# THE DECREASE IN SIZE OF FAMILIES FROM 1890 TO 1910 ${ }^{1}$ <br> by Frank W. Notestein 

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IN view of the attention given to our declining birth rate and to its economic and social consequences, surprisingly little is known of an important aspect of that decline, namely the changes in the size of the family. Has the decline in the birth rate come about from a decrease in the proportion of very large families, with a corresponding increase in the proportion of those of medium size, or has it been due to an increase in the proportion of childless and one-child families?

The incidence of changes in the size of the family has important economic and social consequences. A decline in the proportion of very large families, particularly in our "lower" urban social classes, gives better opportunities for the children that are born. It means less crushing poverty, better food, homes, health, and education, and fewer families whose entire consuming power is devoted to the bare necessities of life. At the other extreme, an increase in the proportion of very small families means that an increasingly large number of children are reared without the companionship of brothers and sisters, and the necessity of sharing the attention and affection of their parents with others. Fewer women find their whole time profitably taken up by the duties of the home, and an increasingly large number feel free to seek outside employment. The result is doubtless greater economic independence for women, bringing with it quite possibly a weakening of the home ties on both the husband and wife, and an increase in the proportion of homes broken by separation and divorce.
${ }^{1}$ From the Division of Research, Milbank Memorial Fund.

Lack of data, rather than lack of interest on the part of students, accounts for the scant attention given to the distribution of families by size. The birth registration statistics, from which most of our information concerning the declining fertility of our population has been drawn, only yield data for women who bear children in a given year, and cannot in the nature of the case report the size of completed families. The population censuses of 1890 , 1900, and 1910 did collect this information by asking each married woman the number of children she had ever borne. Unfortunately the returns were never tabulated, and the question was dropped from the Iater censuses. However, the original returns are preserved, and samples of those for 1910 have been tabulated by the research division of the Milbank Memorial Fund.
Data collected from the census returns were limited to those for married women from families in which the husband and wife were living together north of the Mason and Dixon Line in 1910, and in which both the husband and wife were of native-white parentage and only once married. Within this group samples were obtained for each of the broad social classes in thirty-three cities having total populations of between one hundred thousand and five hundred thousand in 1910, and for the wives of farm owners in the rural parts of seventy-four counties adjacent to those cities. ${ }^{2}$ Since the urban women were separated into social classes on the basis of the return for the husband's occupation, the classification cannot be more than approximately correct. Nevertheless, it is believed that each of the classes differs from the others with
${ }^{2}$ Data were also obtained for the wives of farm Iaborers and renters, but, due to the tendency for laborers and renters to become farm owners as age advances, the samples are inadequate for women whose families were complete in 1910. Further details concerning the social classification and the manner in which the data were obtained are given in "Differential Fertility According to Social Class." Sydenstricker, Edgar, and Notestein, Frank W., Journal of the American Statistical Association, March, 1930, xxv, News Series 169, pp. 9-32.

| Total Children Born | ProFESSIONAL |  | Business |  | Skilled |  | $\underset{\text { SKILLED }}{\text { UN- }}$ |  | Farm Owner |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 60-64 | 40-44 | 60-64 | 40-44 | 60-64 | 40-44 | 60-64 | 40-44 | 60-64 | 40-44 |
| Total | 354 | 1,296 | 762 | 3,043 | 444 | 1,902 | 137 | 423 | 1,709 | 3,488 |
| 0 | 52 | 256 | 73 | 544 | 39 | 331 | 6 | 69 | 153 | 368 |
| 1 | 47 | 254 | 107 | 653 | 59 | 324 | 17 | 63 | 150 | 354 |
| 2 | 70 | 317 | 161 | 697 | 74 | 343 | 17 | 68 | 202 | 578 |
| 3 | 55 | 238 | 127 | 520 | 69 | 308 | 23 | 61 | 253 | 573 |
| 4 | 50 | 125 | 99 | 295 | 54 | 210 | 18 | 42 | 217 | 462 |
| 5 |  | 52 | 75 | 151 | 44 | 137 | 13 | 29 | 213 | 334 |
| 6 | 23 | 32 | 52 | 91 | 35 | 99 |  | 25 | 135 | 271 |
| 7 | 15 | 7 | 32 | 44 | 23 | 57 | 8 | 20 | 107 | 175 |
| 8 | 7 | 10 | 14 | 24 | 19 | 43 | 6 | 17 | 84 | 128 |
| 9 | 2 | 2 | 13 | 10 | 12 | 36 | 6 | 11 | 66 | 103 |
| 10 | 2 | 3 | 6 | 9 | 8 | 9 | 5 | 10 | 67 | 67 |
| 11 |  |  |  | 3 | 6 | 3 |  | 5 | 30 | 41 |
| 12 |  |  | 3 | , | 1 | 1 | 2 |  | 19 | 19 |
| 13 |  |  |  | 1 | 1 |  | 1 | 1 | 6 | 6 |
| 14 |  |  |  |  |  | I | 1 |  |  | 4 |
| 15 |  |  |  |  |  |  |  |  | 1 | 4 |
| 16 |  |  |  |  |  |  |  |  | 1 | 1 |

Table r. Number of wives aged 40 to 44 and 60 to 64 in certain social classes who had borne specified numbers of children.
respect to its standards of living, education, and achievement, and in its general social environment.

The data for women 40 to 44 years of age have been selected to represent families completed about the time the census was taken. Undoubtedly a few children were born to these women after the enumeration was made, but their number would be too small to have an appreciable influence on the distributions. Table I gives the number of women in each social class who had borne each specified number of children, and Table 2 the percentage which these groups formed of the total number of married women of the same age and social class. These percentages have been summarized in Figure 1 .
In the social classes considered, between 40 and 53 per cent of the married women who completed their families just prior to the enumeration were the mothers of two, three, or

| Total Children Born | ProFESSIONAL |  | Business |  | Skilled |  | $\mathrm{UN}^{-}$ Skilled |  | $F_{\text {ARM }}$ Owner |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 60-64 | 40-44 | 60-64 | 40-44 | 60-64 | 40-44 | 60-64 | 40-4.4 | 60-64 | 40-44 |
| Total | 100.1 | 100.I | 99.9 | 100.0 | IOO.I | 100.I | 99.9 | 100.0 | 100.3 | 100.0 |
| 0 | 14.7 | 19.8 | 9.6 | 17.9 | 8.8 | 17.4 | $4 \cdot 4$ | ${ }_{1} 6.3$ | 9.0 | 10.6 |
| I | 13.3 | 19.6 | 14.0 | 21.5 | 13.3 | 17.0 | 12.4 | 14.9 | 8.8 | 10.I |
| 2 | 19.8 | 24.5 | 21.1 | 22.9 | 16.7 | 18.0 | 12.4 | I6.I | II 1.8 | 16.6 |
| 3 | 15.5 | 18.4 | 16.7 | 17.1 | 15.5 | 16.2 | 16.8 | 14.4 | 14.8 | 16.4 |
| 4 | 14.1 | 9.6 | 13.0 | 9.7 | 12.2 | II 10 | 13.1 | 9.9 | 12.7 | I3.2 |
| 5 | 8.8 | 4.0 | 9.8 | 5.0 | 9.9 | 7.2 | 9.5 | 6.9 | 12.5 | 9.6 |
| 6 | 6.5 | 2.5 | 6.8 | 3.0 | 7.9 | 5.2 | 10.2 | 5.9 | 7.9 | 7.8 |
| 7 | 4.2 | . 5 | 4.2 | I. 4 | 5.2 | 3.0 | 5.8 | 4.7 | 6.3 | 5.0 |
| 8 | 2.0 | . 8 | I. 8 | . 8 | 4.3 | 2.3 | $4 \cdot 4$ | 4.0 | 4.9 | 3.7 |
| 9 | . 6 | . 2 | 1.7 | $\cdot 3$ | 2.7 | 1.9 | $4 \cdot 4$ | 2.6 | 3.9 | 3.0 |
| 10 | . 6 | . 2 | . 8 | . 3 | 1.8 | . 5 | 3.6 | 2.4 | 3.9 | I. 9 |
| II |  |  |  | . 1 | I. 4 | . 2 |  | I. 2 | I. 8 | 1.2 |
| 12 |  |  | .4 | . 0 | . 2 | . 1 | I. 5 | . 5 | I.I | .5 |
| 13 |  |  |  | . 0 | . 2 |  | . 7 | . 2 | . 4 | . 2 |
| 14 |  |  |  |  |  | . 1 | . 7 |  | $\cdot 3$ | . 1 |
| 15 |  |  |  |  |  |  |  |  | . 1 | . 1 |
| 16 |  |  |  |  |  |  |  |  | . 1 | . 0 |

Table 2. Per cent of wives aged 40 to 44 and 60 to 64 in certain social classes who had borne specified numbers of children.
four children. Childless married women and the mothers of one child each constituted between io and 22 per cent of the total, and the mothers of 5 or more children between 8 and 33 per cent. It appears from Figure 1 that the proportion of women who had borne no child, one, or from two to four children tends to become smaller with the declining social status of the urban classes. Among the wives of farm owners, no-child and one-child families were less common than in any urban class, but there were more families with two to four children than in the two lowest urban classes. The relatively low proportion of small and medium-sized families found in the lower urban classes and among the wives of farm owners is accounted for by the large proportion of women in these classes who bore five or more children. These largest families were nearly 3.5 times as common among the wives of the unskilled laborers, and nearly 4 times as common


Fig. i. Per cent of wives aged 40 to 44 in certain social classes who had borne specified numbers of children.
among the wives of farm owners as in the professional class.
Some indication of the trends in the distribution of families by size may be obtained by comparing the families of women 40 to 44 years of age in 1910 with those of women 60 to 64 . However, the differences in the distributions may be influenced by other factors than the secular trend since women 60 to 64 years of age had not only completed their families twenty years earlier, but had also lived twenty years Ionger than the younger group. Attention has already been called to the fact that a few children were probably born to the younger women after the census was taken. None could have been born to those of the older group. Doubtless some women 60 to 64 years old were found in different social classes in i910 from those they were in twenty years earlier. Some wives of farm owners, for example, were probably wives


Fig. 2. Per cent of wives aged 40 to 44 and 60 to 64 in certain social classes who had borne specified numbers of children.
of farm renters when they were forty. It is also possible that there is some association between fertility and the length of life after the end of the childbearing period, but such an association has never been demonstrated. ${ }^{3}$ While any of these factors may have some influence on the difference in the dis-
${ }^{3}$ An opinion that there is a direct association between fertility and the length of life after the end of the childbearing period is expressed by Karl Pearson and G. Udny Yule in the Proceedings of the Royal Society of London, Ixvii, pp. 159 ff . However, the evidence adduced does not seem conclusive, since it rests on the assumption that there was no secular trend in the size of the families whose genealogical records furnish the data for the study.

| Social Class | o-i Births |  |  | 5 or More Births |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 40-44 | 60-64 | Difference | 40-44 | 60-64 | Difference |
| Professional | 39.4 | 28.0 | +II. 4 | 8.2 | 22.7 | -14.5 |
| Business | 39.4 | 23.6 | +15.8 | 10.9 | 25.5 | -14.6 |
| Skilled | 34.4 | 22.1 | +12.3 | 20.5 | 33.6 | -13.1 |
| Unskilled | 31.2 | 16.8 | +14.4 | 28.4 | 40.8 | -12.4 |
| Farm owner | 20.7 | 17.8 | + 2.9 | 33.1 | 43.2 | -10.1 |

Table 3. Per cent of wives aged 40 to 44 and 60 to 64 in certain social classes who had borne less than 2 children and 5 or more children.
tributions of the two groups, it seems reasonable to presume, in view of the known decline in the birth rate, that the differences are largely determined by the secular trend in the size of families.

During the twenty years preceding the census of i910, large families became less frequent in each social class under consideration. (Table 2 and Fig. 2). In the professional, business, and skilled worker classes, two-child families remained the most common size, but there were substantial declines in the proportion of families with four or more children and increases in the proportion of those with less than four children. In the unskilled laborer class the curves suggest that even the three-child family became less common, but in this class the sample of women 60 to 64 is too small to warrant close interpretation. The shift from large to small families is less marked among the wives of farm owners than in the urban classes, but even in this class there was a decline in the proportion of families with frive or more children and an increase in the frequency of smaller families.

In the urban social classes the decline in the frequency of large families was virtually matched by corresponding increases in the frequency of very small ones. The mothers of five or more children constituted between i2 and is per cent
less of the younger than of the older groups, while childless women and the mothers of one child constituted between iI and 16 per cent more. (Table 3.) Although the absolute decline in the proportion of large families was about the same in each social class, it amounted to about two-thirds of those families in the professional class and to only about one-third in the unskilled laborer class.
Among the wives of farm owners the frequency of families with five or more children dropped less than in any urban class. There was only a slight increase in the proportion of childless and one-child families, but a marked increase in the proportion of those with two and three children.
These data clearly indicate that the large families were becoming increasingly scarce in both the urban and rural social classes of our native-born population even prior to 1910, and that their place was being taken by childless and one-child families in the cities and by two and three-child families in the country.

