A Turning Point of Household and Agriculture in Rural Japan

- Analysis of National Census, Agriculture & Forestry Census, And Longitudinal Research-

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Abstract

The aim of this paper is to understand how Japanese rural families have been sustained and changed by analyzing the household structure and statistical data on farming. We used the following data: population census, agriculture statistics and Katsunuma-Town’s population information. In rural Japan, it is recognized that the object households is a typical stem family. From the census, we clearly learned that the size of households reduced and changed to nuclear families and one-person households. The tendency of one-person households seems more dramatic. The nuclear families are at a turning point of decreasing. The agricultural management scale has no change in ratio; however, full-time farmers are decreasing, and part-time farmers are increasing. Women and elderly labor force are important at orchard and vineyards. The stem family and agriculture have changed a lot, from quantity to quality.

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1. Introduction

1-1. Purpose and Subject Background

“Purpose”

The aim of this paper is to clarify how rural stem families in Japan have been sustained and changed by analyzing the household structure and statistical data on farming. One particular purpose is to define the characteristics of the stem families, the subject of our analysis. The important index for analyzing the changes in families is the structure and size of households. The index for the situation of family farming is the management scale, work style, and the amount of labor power. Censuses were analyzed for this purpose. How things have changed will be followed and clarified, starting from 1966, the year in which the subject households were first investigated.

What we are studying is how Japanese families have changed, what aspects of life remain unchanged, and how those unchanged elements have been carried on. In order to investigate these, large-scale statistical data were analyzed so that trends in Japanese society and local communities related to households and farming would be discussed and that the characteristics of the subject households would be clarified.

“Japanese Family Trend”

Today Japanese rural areas and families are both in the period of great upheaval. Looking at the changes in families since the end of World War II and until today, we believe there were three transitional periods. It seems that right now we are starting to recognize the fourth transition.

The first transition was the changes in the system immediately after the war. The second one was the changes in forms and functions which were brought about by the High Economic Growth. The third transition was the changes in the sense of values, diversification, and the change from quantity to quality. They were, in other words, the change from economy/materials-oriented to life/heart-oriented. The change from quantity/measurable to quality/immeasurable has appeared.

Today, individualization and changes in values, awareness, behavior, and relationship have become familiar to us. But it is not clear how to describe these appropriately. Recent Japanese families may be called “families in the age of quality” or “families in the age of fluctuation” for the time being.

The idea that the traditional _Ie_ has disappeared from the Japanese family system has become widely accepted. During the era of the High Economic Growth, there was a strong trend towards the nuclear family or smaller family. But now the increase of one-person households seems more dramatic. In recent years nuclear families seem to have changed in quality. Especially the aging rural areas present many problems.
To investigate the continuation and changes in the trends of Japanese families is to seek out what to keep and what to change.

1-2. Viewpoints of Analysis

Generally, the indexes for families’ change process are: (1) systemic (ideological) factors; (2) demographical factors; and (3) socio-economic factors. In family sociology, it has been regarded that changes in our modern families show that we are in a transitional period from stem families to nuclear families, or a period with both coexisting. But the quality of nuclear families has been changing, and the one-person households have been increasing.

Within a stem family, the parents and the married children live separately, sometime the same house but in different rooms, sometime on the same land but in different houses. Inside the family is complicated and diverse. Therefore, it is difficult to grasp the change process simply from an aspect of the system change from stem to nuclear. The change process is influenced by demographical factors such as longer life expectancy and lower birth rate. It is further complicated by inter-related socio-economic factors such as the industrial structure change due to the High Economic Growth, changes in farm management, and improved life standard due to urbanization and industrialization.

Therefore, it is best to tackle family changes with demographical factors and socio-economic factors which are easier to grasp in reality, while it is an important challenge to understand the family changes from the systemic aspect. Here, demographical data on households and related data with socio-economic data are examined.

1-3. Characteristics and Framework of Analysis Data

First of all, in order to investigate the demographic factors of households, the national census was examined for Japan and Yamanashi Prefecture, the municipal census, town opinion poll, and national census for Katsunuma town, and the repeated investigation for the subject households. The analyzed data were: (1) changes in the number of households and household members; (2) the number of households by household size and the average number of household members; and (3) the number of ordinary households by family type, covering 40 years from 1960, the beginning of the High Economic Growth, to 2000.

Although family and household are not the same, the national census data are appropriate for understanding the big change in Japanese families. From these data, the
increase of the number of households and the size reduction will be made clear. This analysis is to understand the changes in the nuclear family and smaller family, and the trend towards the one-person households. Through this process, characteristics of changes at the national, prefectural, and municipal levels will be discussed. The expected result (hypothesis) is that Katsunuma has more stem families and less nuclear families than the national and prefectural average. The ratio of one-person households is low in Japan, Yamanashi, and Katsunuma. The data will be organized in order to analyze how these phenomena occur.

Secondly, the trends in Japan, Yamanashi, and Katsunuma will be analyzed using the socio-economic data from the Agricultural Census Statistic Figures (1899-2000), Agricultural Census: Yamanashi Statistics (1960-2000), Katsunuma Municipal Census, Town Opinion Poll, Katsunuma Agriculture Vision, Fruit Farming of Katsunuma, and Internet data. For the subject households, data from the repeated investigations will be examined. Data gathering units and divisions in the Agricultural Census differ for some fiscal years, but it was attempted to collect appropriate data as much as possible.

Japanese farms are small in size and mostly managed by families. Generally, the reproduction of the rural stem family is possible in a household with farm management large enough to sustain the business. It is considered to be difficult for households with small-scale farming. The expected result (hypothesis) is that as the number of farming families decreases, the number of nuclear families increases. Smaller management scale will lead to the decrease of stem families. The decrease of stem families will in turn lead to smaller management scale, or vice versa. In any way, these are all products of the High Economic Growth, but their factors are complex. How these are brought about will be explained through statistical analysis.

1-4. Characteristics and Methods of Subject Area and Data

“Subject Area”

The area that will be analyzed here is Yamanashi Prefecture. Yamanashi is located near the center of Japan, about 100km west of the capital, Tokyo. It is a basin surrounded by Mt. Fuji and other high mountains. The population is approximately 900,000 (2000). The average number of people per household is 2.84 (2000). 20.5% (2000) of the population is aged over 65 years old. The primary industry accounts for 2.2% (2000). The research data of Katsunuma Town will be discussed and analyzed.

Katsunuma is in the eastern part of Yamanashi on the Tokyo side. It takes 40 minutes to 1 hour by car (via highway) to Tokyo. It is a fruit growing area. Therefore,
most of the subjects of the analysis are commercial fruit farmers.

“Limitation of Subject Households”

In 1966, only the households with two generations of couples were chosen to become the subject, with an age limit for the younger couple. The husband of the younger couple needed to be born during the 15 years between 1921 and 1935, making their age between 31 and 45 as of 1966. They are aged 65 to 79 in 2000. In order to compare the two generations, it was required that two couples lived together, and husbands adopted by the wife’s family from a different area were excluded. 128 households were chosen for the 1966 research. Later, the same households were investigated. Households that have lost a couple and that no longer existed were ruled out and the research was conducted on the remaining 107 households.

“Method of Data collection”

The interviews in Katsunuma subject households were repeatedly conducted six times in 1966, 1972, 1979, 1981, 1992, and 1997. Every time a questionnaire was used. The data cited here were gained from the results of these six interviews and a supplementary investigation.

2. Changes in the Subject Area and Their Social Background

Here, we will look at changes occurring in the region, from the 1960s to the present day, and the general conditions and background of these changes.

“1960’s: High Economic Growth”

The investigation for this paper was first conducted in 1966. It was in a period of High Economic Growth. The second investigation was conducted in 1972 when the period of growth was about to end. During the 1960’s, the industrial structure was improved and there was a shift from agriculture to industry. The nuclear families, smaller families were everywhere. Many people switched from being farmers to workers. The farmlands were changing from a means of production into assets. Under such circumstances, fruit farmers adopted technical innovation and mechanization.

In communities, agriculture improvement projects and irrigations were organized. Farm households started to set up facilities for preserving the produce (refrigerator), practice institutional horticulture, and ship seedless grapes. On this opportunity, the center of grape farming shifted from producers to consumers. From the standpoint of grape farm households, there was a change of direction which demanded them to be more aware as producers of commercial farming. The construction for making the Chuo Line railroad double-tracked was launched, which was to shorten the travel time from the metropolitan area. This would lead to more tourist farms and
commercial farms.

“1970’s: Conversion to Commercial agriculture ”

In the 1970’s, the decision on the route of the Chuo Highway started as well as land purchasing. The money for selling their farmland was a great income for a farm household for which the land was a means of production. This experience would later change the sense of value toward land. The land sales contract for a bypass was completed in 1975, and the bypass itself was completed in 1977. Then many tourists no longer visited the tourist farms along National Route 20. On this opportunity, the operating methods of tourist farms and direct sales had to be discussed. It was after the completion of the bypass that the sales method was changed.

Since then, the promotion of town-made wines took off and grape farm households started to become more diverse and commercial. In 1976 Katsunuma and a French city concluded a friendship treaty. Then a town-building project with grape growing, a wine sales project (wine’s 100th anniversary project), etc. have been commenced. Thus, preparation for social capital proved to be an opportunity to change the perception toward farmland. Also, the sales method for produce was changed.

“1980’s: Create a Community with Fruit Trees and Tourism”

During the 1980’s, the irrigation project and town improvement project were advanced. When the National Athletic Meet was held (1987), the public social capital was prepared. In 1981 the investigation was conducted. The following year, the Chuo Highway opened, which influenced the life in Katsunuma and entire Yamanashi. The Highway made the metropolitan area closer. In order to attract tourists, a golf course was invited, and the first lawn skiing course in the Prefecture opened at Grape Hill Center. Thus, with emphasis on both grape farming and tourism, the further town improvements were made.

Besides tourist farms and direct sales, the ownership system for grapes and wine was introduced. Bed and Breakfasts, tourism, and experiential farming were being tested. For the promotion of community farm and establishment of the Kingdom of Fruits, agricultural cooperatives were merged. The amount of money spent for grape trading here was the largest in Japan. Under such environment, the problem with aging has become a familiar issue. Not only at the subject area but also in all over Japan, lack of farming successors was becoming a serious problem.

“1990’s: Town-building with Agriculture and Environment in Harmony”
In the 1990’s, building of a fruits-centered town, industry promotion in harmony with beautiful landscape, and improvement of the Grape Hill were among the major projects. Especially, movements for town-building with the view of grapes and reevaluation of traditional architecture emerged from residents. Social capital and revitalization business facilities were organized. Occasional natural disasters, hail, and cold summers did considerable damage. In winter 1998, the snow damage, the first in 60 years, destroyed many grape trees. Farms managed by an elderly are at a critical turning point.

“Since 2000 until Today: Farming and Community in a Structural Transition”

Japanese farm households are affected by international influences, Japanese economy, politics, the trend of the local industry, and natural disasters. Especially fruits farmers, with a higher cultivation standard, need to cope with the overload of information and development of various scientific technologies. It is said that a part-time farm households can no longer maintain the technological standard demanded for fruit cultivation. Today, farm households have become smaller. Farming has changed besides its management: the production method, distribution, sales, and processing. Japanese agriculture is at a turning point. The direction of future farm households is greatly influenced by the method of agricultural management, and how farming will be succeeded.

3. Result of Research Analysis
3-1. Trend Towards Smaller Household

Here the household situation of Japan, Yamanashi Prefecture, and Katsunuma Town will be investigated in order to shed light on the situation of the subject households. Table 3-1-1 shows the changes in the number of households and number of household members in Japan, Yamanashi Prefecture, and Katsunuma Town between 1960 and 2000. Let us examine this by starting from the national level.

3-1-1. Changes in the Number of Households and Number of Household Members

The number of households in Japan doubled between 1960 and 2000. The total number of household members equals the entire population of Japan, which increased 1.3 times between 1960 and 2000. The number of households increased most remarkably between 1965 and 1970, an increase of 26.6 points compared to the 100 index of 1960 (Figure3-1-1). It was a period of prosperity and higher GNP.

The fact that the increase rate of the number of households was greater than
that of the population indicates the trend towards smaller households or one-person households. The number of households increased greatly during the 15 years between 1960 and 1975, indicating the trend towards smaller households.

In Yamanashi Prefecture, the rate of increase in of the number of households is low compared to the national rate, but it is on the increase nevertheless. Although it did not double between 1960 and 2000, it has increased considerably.

Compared to the 100 indexes of 1960, it increased to 164.8 in 1990, 183.7 in 1995, and 193.5 in 2000. On the other hand, the population decreased during the High Economic Growth. Being on the outskirts of the metropolitan area, Yamanashi lost its people to larger cities. Its population has steadily increased since then, a little behind the national average.

In Katsunuma Town, the number of households has increased since 1990, though not as much as the national and prefectural levels. While the number of households increased more than the population on the national and prefectural levels, Katsunuma Town lost some of its population during the High Economic Growth. It has been on the increase for the last 5 years, though not as much as the 1960 level.

3-1-2. Numbers of Households by Size and Average Number of Household Members

Let us now examine the trend towards smaller households on the national, prefectural, and municipal levels using Figure 3-1-2, A~C.

The number of one-person households has greatly increased. The smaller household, the greater its increase rate, whereas households with more than 5 members have decreased. Since 1960, the number of one-person households has been the largest, confirming this is no new trend. In 2000, half the households consisted of one or two members, an astonishing phenomenon. Between 1960 and 1970, the number of households with 6 or 7 members has decreased. But since 1990, the trend has shifted from the nuclear family to the one-person family.

The total number of households in Yamanashi has doubled during 40 years between 1960 and 2000, the same as the national trend. When examined, the number of one-person households has increased 11 times instead of the 3.5 times of the national level. It has been greatly increasing especially since 1970. By 2000, households with one or two members account for half, a significant trend towards smaller households.

According to the total number of households in Katsunuma did not increase as much as the national and prefectural levels. The household size reduced dramatically, and there are many households with two to four members, which seems to indicate a
diversification of life style.

People in the subject households (Table 3-1-2) have chosen to live with another generation, and therefore, their smallest number of members is 4 and more than half of the households have 7 or more members. Most have 6, 7 or more. As the family cycle progresses, the father and mother pass away, children leave home to go to school, marry, or work, reducing the number of household members.

Let us compare Japan, Yamanashi, and Katsunuma to find some characteristics. The number of households on the national level has always been increasing. Especially during the period of 10 years from 1960 to 1970, it increased more than the following periods. In 2000, the number of one-person households was the largest: a quarter of the total. This means that 1 out of 4 Japanese was living alone. The number of households in Yamanashi has also been increasing and the trend towards smaller household is also apparent. 1 out of 4 Yamanashi residents was living alone, just like the national level. In Katsunuma, the number of one-person households increased five times, but the rate is still as low as 1 out of 10 people. The number of households with a single couple has jumped in 2000.

See Figure 3-1-2D for the average number of household members. Japan’s household size used to be about 5 members until the 1950’s, and it started to decrease in the 1960’s. Between 1960 and 1970, the average number decreased by 1. It stayed about 3 until the mid-80’s and dropped to 2 in the 90’ s. decreasing gradually. In Yamanashi the trend is similar to Japan’s, although about 5 years behind in speed. The decrease was great between 1960 and 1965 and steady throughout the other periods. The average number of household members in Katsunuma is greater than that of Japan and Yamanashi prefecture, which confirms that Katsunuma’s household size is large. The subject households with two generation had the average of 6.50 members, but 30 years later households with two to three members account for half, making the average 4.05 members. The size of the subject households in 1997 corresponds to the national level of 1965 and the prefectural level of 1970.

3-1-3. Changes in the Number of Ordinary Households by Family Types

Figure 3-1-3-A shows the changes in the nuclear family ratio. Figures of Yamanashi have been slightly lower than the national data. Although Katsunuma’s nuclear family ratio was lower than that of Yamanashi, it suddenly went up to be close to the national and prefectural levels in 1995 and 2000.

Figure 3-1-3-B shows the subject households’ nuclear family ratio.
Two-generation households were the most common in the beginning, but 31 years later about half were nuclear families.

Figure 3-1-3-C shows the changes in the stem family households. Contrary to the nuclear family households, its ratio was highest in Katsunuma, then Yamanashi, then Japan. The national and prefectural figures were moving parallel, but Katsunuma showed a much higher ratio. Then they sharply decreased during the 1990’s.

Figure 3-1-3-D shows the changes in one-person households. They rapidly increased on the national and prefectural levels. Katsunuma also saw its rapid increase from 1990.

3-2. Changes in Management Scale and Labor of Farm Households

Let us now analyze the changes in management scale of farm households, their trend towards smaller business, side business, discontinuation of farming, and decline of farming labor.

3-2-1. Trend of Management Scale — Bipolarization of Farm Management—

After World War II, the gap between farming and manufacturing widened as the economy grew. Changes in the industrial structure occurred; farming, the primary industry, declined while the number of people in the secondary and tertiary industries increased. Farm households were divided into upper farm households with large management scale which enables them to make a living with farming only and lower farm households with small management scale who cannot live on farming alone. The gap between them has been widening; small farm households seek other business on the side more and more.

The following changes in farm management and arable land scale will be examined for the whole country, Yamanashi, and Katsunuma from 1960, the period of the High Economic Growth, until 2000 (Figure 3-2-1A-C). The method of data gathering has not been consistent, because the classifications of management scale is different in some fiscal years, and because commercial farm households and self-consumption farm households have been divided since 1985.

The actual number has decreased by one third between 1960 and 2000. Since 1980, large-scale farmers started to increase, while small-scale farmers started to decrease. This may be an indication of industrialization of agriculture.

Yamanashi’s data suggest a similar trend of decline. Large-scale farms have been increasing. In Katsunuma, only the 1.0 to 1.5 ha farms have been increasing. There have not been any major changes to the subject households. Rather, they seem to be aiming
to increase their earning by introducing institutional horticulture, higher technology, and small production of large varieties of fruits. While full-time farm households aim for higher profits with small management scale, part-time farm households seek for a way to be a Sunday farmer. There seems to be a relationship between the management scale and the farming method.

New types of grapes have started to come out. Technologies that meet the consumers’ needs have been adopted, and technologies and management skills are getting higher. How to adopt such a new direction is an important condition for maintaining one’s business as a full-time farmer with limited farming area. How to increase earning depends upon technologies and management skills especially when the farming area has not changed much. This is thought to be one of the factors that influence the preparation of farming succession and reproduction of the stem family.

3-2-2. Trend away from Farming — Changes in Full/Part-Time farm households Structure

Regarding the full/part-time farm households structure, the national trend shows the decline of full-timers and increase of part-timers, especially Type 2 part-timers, as generally known. The number of full-time farm households decreased greatly during in 1965 and 1975, and between 1980 and 1985. It has been decreasing parallel to the economic growth (see Figure 3-2-2A).

A similar trend exists in Yamanashi. The number of part-time farm households increased until 1985, but it then started to decrease and dropped sharply in 2000. The Type 2 part-time farm households grow in number as the economy grows (see Figure 3-2-2B).

This is not the case with Katsunuma where the number of full-time farm households has not declined. The number of full-time farm households has been decreasing gradually, while part-time farm households are increasing. About 80% of the heads of these households are engaged in farming, which is quite a lot. Regardless of whether part-time or full-time, 76.9% of the heads of the households are full-time farmers, which remains high.

Among the subject households, the number of full-time farm households has been gradually decreasing and part-time farm households with employment have been growing in number. The transition from full-time to part-time has been slow in Katsunuma compared to the national level. But overall farm households have been decreasing and more and more families have switch to part-time farming, which seems to indicate a great transitional period.
3-2-3. Changes in Farming Labor — Number of Household Members by Both sexes Engaged in Self-Consumption Farming

The number of farm workers, both sexes, decreased by half on the national level during the thirty years from 1970 to 2000. The farm workers engaged more than 150 days in agriculture decreased to about 1/3 (Tables 3-2-3).

Yamanashi showed a similar trend, but households with few workdays tend to have more women, while households with many workdays tend to have more men. In one-third of the cases, the number of workdays was as few as 29, while in another one-third of the cases, it was 150 or more.

Katsunuma’s total number of people engaged in self-consumption farming has been declining. Most people who worked only 29 days were women, and most people who worked 150 days or more were men. Women are an important source of labor in fruit farming. Technological improvements reduced the needs for hard labor. Today’s farming demands working patiently. As a result, women have become the labor force. As for the age, a lot of the elderly are engaged in farming. Few women at the child-caring age are engaged in farming, which confirms the assumption that women start getting involved in farming after their children grow up to be a certain age has been confirmed.

Thus, regardless of both sexes, few young people are engaged in farming. A lot of people over 60 years old are engaged in farming; it is the elderly that sustains the agriculture. Farming laborers are aging thus, and the proportion of female laborers is increasing.

4. Conclusion
“Findings and Future Tasks”

Findings

In this paper, it was made clear that the households and agriculture in Japan are at a great turning point. Families, the intimate group of living, are getting smaller. Farming, which has supported the local living environment, is at a great turning point in terms of management and labor.

It is intended to explicate how Japanese stem families have changed and what remains unchanged through analyzing the subject households. In 1966, the subject households consisted of two couples of two generations; in other words they were stem families. In 1997, 49.5% of them remained so, while 50.5% had become nuclear families. After a generation change, 31 out of 107 had formed a new stem family with
two or three generations. The average number of household members dropped from 6.50 to 4.05. In order to place such households in the whole, the overall trend was investigated from statistical data of Japan, prefecture, and subject households’ town.

As a result, the subject households were found to be typical Japanese rural stem families. The stem families which still maintain a lot of the essence of 1e are now undergoing a great change. Family style of half the sample households has changed. Only a half of the subject families were able to reproduce a stem family at a turning point of their life cycle. This is due to the difficulty in reproducing the stem families in some situations, as well as the diversification of the life styles.

The following is the summary of how the changes in stem families are related to the trend towards the nuclear family, smaller family, and one-person family, as well as trend towards small farm management, part-time farming, discontinuation of farming, and decline of farming labor.

(1) Changes in the stem families and nuclear families were similar between the national and prefectural levels. The stem families in Katsunuma have been different; when the number of stem families was decreasing on the national and prefectural levels (1965-1970), the number of stem families in Katsunuma was increasing. The nuclear family rate did not go up either. It was not until 1995-2000 that the trend towards the nuclear families started to pick up. The number of households has been declining.

According to the graph that shows the data of the ratio, decrease of stem families does not necessarily mean the increase of nuclear families. One-person households steadily increased between 1960 and 2000. One-person households in Katsunuma increased from 1990 to 2000. This may be related to the decrease of the stem families.

It was confirmed that families that had remained unchanged have started to change. Households in rural areas change greatly when the farming style starts to change. The data show that the trends towards the nuclear family and one-person households were emerging not simultaneously with the national and prefectural levels.

(2) The relationship between the family style and management scale seems to differ according to social conditions and the times. It is generally considered possible to maintain the stem family if the households have grand management scale. On the other hand, it is assumed that large-scale management can maintain the stem family. It is not definite, however, because no cross analysis of the stem family and farm management scale has been done. But from this data, while the actual number of the stem family did not decrease much until 1990, the number of households by management scale decreased to one third. Since 1980, the number of stem families has been decreasing, but farm households with large-scale management are on the rise. Therefore, the
post-1980 trend is that the family style and farm scale are not necessarily related, but technology/methods and farm management are.

(3) Examining the changes in stem families and farm households, when the stem families are decreasing in number, part-time farm households tend to be on the rise. The number of full-time farm households in Katsunuma has not decreased much. The number of stem families has been decreasing since 1990. Depending on the type of farming and the region, the directions of the stem families and the trend towards part-time farming differ. Generally, stem families and how to work seem to be related. There is no distinct tendency regarding the relationship between the stem families and the number of farming days.

“Future Tasks — Management Area and Special Ward”

The “wine industry promotion special ward” was established in Yamanashi in April 2003 as Japan’s structural reform special ward. As a result, wineries are now allowed to grow grapes. This wine industry promotion special ward is in the Yamanashi region that includes Katsunuma, our subject area, and 15 other cities, towns, and villages such as the Enzan region. Under the Agricultural Land Act, wineries were not allowed to grow grapes, but the establishment of the special ward eased that restriction. Wineries are now able to handle the entire process from growing grapes to making wines. But the farmland needs to be more than 5000 sq. meters in order to enjoy the blessings of the special ward. Local governments will purchase or rent idle farmland and rent it out to wineries. This is hoped to improve the wine quality, enhance the brand value, and contribute to making good use of the farmland.

Executives at medium and small-sized wineries all say that they want to make high-quality wine that can compete against foreign wine. But they look to the government leadership about the money for securing the land, how to expand an individual’s limited land to secure necessary space. Large winery executives do not see any advantages in the special ward. Instead, they want large fertile farmland regardless of whether it is in the special ward. For winery executives, how much fertile land they can acquire is very important.

As the family style changed, the work condition changed, and so did the meaning of owning land. How fruit farm households will be succeeded and grown is a big issue for the future. There are many problems to solve and challenges to be met in the promotion of agriculture and especially wine making, a traditional industry. Agriculture sustains our life. How can it be succeeded and developed while allowing its management to be in harmony with the traditional industry? How can a pleasant
environment and a comfortable community be created? These are the important challenges of our future.

**Analysis Data**
National Census
1960: Japan’s Population; Population Compendium #1, Japan; National Census Report vol. 2; National Census #19, Yamanashi
1965: National Census vol. 4, Administrative Divisions #19, Yamanashi; Approximate Numbers of Households and Population; Japan’s Population
1970: Households and Families
1975: National Census, Japan’s Population; National Census, vol. 5, #19, Yamanashi
1980: National Census, Japan; National Census, vol. 5, #19 Yamanashi
1985: National Census, Japan; National Census, vol. 5, #19 Yamanashi
1990: National Census, Japan; National Census, vol. 5, #19 Yamanashi
1995: National Census, Japan; National Census, vol. 5, #19 Yamanashi
2000: National Census, Japan; National Census, vol. 5, #19 Yamanashi

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Table and Figure

Table 3-1-1 Household numbers & Population

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<td>30297014</td>
<td>103350641</td>
<td>191447</td>
<td>2100</td>
</tr>
<tr>
<td>1975</td>
<td>33595728</td>
<td>110337761</td>
<td>210524</td>
<td>2109</td>
</tr>
<tr>
<td>1980</td>
<td>35823609</td>
<td>115450540</td>
<td>226997</td>
<td>2102</td>
</tr>
<tr>
<td>1985</td>
<td>37979984</td>
<td>119333780</td>
<td>224804</td>
<td>2183</td>
</tr>
<tr>
<td>1990</td>
<td>40670475</td>
<td>121545271</td>
<td>263553</td>
<td>2199</td>
</tr>
<tr>
<td>1995</td>
<td>43899923</td>
<td>123646108</td>
<td>290339</td>
<td>2533</td>
</tr>
<tr>
<td>2000</td>
<td>46782383</td>
<td>124724660</td>
<td>307916</td>
<td>2795</td>
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Figure 3-1-1  Comparison of household numbers
Japan/Yamanashi Pref./Katsunuma rural

Figure 3-1-2A  one-person households

Figure 3-1-2B  3 members households
Figure 3-1-2C 5 members households

Year


Index

130
120
110
100
90
80
70
60

Japan
Yamanashi
Katsunuma

Figure 3-1-2D Average Number of Household Members

Year


Average Numbers

7.00
6.00
5.00
4.00
3.00
2.00


Japan
Yamanashi
Katsunuma
Subject
Table 3-1-2 Number of Households by Size and Average Number of Households members

<table>
<thead>
<tr>
<th>Subject households</th>
<th>one person</th>
<th>2 persons</th>
<th>3 persons</th>
<th>4 persons</th>
<th>5 persons</th>
<th>6 persons</th>
<th>over 7 persons</th>
<th>Total number of household members</th>
<th>Average number of household members</th>
</tr>
</thead>
<tbody>
<tr>
<td>1966</td>
<td>2</td>
<td>10</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>54 108</td>
<td>6.50</td>
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<tr>
<td>1972</td>
<td>1</td>
<td>3</td>
<td>21</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td>39 108</td>
<td>6.10</td>
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<tr>
<td>1979</td>
<td>4</td>
<td>14</td>
<td>24</td>
<td>43</td>
<td>17</td>
<td></td>
<td></td>
<td>6 108</td>
<td>5.00</td>
</tr>
<tr>
<td>1981</td>
<td>5</td>
<td>14</td>
<td>28</td>
<td>26</td>
<td>23</td>
<td></td>
<td></td>
<td>12 108</td>
<td>4.80</td>
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<tr>
<td>1992</td>
<td>17</td>
<td>25</td>
<td>22</td>
<td>15</td>
<td>11</td>
<td></td>
<td></td>
<td>17 107</td>
<td>4.28</td>
</tr>
<tr>
<td>1997</td>
<td>2</td>
<td>27</td>
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<td>9</td>
<td>13</td>
<td>16</td>
<td></td>
<td>14 107</td>
<td>4.05</td>
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</table>

Figure 3-1-3A Change Ratio of Nuclear Families

Figure 3-1-3B Change in Subject Households’ Nuclear Families Ratio
Figure 3-2-2B parttime farm

Table 3-1-1 Household numbers & Population

<table>
<thead>
<tr>
<th>Year</th>
<th>Farm workers</th>
<th>Farm worker over 150 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>15,618,169</td>
<td>5,692,985</td>
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<tr>
<td>1975</td>
<td>13,732,215</td>
<td>3,854,711</td>
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<tr>
<td>1980</td>
<td>12,539,197</td>
<td>3,182,504</td>
</tr>
<tr>
<td>1985</td>
<td>11,628,692</td>
<td>2,866,020</td>
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<tr>
<td>1985 *</td>
<td>9,427,734</td>
<td>2,765,647</td>
</tr>
<tr>
<td>1990 *</td>
<td>8,492,968</td>
<td>2,344,704</td>
</tr>
<tr>
<td>1995 *</td>
<td>7,397,594</td>
<td>1,963,423</td>
</tr>
<tr>
<td>2000 *</td>
<td>6,856,469</td>
<td>1,846,976</td>
</tr>
</tbody>
</table>

* commercial farm households