Two Kinds of Preindustrial Household Formation System

John Hajnal

A similar discovery about household size has been made in the last few decades about widely different societies, namely parts of Europe in preindustrial times, India, and China. Until recently it was widely believed that in preindustrial Europe, as well as in India and China, large households used to be the norm. The discovery that the average household size was on the order of only five persons, therefore, came as a surprise.

The traditional household formation systems of India and China are similar to each other (at least in the aspects dealt with in this paper). But the household formation systems of Northwest Europe in the seventeenth and eighteenth centuries were very different, though they yielded households of roughly the same size. The aim of this paper is to describe and contrast two kinds of household formation systems in quantitative terms. The term "household formation system" is used to indicate that the intention is to compare modes of behavior that result in the formation of households of various kinds, as well as to compare the results of that behavior. A household formation system is defined by household formation rules, as described in section 1.

Despite gaps in the evidence, enough data have now been accumulated by historians to support strongly the conclusion that the household formation systems of all populations in preindustrial Northwest Europe shared certain common features that distinguished these populations from those of India, China, and many other preindustrial populations.

The term Northwest Europe as used here covers the Scandinavian countries (including Iceland, but excluding Finland), the British Isles, the Low Countries, the German-speaking area, and northern France. This area showed the European pattern of late marriage, as much evidence now confirms, back into the seventeenth century. The data on household composition in this area show, among other characteristics to be described, a high proportion of "ser-
vants” and very small numbers of households comprising more than one married couple. The late age at marriage and household composition are clearly related and reflect the distinguishing features of the preindustrial Northwest European household formation systems, as explained below.

The term “preindustrial Northwest Europe” denotes Northwest Europe in the seventeenth and eighteenth centuries. This is the period for which there is an adequate body of data. No attempt will be made to discuss household composition in Southern Europe or in Finland and the Baltic countries during those centuries even though these areas are also mostly areas of late marriage by the end of the nineteenth century. Age at marriage is a crucial variable in household composition, and one might expect that the whole region that displayed the European marriage pattern could be treated as a unit. The reason for singling out Northwest Europe is twofold, namely lack of data for the other areas mentioned and evidence that in the seventeenth and eighteenth centuries household formation systems in at least some parts of these areas did not have the distinguishing Northwest European features. There is evidence that in the eighteenth century and earlier the first marriage of women in parts of southern France and in Italy occurred at a younger age. There is also evidence that the composition of households did not everywhere in southern France and Italy display the Northwest European characteristics. In Finland and the Baltic countries also there is evidence from the eighteenth century of both earlier marriage and household composition patterns departing from the preindustrial Northwest European norms. There are also large areas (for example, the Iberian peninsula) from which no household data for the relevant period appear to have been published. It may well be that the distinguishing features of Northwest European household formation systems were to be found in the seventeenth and eighteenth centuries among populations outside Northwest Europe as that region has been defined here. We must wait for further research to decide this question. By the end of the nineteenth century the European pattern of late marriage certainly extended beyond the boundaries of Northwest Europe.

Northwest European populations in the seventeenth and eighteenth centuries were both demographically and economically “traditional” societies. They had a “young” age structure (and, of course, the age structure has a strong effect on household size and composition). Northwest Europe was at that time largely preindustrial in the sense that populations almost everywhere were largely rural. “Productive” economic activities (farming, fishing, crafts) were mainly carried on in and by households and not in enterprises or workplaces specialized for the purpose (plantations, factories, offices, and the like). However, not all households functioned as productive enterprises. For this paper, households are “housekeeping units,” as is explained below.

This paper attempts to contrast the household formation systems of preindustrial Northwest Europe with the household formation systems of a number of other populations, which also showed these premodern demographic and economic characteristics. In particular, all the populations treated in this paper had a “young” age composition (something like 43 or more percent of the population under age 20). They were all populations of high fertility compared
with the levels of fertility found in Europe today. All of them also had much higher mortality rates than those of modern Europe. All were predominantly rural, and the “productive” economic activities of these rural populations were mainly carried out in and by households (sometimes with two or more households combining for farming and other “productive” purposes). However, many households in most of the populations discussed were not economically “productive.”

The household formation systems of all the populations outside Northwest Europe dealt with in sections 3 and 4 below shared certain common characteristics (as described in section 1 below). Household formation systems sharing these characteristics will be called “joint household systems.” The different kinds of data that are available for different populations have largely dictated the comparisons with Northwest Europe that it has been possible to make.

For comparisons of household structure between very different societies it is desirable to be explicit about what is meant by “household.” The intention has been to use data that treat each “housekeeping unit” as a separate household. The matter is dealt with in greater detail in Appendix 1.

In some populations there is a substantial difference in household size and structure between urban and rural areas. The aim of this paper is to describe household formation in the rural areas. So far as possible, data for rural areas have been used. Where the urban population constituted only a small proportion of the total population, data for the total population reflect the behavior of the rural component. This is mostly the case with the populations covered in this paper.

The emphasis has been placed as far as possible on data covering populations of 5,000 or more people, rather than on data from individual communities, which are often used in discussions of demographic and other statistical measures for past centuries. The household composition data for small communities display substantial variation (both between communities and over time in the same community) even when vital rates and household formation rules are identical and unchanged.4

This paper, like all work dealing with historical household data, owes a great deal to the work of the Cambridge Group for the History of Population and Social Structure. In particular the volume Household and Family in Past Time (Laslett and Wall, 1972) put the historical study of households on a new factual basis. The theme of the present paper bears an obvious affinity to Chapter 1 of Peter Laslett’s book Family Life and Illicit Love in Earlier Generations (1977). I have tried to put emphasis on other kinds of data and other types of questions than those dealt with in the two works just mentioned.5

## 1 Household formation rules

By a joint household we mean a household comprising two or more related married couples; a simple household, correspondingly, is one that contains only one married couple or none at all. The Northwest European household
formation systems operated in such a manner as to produce very few joint households. The majority of persons, even of those who survived to middle age, were never members of a joint household.

The joint household systems did not normally produce a situation in which the majority of households were joint at any one time (though there have been joint household systems that have operated in that way); however, under a joint household system, the majority of people were members of a joint household at some stage of their lives.

The two kinds of household formation system being compared can both be characterized by three rules of normal household formation behavior, as follows.

1 Formation rules common to Northwest European simple household systems

A Late marriage for both sexes (mean ages at first marriage⁶ are, say, over 26 for men and over 23 for women).

B After marriage a couple are in charge of their household (the husband is head of household).

C Before marriage young people often circulate between households as servants.

2 Formation rules common to joint household systems

A Earlier marriage for men and rather early marriage for women (mean ages at first marriage are under about 26 for men and under 21 for women).

B A young married couple often start life together either in a household of which an older couple is and remains in charge⁷ or in a household of which an unmarried older person (such as a widower or widow) continues to be head. Usually the young wife joins her husband in the household of which he is a member.

C Households with several married couples may split to form two or more households, each containing one or more couples.

These rules have been stated here in general qualitative terms. There was much variation, within both kinds of formation system, between different areas, and also probably over time, in the way in which the same rule was carried out, for example in the age at which changes specified in the rules took place. (This is illustrated by the discussion below of the splitting rule 2C.) Moreover, the two sets of rules are not complete in that they would not suffice to determine the movement of individuals between households. It is not possible for everyone to remain until death in the household into which he or she was born unless moved by marriage, entry into service, or the splitting of households. Additional movements not governed by the rules stated are certain to occur. But the rules listed suffice to determine the features with which this paper is concerned.
The rules require some explanation.

The Northwest European rule 1B, that a married couple are in charge of their own household, implies that upon marriage, either (a) a new household was created, or (b) one spouse joined the other in a household in which there had been no married couple, or (c) if they took over a farm run by the parents or a parent of one of them, the parent or parents retired when the young people married. (The very small number of households in preindustrial Northwest Europe in which married children are recorded as members of households headed by the parents of one of them seems to reflect temporary circumstances.) The practice of retirement by contract was known in most, if not all, of Northwest Europe. A farmer would make a contract with his heir by which he transferred the farm to the latter in return for a commitment that the heir would maintain him (and his wife if she was alive) from then on; that is, would provide lodging, income, food, firewood, and so on. (A retirement contract could also be made by a widow surrendering her farm or could be made with someone who was not the heir.) In some parts of Northwest Europe this kind of retirement was common.8

It is the third rule for each of the two kinds of system (i.e., 1C and 2C) that will probably appear most surprising. The argument here is that in each case the rule was essential to the operation of the kind of household formation system in question.

The circulation of servants in Northwest European systems is dealt with further in section 5 below. Servants are found in substantial numbers concentrated at young adult ages throughout preindustrial Northwest Europe. It seems highly probable that the circulation of servants made possible the late age at marriage, for service provided a function for young unmarried adults. Because of the institution of service, young men and women were able to move away from farms and villages where their labor could not be effectively used. On the other hand, the availability of servants provided an adjustable labor supply to those farm or craft households where the number of family members available for work was too small.

The formation rules listed above (1A, 1B, and 1C), which were common to all of Northwest Europe, had no tendency to create very large households. Very large households did occur in Northwest Europe because some wealthy and important householders employed many servants, but such large households were not the inevitable result of the common Northwest European household formation rules. Rule 2B for joint household systems, however, will produce some enormous households unless splitting occurs. Under this rule households can continue to grow with all male descendants of an original ancestor bringing their brides into the household. The result can be households comprising brothers, cousins, second cousins, and even more distant relatives with their wives and children. This is not only a theoretical possibility, but will, except for splitting, occur quite often. Even under conditions of high mortality, some men will have several sons surviving to adulthood. (It should be remembered that the variance of the total number of children born to men is
much larger than for women. Men who marry a number of times can continue
to father children until an age well past the limits of the female reproductive
period.) If a man has a number of surviving sons who bring their brides into the
household, and if some of the sons have several surviving sons in their turn, a
very large household will result. A joint household system, therefore, needs
the splitting rule, 2C. The descriptive literature concerning joint household
systems contains references to the splitting of households in all societies in
which joint household systems operated.9

The practices in regard to the splitting of households have a crucial effect
on the size and composition of households under a joint household system. If
young couples tend to split away even before the husband’s father has died, and
if brothers surviving their father’s death tend to split not many years later,
households under a joint household system will be comparatively small. If,
however, not only brothers, but the children of brothers tend to stay together,
much larger households will result. This matter will be further dealt with in
section 4 below.

A full description of a household formation system would involve dis-
cussion of what happens when death or some other circumstance leaves indi-
viduals or groups (e.g., old people without children,10 widows with young
children) that cannot subsist as households because they no longer have enough
ablebodied members. Such individuals or groups must be attached to other
households, have new individuals added to them, be combined with other simi-
lar groups to form new households, or be maintained on their own by being
supplied with food and other necessities by relatives or by some other means.

It is obvious that such collapses of households occurred fairly frequently
under the Northwest European rules, where there was at most one married
couple in the household. The retirement contracts already mentioned some-
times met this kind of situation, as did the hiring of a servant. Moreover, in
Northwest Europe such needs were widely met by communal provision11 (a
matter discussed further in section 6). Under joint household systems, the ex-
tinction of households is also a common occurrence (though fewer people are
left stranded than under Northwest European rules). The tendency described
above for some men to have large numbers of male descendants within a few
generations is counterbalanced under conditions of slow population growth
(that is, given a rough balance between fertility and mortality) by a high pro-
portion of male lines becoming extinct. The process of extinction leaves behind
individuals or groups incapable of functioning as independent households.12 A
full specification of household formation rules would include what might be
called household dissolution rules.

It is often said that household formation varies with economic condi-
tion—in particular, that the rich can maintain larger households than the poor.
There is some truth in this proposition; in Northwest Europe an important so-
cial differentiation was reflected in the fact that those who had land employed
as servants the children of those who did not. Yet it is remarkable that (with the
possible exception of some very small aristocratic groups) all layers of the rural
societies dealt with in this paper, from the rich to the very poor, followed the same household formation rules. In particular, even the rich did not form joint households in Northwest Europe; on the other hand, under joint household systems even the poor did.\textsuperscript{13}

Needless to say, there is much variation within each of the two basic kinds of systems. But it is hoped that the data quoted below will show not only that the basic distinction is valid, but will also give a useful quantitative picture of the operation of the two kinds of systems and their varieties (a quantitative picture with a number of surprising features).

Finally, it should be explicitly stated that there are other kinds of household formation systems besides the two considered here.\textsuperscript{14} Moreover, there are populations to which it would not be appropriate to apply the household concept used in this paper.

The study of households is still in its infancy in comparison with the study of demographic topics such as fertility or mortality. What is said here is, therefore, tentative in many ways. The methods of classification and analysis to be used in the interpretation and comparison of household data from different societies are likely to undergo much modification and refinement in the future. It remains to be seen, in particular, whether the category of joint household formation systems as used in this paper, that is, household formation systems for which rules 2A, 2B, and 2C hold, is a useful one. Joint household systems in this sense have occurred under a variety of very different conditions widely separated in time and space.\textsuperscript{15} It may turn out, when statistical data on households for many more populations have been analyzed, that it is not fruitful to group together all the populations exhibiting those household formation rules that for the purposes of this paper are the defining characteristics of joint household systems.

2 Household composition in Northwest Europe

Unfortunately, there are no data for large populations tracing the movements of individuals between households as they pass through life. We must infer the consequences of household formation behaviors from censuses and similar data sources that show the distribution over households of all individuals in a population at a particular time. We can thus verify indirectly that the household formation rules stated were in fact in operation. A particularly useful form of analysis is provided by classifications of populations by relationship to the head of household. Such classifications display characteristic differences between the Northwest European systems and joint household systems. We may summarize these differences as follows: (1) Populations following joint household systems have much higher proportions of joint households, as one would expect; however, they do not, on that account, necessarily have larger households on average. (2) Households under the two kinds of formation systems are made up of different sorts of individuals. In joint household systems almost all household members are relatives of the head. There are substantial numbers of
such relatives in addition to the wife and children of the household head. (3) In Northwest Europe, on the other hand, the composition of households is different. The numbers of relatives other than the wife and children of the head are small; instead we find substantial numbers of servants and also some other persons called lodgers (or some equivalent term), who may or may not be related to the head of the household (e.g., they may be farm laborers). Some of these persons (e.g., farm laborers' families living on the farm but doing their own cooking) should probably be counted as separate households.  

We shall proceed by considering in detail one population illustrative of each of the two kinds of household formation system. Data for other populations will then be more briefly reviewed. The present section considers data for rural Denmark as representative of Northwest Europe.

Denmark

There were official Danish censuses in 1787 and 1801. The data are of exceptionally high quality for the time and are suitable for our purposes in a number of ways. For example, marital status was explicitly recorded at the original enumeration; it does not need to be indirectly inferred when the data are re-analyzed—for instance, by presuming that a man and woman are married if they are entered in succession at the beginning of the household list. Not only is the original Danish census material of high quality, but it has been carefully retabulated from the original documents by H. C. Johansen of Odense University. His painstaking analysis underlies much of what follows.

Johansen has analyzed a sample of 26 rural parishes, whose population (a total of some 7,000 persons), as he shows, resembles the whole Danish rural population in many characteristics. We may confidently take his figures as a picture of the rural Danish population as a whole. Some 80 percent of the population of Denmark lived in rural parishes.

Table 1 shows how the rural population in Denmark at the end of the eighteenth century was distributed by relation to head of the household. The table shows the numbers in each relationship category per 100 households.

<table>
<thead>
<tr>
<th></th>
<th>Married heads and wives</th>
<th>Other heads</th>
<th>Children</th>
<th>Other relatives</th>
<th>Servants</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>88</td>
<td>5</td>
<td>99</td>
<td>8</td>
<td>50</td>
<td>5</td>
<td>255</td>
</tr>
<tr>
<td>Females</td>
<td>88</td>
<td>7</td>
<td>96</td>
<td>15</td>
<td>40</td>
<td>9</td>
<td>255</td>
</tr>
<tr>
<td>Both sexes</td>
<td>176</td>
<td>12</td>
<td>195</td>
<td>23</td>
<td>90</td>
<td>14</td>
<td>510</td>
</tr>
</tbody>
</table>


Children, it should be noted, are defined in this kind of tabulation by relationship to the head, not by being under a certain age. No doubt the category included not only biological children of the head, but others in an analogous position in the household, such as children of the wife by a former
husband, or even children of a remarried wife’s former husband by his first wife. The category “servants” will be further discussed below.

Table 1 represents the situation at the end of the eighteenth century. However, we can go back in time by one and one-half centuries and add a comparable set of figures for rural parishes in the Danish island of Moen in 1645. They result from an enumeration carried out for tax purposes by the local clergymen, and the surviving listings were analyzed with exemplary care early in the twentieth century by E. P. Mackeprang. Table 2 compares Mackeprang’s data with the situation at the end of the eighteenth century. (“Other relatives” and “others” have had to be combined in one category.) In this case, it is not clear from the original listing just which persons constitute a separate household, and the figure for average household size depends, in part, on a guess of the number of households made by Mackeprang.

### TABLE 2 Rural Denmark, 1645 (Island of Moen) and 1787/1801 (26 parishes): persons (both sexes) per 100 households by relationship to head

<table>
<thead>
<tr>
<th></th>
<th>Married heads and wives</th>
<th>Other heads</th>
<th>Children</th>
<th>Servants</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Island of Moen</td>
<td>175</td>
<td>12</td>
<td>249</td>
<td>62</td>
<td>25</td>
<td>523</td>
</tr>
<tr>
<td>26 parishes</td>
<td>176</td>
<td>12</td>
<td>195</td>
<td>90</td>
<td>37</td>
<td>510</td>
</tr>
</tbody>
</table>

NOTE: Figures for Moen are based on data for five rural parishes covering 4,014 persons.
SOURCE: Data for Island of Moen computed from Mackeprang (1907), p. 258, using Mackeprang’s estimate (p. 260) of the number of independent households among laborers (“Husmaend” in Danish). Data for 26 parishes: see Table 1 above.

The only substantial differences between the Moen data and the later Danish parish sample lie in the larger number of children in Moen in 1645, compensated, in part, by a smaller number of servants.20 (See section 6.)

The categories distinguished in Table 2 are categories of household membership that were taken for granted in the seventeenth and eighteenth centuries in Northwest Europe; as we shall see, they differ from those appropriate in joint household systems. In the very first work ever written on demography, John Graunt wrote (Observations on the Bills of Mortality, p. 60): “I imagined . . . there were about eight persons in a family, one with another, viz the man and his wife, three children, and three servants, or lodgers.”21 (His numbers for children and servants or lodgers are somewhat high, a natural illusion for various reasons.) It is noteworthy, in light of the comparisons to be made with joint household systems, that Graunt assumes that relatives other than children can be ignored and that servants (or lodgers) are present in the household in substantial numbers, although they are not permanent members by virtue of relationship.

In the Danish data in Table 1 “other relatives” amounted to under 5 percent of the population, a clear indication that there could have been few joint households.

The data enable us to study directly the way in which the married were distributed between households. The percentage distribution of married men by
relationship to the head was as follows in 1787 and 1801 (the percentages are based on 2,606 married men for both censuses combined):

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Heads</td>
<td>93.4</td>
</tr>
<tr>
<td>Sons of heads</td>
<td>0.7</td>
</tr>
<tr>
<td>Fathers of heads</td>
<td>1.9</td>
</tr>
<tr>
<td>Relatives other than fathers or sons</td>
<td>0.1</td>
</tr>
<tr>
<td>Servants</td>
<td>2.0</td>
</tr>
<tr>
<td>Others</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
</tr>
</tbody>
</table>

Most of the couples who were not in charge of their own household were, as Johansen points out, old people or very recently married (servants, laborers). A married servant did not live with his wife in his master’s household. Johansen suggests that the married servant went home periodically to his wife from his master’s house.

It is likely that some of the retired married parents and some of the other married men (who were often laborers) formed independent housekeeping units of their own and were not fully integrated in the households to which they were allocated at the census (this matter is discussed in Appendix 1). It thus seems that households with two related married couples must have formed well under 4 percent of all households. It is clear, therefore, that the great majority of married men became heads of their own household upon marriage.

It hardly needs emphasis that Denmark was a country of late marriage for both sexes, with mean ages at first marriage at some 30 to 31 years for men and 26 to 28 years for women in the population to which our tables relate.22

The remaining Northwest European household formation rule (namely the circulation of young people as servants) shows its effects in the numbers of servants in Tables 1 and 2. This rule will be treated in detail in section 5 below.

There are data from other parts of Northwest Europe similar to those that have just been reviewed for Denmark, namely classifications of the population by relationship to the head of household. It would be tedious to go over this evidence in detail; a brief review is found in Appendix 2. The features illustrated by the Danish rural population, which contrast with what is found under joint household systems, apply throughout Northwest Europe. Few households comprise more than one married couple. Households consist largely of heads and wives, their children, and servants. The numbers in categories other than these, such as lodgers or retired parents, are in some cases rather larger than in the Danish data, and the mean number of persons per household is also greater. In such cases, some of these additional elements probably constituted separate households23 (according to the definition of a household as a consumption unit). The size of households and their composition was in these cases probably, in reality, closer to the Danish situation than the data appear to show at first sight.

Another kind of data that confirm our conclusions regarding Northwest European household systems consists of classifications of households by types,
defined in terms of the relationship between the individuals they contain (nuclear households, extended family households, and so on). The classification system for households worked out by the Cambridge Group for the History of Population and Social Structure has been applied by historians to a large number of communities. This evidence has been assembled by Peter Laslett in his book, *Family Life and Illicit Love in Earlier Generations.* A slight question of terminology arises in relating that evidence to the argument of this paper. Households that comprise more than one married couple do not form a separate category in the classification scheme of the Cambridge Group. The category “multiple family households” in that classification includes all households that comprise two or more conjugal family units connected by kinship or by marriage. Most conjugal family units will comprise a married couple, but other groups, such as a widow and her child, also constitute conjugal family units. The category “multiple family households” thus includes not only all joint households, but, in addition, some households containing only one married couple. The fact that the number of multiple family households in all Northwest European communities so far studied is so small is thus strong evidence that the proportion of joint households must have been small (say less than 6 percent).  

3 **Household composition in joint household systems: India and China**

The Danish household composition data were presented for the purpose of contrasting these with the situation in a society with a joint household system. Our example is India. We shall show that while Indian households are no larger than in preindustrial Northwest Europe, the proportion of joint households in India is substantial.

The Indian censuses are too well known to require description here. In 1951 and 1961, tabulations regarding households were obtained from samples of the census schedules. The tabulations on households were different at the two censuses, the sampling was different, and the quality of the data varied between parts of that vast country.  

India in 1951 is not quite an ideal comparison for our purposes. The country has, of course, a joint household system of enormous importance in that it affects so large a population. In 1951 India was still an overwhelmingly rural country of small villages (over 80 percent of the population was classified as rural); yet “modern” influences may, to some slight but unknown extent, have affected the traditional household formation system. There is, however, no reason to believe that in the past households were larger or that a higher proportion of them was joint.  

The composition of Indian households in 1951 is presented in Table 3. Comparison of Tables 1 and 3 shows that the average number of persons per household was about the same (about five in each case). The numbers of heads and their wives, and the numbers of children per household were also
about the same. It is to be noted, however, that whereas in Denmark the numbers of children of both sexes were roughly equal, in India sons far exceeded daughters. The main reason is that the daughters had moved out of their original household on marriage, become daughters-in-law, and, thus, been included under "other relatives" in Table 3.

### TABLE 3 Rural India, 1951: persons per 100 households by relationship to head

<table>
<thead>
<tr>
<th></th>
<th>Married heads and wives</th>
<th>Other heads</th>
<th>Children</th>
<th>Other relatives</th>
<th>Unrelated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>71</td>
<td>19</td>
<td>110</td>
<td>48</td>
<td>3</td>
<td>251</td>
</tr>
<tr>
<td>Females</td>
<td>71</td>
<td>10</td>
<td>81</td>
<td>74</td>
<td>3</td>
<td>239</td>
</tr>
<tr>
<td>Both sexes</td>
<td>142</td>
<td>29</td>
<td>191</td>
<td>122</td>
<td>6</td>
<td>490</td>
</tr>
</tbody>
</table>

SOURCE: Census of India, 1951, vol. 1, India, Part IA, Demographic Tables, Table C.I(ii).

A basic difference between Northwest European and Indian household composition is that, in Northwest Europe, servants (and to a smaller extent some other categories of "unrelated" individuals) take the place of most of the "other relatives" in Indian households. Indian households consist almost entirely of related persons with only very few household members (well under 2 percent) unrelated to the head.

As will be noted below, some of the servants in Northwest European households were related to the head of household, but unlike "relatives," such as daughters-in-law in India, they did not have permanent household membership by virtue of the relationship.

It is well known that India satisfies the characteristic of joint household systems by which both sexes marry early. For our purposes, it is not marriage as recorded in Indian censuses that is relevant (which in European terms is more like an irreversible betrothal). We must take as "marriage" the movement of the bride into the husband's household, which takes place later than the formal marriage. Even so, the "effective" marriage in this sense occurred for both men and women at a much earlier age, on average, than marriage in Northwest Europe.

In Denmark, as we have seen, married people were almost all in charge of their own household. This was not so in rural India: only some 64 percent of married men in 1951 were heads of households. Consequently, there were a substantial number of households in which two or more married couples lived together. The number and types of joint households (in terms of the relationship between the married men living in them) enumerated at a census depend not only on the types of joint household created, but also on the extent to which couples survive and the circumstances under which couples living together decide to split.

There is some information on the numbers and types of joint households in India. In analyses of the 1961 census household composition, the numbers of married sons and other married relations of the head were obtained. Some 67
percent of married men in 1961 were heads of households; 22 percent were sons
of the head of household; and 11 percent were related to the head in other ways.
Per 100 households there were 24 married sons and 12 married men related to
the head in other ways. The majority of joint households were therefore formed
by married sons living with their fathers. But there were also substantial num-
bers of married brothers and married couples related in other ways living to-
tgether. Nevertheless, splitting occurred at an early enough stage so that the
average household size remained on the order of five.29

A more detailed picture of the frequencies of various types of joint
household in India is available from a survey carried out in the state of Ma-
harashtra in 1947–51 (Table 4). The sample comprised some 12,000 households
selected from about 74 villages.30 The great majority of households (some 77
percent) at any one time contained only one married couple, or none. How-
ever, it can be inferred that many couples at some stage form part of a joint
household, and while the father-son type is the most frequent, other combina-
tions occur in nonnegligible numbers.

| TABLE 4 India and Nepal: percentages of households with different numbers of married couples in varying relationships |
|--------------------------------|----------------|
|                                | India (Maharashtra) | Nepal |
|                                | 1947–51               | 1976 |
| No couple                      | 19                     | 17   |
| One couple                     | 58                     | 63   |
| Two couples                    |                        |      |
| Father and son                 | 10                     |      |
| Two brothers                   | 5                      | 16   |
| Other relations                | 1                      |      |
| Three couples                  | 5                      | 3    |
| More than three couples        | 2                      | 1    |
| Total                          | 100                    | 99   |
| Number of households in sample | 12,030                 | 5,537|


Table 4 also shows the distribution by numbers of couples in households
of Nepal in 1976. These data are from a sample household survey taken as part
of the World Fertility Survey. The results are remarkably similar to those of the
Maharashtra survey. Over 90 percent of the Nepalese are reported as Hindus,
and Nepal displays a marriage pattern of the Indian type.31 The Nepalese rural
population according to the survey constitutes over 97 percent of the total
Nepalese population. The mean number of persons per household was 5.2.

Finally, we present some household composition data for traditional
China. Because of the enormous demographic significance of China, it seems
worthwhile to present a few figures even though they are subject to a number of uncertainties both in interpretation and regarding their representativeness. The data come from the China Land Utilization survey of 1929–31.\textsuperscript{32}

Demographic data were collected in 1929–31 and analyzed for over 100 rural localities spread over 16 provinces with a total population of over 202,000. These data have recently been subjected at the Office of Population Research at Princeton to modern methods of analysis developed for dealing with imperfect data.\textsuperscript{33}

This analysis reveals a pattern of early marriage for both sexes (mean ages at first marriage of 21.3 years for men and 17.5 years for women)\textsuperscript{34} and of high birth and death rates (each estimated at 41 per 1,000 population). In the survey, a household was defined as consisting of “all persons living and eating together, including non-relatives such as hired laborers.” In spite of the clause italicized, the number of nonrelatives enumerated was very small, as shown in Table 5, constructed on the same lines as Tables 1 and 3.

<table>
<thead>
<tr>
<th>TABLE 5 Rural Chinese communities, 1929–31 survey: persons of both sexes per 100 households by relationship to head</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heads and wives</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Whole survey</td>
</tr>
<tr>
<td>“South”</td>
</tr>
<tr>
<td>“South Eastern Hills”</td>
</tr>
</tbody>
</table>


Apart from the data for the whole survey, Table 5 also gives figures for two of the seven regions into which the data were divided for analysis. These regions are the extremes, that is, those that have respectively the largest and the smallest numbers of persons per household.\textsuperscript{35}

In comparison with Northwest European data, the Chinese figures present much the same features as the Indian ones, namely presence of substantial numbers of relatives and very small numbers of unrelated individuals. It is especially conspicuous (though not shown in the table) that there were virtually no women unrelated to the head of the household; the few unrelated household members were men. In the whole survey there were about 12 times as many unrelated males as females. The absence of unrelated persons from traditional Chinese households, as well as some of the other features found in Table 5, can be documented from Chinese populations that were under Japanese rule and for which statistical data were collected by the Japanese administration.\textsuperscript{36}

4 The age at becoming household head

Within any one population, joint households are, on average, larger than simple households. Yet households under a joint household formation system are, on average, not necessarily larger than were households under the Northwest
European simple household systems. Nor is the distribution by size distinctly different under the two kinds of household formation system, as Table 6 shows. Northwest European data have been italicized.\textsuperscript{37}

| TABLE 6 Selected populations: distribution of households by size (percentages of households in each size group) |
|---|---|---|---|---|---|
| | 1–3 | 4–6 | 7–9 | 10+ | Total |
| 100 English communities 1574–1821 | 36 | 42 | 17 | 5 | 100 | 4.8 |
| Rural India, 1951 | 34 | 43 | 17 | 6 | 100 | 4.9 |
| Denmark, 1787 (26 rural parishes) | 30 | 43 | 21 | 6 | 100 | 5.2 |
| Taiwan, 1915 | 30 | 42 | 18 | 10 | 100 | 5.3 |
| Norway, 1801 (3 areas) | 21 | 46 | 24 | 9 | 100 | 5.7 |

SOURCES: See sources to Tables 1 and 3, and Appendix 2, Tables A and B; for data for Taiwan see Barclay (1954).

This seems paradoxical. Indeed, a number of papers using models have been devoted to showing how much larger households would be, on average, if married children joined the households of their parents (as is the case under the joint household systems) than if they formed independent households at marriage (as was the case in Northwest Europe). These models assume “other things equal”—in particular, the same age at marriage.\textsuperscript{38} As the two kinds of household formation systems in fact operated, the Northwest European ones could create households as large, on average, as those under joint household systems.

One way to gain insight into the situation is to compare certain kinds of movements between households under the two kinds of formation system. Suppose, for example, that a girl aged 17 from household $X$ becomes a servant in household $Y$ under a Northwest European system; and consider for comparison under a joint household system a girl aged 17 from household $X'$ who is married and joins her husband in household $Y'$, which is headed by his married father. The number of persons in household $X$ could be the same as in $X'$ and the number of persons in household $Y$ could be the same as in $Y'$. Then the effect of the movement between households on the distribution of households by size would be exactly the same in the two cases. Yet in one case, but not in the other, a joint household would have been created.

Another way of shedding light on the apparent paradox is to consider the age at which men become household heads. The ways in which household headship is attained constitute an important difference between the two kinds of household formation system.

The reason why the age at which headship is attained is relevant to the size of households may be seen most easily if simplifying assumptions are made. Assume that (1) all household heads are men; (2) every man becomes a
head of household if he survives long enough; (3) once a man is a household head, he remains a household head. The number of heads of household is, of course, equal to the number of households. Then we know that

\[
\text{Mean number of persons per household} = \frac{\text{Total population}}{\text{No. of households}} = \frac{\text{Total population}}{\text{No. of heads}}
\]

If men become heads of household later in life, there will, at any one time, be fewer household heads and thus fewer households. Hence, the mean size of household will be greater. It is not easy to find data that show how entry into household headship varies with age under our two kinds of household formation system. Under Northwest European systems men mostly became heads of household at first marriage; entry into headship was thus concentrated into a comparatively narrow age range. This may be shown by the kind of data given in Table 7 for the Danish rural population in 1801.

**TABLE 7** Danish rural parishes, 1801: relation between entry into marriage and into headship (males)

<table>
<thead>
<tr>
<th>Age group</th>
<th>Ever married</th>
<th>Heads of household</th>
<th>Ever-married heads of household</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–22</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>23–27</td>
<td>23</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>28–32</td>
<td>56</td>
<td>52</td>
<td>51</td>
</tr>
<tr>
<td>33–37</td>
<td>74</td>
<td>74</td>
<td>72</td>
</tr>
<tr>
<td>38–42</td>
<td>90</td>
<td>90</td>
<td>88</td>
</tr>
<tr>
<td>43–47</td>
<td>91</td>
<td>90</td>
<td>88</td>
</tr>
<tr>
<td>48–52</td>
<td>94</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>53–57</td>
<td>95</td>
<td>93</td>
<td>91</td>
</tr>
<tr>
<td>58–62</td>
<td>96</td>
<td>88</td>
<td>88</td>
</tr>
</tbody>
</table>

*Source: Data received from Professor H.C. Johansen.*

As shown in Table 7 (the first and last columns of which are graphically presented in Figure 1A), both marriage and the attainment of headship were very largely concentrated in the 24 to 40 age range. All three columns of Table 7 show very similar figures. (Only two columns are represented in Figure 1A; if all three columns were shown, the resulting three curves would not appear clearly distinct.)

The only comparable set of data for a joint household system known to me comes from a population not yet discussed: that of fifteenth century Tuscany (Italy), whose rich records (compiled in connection with taxation) have been analyzed in magnificent detail by Herlihy and Klapisch-Zuber. The rural population of fifteenth century Tuscany displays all the marks of a joint household formation system in our sense.
FIGURE 1 Relation between entry into marriage and into headship: (A) Denmark, 1801, and (B) Tuscany, 1427–30

Table 8, which exactly parallels Table 7 (and is graphically represented in Figure 1B), relates to a part of this Tuscan rural population, namely the population of the countryside around Pisa. Here, the mean number of persons per household was 4.7. (The data cover some 3,900 households.)

<table>
<thead>
<tr>
<th>Age group</th>
<th>Ever married</th>
<th>Heads of household</th>
<th>Ever-married heads of household</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–22</td>
<td>15</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>23–27</td>
<td>53</td>
<td>30</td>
<td>16</td>
</tr>
<tr>
<td>28–32</td>
<td>74</td>
<td>45</td>
<td>36</td>
</tr>
<tr>
<td>33–37</td>
<td>85</td>
<td>57</td>
<td>48</td>
</tr>
<tr>
<td>38–42</td>
<td>93</td>
<td>70</td>
<td>67</td>
</tr>
<tr>
<td>43–47</td>
<td>96</td>
<td>74</td>
<td>72</td>
</tr>
<tr>
<td>48–52</td>
<td>95</td>
<td>84</td>
<td>81</td>
</tr>
<tr>
<td>53–57</td>
<td>93</td>
<td>86</td>
<td>82</td>
</tr>
<tr>
<td>58–62</td>
<td>95</td>
<td>90</td>
<td>87</td>
</tr>
</tbody>
</table>

SOURCE: Klapisch and Demonet (1972).

Under joint household systems, marriage is not, in most cases, the point of time at which headship is attained. Two other routes to headship predominate, namely (1) succession to headship when the head dies, or (2) becoming head of one of the households formed by splitting a larger one. These processes are spread out over a much wider age span than marriage.

Table 9 presents the comparison between the rural Danish and the rural Tuscan populations in a somewhat different fashion (in part repeating informa-
tion from Tables 7 and 8). It shows that in rural Tuscany there was no relationship between marriage and headship. Of the young married men, only a small proportion were heads, with this proportion slowly growing up to men in their 60s. The mean age at entry to headship in the Tuscan rural population was probably on the same order of magnitude as in the Danish rural population, that is, about 30 years of age. (It is of interest that in Denmark, but not in Tuscany, the proportion of heads diminishes again around age 60. This is apparently due to retirement.)

**TABLE 9 Comparison of Tuscany, 1427–30, and Danish rural parishes, 1801**

<table>
<thead>
<tr>
<th>Age group</th>
<th>Percentage of heads among:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All men in age group</td>
<td>Tuscany</td>
<td>Denmark</td>
</tr>
<tr>
<td></td>
<td>Tuscany</td>
<td>Denmark</td>
<td>Tuscany</td>
</tr>
<tr>
<td>18–22</td>
<td>14</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>23–27</td>
<td>30</td>
<td>19</td>
<td>30</td>
</tr>
<tr>
<td>28–32</td>
<td>45</td>
<td>52</td>
<td>49</td>
</tr>
<tr>
<td>33–37</td>
<td>57</td>
<td>74</td>
<td>57</td>
</tr>
<tr>
<td>38–42</td>
<td>70</td>
<td>90</td>
<td>71</td>
</tr>
<tr>
<td>43–47</td>
<td>74</td>
<td>90</td>
<td>75</td>
</tr>
<tr>
<td>48–52</td>
<td>84</td>
<td>90</td>
<td>85</td>
</tr>
<tr>
<td>53–57</td>
<td>86</td>
<td>93</td>
<td>88</td>
</tr>
<tr>
<td>58–62</td>
<td>90</td>
<td>88</td>
<td>91</td>
</tr>
</tbody>
</table>

*aBased on five heads among six ever-married men.

The distribution of households by the number of married couples in the household in fifteenth century Tuscany is not so very different from twentieth century India. A rough comparison between the data given in Table 4 for the Indian state of Maharashtra and the fifteenth century Tuscan population is shown in Table 10. (This table refers to the whole Tuscan population, not just the rural part.)

**TABLE 10 India and Tuscany: percent distribution of households by number of couples in household**

<table>
<thead>
<tr>
<th>India (Maharashtra) 1947–51</th>
<th>Tuscany 1427–30</th>
</tr>
</thead>
<tbody>
<tr>
<td>No couple</td>
<td>19</td>
</tr>
<tr>
<td>One couple</td>
<td>58</td>
</tr>
<tr>
<td>Two couples</td>
<td></td>
</tr>
<tr>
<td>Father and son</td>
<td>10</td>
</tr>
<tr>
<td>Two brothers</td>
<td>5</td>
</tr>
<tr>
<td>Other relations</td>
<td>1</td>
</tr>
<tr>
<td>Three or more couples</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

SOURCES: Maharashtra: Table 4 above; Tuscany: Hertlihy and Klapisch-Zuber (1978), p. 482.
In spite of some lack of comparability in the two classifications of households by type from which Table 10 has been constructed, the broad similarity between the two distributions seems beyond doubt.\textsuperscript{43} It is very striking how similar a result has been produced by two joint household formation systems in two such widely different cultures.

There seems to be only one population subject to a joint household system for which a direct analysis has been made of the frequency of the two modes of attaining headship that have just been mentioned, namely succession and splitting. Peter Czap has studied populations of Russian serfs on two estates in the first half of the nineteenth century.\textsuperscript{44} He was able to utilize successive enumerations of sufficient detail to distinguish between the two modes of accession to headship. Before quoting his data on this point, we first give a brief description of the household formation system of the serf population. Households were much larger than among the populations so far considered. The mean number of persons per household was over nine. From Czap's careful description of the operation of these households, it is clear that they were fully integrated households, in spite of their size.

Some household composition data for the serfs on one estate are presented in Table 11,\textsuperscript{45} which follows the pattern of Tables 1 and 3.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|c|c|}
\hline
 & Married heads & & Other heads & Children & Other relatives & Others & Total \\
& and wives & & & & & & \\
\hline
Males & 62 & 23 & 130 & 207 & 10 & 432 \\
Females & 62 & 15 & 79 & 313 & 14 & 483 \\
Both sexes & 124 & 38 & 209 & 520 & 24 & 915 \\
\hline
\end{tabular}
\end{table}

NOTE: The data relate to 1,173 persons in 128 households.
SOURCE: Computed from Czap (1982a), Table 11 (same as Table 6 of Czap [1982b], “The perennial multiple family household . . .”).

The figures for heads and their wives and children in Table 11 are broadly of the same magnitudes as in other populations covered in this paper.\textsuperscript{46} It is the large numbers of “other relatives” that make the serf households so big. In the serf households there were very few, if any, persons unrelated to the head. (The category “others” in Table 11 comprises persons whose relationship to the head could not be determined.)

Indeed it can be shown, since Czap gives a breakdown of household members by category of relationship, that in the serf households the great majority of members were not merely related to the head, but were in fact fairly closely related to him or her. Some 85 percent of household members (other than heads) were wives of heads, children of heads, or the spouses of children, grandchildren, or nephews or nieces. The remaining 15 percent included many whose relationship to the head was only slightly more remote, such as great-grandchildren.
The number of married men per household was high in the serf population (on average about two married men per household),\textsuperscript{47} and much higher than in the other joint household systems covered by this paper. A related index, proportion of joint households, was also much higher than in other joint household populations. Of the serf households, some 75 percent were joint\textsuperscript{48} at any one time, compared with 15 to 30 percent in other joint household systems (as shown, for example, in Tables 4 and 10). Because joint households are larger than simple households, the great majority of the serf population at any one time were members of joint households. Most serfs were members of a joint household either all their lives or for most of their lives.

What, in terms of household formation behavior, were the causes of large household size, large numbers of married men per household, and a very high proportion of joint households? The mean age at first marriage was under 20 for both sexes. The fact that both men and women became parents so young meant that they survived their sons’ marriages by a longer period than in populations where marriage occurs at later ages; this tends to create more households comprising married sons, living under the headship of their father, than would occur with later marriage. There was also a tendency to delay the splitting of households far beyond the point at which it would have occurred in other joint household systems. Married brothers, as well as cousins, stayed together in the same household in much larger numbers than in other joint household systems.

We now return to the age at attaining headship. Czap found that in the period 1782–1858, there were 343 cases on the Mishino estate in which headship was attained by succession (at ages ranging from 12 to 92) and 112 cases in which it was attained by splitting (at ages ranging from 18 to 77). When splitting occurred among the Russian serfs, the new daughter households were usually also joint households. In both cases (succession and splitting), the mean age of the new head was 46. This mean age contrasts with a mean age around 30 in the data for the fifteenth century Tuscan population, a mean that may be presumed to be the right order of magnitude for most joint household systems. Of course, under the serf system a far higher proportion of men died without ever becoming heads than under other household formation systems.

Most of Peter Czap’s work so far has been devoted to the peasants of one estate, Mishino, in Ryazan province; his data for this estate are the basis of our description of serf households. Czap has also analyzed four enumerations for an estate in the province of Tver. In the 1816 enumeration for that estate, he found that the mean household size was 9.1 and some 75 percent of all households were joint.\textsuperscript{49} It must be presumed that the striking household formation system revealed by Czap’s detailed study of the Mishino estate was shared by other serf populations. Indeed it seems likely that something like the Mishino household formation system prevailed among populations numbering in the millions. Average household size can be calculated from aggregate data on population and numbers of households that were compiled and published in the 1850s and early 1860s by an organ of the Tsarist administration, the Imperial
Central Statistical Committee. From these data Czap shows that large mean household sizes (of eight or more persons per household) prevailed over substantial parts of Russia in the 1850s, although there were also regions where average household size was rather lower (between six and seven persons per household).

In addition, there is evidence suggesting that there may also have been populations outside Russia with household formation systems similar to those of the serfs studied by Czap. Censuses taken at the end of the eighteenth century, in the territory then under the Hungarian crown, covered Croatia, where mean household size was as large as among the serfs studied by Czap, and the number of married men per household was also of the same order of magnitude. Data from these censuses have been published by the Hungarian Statistical Office. Table 12 summarizes the 1787 count.

**TABLE 12 Territory of Hungary, census of 1787**

<table>
<thead>
<tr>
<th></th>
<th>Population (000s)</th>
<th>Persons per household</th>
<th>Married men per household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hungary proper</td>
<td>6,085</td>
<td>5.22</td>
<td>1.05</td>
</tr>
<tr>
<td>Transylvania</td>
<td>1,372</td>
<td>5.03</td>
<td>1.03</td>
</tr>
<tr>
<td>Croatia</td>
<td>617</td>
<td>8.33</td>
<td>1.70</td>
</tr>
<tr>
<td>61 “Free Royal Cities”</td>
<td>485</td>
<td>4.45</td>
<td>0.84</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8,559</strong></td>
<td><strong>5.28</strong></td>
<td><strong>1.06</strong></td>
</tr>
</tbody>
</table>

**SOURCE:** Hungary (1960).

The brief summary in Table 12 shows how Croatia stands apart. There are counties within Croatia that were more extreme than Croatia as a whole. Pozsega (population 64,000) recorded a mean number of persons per household of 10.2, with an average of 2.0 married men per household. In Zagreb (population 150,000) the corresponding figures were 10.6 and 2.3. The Croatian population comprised large numbers of serfs (Czap suggests that households would have been smaller among his serfs if they had been free to form more separate households, as indeed they did when serfdom was abolished). A Slavic tradition shared with the Russians may be relevant to the interpretation of this phenomenon within Croatia.

In Hungary proper, the figures for different counties on size of household and married men per household suggest that in some places joint household formation systems more similar to those of other populations considered in this paper may have been in operation. Detailed analyses of inhabitants for three villages for years between 1792 and 1816, in combination with family reconstitution materials, confirm this picture. They show early marriage (the average age at first marriage was under 24 for men and under 19 for women), an absence of unrelated household members, and substantial numbers of joint households (though, as in India and other joint household populations, the joint households constituted a minority of all households).50
5  The circulation of servants

Many of the terms describing relationships within a household have much the same meaning across different societies and across the centuries (with no doubt as to what are equivalent words in different languages). For example, “children of the head” are probably very much the same category in all the societies considered in this paper.

Servants are a characteristic and, on average, a substantial component of rural preindustrial Northwest European households; but unlike the word “child,” the term “servant” and its equivalents in other European languages are apt to be misunderstood. The term refers to an institution that, so far as is known, was uniquely European and has disappeared.

The servants who are recorded as household members in the data for preindustrial Europe were in the main not servants in the now customary meaning of the term, that is, people ministering to the personal comforts of the more prosperous section of the population. They participated in the productive tasks—mainly in farming or craft activities—of the households in which they lived. It must be remembered that at the time “production” was largely carried on in households, and in such households there was no sharp division between activities now classified as “production” and those classified as “consumption.” Servants lived as integrated members of the household; in particular they often participated in meals.

Servants were regarded as members of their master’s household (or “family” in the language of the time). The sentence quoted from John Graunt in section 2 above may serve as an example. Religious writings emphasized that in the eyes of God, masters had a responsibility for the moral welfare of their servants similar to that which they had for their children.

The number of servants does not by itself bring out the significance of the circulation of servants between households in preindustrial Europe. For example, Table 1 showed that in Denmark at the end of the eighteenth century there were on average 90 servants per 100 households, so that 17.6 percent of the total population were servants. But the servants were concentrated at adolescent and young adult ages.

Table 13 shows that in rural Denmark in 1787/1801 well over 50 percent of those who survived past adolescence were in service at some point in their lives. Now the proportion of servants in the Danish population at that period was higher than in many other parts of Northwest Europe. But it was always true that a very substantial proportion of young men and women experienced service at some point in their lives. Table 14 summarizes some data (similar to those of Table 13) that are available for other populations. (An additional set of rates for Iceland is given in Table 17.)

Servants, as has already been mentioned, were almost always unmarried, especially female servants. “All masters discourage the marrying of their male servants, and admit not by any means the marrying of the female, who are then supposed altogether incapacitated for their service.” So wrote David
TABLE 13  Danish rural parishes, 1787 and 1801: servants as percent of total population in each age-sex group

<table>
<thead>
<tr>
<th>Age group</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>5–9</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>10–14</td>
<td>36</td>
<td>26</td>
</tr>
<tr>
<td>15–19</td>
<td>52</td>
<td>50</td>
</tr>
<tr>
<td>20–24</td>
<td>56</td>
<td>51</td>
</tr>
<tr>
<td>25–29</td>
<td>43</td>
<td>28</td>
</tr>
<tr>
<td>30–34</td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>35–39</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>40–44</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>45–49</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>50–54</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>55–59</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

SOURCE: Johansen (1975), p. 158. Values have been averaged for 1787 and 1801 from data given only as integers.

Hume in an essay entitled “Of the populousness of ancient nations” (published in 1742), and a variety of data bear out his words. Service was in general a stage for young people between leaving home and marriage, that is, a stage in the life cycle. Servants in preindustrial Northwest Europe were, in a phrase coined by Peter Laslett, “life-cycle servants.” Servants often moved repeatedly between households; they were members of their master’s household not by any permanent right, but by virtue of a contract usually fixed for a limited period.

It was not only the poor and landless whose children went into service. Those who operated their own farms and even farmers with large holdings sent their children into service elsewhere, sometimes replacing them with hired servants in their own household. Under certain conditions a high proportion of all servants were the children of farmers, although, of course, the children of

TABLE 14  Servants as percent of total population in each age-sex group

<table>
<thead>
<tr>
<th>Age group</th>
<th>Iceland, 1729 (3 counties)</th>
<th>Norway, 1801 (3 areas)</th>
<th>9 Flemish villages, 1814</th>
<th>6 English communities, 1599–1796</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Both sexes</td>
<td>Males</td>
</tr>
<tr>
<td>10–14</td>
<td>21</td>
<td>20</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>15–19</td>
<td>33</td>
<td>34</td>
<td>32</td>
<td>38</td>
</tr>
<tr>
<td>20–24</td>
<td>39</td>
<td>44</td>
<td>33</td>
<td>48</td>
</tr>
<tr>
<td>25–29</td>
<td>34</td>
<td>32</td>
<td>19</td>
<td>35</td>
</tr>
<tr>
<td>30–39</td>
<td>12</td>
<td>24</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>40–49</td>
<td>9</td>
<td>17</td>
<td>3</td>
<td>8</td>
</tr>
</tbody>
</table>

SOURCE: Iceland: Iceland, Statistical Bureau (1975); Norway: Drake (1969) (for the data on Iceland and Norway see also Appendix 2); Flemish villages: private communication from Richard Wall. The villages and the data are discussed in an article by Wall to be published in R. Wall, J. Robin, and P. Laslett (eds.), Family Forms in Historic Europe (forthcoming); English communities: Laslett (1977), Table 1.7.
those with little or no land (here called laborers) were more likely to go into service than farmers’ children since they did not have the option of employment on their parents’ farm. This matter was first documented in the pioneering study by Mackeprang (1907) of the 1645 data for the Danish island of Moen (see Table 2).

The basic data for Mackeprang’s simple calculation are shown in Table 15. Mackeprang assumed that the total of unmarried young people at each age was divided between farmers’ and laborers’ children in the same ratio as at age 0–4; that is to say, some 18 percent of the total in each age group would have been laborers’ children. Thus of the total of 557 aged 10–14 some 103 would have been laborers’ children. Since there were 66 laborers’ children in that age group living at home, there would have been 37 in service. One then reaches the picture given in Table 16.

<table>
<thead>
<tr>
<th>Age group</th>
<th>Farmers’ children at home</th>
<th>Laborers’ children at home</th>
<th>Servants</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–4</td>
<td>478</td>
<td>108</td>
<td>0</td>
<td>586</td>
</tr>
<tr>
<td>5–9</td>
<td>458</td>
<td>97</td>
<td>20</td>
<td>575</td>
</tr>
<tr>
<td>10–14</td>
<td>368</td>
<td>66</td>
<td>123</td>
<td>557</td>
</tr>
<tr>
<td>15–19</td>
<td>175</td>
<td>6</td>
<td>165</td>
<td>346</td>
</tr>
<tr>
<td>20–24</td>
<td>93</td>
<td>8</td>
<td>110</td>
<td>211</td>
</tr>
<tr>
<td>Total</td>
<td>1,572</td>
<td>285</td>
<td>418</td>
<td>2,275</td>
</tr>
</tbody>
</table>

SOURCE: Mackeprang (1907), p. 263.

Of course this method of calculation involves several questionable assumptions (e.g., in relation to migration), but the general picture can hardly be in doubt. Because laborers formed only a small minority of the population, most servants must have been the children of farmers. A similar situation obtained in Iceland and probably elsewhere in Europe.59

There was a great increase in the proportion of the landless population in Denmark (and indeed elsewhere)60 during the seventeenth and eighteenth cen-

<table>
<thead>
<tr>
<th>Age group</th>
<th>Numbers of servants who were children of</th>
<th>Percent who were servants among unmarried children of</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Farmers</td>
<td>Laborers</td>
</tr>
<tr>
<td>5–9</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>10–14</td>
<td>86</td>
<td>37</td>
</tr>
<tr>
<td>15–19</td>
<td>107</td>
<td>58</td>
</tr>
<tr>
<td>20–24</td>
<td>79</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>283</td>
<td>135</td>
</tr>
</tbody>
</table>

SOURCE: Calculated from Table 15 as described in the text. (The figures differ very slightly from Mackeprang’s own results.)
turies. In the 1801 sample of Danish rural parishes some 50 percent of the newborn were laborers' children, as compared with 18 percent on the island of Moen in 1645. Under the circumstances of Denmark in 1801 a much higher proportion of servants must have been drawn from among the children of laborers.

To summarize, the characteristics of the institution of service in the rural populations of preindustrial Northwest Europe may be delineated by the following statements. (1) Servants were numerous, apparently always constituting at least 6 percent, and usually over 10 percent, of the total population. (2) Almost all servants were unmarried and most of them were young (usually between 10 and 30 years of age). (3) A substantial proportion of young people of both sexes were servants at some stage in their lives. (4) Most servants were not primarily engaged in domestic tasks, but were part of the work force of their master's farm or craft enterprise. (5) Servants lived as members of their master's household. (6) Most servants were members of their master's household by contract for a limited period. (7) There was no assumption that a servant, as a result of being in service, would necessarily be socially inferior to his or her master. The great majority of servants eventually married and ceased being servants. Their social class before service (i.e., usually the class of their parents) and their social class after service could be the same as their master's (and in some Northwest European populations at some periods this was not infrequently the case).

Servants (or persons whose designation can be translated by that word) are of course found outside Europe. But elsewhere, and in particular in societies following a joint household system, the servants represent different kinds of phenomena both in function and in scale from the Northwest European variety. Nowhere in data for agricultural joint household populations is there any suggestion of service along the Northwest European lines, where a high proportion of men and women spent some portion of their lives circulating between households in that condition. Purely domestic servants (often especially numerous in cities) or household heads whose occupation is "servant" are clearly different from Northwest European rural servants. So is the "estate servant caste," a distinct population on the Russian estates whose serf populations have been studied by Peter Czap. Types of "servants" in another joint household system, namely traditional China, are described by J. L. Watson (1980). It is clear that these kinds of "service" (e.g., hereditary domestic servants constituting rather less than 2 percent of the population and not living in the master's household) bore no resemblance in scale, function, or method of recruitment to the Northwest European variety. In these and other instances the groups designated "servants" do not have several of the features that, as described in the last paragraph, characterized service in preindustrial Northwest Europe. In other preindustrial populations such "service" as existed did not redistribute a large part of the young adult population between households.

It would be impossible in a society where women married very early for them to spend time as servants in the Northwest European sense and on such a scale.
Another argument in support of the conclusion that the Northwest European type of service could not have existed in the joint household systems is based on the very small numbers of individuals "unrelated" to the head found under the joint household systems. The number of such persons in the data for joint household systems is much less (usually under 2 percent of the total population) than the number of servants in preindustrial Northwest Europe.

It may be objected to this argument that some servants were relatives of the head. It is indeed true that some servants were even close relatives. Ann Kussmaul has pointed out that kinship affected servant hiring in two ways: "Servants found places with their own kin; masters found servants through theirs." A higher proportion of servants were relatives of their master than would have been the case had servants been recruited by random selection. Nevertheless the great majority of servants were probably either unrelated to their master or much less closely related than household members in joint household systems. In any case servants were present in the household on a temporary basis under contract; they did not have a permanent right to household membership by virtue of their relationship.

The circulation of servants between households seems to have been an essential feature of the Northwest European household systems. The connection between late marriage and the existence of life-cycle service has already been pointed out. Another reason for regarding life-cycle service as an essential ingredient of the household system is that the other Northwest European formation rules (rules 1A and 1B of section 1) would frequently have resulted in households consisting of a couple and their very young children—a unit without a sufficient number of persons capable of doing the work needed to run the farm. The possibility of hiring servants overcame this problem.

The Northwest European systems, like the joint household systems, could operate under conditions very close to subsistence level, as in Iceland. Probably they could exist under such conditions only because of the institution of life-cycle service.

The institution of service has been neglected by scholars. Further study is likely to reveal links between service and many other aspects of the functioning of preindustrial Northwest European societies. The paragraphs that conclude this section briefly and tentatively indicate some links of this sort that would be worth investigating.

Much migration in Northwest Europe was the migration of servants, a large-scale migration of young unmarried adults that had no parallel in joint household populations. The seventeenth century migration of servants, and indentured servants in particular, to the New World had its origins in the institution of service. From Britain and many other parts of Northwest Europe great numbers of servants crossed the Atlantic. It is thought that more than half of all those who came to the North American colonies south of New England were servants.

Service was in general about as common among women as among men. This was an aspect of the apparently greater independence of women in prein-
dustrial Northwest Europe compared with women in joint household populations. While in service, women were not under the control of any male relative. They made independent decisions about where to live and work and for which employer. There was also financial independence even though women servants’ wages were lower than men’s. Savings accumulated during service were probably often a substantial contribution to the economic basis of a woman servant’s subsequent marriage. This was probably the reason why women marrying laborers (for whom such a contribution was important) were on average older at first marriage than women marrying farmers. The future wives of laborers would have needed a substantial period of service to accumulate the necessary savings.

The fact that marriage in Northwest Europe joined together two mature adults must have affected considerably the nature of the relationship between the spouses. Indeed this relationship was generally initiated by way of a period of courtship, whereas in the joint household populations the practice of marriage arranged by the parents seems to have been nearly universal, often arranged marriage in the full sense that the couple had little or no acquaintance with each other before the wedding. The joint household system must also affect the relationship between husband and wife after marriage because, in contrast with the Northwest European situation, the young couple are often not the only couple in the house. The young husband’s parents will often be in charge of the household. The young wife is under the dominance of her mother-in-law at an age at which, in Northwest Europe, she would often have been in service under an unrelated mistress. Her husband may continue to have a closer relationship with his mother, who is present in the household, than with his wife.

Servants were one of the forms of hired labor employed by Northwest European farmers. There were also day laborers, who were often married. (Day laborers were usually former servants who had married.) In joint household populations, households consist almost entirely of relatives, and almost all work is done by household labor, that is, family labor. There are probably substantial differences between an agricultural household economy with a considerable element of hired labor and one relying very largely on family labor. This difference is the core of a “theory of peasant economy” elaborated in the 1920s by the Russian economist Chayanov, whose views have attracted substantial attention in recent years. Chayanov did not, of course, refer to joint household formation systems by that term. But something like that was clearly what he had in mind when he referred to “peasant farms in Russia, India, China.” He discusses the development of a joint household, illustrating his argument by a “theoretical scheme” (it would nowadays be called a model) in which a joint household created by the marriage of the head’s son lasts for eight years before splitting takes place.64

Chayanov argued that the concepts of economic theory (rent, capital, price, etc.) had been developed in the framework of an economy based on wage labor. From the point of view of the present article one may add that it is hardly surprising that Adam Smith, Ricardo, and their successors based their
theories on the social system they knew, namely that of Northwest Europe. However, the notions of rational behavior developed by economists were not applicable, Chayanov argued, in a different kind of society, in the circumstances of "peasants," that is, members of joint household populations. If Chayanov was right, Northwest Europeans must have differed fundamentally in their economic behavior from joint household populations, a difference that must be of great significance for economic development.

6 Origins of Northwest European systems and consequences for fertility regulation

In this final section, additional aspects of the Northwest European type of household formation systems are treated, with emphasis on future research. There is a great deal of information on households in historical times waiting to be analyzed. Much progress has been made since the availability of computerized data processing, and it seems certain that very much more information will be available in only a few years' time. In particular a great deal more will probably be known about household composition in Southern Europe in past centuries.

The Northwest European kind of household formation system was found over a contiguous area in the seventeenth century and probably derived everywhere in this area from a common origin. This kind of household formation system presumably arose only once in human history. By contrast it seems possible that many societies have independently developed household formation systems conforming to the joint household formation rules.

There were indeed differences in household composition between various parts of the region here termed Northwest Europe, but the emphasis in this paper has been on features common to the whole region. The distinctive characteristics of the common Northwest European household formation systems will emerge more clearly when populations adjacent to Northwest Europe, and particularly populations of Southern Europe, have been thoroughly studied with regard to household composition in past centuries. There were in Southern Europe household formation systems that did not conform to the Northwest European rules, but that were probably much more similar to the Northwest European systems than were the joint household systems (for example, there probably were some "life-cycle" servants). The way in which the distinctiveness of Northwest European household formation systems has been presented in this paper may have to be modified when Southern European systems have been thoroughly studied.

How long ago did distinctive features of the Northwest European household formation systems emerge? It may be that substantial data on household composition for whole communities from earlier centuries will be discovered, but even in the absence of direct data some inferences about household formation systems may be possible. For the Northwest European household formation systems were associated with features that can, to some extent, be traced in legal and other records for centuries earlier than the seventeenth. Three
features may be mentioned. (1) The presence of large numbers of servants in the specific Northwest European sense. This feature has already been extensively discussed. (2) Retirement contracts. This feature has been briefly referred to. If children stay with their parents in a joint household even after they have become adults, the new generation can take over the work as the parents age and become weak. The children provide for their parents' needs within the undivided household. In a system where the children move out of the parents' household, the consequences of aging cannot be dealt with in this way. On the one hand, control over land and other resources must in some way pass to the younger generation so that the society's productive activities can be effectively carried out. On the other hand, the needs of the old must be provided for by transferring to them some of the output of the working population. One way of dealing with these problems was retirement of the head of the household in return for the guarantee of upkeep by the incoming head. This kind of retirement by contract with the incoming head was not the only solution, and retirement shows only partially in the kinds of data that have been analyzed in this paper. (That is why retirement was not included explicitly among the household formation rules listed.) (3) Public provision for the poor, usually by the local community. This seems to have been present over at least a large part of Northwest Europe in the seventeenth and eighteenth centuries. It is tempting to see a connection between this feature and the fact that under the Northwest European household formation systems the needs of the old, the widowed, and of other disadvantaged persons would not be met in the same way as in joint households.

A comparative survey of public provision for the poor in different societies that attempts to establish how far such provision existed throughout Northwest Europe, and whether it failed to exist outside the region, would be of great interest. For the moment let us suppose that such provision was in fact found everywhere in Northwest Europe in the seventeenth and eighteenth centuries. To what extent did public provision for the poor exist in earlier centuries? (The post-Reformation enactments, such as the Elizabethan poor law in England, may in part have continued what had already existed.)

It might be possible to investigate how far evidence for the three features mentioned (servants, retirement contracts, provision for the poor) can be traced in earlier centuries. For England at least, it seems likely that these features can be traced back for perhaps four centuries prior to 1600.65 It may well turn out that aspects of the Northwest European household formation systems can be shown to be very old indeed. (It would not follow from this fact that, if household composition data were discovered for say twelfth century England, they would in all respects be similar to those found in the seventeenth and eighteenth centuries. For example early marriage might have been more common in the early Middle Ages than in later centuries, with consequences traceable in household composition data.)

It is already clear that Northwest European household formation systems operated in economic conditions (such as those of Iceland around 1700) that were very "primitive" by the standards of the more advanced economies of
eighteenth century Europe. The distinctive features of the Northwest European household formation systems may have had their origins early in the development of European societies with economies based on household farms.

We turn now to a discussion of the consequences of the institution of service for fertility control. It was suggested in section 1 that the institution of service in Northwest Europe made late marriage possible. It probably also made possible variation over time in the age at marriage and the proportion remaining unmarried. Such variation could occur in response to changing economic circumstances. When conditions were unfavorable for setting up new households, some who might have married directly from their parents' home probably went into service, and others remained longer in service than they would have done had earlier marriage been possible. As servants, the unmarried could move to farms and localities where their labor was most useful.

If this suggestion is correct, then the institution of service played an important role in the demography of preindustrial Northwest Europe. For it constituted part of the much discussed mechanism that, by varying the age at and extent of marriage, adjusted fertility and thus population growth in response to the economic conditions. It was probably because of service that Northwest Europe could operate with a balance between birth and death rates established at a lower level than prevailed in other preindustrial societies.

This suggestion is open to investigation, in principle at any rate. With suitable data it would be possible to trace relations between variations over time in the proportion of the population who were in service, the age at marriage, fertility, and household composition. Delayed marriage did not, however, inevitably involve going into, or remaining in, service, and other factors besides the age and incidence of marriage powerfully influenced the number of servants. Thus, too close a correlation between variations in the incidence of late marriage and of service must not be expected.

The institution of service was common to the whole of Northwest Europe, an area within which a considerable variety of social conditions was to be found. The response to adversity by way of increased service and delayed marriage may have operated in rather different ways in different countries.

We present brief and preliminary examinations of three contrasting situations. The first example is that of Iceland in the early eighteenth century. The censuses of 1703 and 1729 encompassed a period that saw change of just the kind that should display the phenomenon under discussion. The 1703 census showed large numbers of servants, a very high proportion unmarried, and an age structure indicative of a very low birth rate in the years before the census. The low birth rate was presumably a reaction to the appalling economic conditions, due in part to climatic disasters, that caused the Danish government to order the taking of the census. In 1707–8 there was a further disaster, a severe smallpox epidemic. The returns of the 1729 census have survived for only three counties covering about one-fifth of the total population. In those counties the population in 1729 was some 20 percent below the 1703 level. But the 1729 census shows signs of a sharp recovery of the birth rate. H. O. Hansen, who analyzed the 1729 material for the Icelandic Statistical Office, drew attention to
the close spacing of the births of the children surviving to the census, an apparent increase in the proportion of the population who were married (especially within the young age groups), and the enlarged proportion of the population under age 15. These facts, he wrote, indicate "the existence of an extremely high level of marital fertility, intensive formation of young families, i.e., a drastic fall in the age at marriage and consequently an immediate and explosive growth of the population through the birth rate just after the crisis." 67

Was the reduction in age at marriage associated with a decline in service? The proportion of servants in the population was 19 percent in the whole of Iceland in 1703, but only 17 percent in 1729 in the three counties whose data have survived. The age-specific picture shown in Table 17 suggests a substantial shift in the age pattern of service between the two censuses (although the change may be due in part to the change in geographical coverage, apart from the possibility of defective data). The 1703 proportions in service are lower than the 1729 ones at ages under 20, but higher at ages over 25. It is as if there had been a shift to a pattern of leaving home earlier and marrying earlier. An increase in the proportion of women married 68 at ages 25–39 equal to the decrease between 1703 and 1729 in the proportion in service in that age range would have made a substantial contribution to the birth rate.

<table>
<thead>
<tr>
<th>Age group</th>
<th>Males</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1703</td>
<td>1729</td>
</tr>
<tr>
<td>10–14</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>15–19</td>
<td>24</td>
<td>33</td>
</tr>
<tr>
<td>20–24</td>
<td>44</td>
<td>39</td>
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<td>25–29</td>
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<td>34</td>
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<tr>
<td>30–39</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>40–49</td>
<td>12</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>1703</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>41</td>
</tr>
<tr>
<td>45</td>
</tr>
<tr>
<td>32</td>
</tr>
<tr>
<td>20</td>
</tr>
</tbody>
</table>

SOURCES: Computed from Iceland, Statistical Bureau (1960), Table V, and Iceland, Statistical Bureau (1975), Tables 1 and 9.

Iceland at the beginning of the eighteenth century was very "backward" both demographically (with very high mortality) and economically, being entirely rural with a near total dependence on sheep farming and fishing. England in the seventeenth and eighteenth centuries was a very much more "advanced" society. Wrigley and Schofield, in their recent fundamental and revolutionary reconstruction of English demographic history from 1541 to 1871, have presented a picture of substantial variation over time in the rate of population growth due to variations in birth rates. These fertility variations were in turn largely due to variations in the marriage rate, which reflected changes in age at marriage and proportions marrying. Wrigley and Schofield interpret these changes in marriage rate as a lagged response (the lag is of the order of 25–30 years) to economic changes as shown in an index of real wages.
Demographic changes in seventeenth and eighteenth century England proceeded in long-term swings. There was apparently a period of fairly rapid growth in the second half of the sixteenth century. Then there was a prolonged period of late marriage, with resulting low fertility and low population growth, in the seventeenth century. This period was followed by a century of increasing marriage rates and rising population growth. The mean age at first marriage for both men and women appears to have been some 1.5 years lower in the period 1750–99 compared with the period 1650–99. The proportion of persons of both sexes who had never married by age 40–44 is estimated to have fallen from some 25 percent in the middle of the seventeenth century to some 5 percent in the second half of the eighteenth century.69

Was the change in marriage habits in England between the seventeenth and eighteenth centuries accompanied by a diminution of the proportion of young people who entered service and of the length of time spent in service? Some evidence suggesting that it was is set out in Table 18, which is taken from the work of Richard Wall. He has compared household composition data from eight local lists of inhabitants spread over the period 1650–1749 with data from lists of 19 communities in the period 1750–1821. The lists used for this comparison were selected for their high quality from a much larger number of English lists that have been preserved and analyzed (see Table B in Appendix 2). Unfortunately the sets of lists for the two periods come from two non-overlapping sets of communities so that, in the comparison between the two sets, the change over time may be confounded with some local variation. We do not know how closely the household characteristics of the two sets of lists approximated those of the whole English population in the two periods being compared.

| TABLE 18 English communities in two periods: persons of both sexes per 100 households by relationship to head |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                 | Heads and wives | Children        | Other relatives | Servants        | Lodgers         | Total           |
| 1650–1749       | 163             | 177             | 16              | 61              | 26              | 444             |
| 1750–1821       | 175             | 209             | 22              | 51              | 24              | 481             |

NOTE: The figures for 1650–1749 are based on eight lists covering 866 households that comprised 3,850 persons. The figures for 1750–1821 are based on 19 lists covering 1,900 households that comprised 9,133 persons.


In the sets of parishes covered by Table 18, servants formed 14 percent of the total population in the lists for 1650–1749, that is, the period of comparatively late and little marriage, whereas only 11 percent of the population were servants in 1750–1821.70

Following the argument given at the beginning of section 4, one would expect that, in two Northwest European populations with the same age structure, households would on average be larger in the population where men married later and less—populations where there were fewer heads of household. Thus, according to this argument households should on average have
been larger in the late seventeenth than in the late eighteenth century. However, the change in age at marriage between the seventeenth and eighteenth centuries did not leave the age structure unchanged. The birth rate was substantially lower in the earlier period and hence there were fewer children. The data in Table 18 conform to this expectation; households appear on average to have been larger in the later, high-birth-rate period, mainly because of the larger number of children.  

Finally, one may look back to Table 2 and apply the same considerations. Table 2, like Table 18, gives data for two periods in one of which there were fewer servants, but more children, than in the other. In rural Denmark in 1787/1801, where there were more servants, fertility was much lower than on Moen in the seventeenth century. (Only 24 percent of the population were under age 10 in 1787/1801, compared with 30 percent on Moen in 1645.) Thus in Denmark also the incidence of service seems to have varied inversely with marriage and fertility.

Joint household populations and Northwest European populations must have reacted in fundamentally different ways to adverse economic difficulties and particularly to difficulties resulting from population growth. In joint household populations an increased population could result in the underemployment of married adults in circumstances that, in Northwest Europe, would have caused pressure to delay marriage. The institution of service was probably an essential part of the mechanism by which marriage could be delayed, with the result that population growth was under partial control. Populations with joint household systems lack that mechanism.

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Appendix 1

The definition of a household

What is a household? If one wishes to make meaningful statistical comparisons of household size and composition between cultures and across centuries, it is necessary to use a household concept that is appropriate to all the societies being compared, and to be able to suppose that the statistical data used are the result of enumeration or recording procedures in which the chosen concept has been at least roughly applied.

One important restriction on the concept, for the purposes of the present paper, arises from the fact that it is necessary to allocate every person (or virtually every person) in the population of an area uniquely to one household. Given this constraint and the nature of the available data, there seems in effect no choice. A household, for our purposes, must be defined as a housekeeping or consumption unit. A definition of this type is used in the majority of modern censuses. The essential characteristic of a household in this sense has often been taken to be the eating of meals together by all members of the household, or the sharing of meals deriving from a common stock of food. (When shared consumption is taken as the defining characteristic of a household, it is in general tacitly assumed that spouses and, more particularly, parents and their young children are in the great majority of cases in the same household. This assumption holds true for the populations dealt with in this paper.)

The notion that a household comprises all those who share their food with one another has clearly been current among many peoples over many centuries and is embodied in such descriptions of a household (or "family") as comprising those eating from a common pot or sharing the same wine and bread. Economic
dependence on the household head is, under preindustrial conditions, a closely related notion. A people's own notion of who constituted members of one household must have had a great influence on the process of compiling censuses and administrative records in which individuals were to be listed by household.74

The definition of a household as consisting of those depending on one head and sharing the same stock of food is already explicitly formulated in the instructions for the censuses carried out in Austria-Hungary toward the end of the eighteenth century. These censuses covered large populations of diverse nationalities, cultures, and patterns of household formation. The essence of the definition used in these Austro-Hungarian censuses was as follows: "All those should be counted in one household, and accordingly entered on the same household schedule, who do not cook for themselves, but are nourished under one master or mistress on the same table and bread, whether they be married or not." Where more than one married couple share the same table and bread, they are thus counted in the same household, as are living-in servants or others who do not cook for themselves.75 By this definition it was possible to have more than one household in the same house or to have one household occupying several dwellings. In the territories under the Hungarian crown enumerated in 1784–87, the numbers of households per house were as follows:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hungary</td>
<td>1.24</td>
</tr>
<tr>
<td>Transylvania</td>
<td>1.12</td>
</tr>
<tr>
<td>Croatia</td>
<td>0.96</td>
</tr>
<tr>
<td>61 “Free Royal Cities”</td>
<td>1.59</td>
</tr>
</tbody>
</table>

Thus, in Croatia, where households contained an average of 1.7 married couples, there were more houses than households. At the other extreme, the sharing of a house by several households was most common in the cities.

The effects of different definitions and of inconsistencies in their application in the enumerations are probably greater in Northwest Europe than in other populations with which this paper is concerned. One reason is that in joint household systems, households consist almost entirely of members who have a permanent right to belong by virtue of relationship (including adoptive relationship). Such a household is a fully integrated unit, leaving little room for doubt who its members are. In Northwest Europe, on the other hand, there were frequently to be found living in the same farm, house, or group of buildings groups of individuals not sharing fully in one integrated household. In such cases the subsidiary group (usually the smaller one) could be, and was by contemporaries, treated variously either as a separate household or as part of the main household. One such sort of group were retired persons—in particular, parents who had handed over their farm to the heir in return for a contract guaranteeing an allowance. This category was fairly frequent in some areas of Northwest Europe. The extent to which a widowed retired person or a retired couple, possibly with children or servants of their own, lived apart and led an independent existence in terms of eating meals and so forth76 must have varied.

Laborers with their families living on the farm for which they worked constituted another sort of subsidiary group whose relationship to a larger household could be ambiguous. The Danish scholar E. P. Mackeprang, in his analysis of the 1645 census of the island of Moen, noted that "husmaend" (laborers) were sometimes enumerated with the farm household and sometimes on their own, with inconsistent enumeration practices between the parishes77 of the island.

General terms such as "lodgers," and equivalent terms in other languages, often cover subsidiary groups whose integration with the main household may be questionable.

Interesting light on the possible effect of different definitions of a household in instructions to census takers is shed by a comparison between the Danish censuses of 1787 and 1801. At the 1787 census it was specified that "farmers with their households should be counted separately and laborers with their households separately. . . ." In 1801 there was an additional instruction that "if several households live in a house or farm, then every household should be counted separately, together with the persons belonging to it."

Johansen78 analyzed the allocation of individuals to households at the two censuses and concluded that the 1801 addition to the instructions resulted, in particular, in the separate identification of households of laborers.
living on farms. He believes that in the 1787 census the number of households distinguished was some 2 to 3 percent too low. Changes in definition also affected the number of retired people classified as living independently.

Archives in European countries have preserved many documents listing individuals by households, documents deriving from the tradition in the Roman Catholic church by which the parish priest was supposed to prepare, and revise regularly, a list of his parishioners, noting who had been confirmed, attended communion, and so on. This regular check on religious practice was instituted later than the registration of baptisms and marriages, but in 1614 the promulgation of the Rituale Romanum under Pope Paul V formalized a long-standing tradition and laid down procedures for the priest to follow in maintaining a register of souls (Liber Status Animarum), along with registers of marriages, baptisms, and burials.

The crucial feature, from the point of view of the present paper, was that the register was to be kept by households, presumably for the same practical reasons that censuses and surveys enumerate people by households. However, no definition was laid down of what constitutes a household. The Rituale Romanum of 1614 prescribed that the Liber Status Animarum be kept in the following manner: "Each household is to be separately noted, with a space left between each one and the following one; the name, surname, and age is to be listed of each individual who is of the household or lives in it temporarily." There follow instructions for the notations recording conformity to the various religious obligations. This Catholic tradition continued to have effect after the Reformation in Protestant countries, and listings were compiled by clergymen there on similar principles.

For most of the older European listings of individuals by households, whether they be general government censuses, administrative documents, taxation registers, confession books, or whatever, there is no explicit definition of what was to be taken to constitute a household. Sometimes there is uncertainty about just which of the persons listed the original compiler of the documents intended to be included in one household. But where the categories of persons mentioned (such as retired people or farm workers) who are likely to have formed separate housekeeping units are present in substantial numbers, we may suspect that some of the "households" are larger units than they would be had a strict housekeeping unit definition been adhered to.

---

**Appendix 2 Household composition data for Northwest Europe**

The following three tables summarize household composition data, such as were given for Denmark in section 2, for other Northwest European countries in the seventeenth and eighteenth centuries. Only brief comments have been added. The categories of relationship to the head, distinguished in the analyses on which the tables are based, vary somewhat.

The figures for Iceland and Norway (Table A) are, like the data for Denmark quoted earlier, modern reanalyses of the original schedules of all or parts of complete national censuses. The data for Iceland in 1703 cover a population of 50,358. Paupers were enumerated on a separate register. (The majority of them were allocated by the parish authorities to stay with individual households.) They are included in Table A under the heading "others." The 1729 figures relate to the three counties for which the original schedules have survived. These three counties had a population of 8,077 in 1729; at the 1703 census their population had been 10,107.

The Icelandic household composition data show considerable differences between 1703 and 1729. As explained in section 6, these differences are probably attributable not so much to the difference in geographical coverage as to the considerable changes that took place between 1703 and 1729. The age structure shown by the 1729 data is very different from that revealed by the 1703 census.

The Norwegian figures in Table A relate to three rural areas selected for analysis by M. Drake. There are notable differences between the household composition data for the three
areas. Nevertheless, for the purposes of this paper I have combined the data for all three areas (with a combined population of some 21,000). The figures are not based on the total population of the areas concerned, but cover only the households of farmers and crofters. These, however, account for 98 percent of the population.82

The average size of Norwegian households in the three areas covered in Table A was 5.7, rather larger than in Denmark; but in the Norwegian case it seems likely that some of the retired couples and lodgers formed separate households, so that the true size according to the household definition used in this paper would be smaller (see Appendix 1).

The English data in Table B come from analyses by the Cambridge Group of listings of individuals for 100 communities with a total population of some 68,000. The listings are of varied character and spread over the years 1574–1821. Where relationship to the head is not clearly specified in the original documents, it is sometimes "presumed" on the basis of indirect evidence; for example, members of a household with the same surname are presumed to be relatives. Those placed in the column headed "lodgers" in Table B are individual lodgers; groups of two or more lodgers were omitted from the analysis. (Such groups comprised less than 2 percent of the total population.) The treatment of the data in these and other respects is fully described in Laslett and Wall (1972).

The figures for North Holland (Netherlands) in Table B are based on data for 2,367 households comprising 8,842 persons from listings for 1622–1795. In this case those individual households appear to have been selected for inclusion in the analysis where the information given was adequate. The households thus selected could be compared in certain characteristics (average size, proportion of the population in service, predominance of female servants) with data covering some 8,500 households in the same area collected by the demographer Struyck around 1740. The two sets of data agree in these characteristics. In the low mean household size of 3.7, and the very great predominance of female servants (not shown in the table), these data for rural North Holland differ markedly from any other data of high quality for a large rural population anywhere outside the Netherlands in preindustrial Northwest Europe. In the Netherlands also, other eighteenth century data, where so far analyzed, except in one area (Friesland), show mean household sizes over 4.5 and more than 10 percent of the population in service.83

The rural area in North Holland to which the data in Table B refer was a very special one and perhaps should not be regarded as a fully preindustrial rural area (although it is of course included in preindustrial Northwest Europe by the purely chronological definition used in this paper). The province of Holland was already heavily urbanized in the seventeenth and eighteenth centuries, with more than half the population living in towns. There was a great deal of nonagricultural employment in the countryside; agriculture itself was dominated by market-oriented livestock farming.

The figures labeled North Brabant in Table B are for six villages in the West of North Brabant in the Netherlands. They cover populations of 8,805, 10,745, and 7,688 in the years 1750, 1755, and 1800. The sources are tax registers compiled on an annual basis and appear to be of very high quality.

The data for the six Flemish villages (now in Belgium) are from a census taken in 1796 under the French administration. The total population covered is not precisely given.

Finally, Table C gives two examples of a classification using somewhat different categories employed in the seventeenth and eighteenth centuries. One set of figures comes from records compiled for tax purposes for estates in lower Austria at the end of the seventeenth century. They have been analyzed by Mitterauer. I have combined the figures for all the estates, covering 4,942 persons in all. The second set of figures comes from Süssmilch’s classic treatise and covers 9,690 persons in 50 villages near Berlin in 1738. In each case the basic categories are "men," "women," "children," "servants," and "inmates." Süssmilch also distinguishes retired people as a separate category and subdivides the other categories somewhat.

It is not clear just how many households are involved and exactly what sorts of persons the categories "men" and "women" (present in nearly equal numbers with slightly more men) included. For rough comparability with the other tables, all figures have been shown per 100 "men," on the assumption (also argued by Mitterauer) that "men" and "women" represented mainly heads and their wives.
### TABLE A  Iceland and Norway: persons per 100 households classified by relationship to head

<table>
<thead>
<tr>
<th></th>
<th>Married heads and wives</th>
<th>Other heads</th>
<th>Children</th>
<th>Other relatives</th>
<th>Servants</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iceland, 1703</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>69</td>
<td>17</td>
<td>100</td>
<td>11</td>
<td>52</td>
<td>30</td>
<td>279</td>
</tr>
<tr>
<td>Females</td>
<td>69</td>
<td>14</td>
<td>102</td>
<td>27</td>
<td>66</td>
<td>57</td>
<td>335</td>
</tr>
<tr>
<td>Both sexes</td>
<td>138</td>
<td>31</td>
<td>202</td>
<td>38</td>
<td>118</td>
<td>87</td>
<td>614</td>
</tr>
<tr>
<td>Iceland, 1729</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3 counties)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>78</td>
<td>14</td>
<td>111</td>
<td>5</td>
<td>31</td>
<td>21</td>
<td>266</td>
</tr>
<tr>
<td>Females</td>
<td>78</td>
<td>8</td>
<td>112</td>
<td>7</td>
<td>61</td>
<td>42</td>
<td>308</td>
</tr>
<tr>
<td>Both sexes</td>
<td>156</td>
<td>22</td>
<td>223</td>
<td>12</td>
<td>98</td>
<td>63</td>
<td>574</td>
</tr>
<tr>
<td>Norway, 1801</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3 areas)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>93</td>
<td>4</td>
<td>118</td>
<td>11</td>
<td>19</td>
<td>32</td>
<td>277</td>
</tr>
<tr>
<td>Females</td>
<td>92</td>
<td>3</td>
<td>107</td>
<td>15</td>
<td>32</td>
<td>44</td>
<td>293</td>
</tr>
<tr>
<td>Both sexes</td>
<td>185</td>
<td>7</td>
<td>225</td>
<td>26</td>
<td>51</td>
<td>76</td>
<td>570</td>
</tr>
</tbody>
</table>

NOTE: The column headed “others” covers paupers in Iceland (see text), but lodgers and retired people in Norway.


### TABLE B  England, the Netherlands, and Belgium: persons per 100 households classified by relationship to head (both sexes)

<table>
<thead>
<tr>
<th></th>
<th>Heads and wives</th>
<th>Children</th>
<th>Other relatives</th>
<th>Servants</th>
<th>Lodgers</th>
<th>Unidentified</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>English communities, 1574–1821</td>
<td>163</td>
<td>203</td>
<td>16</td>
<td>63</td>
<td>7</td>
<td>23</td>
<td>475</td>
</tr>
<tr>
<td>North Holland, 1622–1795</td>
<td>156</td>
<td>176</td>
<td>5</td>
<td>24</td>
<td>13</td>
<td>—</td>
<td>374</td>
</tr>
<tr>
<td>North Brabant (6 villages)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1750</td>
<td>160</td>
<td>200</td>
<td>20</td>
<td>70</td>
<td>10</td>
<td>—</td>
<td>460</td>
</tr>
<tr>
<td>1775</td>
<td>170</td>
<td>230</td>
<td>10</td>
<td>70</td>
<td>10</td>
<td>—</td>
<td>490</td>
</tr>
<tr>
<td>1800</td>
<td>170</td>
<td>220</td>
<td>10</td>
<td>70</td>
<td>10</td>
<td>—</td>
<td>480</td>
</tr>
<tr>
<td>Flanders, 1796 (6 villages)</td>
<td>170</td>
<td>240</td>
<td>30</td>
<td>40</td>
<td>0</td>
<td>—</td>
<td>480</td>
</tr>
</tbody>
</table>

NOTE: The ratios on which the figures for North Brabant and Flanders are based are available to one significant digit less than other similar figures in this paper; in effect, they give the numbers of persons per 10 households. A “0” has been added to each such figure for better comparability.


### TABLE C  Lower Austria and villages near Berlin: persons per 100 “men”

<table>
<thead>
<tr>
<th></th>
<th>Men and women</th>
<th>Children</th>
<th>Servants</th>
<th>Inmates</th>
<th>Retired persons</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estates in Lower Austria, 1695–96</td>
<td>197</td>
<td>224</td>
<td>88</td>
<td>45</td>
<td>—</td>
<td>554</td>
</tr>
<tr>
<td>50 villages near Berlin, 1738</td>
<td>199</td>
<td>245</td>
<td>141</td>
<td>48</td>
<td>26</td>
<td>659</td>
</tr>
</tbody>
</table>

Notes

A shorter version of this paper will appear in a volume entitled *Family Forms in Historic Europe*, edited by Richard Wall in collaboration with Jean Robin and Peter Laslett (Cambridge University Press, forthcoming 1982).

This paper was written during a stay at the Office of Population Research, Princeton University (supported by the Andrew W. Mellon Foundation), and at Rockefeller University (supported by the Ford Foundation). Without the help of many people in both institutions (especially the extraordinary amount of assistance given by the library staff at the Office of Population Research) the paper could not have been written. I wish especially to record my gratitude to Joel E. Cohen, whose initiative and warm support made possible my period of work in the United States. A Nuffield Foundation Fellowship in 1974–75 and a Simon Fellowship at the University of Manchester in 1953–54 made possible some earlier work on this topic.

1 The adjective "preindustrial" has, however, usually been omitted; the terms "Northwest Europe" and "Northwest European" will refer to this area of Europe in the seventeenth and eighteenth centuries unless otherwise stated.

2 See Hajnal (1965). The present paper may be regarded as a sequel to that paper.

3 R. M. Smith (1979) reviews this evidence. For the contrast in household structure between northern and southern France in the seventeenth and eighteenth centuries, see Flandrin (1976), pp. 241–242.

4 Information on the "random variation" in household characteristics to be expected in small populations may be found in Wachter et al. (1978).

5 My debt to the Cambridge Group goes far beyond the reading of their publications. I have benefited greatly from many discussions with Peter Laslett and other members of the group (especially Richard Smith and Richard Wall).

6 "Mean ages at first marriage" is intended to refer to the mean ages at first marriage experienced by a cohort passing through life. Usually, only other types of indexes of mean age at marriage will be available. (The singulate mean age at marriage will be somewhat higher than the mean age at marriage of a cohort, since the SMAM, in effect, assumes that there is no mortality within the age range where marriage occurs.)

7 There is no accepted term for the couple who are jointly in charge of a household; it might be useful to adopt the term "housekeepers," quoted by Richard Wall from a history of the parish of Corfe Castle in England (see Laslett and Wall [1972], p. 166).

8 The custom whereby one son remains at home and takes over the farm when his father retires has often been regarded as an essential characteristic of the "stem family" (at least on some definitions of that contentious term). In some parts of Northwest Europe, such "stem families" were numerous. On the other hand, the kind of "stem family" arrangement in which one son remains at home and marries while his father continues as head of the household after the son's marriage did not occur in Northwest Europe. It is incompatible with rule 1B. No kind of stem family system can be classified as a joint household system in our sense. In a stem family only one heir remains in the parental household after marriage. Under a joint household system all sons normally bring their brides into the household by rule 2B.

9 For some references see Wheaton (1975), p. 619.

10 If there is no son in a household, but there is a daughter, the daughter can bring her husband into the household. If there are no children at all, some equivalent of adoption can be resorted to. Devices of this sort occur in all the populations studied in this paper.


12 For an extensive discussion of the importance of household extinction and splitting in their effects on social differentiation in one joint household system, that of rural Russia toward the beginning of this century, see Shatin (1972), especially chapters 5 and 6.

13 Shah (1973), pp. 167–169, discusses the effect of wealth and poverty on the founda-
tion of joint households in India. He stresses
the influence of caste. Herlihy and Klapisch-
Zuber (1978) give extensive data on household
composition by economic status in fifteenth
century Tuscany.

14 As mentioned in note 8, a stem family
system in which a single heir remains in the
household with his spouse after marriage
while the old head does not retire does not fall
under either of our two kinds of household for-
modation system.

15 There have undoubtedly been other so-
cieties that have followed the joint household
formation rules besides those discussed in sec-
tions 3 and 4 of this paper. Two further sets of
data may be mentioned here. (1) The figures
on households in Anatolia (Turkey) given in
Stirling (1965), pp. 37–38, are clearly char-
acteristic of a joint household system. (2) The
data in the fascinating study by K. Hopkins
(1980) suggest that the population of Roman
Egypt in the first three centuries of the
Christian era followed a joint household sys-
tem. (The household data are on pp. 328–334
of Hopkins’s article. His figures are, in my
view, entirely compatible with mean ages at
first marriage appropriate to a joint household
system.)

16 The way such subsidiary units are re-
corded in the original enumerations, and how
they ought to be treated, are discussed in Ap-
pendix 1.

17 Thus, for example, the Danish data
show the number of married servants; but it is
not possible to obtain this information from
listings in which only a servant’s relation to
the household head (i.e., the fact that he is a
servant) is recorded, but not his marital status.

18 See Johansen (1975), Chapter 10. I owe
thanks to Professor Johansen for supplying ad-
ditional materials and answering questions
about his data. I am grateful to Ulla Larsen for
helping with the Danish text.

19 The numbers in the table are averages
of the number of persons in each category per
hundred households, calculated separately for
1787 and 1801. The 1787 and 1801 figures are
very similar; differences between them are dis-
cussed in Appendix 1.

20 The difference may be slightly exag-
gerated by the figures as given. There were, in
1787 and 1801, grandchildren, children of
other relatives, lodgers, and others who were
not included among “children.” Their coun-
terparts in 1645, may, however, have been
classified as children.

21 Graunt uses the term “family” as was
universal usage at the time for what today
would be called a “household.”


23 This matter is discussed in Appendix 1.

24 See Laslett (1977), Tables 1.1 and 1.2.
Table 1.5, containing data on “other” rela-
tions, is also relevant.

25 Of course the evidence, especially for
the seventeenth century, is patchy for much of
Northwest Europe. It seems to me conceivable
that evidence will come to light showing that
there were areas with a somewhat larger pro-
portion (than 6 percent) of retired parents liv-
ing in fully integrated households with married
children. Even then, the number of joint
households would be much smaller than under
joint household systems. (If one excluded
from the “joint household” category house-
holds in which the son is head and the father
has retired, then the contrast between North-
west Europe and, e.g., India and China
would be even clearer.)

26 The information about households to
be found in the Indian censuses up to, and in-
cluding, 1961 is surveyed in Dandekar and
Unde (n.d.). In 1951 a household was defined as
“all persons who live together in the same
house and have a common mess,” that is, who
took their food from a common kitchen.

27 Data from past censuses in India on the
size of households and on the numbers of mar-
ried men and widowers per household suggest
that there has been no decrease in size or in the
extent of “jointness.” (See Dandekar and
Unde [n.d.].) Shah (1973) compared house-
hold data from a census of a village in Gujarat
in 1825 with an enumeration of the same vil-
lage in 1955. The average household size was
4.54 in 1825, compared with 4.61 in 1955. He
concluded from a variety of indications that
“complex” households (roughly our joint
households) were no more frequent in 1825
than in 1955.

28 This figure is not given directly in the
census, which gives the number of male heads
and a single total for female heads and wives
of heads combined. Using these figures in con-
juncture with the total number of households (i.e., the total number of heads), it is possible to deduce the number of married male heads. This number can be compared with the total number of married men. This sequence of steps is complicated, when applied to the 1951 Indian census, by the fact that household data, on the one hand, and marital status data, on the other, were obtained from different samples of the census schedules.

29 The mean number of persons per household was slightly larger according to the 1961 census, namely about 5.2, than in 1951.

30 No details of the sampling methods or other survey procedures are given in the report (cited in Table 4). However, in various characteristics (distribution of households by size, number of couples per household, etc.), the results conform to the census. They are taken as representative of conditions elsewhere in India in Dandekar and Unde (n.d.), p. 58. The comparison with Nepal given in Table 4 also suggests that the results of the survey give the right orders of magnitude. In 1961, 70 percent of married men in rural Maharashtra were reported as household heads, just a little higher than for all India.

31 Nepal resembles India in that (a) marriage occurs very early (the mean age at first marriage for Nepalese women was 16 years according to World Fertility Survey data); (b) marriage is virtually universal (98 percent of Nepalese women were reported as having been married among those aged 30–34 and in older age groups); and (c) there is frequently a substantial delay between marriage and the onset of cohabitation; see World Fertility Survey (1979).

32 The survey is described in Buck (1937) (see especially Chapter 13, by F. W. Notestein). For comments on the representativeness and quality of the data, the papers by Taeuber (1970) and Barclay et al. (1976) should also be consulted.

33 See Barclay et al. (1976).

34 These figures are singulate mean ages at marriage, implying that the average ages at first marriage would be even lower.

35 The "South" comprised six localities with a total population of 11,107 in Kwangtung and Fukien. The "South Eastern Hills" comprised four localities with a total population of 7,680 in Kiangsi and Chekiang.

36 See, in particular, Barclay (1954).

37 The population of Taiwan was a population of Chinese culture and followed a joint household system. The other data are discussed elsewhere in the paper.

38 See, for example, Burch (1970).

39 Here, as throughout this paper, it is assumed that every person is allocated to one household and that the institutional population can be neglected.

40 It would be tempting to conclude that under our simplifying assumptions we should have:

Number of heads = Total male population above the mean age of accession to headship.

This relationship will, however, not hold exactly in general, not even in a stationary population, although it will be correct in a stationary population where there is no mortality over the age range in which accession to headship occurs.


42 The figures for this part of the Tuscan rural population were given in an earlier article by Klapisch and Demonet (1972). The full publication of the material in Herlihy and Klapisch-Zuber (1978) does not contain the corresponding data for the whole Tuscan rural population, but the graph on p. 490 of the book suggests that figures for the whole Tuscan rural population would be very similar to those in our Table 8.

43 The classification used for the Tuscan data by Herlihy and Klapisch-Zuber (1978) is fortunately detailed. It largely follows the Cambridge Group classification, which was mentioned at the end of section 2 (i.e., the classification is in terms of the number and type of conjugal family units in the household, rather than in terms of the number of couples). The figures in Table 10 have been produced by combining suitable categories from the Tuscan data, as follows:
<table>
<thead>
<tr>
<th>Group in Table 10</th>
<th>Corresponding categories, Herlihy and Klapisch-Zuber (1978), p. 482</th>
</tr>
</thead>
<tbody>
<tr>
<td>No couple</td>
<td>All of 1 and 2 plus 3c and 3d</td>
</tr>
<tr>
<td>1 couple</td>
<td>3a and 3b plus all of 4</td>
</tr>
<tr>
<td>2 couples: father and son</td>
<td>5a (&quot;verticaux à deux noyaux&quot;)</td>
</tr>
<tr>
<td>2 couples: 2 brothers</td>
<td>5c (&quot;horizontaux à deux noyaux&quot;)</td>
</tr>
<tr>
<td>3 or more couples</td>
<td>5b (&quot;verticaux à trois noyaux ou plus&quot;) plus 5d (&quot;horizontaux à trois noyaux ou plus&quot;)</td>
</tr>
</tbody>
</table>

44 Professor Czap very kindly made two of his papers available to me before publication, namely Czap (1982a, b). He also helped me with a number of queries.

45 As can be seen from the note under Table 11, that table is based on rather smaller numbers of households and of persons than the other tables in this paper. However, Czap has analyzed eight enumerations between 1814 and 1858 for the serf population of Mishino estate. This cumulative body of evidence makes it clear that the picture given in Table 11, as well as the other facts quoted in the text (age at marriage, number of married men per household, proportion of joint households), is not the result of random fluctuations associated with small sample size. Some changes over time can be deduced from the sequence of eight enumerations, but these changes are not discussed in this paper.

46 The figures for heads and children in Table 11, while of the same broad orders of magnitude as elsewhere, present some special features. The number of married heads is smaller and the number of "other heads" (in this case widowed heads) is larger than elsewhere, presumably because headship was on average entered into much later in life than elsewhere. The great predominance of sons over daughters among the children of the heads reflects the very young ages at marriage in the serf population—daughters became daughters-in-law, and hence "other relatives" for the purposes of Table 11, early in life.

47 Czap utilized the classification scheme of the Cambridge Group (see end of section 2) and hence gives data not on the numbers of married men per household, but on the number of conjugal family units per household, that is, a slightly higher figure.

48 Czap, utilizing the classification scheme of the Cambridge Group, gives not the proportion of joint households, but the proportion of multiple households (i.e., the households containing more than one conjugal family unit), which is slightly larger.

49 The Tver province estate, whose enumerations Czap has analyzed, contained far fewer households and people than the Mishino estate, to which most of his work has been devoted. He has also analyzed three more enumerations of this estate (for 1834, 1850, and 1856), in addition to the 1816 enumeration. The 1816 enumeration covered 46 households. Given the small numbers of households covered, it is difficult to reach firm conclusions.

50 Andorka (1975). I have also used a mimeographed paper kindly given to me by Dr. Andorka, "Micro-demographic researches in Hungary (Family reconstitution and types of household structure)." Numerous surviving documents from eighteenth and early nineteenth century Hungary are relevant to the study of household composition. Much work on these materials has been done by Hungarian scholars. I have not had the opportunity to study most of this work, but I felt justified in including the points mentioned in the text.

51 See Tables 1 and 2 and Appendix 2. There is much additional evidence. Laslett (1977), Table 1.6, contains a summary of historical materials relating to the proportion of servants in the populations of various communities. Sognér (1979) and Berkner (1972) also contain additional data. The presence of farm servants as a substantial part of the agricultural labor force can still be traced in nineteenth century censuses in Northwest European countries; see, for example, Knodel and Maynes (1976).

52 The institution of service in the Northwest European sense was, of course, shared by Northwest European populations overseas. See the chapter on "Masters and servants" in Morgan (1966).

53 This paper is concerned only with the
meaning of the word “servant” as applied to persons recorded as servants in documents that list individuals by households. There has been some controversy about the meaning of “servant” in seventeenth century English usage. This matter is discussed in Appendix I in Kussmaul (1981). I am grateful to Dr. Kussmaul for sending me a typescript of her book in advance of publication.

54 Mitterauer (1973), p. 205, notes that in two seventeenth century Austrian villages more than 50 percent of young people between 18 and 20 were in service. It should be remembered that the proportion of young people who experienced service at some point in their lives must have exceeded (perhaps sometimes considerably) the highest proportion of servants in any one age group. For some who were servants at a younger age would have left service before reaching the age at which the proportion was at its maximum. Others may have entered service for the first time after the age of the maximum proportion.


56 For example, in the sample of 26 eighteenth century rural Danish parishes analyzed by Johansen, the percentage distributions of male and female servants by marital status were as follows (1787 and 1801 figures combined):

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>95.2</td>
<td>98.3</td>
</tr>
<tr>
<td>Married</td>
<td>3.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Widowed</td>
<td>0.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

57 Concerning the ages at which young people left home, see Wall (1978).

58 These facts are documented in Kussmaul (1981), Chapter 5. Children of craftsmen and tradesmen in England also became farm servants. How parents sent their own children into service and hired other servants, as well as other aspects of seventeenth century family life, is vividly illustrated in Macfarlane (1970).

59 Kramer (1957) says of servants in a part of Germany: “Mostly [größtenteils] they were the sons and daughters of farmers, later-born children who could not inherit the parental farm and who for that reason entered service till the opportunity of a favorable marriage arose” (p. 155).

60 See, for example, Sognen (1979) and Berkner (1972), p. 409.

61 The identity of surname between master and servant has been used as an indicator of relationship. The proportion of cases of master-servant surname identity ought, however, to be compared with the proportion of identical surnames among randomly selected pairs of individuals in the same population. Only then can valid inferences be made about the role that relationship played in placing servants with particular masters.

62 The hiring of day laborers is another possibility. But the system worked in areas where there were very few laborers, for example, one of the Norwegian areas, Heroy, studied by Drake (1969).

63 See A. E. Smith (1947), p. 4. For the contrasting migration patterns in different household formation systems, see Todd (1975).

64 See Chayanov (1966). The “theoretical scheme” of peasant household development is discussed on pp. 57, 245, and elsewhere.

65 See Homans (1942), pp. 144–149 (retirement contracts), and p. 210 (servants). For retirement contracts in England at a later period see Howell (1976), pp. 126–130, and Spufford (1976), pp. 174–175. The paper by R. M. Smith (1979) contains further material and references on servants in medieval England. This paper also discusses data directly bearing on age at marriage in the Middle Ages and treats a number of related features of medieval society.

66 Early eighteenth century Iceland’s low proportion married, apparently following upon catastrophic conditions, is reminiscent of Ireland in the mid-nineteenth century. In Ireland’s case a high proportion of the unmarried were “drained away” by overseas migration, but this migration was a continuation of the tradition of transatlantic migration by Irish servants since the seventeenth century. So here, also, there was a link with the institution of service.

68 The marital status data of the 1703 and 1729 Icelandic censuses are problematic since there was no specific instruction to record marital status.


70 The reduction in the proportion of servants may have been larger than Table 18 shows. In an earlier study based on more lists (i.e., with a less strict elimination of lists of inferior quality), Wall (1979) found that 18 percent of the population were servants in 1650–1749, compared with 11 percent in 1750–1821; but this fall in the proportion of servants is "to some extent simply an artifact of the inclusion of some London parishes in the first period, but not in the second." It was this earlier paper by Wall that was used by R. M. Smith in his recent (1981) paper. Smith's paper was in part based on an earlier version of the present paper, a version that did not yet include the present treatment of the variation in the number of servants over time.

71 Chapter 6 of Kussmaul (1981) discusses other evidence on variations in the incidence of service in England between the sixteenth and nineteenth centuries.

72 In the populations dealt with here, institutional households are not sufficiently important to affect in any appreciable way any of the quantities with which we are concerned.

73 In past centuries, the term "family" and its equivalents in other European languages commonly denoted what is now called a "household." In referring to historical texts below, I have felt free to use "household" where "family" occurs in the original.

74 The phrase "a uno vino e uno pane" became the title of a celebrated article on households as recorded in the taxation records of medieval Tuscany; see Klapisch and Demonet (1972).

75 The German version of this definition, as used in Austria in 1777, is quoted in Mitterauer (1973), p. 177. The Hungarian version, as used in the censuses of the territories under the Hungarian crown in 1784–87, is given in Hungary (1960), p. 8. The two versions are virtually identical. Mitterauer argues that in Austria there was a development from a commonly accepted larger concept of the household in the seventeenth century (the notion of "das ganze Haus") to the narrower concept of the housekeeping unit in the eighteenth.

76 Mitterauer (1973), p. 302, quotes a study of Austrian contracts of retirement. The contracts exemplify a wide range of possibilities, from complete integration of the retired with the household to which they handed over the farm, to substantial separation of the retired couple in a house of their own. Johansen (1975), p. 145, for the Danish rural parishes (with 1787 and 1801 data combined), gives a figure of 46 retired people living as part of a larger household, compared with 32 living independently. See also Berkner (1976), p. 93.

77 Mackeprang (1907), p. 258. Mackeprang’s estimate of the number of "husmaend" with independent households was used in Table 2 above.


79 I have broken up the sentence in translation for clarity. The original is as follows: "Familia quaeque distincte in libro notetur, intercalo relicto ab unaqueque ad alteram subsequemt, in quo singillatim scribantur nomen, cognomen, aetas singulorum, qui ex familia sunt, vel tanquam advenae in ea vivunt" (quoted in Mols [1954–56], vol. 3, p. 37).


81 I owe thanks to Dora Bjarnason and Helle Degnbol for help with Icelandic materials.

82 The Norwegian Central Bureau of Statistics has now published a tabulation of the entire 1801 census (the English title is Population Census 1801—Reprocessed). This material is much more extensive than any other data so far available on households in preindustrial Northwest Europe. Unfortunately it came to my knowledge too late to be taken account of in this paper.

83 The article by van der Woude in Laslett and Wall (1972) compares the data for North Holland with figures for some other areas in the Netherlands. Much more information (published in Dutch) on North Holland data is given in van der Woude (1972).
References


