population between 1780 and 1786 seems unique amongst a dearth of general comment about statistical matters by high officers of state. Moreover, the issue of tabular presentation apart, by international standards a continuous compilation in an identical fashion of returns and of the introductory apparatus without modification is itself remarkable, and revealing of an operation conducted by rote. Officials at han level and in Edo castle went through the motions every six years. Wider scrutiny of aggregates was non-existent. It is hard to imagine elsewhere any pattern of statistics being compiled in rigidly unchanged format for as long as the period from 1721 to 1846. That also reinforces the impression that in the shogunate (as in the han for the returns from the villages), the primary returns were probably destroyed soon after the event. The view of Ogyū Sorai 荻生徂徠 (1666-1728), so admired in the eighteenth century for his commentaries on public life, on the rule-of-thumb nature of administration or the low culture of record keeping is apposite.

No Office should fail to keep records of business. At present it is the general practice to deal with business on the base of precedents and established procedures committed to memory. It is entirely due to the lack of records of business that the officials are vague and ignorant of the duties of their offices.⁸⁸

Population figures hardly admitted of being committed to memory. But they were deployed only as a short-term fruit of administrative processes. They were never looked at except in the immediate context of the time of their original creation. The absence of contemporary tabular runs of data suggests that at best not only memory but paper never ran beyond the immediately preceding data.

If copies were made, it was of individual censuses. Where returns survive of figures of several censuses, they do not survive in official documents (or copies of them), but in compilations made by private individuals at dates later than the final date of two or three censuses, probably from randomly circulating copies that have since been lost. Only in two cases did pre-1868 writers refer to data for three censuses, and only in one case to full aggregates (for two of the three years). This pattern suggests that figures, or at least some knowledge of them, did float around with some ease, if not with abandon. Nothing approaching a consolidated table existed, however. That raises the question of whether the figures were secret, or whether

the real factor was simply a lack of statistical sophistication or even plain curiosity. The answer to this question lies in part in analysis of the surviving returns. Were they in fact secret documents, or at least documents that never circulated outside a confined circle? Or is it the case that they did circulate? The fact that they did not circulate more widely or did not merit more penetrating comment might support the conclusion that the real problem is less secrecy than a lack of interest.⁸⁹

From what one can judge from the small number of surviving national census returns (variously complete or incomplete), the form of the actual return was remarkably unchanging (sometime evident also in other forms of statistical compilation in the Tokugawa period). The one period in which an interest in demography was actively entertained by the shogunate was the 1720s and early 1730s, when it reflected Yoshimune's vigor and all-embracing interest in problems. In addition to ordering the once-off census of 1721 and the new census of 1726 (as one to be held henceforth every sixth year), Yoshimune uniquely had an interest in putting population in a longer perspective: in 1734 for instance he instituted population enquiries in regard to preceding trends in the population of nine large *tozama* han.⁹⁰ Even as early as 1723 the Nagasaki deputy *opperhoofd* noted that he had been told by an interpreter that the *bugyō* "had received orders from court compelling him to conduct a census to find out how many people aged between 80 and 90 were living in Nagasaki. Nobody knows why the [shogun] has ordered this census."⁹¹ These years were an unprecedented occasion of broad-ranging administrative vigor in demographic counting in Tokugawa history. Even if innovative, the reporting of data to Edo, as the latitude allowed to han showed, was less an imposition of a new task on them than harnessing existing counting within han to a national framework: it formed part of the policy pursued by Yoshimune of enhancing the role of the shogunate. There was also in these years the institution of trade figures for traffic between Osaka and Edo. Again, this was not in itself an innovation: detailed figures had already been compiled for Osaka for 1714. Yoshimune's contribution (or that of his officials), as part of his administrative drive, was to put their compilation on a regular basis. There is no evidence in later times of statistical curiosity comparable to that of Yoshimune. A guess would be that the figures are closest to reliability at their first launch in 1721 or 1726, when they were novel and driven by Yoshimune's inquisitiveness, thereafter in all probability becoming fossilized (except when interrupted—at han, not Edo level—by random revisions).

The poor survival of data—and at the level of han administration near total absence of evidence of how the surviving han totals were arrived at—raises questions about the administrative processes themselves. The population returns from the villages (whether described as *shūmon aratame chō* or not) despite the fact that large quantities of other categories of paper at large have survived for some han administrations, were not retained by the han authorities. Where the primary returns have survived, it is in some extensive sequences retained by the families of former village headmen (sometimes still in family possession, in other cases in library custody). At the center, nothing whatever survives for the Edo authorities. It is easy to assume the contemporary or later destruction of records by natural disaster as an explanation for the poor survival of primary data. However, Japanese administration was conducted on the basis of much copying of documents. What is surprising is that in a society which copied documents and equally often made multiple compilations from them (the prime means by which Tokugawa records have survived), so few statistical sources exist. The copies survive in

isolated contexts, not in compilations, and in the few cases where figures exist for two or more years, they are very obviously by individuals from outside shogunal administration (in a mere three cases—and for individual years, not for sequences of years—does a hint of an official association exist, and even then only in the ambiguous or vague sense that they survive in collections which inherited paper which existed ca. 1868). The absence of sequences of figures for successive censuses—in other words tables—reflects how official interest in the census was itself circumscribed to the immediate objective of finalizing by rote individual censuses. In the case of the han where documents are more numerous, the data remained embedded in *nisshi* of various sorts, and were never collated. Japan still lived in a pre-statistical age, in effect. It was not secrecy that was the handicap, but lack of analytical interest. The *nisshi* are in essence administrative documents compiled routinely, year after year.

7. Urban Population

Despite their many limitations, han figures are by no means arbitrary. If all too often unsophisticated in the approach which han sources suggest, the differences are caused by changes of definition rather than by erratic handling. The problem of consistency did not pose itself for administrators simply because they did not view the data in a chronological and hence tabular framework. Urban populations were recorded by han officials (though they were not necessarily entered into han totals and hence, the independently-counted shogunal towns apart, were not entered by the shogunate into *kuni* figures). It is now necessary to look at urban population.

In contrast to rural society, the registering of urban population was not fundamentally driven by revenue purposes. A consequence was that data for categories other than rural population (who were subject to a rice levy) were not necessarily carried into han aggregates, and the omissions, where they existed within han totals, appear to have been repeated in the general returns for census purposes to Edo. There is of course an inconsistency in this. Han effectively were free for statistical purposes to treat their urban population as they wished; the shogunate on the other hand not only counted the population in the shogunal cities, but dutifully entered the figures in the totals for *kuni*.

In the case of han, where han sources are complete or detailed, estimates of town population (both *jōkamachi* and informal townships), whether or not carried into the han aggregates, exist. In some cases ambiguity arises as to whether towns were included in the han returns and consequently in the *kuni* data compiled by the shogunate from the submitted information. Though in the case of towns under shogunal control, population returns were made directly by *daikan* or by *bugyō* to the shogunate, the survival in the capital itself of material from shogunal cities (Edo itself apart) was even in early Meiji times almost nil. Overall for shogunal towns, the survival of data is much poorer than it is for han. Even for the city of Edo itself, the survival of material has been meagre: what we have is mostly data entered into later compilations, from earlier sources which no longer exist, and of which we know singularly little. In the case of Osaka, best documented of the shogunal cities in point of population, figures variously survived into post-1868 times in documents of the time or in copies made directly from pre-1868 sources. However, while continuous for most of two centuries, the surviving detail for Osaka is mostly summary.

All these data for shogunal cities (and, as far as can be seen, for towns in the han) originated in registers of residents. These were maintained from an early date. For Osaka, data have been attributed in Osaka sources to several pre-1664 years, though figures can be attributed reliably to a sole year 1634.⁹² Katsu, who compiled population data for Edo, also reproduced the population of Kyoto and of Osaka in 1665 and 1681 as well as providing a somewhat wider range of detail for Osaka in the latter year.⁹³ Figures for Kyoto exist for 1634, 1665, and 1669.⁹⁴ A small number of figures exist for other cities, the earliest for Nagasaki in 1616.⁹⁵ While some taxes fell on houses, revenue was a minor consideration. The prime purpose of maintaining registers of population was administrative: security, food supply, and fire fighting all warranted a knowledge of town population. In the figures based on registers some additional data were compiled even if they have survived only fitfully if at all: the number of household units, whether the status of occupier was owner or tenant, and in some instances particulars of where residents were born. In particular some of the surviving Edo data for later years distinguish between birth in Edo and elsewhere.⁹⁶ These data have a relevance to the belief, in periods of crisis, that the towns were overpopulated, and to the advocacy of removing population (in Edo in the Tenpō crisis the authorities made some attempts to implement this, following a less wholehearted Kansei precedent).

As in the case of rural population, samurai were not counted. This means that registers understate population in the castle towns or *jōkamachi*. While samurai are by definition a larger proportion of castle-town population than of the han population at large, samurai (including family members and servants) are a minority in the sense of not exceeding crudely a range of 20–40 percent of gross population. Edo itself, through the effect of the *sankin kōtai*, was the great exception: the enumerated commoner population of 500,000 should be doubled to take account of daimyo and samurai of all categories, including dependants.⁹⁷ While this samurai population would include servants as well as family members, except for hatamoto (the larger of whom maintained almost daimyo-like lifestyles), retainers were few. The omission of samurai is not a serious problem for Osaka, as few samurai resided there.

Doubts can of course arise about the urban counts based on the registers (which in Edo itself were updated twice a year). Lack of close revision and substantial omissions are both possible. A distinction was made between those residing as of right at their address and those who only rented the property. Such a distinction exists, for instance, in the figures for Fukuya-machi in Nagasaki from 1742 to 1863.⁹⁸ However a distinction of this sort may not be sufficient to either catch or cover all temporary residents, more particularly in a large metropolis with much movement between the city and a large adjoining hinterland. The real problem was a large floating population of indeterminate status, occupation and even residence. With revenue a very minor consideration, there is no guarantee that the registering of population was conducted with special care once the basic details of household heads and recognizable tenant occupiers were confirmed—or modified annually or biannually. The scale of the problem is further highlighted by the high proportion of urban residents who were born elsewhere: in the late Edo period, between a quarter and a third of the population of Edo came from elsewhere, and more than 30 percent of the population of the five provinces of the Kinai lived in Osaka, Kyoto, or Nara.⁹⁹ As Osaka data on birthplaces are fragmentary and for the earlier years only, this high proportion implies a similar large-scale movement into the three big cities of the Kinki region. One may hazard some guess at problems: informal

consensual occupation of space by transient figures, the omission of menial or casual servants whose occupation was uncertain, and in general a limitation of close enquiry once a household head was established or an existing one confirmed. The most striking case of underestimation is of women in Edo. There, in surviving counts for 1721-47, drawn from the registers, women made up less than 40 percent of the population. It has to be assumed that there is some systematic bias, either of status or of occupation. The discrepancy between males and females for the districts that were under the direct control of the *bugyō* is repeated in almost identical proportion in the separate data—where they survive—for the very large number residing on temple and shrine lands in Edo. The combined omission, of the order of one hundred and forty thousand, is a very large one. Given a floating and transient population and some distinctions of which we are not clear, registers of their nature would probably have been more reliable counts of households than of individuals, though the survival of data for the number of household units is very limited.¹⁰⁰ These inbuilt limitations were not dissimilar from ones in han data. However, the fact that when figures for Edo resume after a total gap in data for the years 1748-1831, the discrepancy had been narrowed, on balance speaks well for the statistics, and suggests that the basis of counting had been revised radically at some intervening date. It was further narrowed in a progressive fashion over the remaining years. By 1867, male and female population in Edo counts were almost equal. Likewise a sustained downward trend in Osaka population from a peak in Meiwa 2 (1765) suggests that figures were sensitive to underlying changes in population.¹⁰¹

The omission of women on such a scale in earlier years poses a problem for the estimation of long-term trends in Edo population: if 140,000 were added to the total of population for the years up to and including 1747, the profile of Edo population in later years becomes less positive. This would also have in comparative terms the consequence of emphasizing the sheer dynamism of Osaka as its population expansion continued to a peak in 1765. However, these speculations simply underline the inherent problem we face when attempts are made to draw conclusions with any confidence from a pitifully small mass of data of whose compilation methods we know nothing. The survival of documents, not simply of originals or Tokugawa-period copies, but even of sources that were preserved long enough to be drawn on by early post-1868 compilers, is very poor. There are some pre-Meiji counts for Osaka, but for Edo there seems to be a single pre-1868 document—“Gojōka machi Toshima-gun, Ebara-gun, Katsushika-gun no uchi ninzu cho” 御城下町豊嶋郡荏原郡葛飾郡之内人数帳—which by definition has to be post-1840, as it includes census data for that year.¹⁰²

Where data for towns exist in han sources, they are usually contemporary, even if surviving in the form of entries in han compilations rather than in series of primarily demographic data. For shogunal cities the data are much more fragmentary and often in miscellaneous documents (or copies) that are not in essence official. Kyoto, Osaka, and Edo, in a class apart because of their size as well as status, have limited data and few documents that can be regarded as having been directly copied from official documents. For Kyoto, only a handful of figures exist.¹⁰³ For Osaka and Edo, while the sources cannot be described as rich, things are somewhat better. In the case of Edo, Kōda Shigetomo 幸田成友 in 1938 devoted a famous article to the subject of Edo population and the sources for it.¹⁰⁴ He asserted that the data were set out in three modern authorities.¹⁰⁵ One was “Edo shigai tōkei” 江戸市街統計, published in *Edo kai zasshi* 江戸会雑誌 in 1889 by Yamashita Shigetami 山下重民, who

drew on what he said were *zakki* 雜記, but offered no detail about his source (or sources). The second work was Katsu Kaishū's *Suijinroku*, also from 1890 (though Kōda dated it to 1887); Katsu identified two sources for his data. The third source was an article by Yuzuki Jūzō 柚木重三 and Horie Yasuzō 堀江保蔵, "Honpō jinkō hyōchū Edo no jinkō" 本邦人口表中江戸の人口, in *Keizai shi kenkyū*, 1930. The figures in this last study, drawn from wide but heterogeneous sources, are often irreconcilable with one another, Kōda noted; in his view, they are not to be considered useful.¹⁰⁶ However, accurate or not, they imply access to sources that contain figures differing, for whatever reason, from the numbers in the sources available to Yamashita and to Katsu. All these now-unknown sources of varied origin imply that copies of data survived at least until the 1920s; these copies appear to have been in private hands, in the main and perhaps in all cases. The provenance of the data is wider still if it is borne in mind that both Yamashita's and Katsu's compilations made a distinction between data drawn from the biannually revised registers and from the returns in the census held at intervals of six years (though census counts were of course themselves based in the last instance on the registers). Yamashita was not explicit about his sources beyond the statement that they all came from *zakki*. Katsu was more forthcoming, as he presented his data in two sections in his *Suijinroku*.¹⁰⁷ The first was entitled "Edo jinkō shoki" 江戸人口初期, the second, "Shōtoku yori Kōka made Edo chōzū jinkozū" 正徳より弘化まで江戸町数人戸数. The first section contained summary data (a single gross total for each census) from 1721 to 1834; these are clearly census data. Except for the first year, they are also identical, according to Kōda, to the data given by Yamashita. The second section, for which Katsu cited "*kozuka*" 好事家—meaning private collector—as the primary source, was by definition drawn ultimately from the registers. It also began earlier than the census; the first count was from 1713. Katsu's counts continued to 1845.¹⁰⁸ The summary census data from both Yamashita and Katsu are of importance because for the period of the gap in totals from the registers for the years 1748–1831, they are the only population counts we have for Edo. Neither Katsu nor Yamashita have data for the census year 1840. The full text of the return by the *bugyō* to the *kanjōsho* for that year survives, however, in a document included in a compilation entitled *Tenpō sen'yō ruishū* 天保撰要類集.¹⁰⁹ While it is a copy, not an original source, it is a contemporary one. Moreover as a report to the *bugyōsho* over the signature of the two *machi bugyō*, it may be a copy of the census report for that year. It is of course all the more interesting as, although a return for Edo alone, it is one of only two documents which contain detail at any level (urban or national) of the 1840 census.¹¹⁰

In the first post-Restoration published source for Edo data, Yamashita in 1889 simply attributed his information, census and registration data alike, to *zakki*. The word *zakki* means collections or a collection of miscellaneous information, and hence implies strongly that the source (or sources) itself did not have an immediate official connotation. Katsu is more interesting.¹¹¹ While he gives no sources for his census data, for his section with data based on the registers he does. For two years he attributed his data to the *kanjōsho*. It is doubtful if this is to be taken literally. It has to be assumed that they are mere copies; whether officially made or simply ones held by officials at or near the time Katsu got them, is not clear. As they contain data for only two isolated years (1731 and 1737)¹¹² and he has no data from the same sources for later years, direct provenance in late Tokugawa times in *kanjōsho* records seems highly unlikely. They are in other words likely simply to be full texts of the reports. Katsu's categoriza-

tion of his source for the two early census years as official must be simply that he was drawing on a full text and hence on one which contrasted with his second and major source, demonstrably in its terse and incomplete details, of unofficial origin. By characterizing his source as *kozuka*, a collector or collectors of things by curiosity or antiquarian motivation, he hints that the materials are miscellaneous and not dissimilar from the *zakki* that Yamashita used. It is likely that the data were drawn from the records of several compilers, as the detail varies from one year to another, and supplementary though terse comment for individual years also varies. If, however, he had been working from a single collector's papers, their nature suggests that the collector himself compiled them not from access to official documents but from highly miscellaneous sources. While sources described as *zakki* or as *kozuka* are uncommon (if not unknown) for demographic information, sources of this sort for other categories of information were numerous in Edo times. For instance some of the sources consulted even for a highly political purpose by a group as exalted as the team deployed as the Hayashi family to compile in 1849-56 the *Tsūkō ichiran*, were collections, mostly not now surviving, whose titles often implied quite literally miscellaneous or hearsay origins.

Edo gross totals were arrived at by aggregating figures for population of the three shogunally-administered sections of the city and for the large population—some 60,000—resident on lands under the dominion of temples and shrines. In the case of counts surviving from register origins (one or two for each year) for a total of twenty-two years between 1733 and 1844, the distinction between population under *bugyō* administration and temple-shrine administration respectively survives for most years. Where a single summary total existed, the coverage at times was a subject of confusion. For instance, the data on census population compiled by Katsu, while intended to cover the entire commoner population (directly administered and temple/shrine populations), are at times inconsistent. For some years, though he was unaware of the problem, they demonstrably cover the shogunally administered population only. Thus the jump in 1732 compared with 1726, of the order of 60,000, is a consequence of inclusion in the later year of the temple and shrine population. It jumped again in 1750, conceivably for the same reason.¹¹³ This is important to note because the inconsistencies in the data might suggest greater confusion in the original statistics themselves than is the case. The problem for Katsu arose from the very miscellaneous information available to him and from his reliance on the styling of data for individual years by the compiler(s) on whom he relied. Thereafter consistency may be assumed: the data (together with Yamashita's) may be taken to be inclusive of both categories, for the years 1756-1828, for which moreover they are the sole surviving data for Edo population, as figures from the population registers do not survive for these years.

Osaka is the best documented town for population data. For the years to 1664, an isolated figure for 1634 is recorded in the *Nendai chobunshū* 年代著聞集.¹¹⁴ Data attributed in another source to an even earlier year, 1625, are identical to data for 1669 in an early Meiji document that compiled data under the title of “Beishō kyūnikki” 米商旧日記 (Old Records of Rice Prices); the data are obviously wrongly dated. From some five sources data survive from 1665 to 1756 inclusive, for twenty-three individual years.¹¹⁵ By contrast, for later years, there was a very large gap until a document compiled by the Ōsaka *machi bugyō* Isshiki 一色 came into Kōda Shigetomo's hands in 1911, two years after the end of his long stint (1901-1909) in managing research on the first *Ōsaka-shi shi*.¹¹⁶ They covered all the

years from 1757 to 1856. Some of these years and, especially beyond Isshiki's terminal year of 1856, the years 1857-62 (except for 1860, which is omitted in all known sources) are covered between two other sources, "Tekagami" 手鑑¹¹⁷ which already had some data for earlier years, and "Shōkizai hibi zakki" 鍾奇齋日々雑記.¹¹⁸ Thus in all, including Isshiki's document, at least seven sources were used in the modern *Ōsaka-shi shi*. Nor do these documents exhaust totally the information. Data for 1689 (an otherwise undocumented year) exists in "Settsū shō" 撰津鈔, and an existing total for 1703 is duplicated in "Jikatayaku tegami" 地方役手鑑.¹¹⁹ There are no data for the final *bakumatsu* years, for which untypically a dearth of Osaka figures contrasts with an Edo count for 1867.

The document by Isshiki is of particular interest not only because it provides a complete run of data from 1757 to 1856 (and is unrivalled as a Tokugawa document in that regard), but because it constitutes a unique survival of a working document of population compiled by a serving *bugyō* and even more strikingly in his own hand. In other words it is not simply a copy of data from other sources, but a very rare holograph document and as a statistical source a unique record. Isshiki's collection of documents consisted of papers from his years of office together with copies of records for earlier years (some made long before the years of his office-holding). Although he had retained papers after the ending of his period of office in 1861, his documents are confined to his years as *bugyō* or to preceding years; he did not, in later years, engage in work on Osaka's past. His population document with its authentic feel or appearance as a document of its times is certainly contemporary with his years of office.¹²⁰ Unique in Japanese demographic history though that makes the document, what is even more unusual is that it is a tabular document. It is the only known case of such a demographic document for the entire Tokugawa period. The immediate reason for the Osaka compilation is not clear, though compilation within the years 1858-61 may imply a reason, whether some sense of the known economic crisis in Osaka's affairs at the time¹²¹ or—and not unrelated—the prospect of the city being forced to open sooner or later under the terms of the 1858 treaties for foreign trade. Isshiki's access to data was not complete. Though his document started from 1850, suggesting a wish to collect figures as far back as that year, actual figures appear only from 1857. While he attempted to give data for five districts (Sango—i.e., the city itself—plus three outlying districts and the *eta mura* 穢多村 or outcast community), his data became fully comprehensive of the five categories only from 1797.¹²² It seems clear that Isshiki had no data for the years 1750-56. Indeed the reason that he did not attempt to go even further back may simply have been that he did not have ready access to earlier data. There is an irony in all of this as in modern times outside Isshiki little at all survives for the later years. As surviving post-1756 documents, Isshiki apart, have very little information on Osaka population, it is clear that he had access to sources which no longer exist. While Isshiki's document could conceivably be a mere transcript of another document, it seems more likely that it was drawn up directly from existing records. If it were a mere transcript it would seem more likely to have been compiled by a clerk. An overall survey of the information surviving for pre- and post-1856 years yields the impression that there was an incredible attrition of paper over time.

While available for many fewer years and in a smaller number of sources (some of which still survived in early Meiji years but are now unaccounted for), the Edo information is richer in content than Osaka information, as it gives a breakdown of men and women; some

details of house numbers, births, and *dekasegi* figures also exist. Osaka information, though more continuous (complete, apart from sixty-seven years,¹²³ for the entire period from 1669 to 1862, all of the missing years except one year occurring before 1756), is for the most part very summary. While Isshiki gives information for a long uninterrupted sequence of years and it is possible that he was not interested in data other than summary totals, equally, fuller data may not have been available to him. Despite the long run of summary figures and a moderately large number of sources, all surviving data for Osaka in the last century of Tokugawa administration lack the division into men and women. However, the fact that surviving data on men and women, birth places, houses and territorial distinctions are fragmentary and for early years,¹²⁴ and the telling fact that Isshiki's own breakdown of the five districts in and around Osaka data was incomplete for 1756-96, suggests that he too had limited access to data.

In the case of both cities, information survives only in copies, and the pre-1860 documents are mostly figures in isolation in compilations which in turn drew on other—unknown—sources. The contemporary copy of the report on Edo population in 1840 cited by Kōda is certainly not, as he suggests, a *kanjōsho* document in the sense of a document physically originating in the *kanjōsho*.¹²⁵ The discussion in the appendix to that document as to the basis on which the information was compiled would have been superfluous to an official of the *kanjōsho* itself. While the copyist clearly had access to a text for 1840, the fact that he referred to eight preceding censuses without citing the data (and conceivably moreover compiled his copy in 1841-43, years when policy towards excess population in Edo was a subject of debate), gives the impression either that he had no access to such information or, despite making his observations in a time frame which took account of preceding censuses, chose not to create a table.

The presentation in documents drawn from miscellaneous compilations, and in many cases for individual cities, of mere bald summaries, suggests a large undergrowth of figures that circulated and were copied in a somewhat random way. It would be possible of course to argue that lists similar to Isshiki's existed either for Japan at large or for some of the cities but have not survived. However, the absence of tabular returns in the widespread copying of information by largely private copyists suggests that they did not exist in the first place. This would be consistent not only with the often summary and random character of the surviving data but with the striking absence in all economic and social commentary of a statistical context. The upper officials of the *kanjōsho*, overworked and understaffed in an administrative framework that lacked specialized bureaux and tasked officials with highly heterogeneous responsibilities, almost certainly had no leisure to look at things other than in a short time scale. The problem was compounded by the lack of specialized staff below them. On the other hand a *machi bugyō*, able to rely on a large and stable staff working within comparatively narrow or specialized terms of reference (the finite and repetitive task of administering a large city) in the *bugyōsho*, might at least dream of viewing problems in a longer-term perspective. However, the unique Isshiki document suggests that even if a *bugyō* desired to do this, statistical information was not immediately to hand in a time series, and he would have to rely on personal endeavor to produce a summary table.

8. Archival Aspects

A career in *bakumatsu* and Meiji government service such as Katsu Kaishū's was itself no guarantee of greater access to material than others enjoyed. This fact supports the argument that population figures served little administrative purpose and the exercise of collecting data had fossilized. To observe this is less to criticize the Tokugawa administration than to take note of the lack of statistical sense in Tokugawa society at large. If deficient in a statistical sense, the scale of the administrative exercise remained substantial, involving statistical work of varying quality within han, and every sixth year a response by han (*tozama* as well as *fudai*) to the shogunate. At local, han, and national levels, the pattern, once instituted, survived for 120 years. Survival however also reflected the weakness of Japanese administration: a tendency for procedures once set in place to be faithfully though narrowly conducted, without scrutiny of their applicability in later times. A further feature—consonant with the constitutional character of Tokugawa Japan—was the absence of any national co-ordination or supervision. Thus they reflected the characteristics of Japanese society, administratively competent in many ways, but responding to the need of innovation only when a pressing challenge presents itself. The widening diffusion of the *shūmon aratame chō* exercise from the 1620s to 1680s (a period in which a sense of crisis existed from Europeans up to the 1640s and from events in China through the entire period), the systematization ca. 1680 (in han which did not have *shūmon aratame chō*) of an earlier and apparently occasional model of counts drawn from registers of households, or the whole range of initiatives launched by Yoshimune—at grips with the economic and social problems of Japan in the 1720 and early 1730s—reflect an impressive ability to respond in a bureaucratic sense to crisis, whether serious or simply perceived as such. Thereafter while the national census exercise instituted in 1726 continued, the quality at both han level and at national level deteriorated.

Summary figures, either a mere total or more complete copies of the returns for Japan, exist in various sources in the period.¹²⁶ Often there is no more than a single figure for Japan (sometimes without even a breakdown between male and female); in other words, a mere total was as a rule better known than any breakdown, large or small, into component parts. The key data, apart from a mere gross total, were the population breakdowns for individual *kuni* (and for both *kuni* and Japan at large, the distribution between male and female). The official return invariably recorded the *kokudaka* of the *kuni*. The official return over the signature of two officials, an *ōmetsuke* and *kanjō bugyō*, was presented in a stereotyped format from 1726 to 1846. Some data (variously a mere national total or fuller data) survive for nineteen of twenty-two censuses up to and including that of 1846 (i.e., ignoring the censuses that may or may not have been compiled for 1852, 1858 and 1864). For eleven censuses a breakdown at the *kuni* level survives,¹²⁷ and for twelve censuses, males and females are distinguished, either in national figures or broken down for all individual *kuni*. For four censuses, one or more copies of a report to the *rōjū* exist in a full text (date, formal introduction, signatures of the two officials, breakdown into population and *kokudaka* respectively for *kuni*), and for seven censuses, a semi-complete text giving the important population figures for all *kuni* but omitting one or more of the supporting details (i.e., full date, covering letter, signatures of the two officers, *kokudaka*, or in one case, though presenting data for the individual *kuni*, the grand total). The lack of a date in surviving copies has some times caused confusion, though if the officers' names are given, it is possible to identify the date of the census from the term of office of the officials. For a further census (1732) for which we do not have a breakdown,

the reference in Katsu Kaishū's published work in 1890—unless his information was totally wrong—could be taken to imply that such a source which he had not seen, existed. Thus the overall pattern is as follows:

<u>Date</u>	<u>Degree of Completeness</u>	<u>Comment on Contents</u>
1721	Incomplete text; compiled in the 1830s	<i>Contains data for all kuni, but lacking a distinction between males and females, also lacking grand total and the kokudaka</i>
1732	Only a bare total is known	<i>Katsu Kaishū's reference seems to single out 1732 as a year for which a report fuller than his bare national total existed</i>
1750	Incomplete text	<i>Recorded in the 1770s, the sole data being population figures for the kuni; a second version, said by some to be of independent origin, may in fact not be of independent origin</i>
1756	Incomplete text	<i>Recorded in 1770s from the same source as that which recorded the 1750 data</i>
1786	Incomplete text	<i>From a 1930 publication drawing on a copy made (or extant) in early Meiji times; full version, apart from lacking the signatures of the two officials</i>
1798	Full text	<i>Formerly in the possession of the Machida family; has internal errors in transcription</i>
1804	Incomplete text	<i>By Katsu Kaishū, complete except for dating, where the month but not the year is indicated</i>
1804	A second text, also incomplete	<i>Said to be from the Meiji period; full, except for missing date; transcriber dated the document to census of Kansei 10 (1798)</i>
1822	Full text	<i>Originally in the possession of the Machida family; has internal errors in transcription</i>
1822	A further text may have existed	<i>Containing kuni population, this item, now lost, appears to be the source from which two later summary documents drew their information</i>
1828	Full text	<i>In a ms chronicle of Tokugawa times in Wakayama University</i>
1828	Incomplete text	<i>Detail presented by Inoue (1904); may have originated in a copy transcribed in Kaei 6 (1853)</i>
1828	A further text may have existed	<i>Contained kuni population; two later summary documents appear to have drawn information from this now-missing text</i>
1834	Full text	<i>In National Diet Library; may be a copy held by an official in the 1860s; a further text, edited in 1917, may be a fuller version of the same document giving further detail, but with some errors in transcription of figures</i>
1834	A further text (ca. 1834) may have existed	<i>The Sanka manroku, which records details from the 1721 census, refers in its title to a 1834 census which is missing from the surviving ms</i>
1840	Incomplete text	<i>University of Tokyo Faculty of Law Library; full, except for lacking date</i>
1846	Incomplete text	<i>Reproduced in Katsu Kaishū's Suijinroku; lacks introduction and signatures, but contains kokudaka</i>

A modest number of heterogeneous copies thus existed as the basis for our modern knowledge. Significantly, most of these were compiled later than the actual censuses on which they report. Several of these no longer survive. In the case of the 1732 document, its existence even in 1890, when Katsu Kaishū's work was published, is conjectural. The *Kanchū hisaku* 官中秘策 manuscript by Nishiyama Genbun 西山元文 is no longer extant, but at least a portion of the original (fortunately retaining the demographic data) did survive until 1879, when it was published. Similarly, later citations of summary data for 1822 and 1828 imply that there were sources for those years that contained data on all the *kuni*, at least, but those sources no longer exist. In the case of the 1834 census, there may be not in fact be, as assumed in modern times, two independent surviving sources, but a single document more fully transcribed in one

modern account than in the other. For this census of 1834, the existence at an early date of a copy that has since been lost is implied by the *Sanka manroku* 三暇謾録, which purported to have detail of 1834 as well as of 1721. In the case of the population of towns, data for Osaka and Edo circulated in summary form in a miscellaneous range of privately compiled sources. Edo sources that still existed as late as 1890 are now unaccounted for.

9. Intercensal and Tabular Presentation

The full text of a document is important in an archival sense, as it can give a very clear idea of whether the document is itself a copy or an original. “Original” in this instance denotes a document made in the *kanjōsho* or by officials who had served in it. In cases where we have multiple survivals of other documents, as in the case of *fūsetsugaki* 風説書 (reports submitted by the Dutch to the shogunate on arrival of their vessels in Nagasaki), it is easy to identify originals (or at least fair—or very carefully made—copies), other copies, and cursive or casual copies. If the document is itself a copy, an incomplete or semi-complete format implies the prior existence of other copies; it must be, unless one assumes a careless transcriber, a copy of an incomplete copy, and hence not a copy (a wholly faithful copy) of a lost original. As far as can be judged from what has been edited or published, no copy of census returns seems to have been a paper which originated physically in the *kanjōsho*. The fact that Nishiyama Genbun, compiler of *Kanchū hisaku* in the 1770s, could give summary figures for Japan in 1744 and full figures for all *kuni* for the two years 1750 and 1756, is particularly interesting. The balance of probability is that a document such as his—compiled at a date relatively close to the actual census—had to be based on a copy or copies (probably not the originals, and hence a copy—or copies—drawn from one or more documents, at one or several removes from the originals). If it was drawn from a single source, of course, the documentary basis is by definition limited. If on the other hand the *Kanchū hisaku* is a modest compilation from several sources, it implies a somewhat wider circulation of the demographic data. At the very minimum, the fact that he presented only a round figure for an earlier year (1744), while he gave fuller data for two later years (1750 and 1756), suggests that the compiler was operating on the basis of access to at least two sources. The only other case of data being drawn from three censuses is that of Ōta Nanpo 太田南畝. Writing as late as ca. 1800, Ōta produced a more modest amount of data: mere summary figures for three years (gross totals only for three years, 1721, 1726, and 1732, but including *kuni* population for ten *kuni* in 1721). All his data were drawn from a single 1735 source (whether original or copy is not clear).

In treating some or much data for three census years, Nishiyama Genbun and Ōta were exceptional. There are four instances (three certain and one probable) which contain data from more than a single census, or did so at one time. The first of the three certain cases is a document the title of which mentions both 1721 and 1834; this suggests that the compiler had access to details of two censuses, and that the data for 1834 later became lost or detached. The surviving data for 1721 itself is incomplete in that it does not distinguish the male and female population. This now incomplete or mutilated document is clearly not simply a copy, but probably a copy of a copy. The second case is the *Tenmei Kansei ninzu chō* 天明寛政人数帳, supposedly for 1786 and 1798, in which the compiler had access to data for two census years in fairly full form. The data for the second census lacked a date, and upon care-

ful inspection it is apparent that the copyist erred in attributing it to 1798 instead of 1804. This suggests that it was already not only a copy but an imperfect one. The third case is the the *Shokoku ninzū chō* 諸国人数帳, a modest volume containing census data for 1798 and 1822. It is in fact the manuscript with the most complete survival for the data of two census years. Not only that, but it provides two of the meagre four fully complete texts in existence. In a technical sense it is in every way a complete document apart from errors in transcription by a copyist. It originated with the obscure Machida family (Saku-gun, Mimase-mura in Shinano), a family name which crops up in no biographical dictionaries of Confucians scholars, monks or prominent people. The fourth case can only be inferred, because the documents or transcripts of them do not survive; it is suggested by the peculiarly constructed summary of the censuses of 1822 and 1828.¹²⁸ These four instances of reporting the results of two census years cover seven distinct census returns. The copies, all made in the period 1804-1834 or somewhat later (taking the date of the second census in each case as suggesting an approximate date of the copying), testify to a pattern of survival of data from earlier censuses, as well as to a private knowledge of current or past censuses. In the first three cases none of the compilers held official responsibilities. The highly idiosyncratic quality of the fourth instance also points to a private initiative.

What is remarkable is the absence of data in a tabular form, and that where data for two or three censuses survive, the copies appear to be private. Despite the combination of widespread copying and random access to census data, tabular presentation of demographic data was unknown.²⁹ Isshiki stands out as the sole example of a tabular presentation. Katsu (open to Western ideas on arranging statistical data) is one of the first Meiji compilers to give a tabular presentation of the figures, and it has been assumed that his official status before and after 1868 favored him in access to the figures he presented. However he was able to reproduce full data for Japan for only two years, 1804 and 1846. Moreover, as his data for both years were not full texts, he was working from what were already incomplete copies. He was, it is clear from other texts, a very conscientious transcriber, and the incompleteness of his return for 1804 implies that it is a copy he made from an incomplete copy, itself possibly a survivor at the end of a whole sequence of copying. His return for 1846 lacks both the covering letter and names of the *ōmetsuke* and *kanjō bugyō*, and hence is even less complete than his 1804 data. However, Katsu Kaishū is the sole authority for both the mere total and the detail of the last known census. Except for this chance survival, we would be in exactly the same position as we are in regard to the years 1852, 1858 and 1864; that is, we would have to conclude, in the absence of specific information, that a census may not have been made.

Data, at least summary figures, were reproduced in a largish number of sources in Meiji times. For instance, while Katsu Kaishū reproduced data for many years, Komiyama Yasusuke in *Kinsei jinkō no hanshoku* (published a year earlier than Katsu's *Suijinroku*) had data for 1756, 1828, and 1834 which Katsu lacked. Hosokawa, who wrote in 1883, had totals for 1721 and 1732, but he was not aware of Ōta's work of ca. 1800 and had to draw from a different source. Much later Inoue Mizue, writing in 1904, while not adding new general totals, had access to a fuller account of the census of 1828 than had preceding writers.¹³⁰ Yokoyama Yoshikiyo (1879) had a variant total for 1744, and hence may have had access to a different document to those known.

While Katsu was able to give full figures for only two years (1804 and 1846, the second year moreover in very incomplete form), in his summary table he reproduced data for ten other years (a single national figure for seven of those years, and a national figure plus a sex breakdown for three years). It does not at all follow that he obtained his data from former officials or by virtue of his earlier official position. His information probably came from various sources, reflecting the diffusion of documents rather than from any access his privileged place in a circle of officials with a foot in the pre-1868 world gave him. His citation of a work containing reference to the 1732 census shows that in the one case where he gives us a faint clue to his *modus operandi*, he seems to have been relying on an unofficial source. His total lack of post-1804 data, apart from the 1846 return, is remarkable, and seems to confirm that for his statistical work he enjoyed little real advantage. Indeed, the evidence suggests that he was relying on more “literary” sources. In other words, he was himself, on the demographic front if not in the case of political documents, a mere compiler of scatted information. This is even clearer for his data for urban population; when he identifies his sources, they are mostly miscellaneous. Apart from the data compiled from the population registers, the figures for Edo he gives for census years varied from one census-year to another, again suggesting that he drew on highly miscellaneous sources. He was no better than others in some respects, as Komiyama’s data for 1828 and 1834 prove. The singular feature of his data is a return for 1846, a year that figured in none of the contemporary surviving returns or in early post-1868 writing. As in the case of many other Tokugawa documents, what ensured the survival of source data (of which originals were either not retained or over time were lost or destroyed) was copying. Individual writers were aware of some documents, but the copying seems to have been almost random. As a result of this randomness, there can be no easy generalization about the process. It does however contradict the assumption of secrecy or inaccessibility of the information in the first instance.

Contemporary manuscripts (i.e., copies contemporaneous with the census years) are few or non-existent. The 1721 return survives only in a copy made ca. 1834; the 1750 and 1756 returns in a manuscript compiled in the 1770s that itself now survives only in a work published in 1879. Data for 1798 and 1822 survive in a source once held by the obscure Machida family in Shinano province, and which though undated may have been made at a date relatively close to the 1822 census. The 1828 census version surviving in a Wakayama manuscript *nenpyō* (chronicle) is by definition close to the date of the census. In the case of the data for 1840 and 1846, while they were probably copied in Tokugawa times, a date can not be determined.

Documents in the *kanjōsho* were destroyed in the fire of Ansei 6 (1859), which consumed its offices and its archives. Surviving census data cannot be identified with the *kanjōsho* directly, and it is likely that many of its documents had already been destroyed or lost even before 1859. As in the case of other documents, texts survived because copies circulated in obscure fashion among officials or even beyond them. Census documents, assuming that they existed, were hardly of high value to active political administrators of the 1850s and 1860s. There is little evidence of census data being preserved by officials in the 1850s and 1860s. The texts for 1804, 1834 and 1840 may have been copies in the hands of officials, but that is itself far from certain. There is, however, in Katsu Kaishū’s summary listing of census totals, tantalizing reference to possession of data for the *kuni* for 1732 by a *kanjōsho* official of late

bakumatsu times named Ishikawa Sōjirō 石川莊次郎.¹³¹ While Ishikawa may have had data for a census in a remote year, other former officials with whom Katsu was in regular contact had little to offer him, although they would have been aware that Katsu was working at the behest of the Ministry of Finance. In this scarcity of evidence of official survival lies strong confirmation that the copying and dissemination of data in Tokugawa times was largely a private process. The surviving documents may be the tip of a modest iceberg of copying. Census data were *not* unknown outside official circles, and more importantly they were no more secret than other documents. All Tokugawa documents were private (in the sense that the business of state was seen as private), but copies circulated. Thus for trade figures, the *Tsūkō ichiran* reproduces data available in Edo (often in compilations, and hence quite literally in copies of copies), and not in data freshly sent up from Nagasaki. The *fūsetsugaki* circulated, and more so in later times than earlier times. Despite Katsu Kaishū's poor access to census data for the entire period after 1804, such existed none the less.

The 1822, 1828, 1834 censuses—all three unknown to early Meiji writers—and the sole copy of the 1840 census have come to light only in relatively modern times. But for the discovery relatively recently by Minami Kazuo of the 1840 data and the survival of the 1846 data in a sole source—Katsu Kaishū's compilation—we would conclude, in the absence of any other reference, that effective census taking halted not with the 1846 census (as Katsu argued) but with the 1834 census. The question remains open whether census taking continued beyond 1846. It is striking that in general fewer figures survive for the more recent censuses than for earlier ones. What this means is that documents after their creation quickly disappeared unless the slow process of private copying was allowed time to take effect. Survivals of census materials are better for earlier years than for the last fifty years of known census taking. At the national level, data remain unknown for 1812 and 1818. As official records suffered attrition at an alarming rate, survival of data very often depended on private copying. Thus, Katsu could offer data for only two years, 1804 and 1846, in the nineteenth century, although he had some details for earlier national censuses. Only with the progress of enquiry over the first sixty years of the twentieth century were some of the gaps covered—and then only from very heterogeneous sources. A rather similar story emerges for the shogunal cities. Though city registers were well maintained into the 1850s and probably beyond, none of the data, themselves all from highly miscellaneous sources, survive for Osaka beyond 1862; and in Edo they do so for a sole year. While private copies too, like official ones, were subject to loss, as the disappearance of material still in existence in 1890 shows, private copies alone have preserved for posterity some outline of the figures.

This perusal of sources and their survival also suggests, firstly, that Katsu Kaishū's access to demographic information was not particularly good, and secondly, that any assumption that information had become secret or more inaccessible is not convincing. It was the private copying, conscientious in some cases, cursory in other cases, operating moreover not necessarily from "originals" (copies made directly from documents in official custody) but quite literally from copies of copies, which more than any single factor ensured that any data survived into modern times. Within such a haphazard survival pattern, writers or copyists had access to data in a random fashion, often for years separated by large intervals. The real problem was less secrecy than the absence of tabular recording of data. Lesser data (*han data*) survive within *han nisshi*; before 1868, however, these were not abstracted into tables. While contem-

poraries worried about economic stagnation, they were working on impressions, rather than on officially recorded serial data. Such comparisons as exist, admittedly private rather than official, are random comparisons of censuses. In any event, as argued above the data had an inbuilt tendency to be static, because static registers of households, more than serious counts, determined the outcome in many instances. Ironically, in a statistical sense, the great crises of Kyōhō, Tenmei and Tenpō were worse than census figures suggest. Officials on the ground were of course well aware of the crises, and described these in alarmed reports which sometimes exaggerated the scale of catastrophe. There is no concrete evidence of the census data at either han or shogunal level playing a part in the gloomy conclusions of officials on longer trends. At best they must, like Matsudaira himself, have been aware of changes from six years before, or, like Isshiki, have had to compile their own personal lists of the figures. Certainly population policies existed in some han, but they were not informed by statistical concerns. Ironically, modern writing on population, like that of Mori (who quoted han figures) and more directly Takahashi, has been influenced or even prompted by the interest in Tokugawa population policies.¹³² The danger in this is that it makes it all too easy to take the statistical stability which seems to present itself in shogunal population data as a reality. In modern study of population, there has long been a search for evidence of infanticide, sometimes finding it and sometimes failing to find it. It may be well to end on a cautionary note from within Tokugawa Japan. In the prosperous Bunka period (1804-18), in counterpoint to evidence of Japanese authorities' preoccupation with population policy, the Russian captive Golownin was told by an official that there was no official obsession with inquiring into infanticide.¹³³

Appendix

Tokugawa Censuses: Sources and Coverage

(Table includes sources documenting only gross totals as well as full-coverage censuses)

Census Date	Modern Source	Earliest Source Attribution or Date	Extent of Coverage	Breakdown by Sex
1721	Ōta, <i>Chikkyō yohitsu besshū</i> (ca. 1800) ¹³⁴	Kyōhō 20 (1735), fifth month	10 <i>kuni</i>	No
1721	Suda Akiyoshi, <i>Tokugawa jidai jinkō</i> (1954) ¹³⁵	"Kokuchū ninzū kokudaka <i>no koto</i> " in <i>Sanka manroku</i> (post-1834) ¹³⁶	All	No
1726	Katsu Kaishū, <i>Suijinroku</i> (1890), <i>Katsu Kaishū zenshū</i> , vol. 6 (1974 ed.), p. 294	Source not identified		No
1726	Ōta, <i>Chikkyō yohitsu besshū</i> (ca. 1800) ¹³⁷	1735 (summary reference to source)		No
1732	Ōta, <i>Chikkyō yohitsu besshū</i> (ca. 1800)	1735 (summary reference to source)		No
1732	Katsu Kaishū, <i>Suijinroku</i> (1890), <i>Katsu Kaishū zenshū</i> , vol. 6 (1974 ed.), p. 294	Source not identified, but existence of a full report implied ¹³⁸		Yes
1732	<i>Nihon zaisei keizai shiryō</i> , vol. 9, p. 1246 ¹³⁹	"Kinotomi zakki"		No
1738	n.a.	n.a.	n.a.	n.a.

1744	Partial survival of original publication in <i>Gakugei sōdan</i> , ed. Toki Takashi (1878)	Tsushima official Nishiyama Genbun, <i>Kanchū hisaku</i> (1770s) ¹⁴⁰		No
1744	Variant figure in Yokoyama ¹⁴¹			
1750	<i>Suijinroku</i> (1890), <i>Katsu Kaishū zenshū</i> , vol. 6 (1974 ed.), p. 295	Source not identified		No
1750	Kurokawa, <i>Gakugei sōdan</i> (1878)	<i>Kanchū hisaku</i> (1770s) ¹⁴²	All	Yes
1750	Suzuki, <i>Tōkyō keizai zasshi</i> , no. 125 (1882), pp. 1090-1091	“Kan-en sannen okuni jinkō hyō” ¹⁴³	All	Yes
1756	<i>Gakugei sōdan</i> (1878)	<i>Kanchū hisaku</i> (1770s)	All ¹⁴⁴	Yes
1762	<i>Suijinroku</i> (1890), <i>Katsu Kaishū zenshū</i> , vol. 6 (1974 ed.), p. 295	Source not identified		No
1768	Same as above (Katsu, <i>Suijinroku</i>)	Source not identified		No
1774	Same as above (Katsu, <i>Suijinroku</i>)	Source not identified		No
1780	Same as above (Katsu, <i>Suijinroku</i>)	Source not identified		No
1780	Matsudaira ¹⁴⁵ Sadanobu, <i>Uge no hitokoto</i>	Implied population total in comment on 1786 population		No
1786	<i>Suijinroku</i> (1890), <i>Katsu Kaishū zenshū</i> , vol. 6 (1974 ed.), p. 295	Source not identified		No
1786	Takimoto Seiichi, <i>Nihon keizai taiten</i> , vol. 48 (1930), pp. 169-188	“Tenmei kansei ninzū chō” ¹⁴⁶	All	Yes
1786	Matsudaira ¹⁴⁷ Sadanobu, <i>Uge no hitokoto</i>	Comment on change since 1780		No
1792	<i>Suijinroku</i> (1890), <i>Katsu Kaishū zenshū</i> , vol. 6 (1974 ed.), p. 295	Source not identified		No
1792	Matsuura Seizan (daimyo of Hirado) ¹⁴⁸ , <i>Kasshi yawa</i> (ca. 1800)	Source not identified ¹⁴⁹		No
1798	<i>Suijinroku</i> (1890), <i>Katsu Kaishū zenshū</i> , vol. 6 (1974 ed.), p. 295	Source not identified		No
1798	Matsuura Seizan (daimyo of Hirado) ¹⁵⁰ , <i>Kasshi yawa</i> (ca. 1800)	Source not identified		No
1798	Sekiyama, “Kansei 10-nen oyobi Bunsei 5-nen kunibetsu jinkō,” <i>Keizai riron</i> (1957)	“Shokuku ninzū chō” (Monbushō archives, ms formerly in private possession) ¹⁵¹	All	Yes
1804	<i>Suijinroku</i> (1890), <i>Katsu Kaishū zenshū</i> , vol. 6 (1974 ed.), pp. 296-306 ¹⁵²	Report with text of covering letter by <i>ōmetsuke</i> and <i>kanjō bugyō</i> (“last year eleventh month”)	All	Yes
1804	Takimoto, <i>Nihon keizai taiten</i> , vol. 48 (1930), pp. 179-188	“Tenmei kansei ninzū chō” (has names of <i>ōmetsuke</i> and <i>kanjō bugyō</i> but lacks date; copy from Meiji period) ¹⁵³	All	Yes

1810	n.a.			
1816	n.a.			
1822	<i>Nihon keizai taiten</i> , vol. 54 (1930), p. 392	“Chōkaiki” in “Tokugawa rizai kaiyō” ¹⁵⁴		No
1822	<i>Nihon zaisei keizai shiryō</i> , vol. 4, pt. 2, p. 1193	“Ninbetsu aratame okanjōsho chōsho jō no utsushi” ¹⁵⁵		No
1822	Sekiyama, “Kansei 10-nen oyobi Bunsei 5-nen kunibetsu jinkō,” <i>Keizai riron</i> (1957)	“Shokoku ninzū chō” (Monbushō archives, ms formerly in private possession) ¹⁵⁶	All	Yes
1828	Takimoto, <i>Nihon keizai taiten</i> , vol. 54 (1930), p. 392	“Chōkaiki” in “Tokugawa rizai kaiyō” ¹⁵⁷		No
1828	<i>Nihon zaisei keizai shiryō</i> , vol. 4, pt. 2, p. 1193	“Ninbetsu aratame okanjōsho chōsho jō no utsushi” ¹⁵⁸		No
1828	Inoue, “Dai Nihon korai jinkō kō,” <i>Tōkeigaku zasshi</i> (1904), pp. 7-9	“Kaei 6 ushi rōgetsu shirabe kōkoku sō ninbetsu yorichō” ¹⁵⁹	All	Yes
1828	Wakayama Daigaku Toshokan ¹⁶⁰	“Taihei nenpyō” (ms chronicle of Tokugawa times) ¹⁶¹	All	Yes
1834	Shinozaki Ryō, in <i>Tōkeigaku zasshi</i> (1917), vol. 32, no. 369, pp. 14-15	“Tenpō 5 umadoshi shokoku ninzū-chō” ¹⁶²	All	Yes
1834	Takahashi, <i>Nihon jinkōshi no kenkyū</i> 2 (1955), pp. 332-343	“Tenpō 5-nen kōgō shokoku ninzū-chō” (National Diet Library <i>ōmetsuke</i> and <i>kanjō bugyō</i> report) ¹⁶³	All	Yes
1840	Minami Kazuo, <i>Bakumatsu Edo</i> , pp. 164-178	Shokoku ninzū chō in University of Tokyo Faculty of Law Library, Historical Materials Room (lacks date) ¹⁶⁴	All	Yes
1846	<i>Suijinroku</i> (1890), <i>Katsu Kaishū zenshū</i> , vol. 6 (1974 ed.), pp. 307-317	Report lacking covering letter and names of <i>ōmetsuke</i> and <i>kanjō bugyō</i> but giving date, Kōka 3-nen, twelfth month	All	Yes

REFERENCES

Cornell and Hayami 1986

L. L. Cornell and Akira Hayami. “The Shūmon Aratame Chō: Japan’s Population Registers.” *Journal of Family History* 11:4 (1986), pp. 311-28.

Cullen 2002

L. M. Cullen. *A History of Japan: Internal and External Worlds, 1582-1941*. Cambridge University Press, 2003.

Deshima dagregisters 1990

The Deshima dagregisters, V, 1720-1730. Ed. Paul Van der Velde. Leiden: Centre for the History of European Expansion, 1990.

Droppers 1894

Garrett Droppers. “The Population of Japan in the Tokugawa Period.” *Transactions of*

the Asiatic Society of Japan, vol. 22 (1894), pp. 253-84.

Golownin 1819

W. M. Golownin. *Recollections of Japan*. London, 1819.

Hanley and Yamamura 1977

S. Hanley and K. Yamamura. *Economic and Demographic Change in Preindustrial Japan 1600-1868*. Princeton University Press, 1977.

Hayami 2001

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

Hearn 1907

Lafcadio Hearn. *Kokoro*. Orig. pub. 1907. Reprinted in *Writings from Japan*, ed. Francis King. Harmondsworth: Penguin, 1984.

Honjō 1972

Honjō Eijirō 本庄栄治郎. *Nihon shakai shi, Nihon jinkō shi* 日本社会史 日本人口史. In *Honjō Eijirō chosakushū* 本庄栄治郎著作集, vol. 5. Ōsaka: Seibundō, 1972.

Honjō 1935

Honjō Eijirō. *The Social and Economic History of Japan*. Kyoto: Nihon Keizaiishi Kenkyūsho, 1935.

“Hōreki gan hitsujidoshi yori Ansei san tatsudoshi made Sangō narabini eta-mura Hyōgo Nishinomiya Shiwaku-to ninzūdaka-chō”

“Hōreki gan hitsujidoshi yori Ansei san tatsudoshi made Sangō narabini eta-mura Hyōgo Nishinomiya Shiwaku-to ninzūdaka-chō” 宝暦元末年より安政三辰年迄三郷并穢多村兵庫西宮塩飽島人数高帳. In *Isshiki monjo*, Kōda Bunko, Hitotsubashi University, Qfq14, no. 2.

Inoue 1904

Inoue Mizue 井上瑞枝. “Dai Nihon korai jinkō kō” 大日本古来人口考, part 4. *Tōkeigaku zasshi* 統計学雑誌 217 (May 1904), pp. 127-129.

Iwate-ken shi 1963

Iwate-ken shi 岩手県史, vol. 5 (kinsei hen, pt. 2). Morioka: Toryū Insatsu, 1963.

Katō and Toyama 1984

Katō Akira 加藤章 and Toyama Mikio 外山幹夫, eds. *Waga machi no rekishi Nagasaki* わが町の歴史長崎, no. 1. Bun'ichi Sōgō Shuppan, 1984.

Kawaguchi 1996

Kawaguchi Hiroshi. “Population Increase Policy after the 1783 Great Famine in North-Eastern Tokugawa Japan.” *Annales de démographie historique* (1996), pp. 151-168. Reprinted in *Eurasian Project in Population and Family History*, no. 2 (May 1997), pp. 151-168 (original pagination retained).

Kōda 1972

Kōda Shigetomo 幸田成友. "Edo no chōnin no jinkō" 江戸の町人の人口. Orig. pub. in *Shakai keizai shigaku* 社会経済史学, no. 627, vol. 81 (1938). In *Kōda Shigetomo chosaku shū* 幸田成友著作集, vol. 2, pp. 244-265. Chūō Kōron Sha, 1972.

McEwan 1962

J. R. McEwan. *The Political Writings of Ogyū Sorai*. Cambridge University Press, 1962.

Matsuura 1978

Matsuura Seizan 松浦静山. *Kasshi yawa* 甲子夜話, vol. 6. Heibonsha, 1978.

Minami 1978

Minami Kazuo 南和男. *Bakumatsu Edo shakai no kenkyū* 幕末江戸社会の研究. Yoshikawa Kōbunkan, 1978.

Mito-shi shi 1968

Mito-shi shi 水戸市史, middle series, part 1. Mito: Mito-shi Shi Hensan Inkaikai, 1968.

Mito-shi shi 1969

Mito-shi shi, middle series, part 2. Mito: Mito-shi Shi Hensan Inkaikai, 1969.

Mito-shi shi 1984

Mito-shi shi, middle series, part 3. Mito: Mito-shi Shi Hensan Inkaikai, 1984.

Mori 1934

Mori Kahee 森嘉兵衛. "Meiji shonen ni okeru Iwate-ken no ikushi seido" 明治初年における岩手県の育子制度. *Shakai keizai shigaku* 社会経済史学 4:1 (1934), pp. 73-84.

Nihon zaisei keizai shiryō 1922a

Nihon zaisei keizai shiryō 日本財政経済史料, vol. 1, pt. 1. Ōkurashō Zaisei Keizai Gakkai, 1922. Reprint Zaisei Keizai Shiryō Kenkyūkai, 1970.

Nihon zaisei keizai shiryō 1922b

Nihon zaisei keizai shiryō, vol. 4, pt. 2. Ōkurashō Zaisei Keizai Gakkai, 1922; reprinted Zaisei Keizai Shiryō Kenkyūkai, 1971.

Ōhashi 2000

Ōhashi Yukihiko 大橋幸泰. "Kirishitan kinsei to shūmon aratame seido" キリシタン禁制と宗門改制度. In *Jūnana seiki no Nihon to higashi Ajia* 十七世紀の日本と東アジア, ed. Fujita Satoru 藤田覚. Yamakawa, 2000, pp. 69-99.

Ōsaka bennen shi 1969

Ōsaka bennen shi 大阪編年史, vol. 6. Ōsaka: Ōsaka Shiritsu Chūō Toshokan, 1969.

Ōsaka-shi shi 1911-1914

Ōsaka-shi shi 大阪市史. Ōsaka: Ōsaka-shi Sanjikai. Vol. 1 (1913), vol. 2 (1914), vol. 5 (1911).

Ōsaka-shi shi 1990

Ōsaka-shi shi 大阪市史, vol. 4. Ōsaka: Ōsaka-shi Shi Hensan Iinkai, 1990.

Ōta 1976

Ōta Nanpo 大田南畝. *Chikkyō yohitsu besshū* 竹橋余筆別集, vol. 8. Kyūko Shoin, 1976.

Saitō 2002

Saitō Osamu 斎藤修. *Edo to Ōsaka: kindai Nihon no toshi kigen* 江戸と大阪：近代日本の都市起源. NTT Shuppan, 2002.

Saitō 2005

———. “Pre-modern Economic Growth Revisited: Japan and the West.” Working Papers of the Global Economic History Network, Working Paper No. 16/05. London School of Economics, June 2005.

Sekiyama 1957

Sekiyama Naotarō 関山直太郎. “Kansei jū-nen oyobi Bunsei go-nen no kunibetsu jinkō: shin shiryō no hakken” 寛政十年及び文政五年の国別人口：新史料の発見. *Keizai riron* 経済理論 37 (1957), pp. 61-74.

Sekiyama 1958

———. *Kinsei Nihon no jinkō kōzō: Tokugawa jidai no jinkō chōsa to jinkō jōtai ni kansuru kenkyū* 近世日本の人口構造：徳川時代の人口調査と人口状態に関する研究. Yoshikawa Kōbunkan, 1958.

Seya and Toyosaki 1973

Seya Yoshihiko 瀬谷義彦 and Toyosaki Takashi 豊崎卓. *Ibaraki ken no rekishi* 茨城県の歴史. Yamakawa, 1973.

Shinozaki 1917

Shinozaki Ryō 篠崎亮. “Tenpō go-nen chōsa shokoku ninzūchō” 天保五年調査諸国人数帳. *Tōkeigaku zasshi* 統計学雑誌 (1917), pp. 14-15.

Suda 1954

Suda Akiyoshi 須田昭義. “Tokugawa jidai jinkō ni kansuru shin shiryō” 徳川時代人口に関する新史料. *Jinruigaku zasshi* 人類学雑誌 63:4 (1954), pp. 26-28.

Suijinroku 1890a

Suijinroku 吹塵録, part 1, 1887. In *Katsu Kaishū zenshū* 勝海舟全集, vol. 6, Keisō Shobō, 1974.

Suijinroku 1890b

Suijinroku, part 5, 1887. In *Katsu Kaishū zenshū*, vol. 10. Keisō Shobō, 1978.

Suzuki 1882

Suzuki Kentarō 鈴木券太郎. “Kansei sannen okuni jinkō hyō” 寛政三年御国人口表. *Tōkyō keizai zasshi* 東京経済雑誌 125 (1882), pp. 1090-1091.

Takahashi 1955a

Takahashi Bonzen 高橋梵仙. *Nihon jinkō shi no kenkyū* 日本人口史之研究, vol. 1. Gakujutsu Shinkōkai, 1955; reprinted 1971.

Takahashi 1955b

———. *Nihon jinkō shi no kenkyū*, vol. 2. Gakujutsu Shinkōkai, 1955.

Takahashi 1962

———. *Nihon jinkō shi no kenkyū*, vol. 3. Gakujutsu Shinkōkai, 1962.

Takahashi 2003

Takahashi Nanako 高橋菜奈子. “Kōda Shigetomo no keizai-shi kenkyū to sono shiryō: Hitotsubashi daigaku fuzoku toshokan zō: Kōda bunko o chūshin ni” 幸田成友の経済史研究とその史料：一橋大学附属図書館蔵幸田文庫を中心に. *Keizai shiryō kenkyū* 経済史料研究 33 (2003), pp. 29-43.

Takagi 2004

Takagi Masao 高木正朗. “Zenkindai no jinkō chōsa: Sendai han ninzū aratame chō no seiritsu to tenkai” 前近代の人口調査：仙台藩人数改帳の成立と展開. Ritsumeikan Daigaku Jinbunkagaku Kenkyū Sho, Kyoto, SDDMA working paper, 2004.

Takimoto 1930a

Takimoto Seiichi 瀧本誠一. “Tenmei Kansei ninzū chō” 天明寛政人数帳. *Nihon keizai taiten* 日本経済大典, vol. 48 (1930).

Takimoto 1930b

———, ed. *Nihon keizai taiten*, vol. 54 (1930).

White 1992

James W. White. *The Demography of Socio-Political Conflict in Japan, 1721-1846*. Berkeley: Institute of East Asian Studies, University of California, 1992.

NOTES

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² For some comment on these issues, see Cullen 2003, pp 3-5, 160-164.

³ Sekiyama 1958, pp. 97-8, 108. Katsu's work appeared in 1890. Sekiyama quotes the work as 1887, which was the date of Katsu's preface. However, Sekiyama apart, the year 1890 is universally cited.

⁴ *Suijinroku* 1890a, pp. 289-332, “Jinkō oyobi kokudaka no bu.” It appears in part 1 of *Suijinroku*.

Suijinroku itself takes up five substantial volumes of *Katsu Kaishū zenshū* (vols. 6 to 10). The final part of *Suijinroku* contains some data on the town population of Edo (reproduced in *ibid.*, vol. 10, pp. 230-238) and of Ezo (*ibid.*, pp. 323-354),

⁵ Droppers, pp. 253-284.

⁶ Inoue 1904.

⁷ Honjō 1972. Honjō 1935 provides the best early account in English of the statistics and of their limitations.

⁸ Sekiyama 1958.

⁹ Minami 1978.

¹⁰ Takahashi 1955a.

¹¹ Takahashi 1955b; Takahashi 1962.

¹² Sekiyama 1958, p. 97.

¹³ White 1992.

¹⁴ Ōhashi 2000, pp. 69-99.

¹⁵ *Ibid.*, p. 70.

¹⁶ Hayami 2001, pp. 43-4.

¹⁷ *Ibid.*, p. 28.

¹⁸ Hanley and Yamamura 1977, p. 42.

¹⁹ Hayami 2001, p. 36.

²⁰ Cornell and Hayami 1986, p. 318.

²¹ *Ibid.*, p. 326.

²² Hanley and Yamamura 1977, p. 348, based on Sekiyama 1958, pp. 33-34.

²³ Cornell and Hayami 1986, p. 318.

²⁴ Takagi 2004, p. 9.

²⁵ Even in much more evolved administrative societies such as eighteenth-century Ireland, collection of indirect taxes or excise and of the hearth tax (a tax on households) became relatively static. In the case of the hearth tax, collectors worked from registers. It was easy to take the existing registers as the base of their work (quite apart from the issue of officials accepting bribes), rather than to resurvey in radical fashion.

²⁶ Hayami 2001, p. 60.

²⁷ *Ibid.*, p. 28; Cornell and Hayami 1986, p. 313.

²⁸ Cornell and Hayami 1986, p. 313.

²⁹ Hayami 2001, p. 30.

³⁰ The fullest data are in the table in *Mito-shi shi* 1968, p. 70. Figures are available for town population and for *otera jisha ryō* (temple and shrine domains) only for very isolated years. Tables in other publications are less complete reproductions of the same data. For purposes of comparison it should be noted that the figures for 1834 and 1864 are inclusive of town and temple population.

³¹ From as early as Genroku 10, counts of cattle and horses existed. Such counts seem to imply that by that time Mito counting had evolved from *shūmon aratame chō* into *ninbetsu aratame chō*, and certainly from 1721 the surviving village reports themselves were denominated as *ninbetsu chō*. See *Mito-shi shi* 1968, pp. 70-74.

³² Hayami 2001, p. 25. From p. 26 it is clear that the surviving records are those of Kōriyama.

³³ This would also explain the unchanging sex ratio which has sometimes been noted for figures for han population.

³⁴ For births, deaths and migration, see Takahashi 1962, pp. 58-60, 61-63, 136-7, 150.

³⁵ Takahashi 1962, p. 136.

³⁶ Hayami, in referring to figures from the population registers for a later date—early Meiji times—notes that “vital statistics such as births and deaths can sometimes be difficult to accept as numerical values, so it is dangerous to calculate the fertility and mortality rates directly from these data. Since the figures for both births and deaths seem to have been under-estimations, calculating the percentage would result in extremely low figures for some regions.” Hayami 2001, p. 61.

³⁷ Hayami 2001, pp. 79-82.

³⁸ Takagi 2004, p. 6.

³⁹ The available Mito and Hitachi figures however do not necessarily always follow an identical definition of coverage of population. The surviving data for Mito han are of rural population only, with the exception of Tenpō 5 when they include monks and town population. The change in that year may account for the contrast in trend between Hitachi figures and Mito figures for that year. The contrast would seem to imply that the returns for the *kuni* were of rural population only, a fact which is consistent with the evidence that the surviving aggregates for Mito han for most years are of rural population. However this conclusion, with its fragile base, is itself tentative.

⁴⁰ A grouping denominated as Mutsu in the shogunal return contained the figures for the *kuni* of Mutsu, Iwake, Iwashiro, Rikuzen, and Rikuchū, and a further grouping denominated as Dewa combined the two *kuni* of Uzen and Ugo. The use of the terms Mutsu and Dewa in the census returns seems to have been based on an archaic and earlier definition from as early as the fifteenth century of the *kuni* of Mutsu and Dewa. At that stage the north of Honshū was greatly underdeveloped compared with Tokugawa times. Its territorial units later changed, but for some purposes the use of the archaic provincial units persisted.

⁴¹ Hanley and Yamamura 1977, pp. 48-49.

⁴² *Ibid.*, p. 151.

⁴³ Honjō 1935, pp. 145-158; Hanley and Yamamura 1977, pp. 39-68, 182-3.

⁴⁴ Hayami 2001, p. 44.

⁴⁵ For the source see note 41. Hanley and Yamamura also suggest that Bizen returns to the shogunate excluded towns.

⁴⁶ See note 39 above.

⁴⁷ Hanley and Yamamura 1977, pp. 149, 150, 151, 152.

⁴⁸ For such use of language, see e.g., Takahashi 1962), pp. 4, 6, 174, 189.

⁴⁹ Fuller information arising from han calculations survives for the years 1683, 1712, 1752 and 1790. See below.

⁵⁰ Takahashi 1962, pp. 3, 174, 189. The first *nisshi* or *zassho* is from 1644, but the first population count dates from 1653, the next from 1680 and with much greater detail from 1683. The *nisshi* are supplemented by 118 *satsu of gozai fudome* (records of temporary absences from han) from 1674 to 1865. Combining the two categories there are in all 310 volumes. A full list of the *nisshi* is given in Takahashi 1962 (pp. 4-6). A small number of other documents from 1784 to 1881 exists (listed in Takahashi 1962, pages 6-7).

⁵¹ Mori 1934, pp. 75-6.

⁵² Takahashi 1962, pp. 195-200. Takahashi himself did not say that two sets of figures exist. He simply made the point that the *nisshi* were an indirect source of population data, i.e., that they were drawn from other documents (Takahashi 1962, p. 6). However, the fact that only the higher-bound figures

from the *nisshi* appeared in his tables, could lead, along with the imprecise language and the very general or vague descriptions of sources, to other conclusions. The volume of *Iwate-ken shi*, appearing a year later, which alone gives both lower and upper-bound figures, at no point elaborates directly on the significance of the fact.

⁵³ Hanley and Yamamura 1977, p. 150.

⁵⁴ *Ibid.*, p. 154.

⁵⁵ *Ibid.*, p. 150.

⁵⁶ Mori 1934, pp. 75-6.

⁵⁷ Takahashi 1962, p. 4, 6.

⁵⁸ The sources are indicated in *Iwate-ken shi* 1963, pp. 643,659. It is noted that the source materials for the history of Iwate-ken, entitled *Ryōnai jinkō korui chō* (p. 659) or *Nanbu ryōnai jinkō chōsa* (p. 643), were drawn from the *han nisshi*. There is no analysis in notes to the table of the distinction between the two figures for households. It could be argued of course that it can be deduced from the table (though that is asking a lot of the reader). However, even if that were the case, it leaves undiscussed the abrupt appearance of two figures for total population in and from 1756,

⁵⁹ *Iwate-ken shi* 1963, pp. 641-643, 655-659.

⁶⁰ *Ibid.*, pp. 622, 632.

⁶¹ *Ibid.*, pp. 660-1.

⁶² *Ibid.*, pp. 676-7. For the full details of the 1790 count, see pp. 677-684.

⁶³ *Ibid.*, p. 685. For town population, see also Hanley and Yamamura, pp. 151-2. Apart from town population, mining communities were involved.

⁶⁴ Takahashi 1962, pp. 199-200. Further figures with very minor variations are given in parentheses. Data for earlier years are in Takahashi 1962 and in *Iwate-ken shi* 1963.

⁶⁵ Takahashi 1962, pp. 191-95

⁶⁶ *Iwate-ken shi* 1963, pp. 653-4

⁶⁷ Takahashi 1962, p. 174.

⁶⁸ Hanley and Yamamura 1977, pp. 148-50.

⁶⁹ Cullen 2003, pp. 100-101.

⁷⁰ It was less sharp than suggested in Cullen 2003, p. 101, in which I drew on a less complete table of population counts in *Mito-shi shi* 1984, p. 523. For the fuller table, see *Mito-shi shi*, middle series 1968, p. 70. Takahashi 1955b, pp. 173-74, has a table with figures for various years in 1697-1822. Mito figures for 1834 and 1864 include town population, and are thus not directly comparable with preceding ones. This further hints at the somewhat erratic and incomplete survival of population counts for Mito.

⁷¹ Hayami 2001, p. 30.

⁷² See table in *Mito-shi shi* 1968, p. 70. It should be noted that counts are missing for two shogunal census years, Kan'en 3 (1750) and An'ei 9 (1780).

⁷³ Seya and Toyosaki 1973, pp. 198-99.

⁷⁴ It is unlikely that there was a rise in fief holders. It is more likely that the decline reflected an increase in holdings by collateral branches of the ruling family, which put their rice production capacity beyond the reach of the central authorities of the han.

⁷⁵ The figure for 1834 is 242,939. The figure of Genji 1 (1864) is 274,908, but this figure may be erroneous and the true figure should read 244,908. *Mito shi-shi* 1968, p. 71.

⁷⁶ The figures were edited in the past from mss in the Kōchi Prefectural Library that were destroyed in

the the Second World War. Takahashi 1962, p. 3. An error renders the year Tenpō 5 (1834) as 1822. The figures are also reproduced in Takahashi 1955b, pp. 229-35.

⁷⁷ Figures from Aizu's Matsudaira daimyo family in "Aizu kasei jikki." See Takahashi 1962, pp. 3-4, and data reproduced in graph between pages 170 and 171.

⁷⁸ Takagi 2004, pp. 17, 128. Takahashi gives total figures for the following years.

1685	816,061
1742	816,061
1756	594,637
1764	648,486
1786	596,282
1801-4	639,070
1825	687,802
1827	697,046
1828	699,334

Takahashi 1962, pp. 44, 53. There are figures with minor variations on pages 42 and 52. If we deduct approximately 200,000, the estimated fief population, Takahashi's figures are close to those given by Takagi for *gunkata*. Figures for twenty-three years are also reproduced on a graph in Takahashi 1962 between pages 170 and 171.

⁷⁹ The falls are not necessarily due solely to excess mortality; increased mobility was likely as people, at least the younger, able-bodied, or simply the more desperate, temporarily moved within or even out of the han. This would also help to explain the relative rigidity in the number of households as opposed to inhabitants. The conclusion by Saitō Osamu that "a close look at the evidence reveals that it was not necessarily because famine heightened mortality levels but because it tended to further reduce fertility whose background levels were already low" (Saitō 2005b, p. 24) should also be borne in mind. It would resolve some of the problems that otherwise arise in reconciling contemporary comment and population trends in Tokugawa Japan.

⁸⁰ Cullen 2003, p. 100.

⁸¹ Hayami 2001, p. 50.

⁸² The population of the *kuni* at each census is given in Sekiyama 1958, pp. 137-39.

⁸³ Hayami 2001, p. 50.

⁸⁴ In the Tōhoku the Mutsu aggregate alone comes close to the Mito trend. While one could simply regard the figures as statistically suspect, it seems that the Mutsu data like those for Mito in the Kantō represent some juggling with the range or coverage in population figures. That may reflect concern over the pattern of the distribution of land between fiefs and *kura* or domain. The Nanbu han data hint at the type of statistical challenge faced by officials. It is doubtful if the data point to an ongoing demographic crisis. The internal figures for Sendai and Nanbu han, both component regions of Mutsu no kuni, point to an underlying stability.

⁸⁵ Hitachi is all the more interesting because of its very nonconformist profile in the mid-eighteenth century.

⁸⁶ Climate alone can hardly have been a factor. Tōhoku population did not fall between 1828 and 1834. The fall in Hitachi population in 1834 is at variance with a stable pattern in the Tōhoku and in some but not all of the *kuni* in Kantō. Mito apart, Hitachi consisted largely of *tenryō*. The presence of *tenryō* lands did not guarantee a stable statistical profile (see note 87 below).

⁸⁷ Kazusa, despite being largely *tenryō*, fell more sharply than any han in Kantō in 1834; its huge rise in 1846 (an increase of about a quarter on the earlier return) had no parallel in Japan; and it then recorded one of the three sharpest rises in Kantō in 1846-1872. Its highly unstable pattern suggests a problem of data, or more probably of arbitrary changes in presentation by shogunal officials. In contrast to both *fudai* and *tozama*, who had their permanently resident officials in the han, *tenryō* lands were administered by *daikan* whose base was in Edo. *Tenryō* lands are usually seen as having been administered in a more benign way than han territories. It may also have been on occasion a case of benign statistical neglect. Problems or uncertainties in dealing with fief holds and possibly with “honored” fiefholders (fiefholders who held a fief in name only and were paid from the daimyo’s *kura*) may have been a factor in accounting for the vagaries.

⁸⁸ McEwan 1962, pp. 94-5.

⁸⁹ On this problem, see Cullen 2003, p. 99, 127. Even Lafcadio Hearn, so favorable in almost all of his comments on Japanese life and of course with experience of school teaching, observed the importance of developing “the mathematical faculty. At present this is the weak point, hosts of students being yearly debarred from the more important classes of higher study through inability to pass in mathematics.” Hearn 1984, p. 271.

⁹⁰ Hayami 2001, pp. 43-4.

⁹¹ *Deshima dagregisters* 1990, p. 39.

⁹² See *Ōsaka-shi shi* 1990, p. 198.

⁹³ *Suijinroku* 1890b, pp. 306-7. Katsu also gave a figure for Nagoya in 1692.

⁹⁴ Sekiyama 1958, p. 232.

⁹⁵ *Ibid.*, pp. 235-37.

⁹⁶ See table in Kōda 1972 between pp. 248 and 249.

⁹⁷ For the guesstimates, see Sekiyama 1958, p. 228. They are very broad indeed, and lack any firm statistical basis. However they are the only working figures possible. They also appear to imply that all shogunal retainers resided in Edo. This is a simplification, although it is not unfounded, in the sense that they mostly operated from an Edo base. Broadly speaking, many officials, e.g., *daikan*, must have spent much of their time outside Edo. However, their families remained in permanent residence in Edo.

⁹⁸ Kato and Toyama 1984, pp. 193-96. The figures are taken from “Fuji-ke monjo shoshin ni ninzū kazoeru” 藤家文書 書信に人数数える.

⁹⁹ Hayami 2001, p. 54.

¹⁰⁰ Household figures for years from 1832 are reproduced in Kōda 1972, table between pages 248 and 249. Figures for some of the earlier years up to 1743 are given in *Suijinroku* 1890b, pp. 230-34.

¹⁰¹ The complete table is in *Ōsaka-shi shi* 1990, p. 199.

¹⁰² *Tenpō sen'yō ruishū*, Kōda, 1972, p. 262. This is a collection of copies of documents which circulated between the *machi bugyōsho* and *kanjōsho*, now held in National Diet Library.

¹⁰³ Sekiyama 1958, pp. 231-32.

¹⁰⁴ Kōda 1972, pp. 244-65.

¹⁰⁵ *Ibid.*, pp. 245-46.

¹⁰⁶ *Ibid.*, p. 246.

¹⁰⁷ *Suijinroku* 1890b, vol. 10, pp. 227-38.

¹⁰⁸ The data for 1713 are not given in Kōda’s table, as he limited his table to the period from 1721, the year which marked the first national census.

¹⁰⁹ See Kōda 1972, p. 262. See note 102 above.

¹¹⁰ The other is the return for all Japan which Minami Kazuo dated to 1840 (see note 163). See also note 102 above for a return for the city of Edo on its own in 1840. While the 1840 reports are the last surviving figures drawn from the sexennial census exercise as such, population data, as drawn from the population registers exist for Edo for 1841 and for seven later years.

¹¹¹ From *Suijinroku* 1890b, pp. 227-38.

¹¹² *Suijinroku* 1890b, p. 237.

¹¹³ This is recognised by Kōda, 1972, p. 265.

¹¹⁴ *Ōsaka-shi shi* 1990, p. 198. This page has an account of vagaries of other estimates.

¹¹⁵ *Ōsaka-shi shi*, vol. 1 (1913), pp. 370-71, 483-83, 602, 880-81; vol. 2 (1914), pp. 107, 180-01, 546, 758-59. The sources, though sometimes not identified in the original *Ōsaka-shi shi*, are identified specifically in the modern *Ōsaka-shi shi* 1990, pp. 198-200, as “Gyokuroso” 玉露叢, “Matsudaira Iwaminokami-dono ohatsuiiri ni tsuki sashidashitaru oboegaki” 松平石見守殿御初入二付差出御覚書, “Gojōdai goshihaisho yorozu oboe” 御城代御支配所万覚, “Nanboku ryōmachibugyō rensho kakiage” 南北両町奉行連署書上, and “Chihōyaku tekagami” 地方役手鑑.

¹¹⁶ Described by Kōda 1972, p. 244.

¹¹⁷ So described, but obviously the “Chihōyaku tekagami” referred to elsewhere.

¹¹⁸ *Ōsaka-shi shi* 1990, pp. 198-201.

¹¹⁹ *Ōsaka hennen shi* 1969, pp. 278, 510-11.

¹²⁰ I am indebted to Ms. Takahashi Nanako for much help when I consulted this document, also for information on Isshiki and for confirmation that the handwriting was his. For wider information on the collection see Takahashi 2003, pp. 29-43.

¹²¹ See Cullen 2003, pp. 76-77.

¹²² Kōda’s account of the figures from the document in the reprint of his article on Edo population is somewhat coy. While one of the four series of subsidiary counts is for the *eta* population, and is so described in the original *Ōsaka-shi shi*, it is designated elliptically as “isson” in Kōda’s article (Kōda 1972, p. 244). The population for the city is the addition of the *eta* population to the figure for Sango; the other three townships are not counted as part of the population of Osaka proper.

¹²³ Data for 66 years are reproduced in *Ōsaka-shi shi* 1990, p. 199 plus one year, 1689, in *Ōsaka hennenshi* 1969, pp. 278-79.

¹²⁴ Some data were given in the first *Ōsaka-shi shi*, vol. 1, pp. 482-84, 602-03. There are also some data for two years, 1689 and 1703, in two documents whose demographic detail are reproduced in *Ōsaka hennen shi* 1969, pp. 278, 510-511, and for 1681 in *Suijinroku* 1890b, p. 307. On the use of the 1689 date for comparative purposes, see Saitō 2002, p. 146.

¹²⁵ Kōda 1972, p. 262.

¹²⁶ They include Ezo. The Ryukyu Islands are however excluded. This further illustrates the fact that the Ryukyus, despite multiple ties, were outside the Japanese polity. See Cullen 2003, p. 50.

¹²⁷ Excluding however the returns by Ōta of the population of a mere ten *kuni* for 1721.

¹²⁸ See note 155 below.

¹²⁹ Some tabular presentation of currency and trade data existed. I am preparing a paper on the statistical data for trade and their circulation in Tokugawa times.

¹³⁰ Inoue Mizue 1904, pp. 127-129. He regarded the document as relating to a census of Kaei 5 (1852).

¹³¹ See note 139 below.

¹³² For a more recent source with the same concerns which also influence interpretation, see Kawaguchi 1996, pp. 151-168.

¹³³ Golownin 1819, pp. 221-2.

¹³⁴ Ōta 1976, pp. 579-583.

¹³⁵ Suda Akiyoshi 1954. The data are also reproduced in Takahashi 1955a, pp. 92-93.

¹³⁶ The copy containing the data is itself from the 1830s. It is not chronologically the earliest surviving document with a breakdown: the data for two others censuses (1750 and 1756) were reported in a source at a date (1770s) closer to the actual date of census taking. The data are attributed in *Sanka manroku* to a named *wakaitoshiyori* and *kanjō bugyō* in Kyōhō 7-en 8-gatsu. (This information is not contained in Suda's article, but, acquired from a private communication from Suda, it appears in Sekiyama 1958, p. 110, note 13, and also p. 101.) The data for sex distribution are lacking and, while the population of individual *kuni* is given a grand total for Japan is not given. However, the figure, when the *kuni* data are aggregated, is identical to that given by Ōta. The title of the text containing "Kokuchū ninzū kokudaka no koto" 国中人数石高の事 as reproduced in the *Sanka manroku* also includes reference to the census of Tenpō 5 (1834) While now missing, the implication is that the document must have been compiled in the wake of the 1834 census.

¹³⁷ For source, see note 134.

¹³⁸ Katsu Kaishū in his summary listing of census totals, in regard to 1732, added the comment that Ishikawa Sōjirō (a Kanjōsho official of late *bakumatsu* times) had data for the *kuni*, and that according to a "certain book" (not identified by Katsu) the data had been reproduced in a further book called *Burin inken roku* 武林隱見録. In modern times Sekiyama, who eventually saw copies of the latter book in the University of Tokyo library, noted that it contained only stories about Tokugawa warlords, and had no demographic data. Sekiyama's conclusion that Katsu was mistaken is itself perfectly reasonable (Sekiyama 1958, pp. 102-103). But, as elsewhere Katsu gave full figures where they were available—for 1804 and 1846—and his comments suggest that he was simply recording his awareness of the existence of a fuller source which was not accessible to him, and that the error in regard to *Burin inken roku* may have occurred in the unidentified "certain book." In other words he was anxious to record that a source covering all the *kuni* appeared to exist. The case may imply his thoroughness rather than any carelessness or direct error on his part. An implication too is that in post-1868 times at least two sources had survived for the 1732 census: a source for the total population given by Katsu (as in all his census figures for Japan as opposed to his figures for Edo on its own its documentary origins unidentified), and a further document which he did not see, and which for that reason he uncharacteristically appeared to identify.

¹³⁹ Yokoyama has a variant figure (Sekiyama 1958, p. 102).

¹⁴⁰ *Ibid.*, p. 97 and footnote 6, p. 110. According to Sekiyama, the editor drew on information both in a paper in Asakusa Bunko and in a book by Kurokawa Mayori.

¹⁴¹ *Ibid.*, p. 103.

¹⁴² On the source, see also note 141 above. He also gives data for 1756. See under 1756 in table, and note 144 below.

¹⁴³ Suzuki gives no indication of sources. The formal census introduction, names of officials and *kokudaka* are not given. Sekiyama notes that the details in general correspond with the figures in *Kanchū hisaku*, but the source he believes to be of independent origin (Sekiyama 1958, p. 103). However as *Kanchū hisaku* was published in Meiji 12, there remains the possibility that Suzuki's text is a copy.

¹⁴⁴ On variants in figures for this year, see Sekiyama 1958 pp. 103-4.

¹⁴⁵ Ibid., p. 104.

¹⁴⁶ This report contains the kokudaka of all *kuni*. While containing the normal formal introduction, it lacks the signatures of *ōmetsuke* and *kanjō bugyō*.

¹⁴⁷ Ibid., p. 104.

¹⁴⁸ Matsuura 1978. The figure was quoted in Sekiyama 1958b, p. 111, note 18, from an earlier edition edited by Yoshikawa Hanshichi and published by Kokusho Kankō Kai (1910-11), vol. 3, p. 334.

¹⁴⁹ According to Sekiyama, the information was probably acquired by the daimyo's intimacy with a shogunal *daikan* (ibid., p. 105), but this seems to be supposition.

¹⁵⁰ See notes 148 and 149.

¹⁵¹ For a description of this document, see Sekiyama 1957, pp. 61-74. Sekiyama uncovered it in the Monbusho archives. It was originally in the possession of the Machida family in the village of Mimase, Saku gun, Shinano province. There is no indication of the source from which the family obtained the data. Some internal errors may suggest that it was already a copy from another source, itself not only a copy but possibly already a defective one. It has names of officers and gives the kokudaka. Minami Kazuo simply notes the location of this document, under the title *Shokoku ninzū chō*, as Kokuritsu Shiryōkan (Minami 1978, p. 165).

¹⁵² Variant figures are given by Komiyama. These were later accepted by Honjō Eijirō. But this is, according to Sekiyama, a mistake dating to 1804 instead of 1816. Sekiyama 1958, p. 106.

¹⁵³ First published in Takimoto 1930a, pp. 179-188, it has been the subject of later commentary by Sekiyama and Minami. There has been much confusion over its dating. The date has been identified in Sekiyama 1958, p. 106, as 1804 as it corresponds to the period of service of the two named officials. As well as the names of the officials the report for this year also contains the *kokudaka*. Minami has described the source as a Meiji copy, with the title "Shokoku ninzu chō," held in in the Naikaku Bunko, originating from the Shūshi-kyoku 修史局 collection (Minami 1978, p. 165). As a collection from Tokugawa times, this suggests a possible origin at that time and hence that it may be at one or more removes a copy of an official copy.

¹⁵⁴ Not a return for 1822, but a figure derived from a return recording changes in population in the 1828 census. See note 157 below.

¹⁵⁵ Not a return for 1822, but a figure derived from a return recording changes in population in the 1828 census. See note 158 below.

¹⁵⁶ See note 151 above. The document gives the kokudaka as well as the population for each *kuni*, the formal introduction and names of the officers.

¹⁵⁷ Takimoto in Takimoto 1930b drew the data from *Tokugawa rizai kaiyō*, published by the Ministry of Finance. These are some summary data attributed in the *Tokugawa rizai kaiyō* to a source entitled "Chōkaiki." On Sekiyama's suggestion that they originated in the Ministry of Finance, see note 158 below.

¹⁵⁸ As the *Nihon zaisei keizai shiryō* 1922b was compiled under the auspices of the Ōkurashō, Sekiyama observed that the ultimate origin was the *kanjōsho* (Sekiyama 1958, p. 107-8 and note 23, p. 111-112). He also suggested a common origin in the *kanjōsho* for the figures in the "Ninbetsu aratame okanjōsho chōsho jō no utsushi" in *Nihon zaisei keizai shiryō* 1922b and the "Chōkaiki" version in Takimoto 1930b (see note 157 above). An origin directly in the *kanjōsho* itself is unlikely because a fire in 1859 destroyed its central archive such as it was. It should be noted that *Nihon zaisei keizai shiryō* does not profess to draw on sources originating in the *kanjōsho* itself. The volumes are the fruit of a work of compilation from daimyo and private sources, begun in 1878, by some ten or more collaborators (See

Nihon zaisei keizai shiryō 1922a, foreword by Kuroda Hideo 黒田英雄, head of the banking division of Ōkurashō, and preface by Takimoto Seiichi). While the meagre data available in the two published sources *Nihon zaisei keizai shiryō* and *Nihon keizai taiten*, vol. 54 (national total, totals for women and men, and two totals, one for the aggregated population of *kuni* whose population increased and one for those *kuni* whose population decreased between the census years 1822 and 1828 which in turn yield the net national increase) would support Sekiyama's inference of a common source for the versions in "Chōkaiki" (Takimoto 1930b, p. 392) and "Ninbetsu aratame okanjōsho chōsho jō no utsushi" (*Nihon zaisei keizai shiryō* 1922b, p. 1193), they both are very remote from being fair copies of a reliable document (which make even less plausible the implication of an origin in the *kanjōsho*. While the very uncommon mode of giving the change in population (separate totals for those *kuni* showing an increase over the preceding census year and for those *kuni* showing a decrease in the same interval) suggests a common origin, the fact that the documents give different gross totals for the population of Japan suggests that they are separate transcriptions, with independent errors made in the process of transcribing of a now unknown common document. Whether that document was itself a copy of an earlier document, or a compilation by someone with access to figures for two census years, is a matter of pure speculation. The general implication is however that the brief and defective summary accounts in Takimoto 1930b and *Nihon zaisei keizai shiryō* 1922b rest not on a document in the *kanjōsho* but on copies made at a remove from the *kanjōsho* and found in a trawl of daimyo and private records. While the original data would have been official, the documents used in preparing the compilation were already private ones. It should be added that Takimoto superintended the publication of the final *Nihon zaisei keizai shiryō*, and that his *Nihon keizai taiten* is an offshoot of his work on Tokugawa sources. The whole operation was thus counterpart to the work that Katsu Kaishū conducted.

¹⁵⁹ For the dating of this document, see Sekiyama 1958, pp. 107-8. Inoue wavered between the dates of 1828 (Bunsei 11) and 1853 (Kaei 5), for these data, but as they are identical to figures for 1828, they are, in Sekiyama's view, properly census figures for that year. The date written in the title of the document is not Kaei 5, but Kaei 6, which could be taken as the year of transcription, rather than of a census. Inoue reproduces totals at national and *kuni* level for men and women; but he does not give *kokudaka*, text of a formal introduction, or the names of the officers. Sekiyama noted that the 1828 dating appears to be confirmed from a work published in Meiji 14, *Gajikan gasho* 我自刊我書, reproducing a text entitled "Bunkyō kō jitsuroku" (Sekiyama 1958, pp. 107-8 and note 24, p. 112).

¹⁶⁰ For further details, see *ibid.*, pp. 107-108 and footnote 25 (p. 112).

¹⁶¹ It contains the text of the formal introduction to the census, the names of the two officers, and the *kokudaka* (*ibid.*, p. 108).

¹⁶² Komiyama, who first introduced the document, gave a total only (Sekiyama 1958, p. 108). For the fuller census details, see Shinozaki 1917, pp. 14-15. The report gives figures for men and women and also the *kokudaka* for the *kuni*. It does not give the formal introduction. In the source as outlined by Shinozaki Ryō the *ōmetsuke's* name occurs; the impression is that Shinozaki's data are drawn from a fuller source, which is likely to be the same source from which the text reproduced by Takahashi 1955b, p. 333-343, was drawn. (See note 164 below.) Takahashi noted that in Shinozaki's article the figures for men and women for eight *kuni* differed slightly, if added up, from the gross total for men and women as given for each of those *kuni*; the source in his view was therefore different from that for the text he reproduced. However, it is more likely that a simple error or misreading was made in transcription in these instances.

¹⁶³ The author, Takahashi Bonzen, reproduced a full text in *Takahashi* 1955b, pp. 333-343 from

a document in the National Diet Library. As this copy came from the old Ueno toshokan, which contained many documents surviving in early Meiji times, it is likely to have been a copy held by some official in the final years of the Tokugawa period or in the very early Meiji years. It contains the formal introduction, names of the officers, and, for the *kuni*, detail of both kokudaka and population.

¹⁶⁴ This copy lacks a date in the heading or title of the document. However, within the corpus of information the actual dating is cited. For fuller details, see Minami 1978, pp. 164-8. The copy includes the names of the officials, and the *kokudaka*.

要旨

徳川期の人口—古文書の問題点—

ルイ・カレン

徳川期の人口統計データは、1958年刊行の関山の研究を筆頭に、多くの研究で集積されている。しかし古文書に記された実際の数字ではなく、古文書の残余としての史料そのものについて系統的に分析されたことはなかった。幕府と明治政府双方に仕えた勝海舟が1890年に出版した『吹塵録』に研究者達は史料としての優位性を認め、また徳川の効果的な機密政策の結果情報の流通は欠如していたとの仮定に立って歴史的な人口調査が進められてきた。藩においては將軍へ申告された人口調査がいかに編纂されたかが一部知られていた。しかし幕府側による諸藩が提出した調査報告の取り扱いについては全く知られていない。藩のデータが国単位へ換算された他は、幕府の役人による調整の跡は見られない。それが、未編集の申告である生のデータと元の調査範囲のブレに関わる不確実性が保たれた原因になっている。大目付と勘定奉行の署名による数年に及ぶ現存する個々の調査の要約表のうち、信憑性があると考えられているのは僅か4つである。その上、現存する申告書は、公文書ではなく（あるいは役人によって作成された公文書としての機能を果たさず）、その多くは個人が所有していた複写からさらに個人的に複写したものである。これらの申告の複写は通常或る単一の人口調査に基いており、複数の人口調査を含んでいるのは僅か5、6例のみである。時系列の人口調査は知られていなかった。一色という名の町奉行が人口登録から構築した大阪の人口の長大な表は他に類を見ないものである。