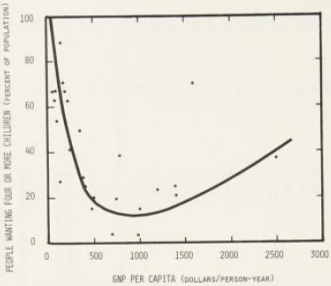


**Figure 2-68** Desired family size versus GNP per capita
Source: Mauldin 1965.

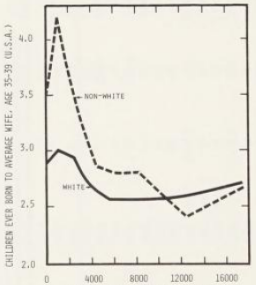


**Figure 2-69** Family size versus income, United States, 1965
Source: C. V. Kiser, W. H. Grabill, and A. A. Campbell, *Trends and Variations in Fertility in the United States*, Cambridge, Mass.: Harvard University Press, 1968. Copyright ©1968 by the Harvard University Press.



society, as is the cost of substitute child care, since the extended family is no longer extant. Opportunity costs are also higher, since the wife is literate and capable of holding a paying job as an alternative to caring for children. Other opportunities made possible by increasing income—travel, recreation, and luxury consumption—are to some extent incompatible or competitive with large families.

As industrial output per capita rises, the ratio of benefits to costs of children in the changing socioeconomic system decreases, thus decreasing the socially optimal number of children. However, the benefits still outweigh the costs in every society. To ensure the perpetuation of the reproductive value structure, an institution is built into the system, which strongly reinforces the noneconomic benefits of childbearing. That institution is the family itself.

> Although it cannot be denied that modernization has brought about many changes in family organization, the complex of roles and goals we call the family is still a major focus of individuals' expectations and activities. This means, by definition, that children are high on the list of adult utilities. Offspring are not simply outlets (and inlets) of affection, they are the instrumentalities for achieving virtually prescribed social statuses ("mother" and "father"), the almost exclusive avenues for feminine creativity and achievement, and the least common denominator for community participation. [Blake 1965]

A lower family size norm in industrialized societies is not a planned or even a very well understood result of industrialization. It might be considered an accidental and unforeseen side effect of an economic and technological revolution. One can envision a completely different social response to the changed social environment caused by industrialization, but it is difficult to postulate a change in an established social norm without some alteration in the economic or environmental circumstances of the society. In other words, it is likely, though it is not certain, that currently nonindustrialized areas will also experience a lower fertility norm as they industrialize. It is highly unlikely that they will lower their present relatively high fertility norms if their present socioeconomic systems persist unchanged.

In World3 we quantified this shifting social family size norm SFSN as a function of industrial output per capita as shown in Figure 2-70 and the following equations:

```
SFSN.K=TABHL(SFSNT,DIOPC.K,0,800,200)                    39, A
                                                         39.1, T
SFSNT=1.25/1.9/.8/.75
   SFSN   - SOCIAL FAMILY SIZE NORM (DIMENSIONLESS)
   TABHL  - A FUNCTION WITH VALUES SPECIFIED BY A TABLE
   SFSNT  - SFSN TABLE
   DIOPC  - DELAYED INDUSTRIAL OUTPUT PER CAPITA
            (DOLLARS/PERSON-YEAR)

                                                         40, A
DIOPC.K=DLINF3(IOPC.K,SAD)                               40.1, C
SAD=20
   DIOPC  - DELAYED INDUSTRIAL OUTPUT PER CAPITA
            (DOLLARS/PERSON-YEAR)
   DLINF3 - THIRD-ORDER EXPONENTIAL INFORMATION DELAY
   IOPC   - INDUSTRIAL OUTPUT PER CAPITA (DOLLARS/
            PERSON-YEAR)
   SAD    - SOCIAL ADJUSTMENT DELAY (YEARS)
```