

the sibling variable and first job (W), namely, education (U). The 32.73 per cent of the total sum of squares in W accounted for by U alone is increased only by $\frac{1}{2}$ per cent to 33.25 by the addition of the sibling variable. Thus most of the effect of family size and birth order on first job is mediated by education.

Moving farther to the left in Figure 9.1 and taking education as the dependent variable, we can ask how it is influenced by the sibling classification. The relevant percentages of sum of squares are:

Combination of variables	Percentage of total sum of squares (U)
Sibling	10.78
X (father's occupation)	19.86
V (father's education)	20.77
X and V	27.94
X and Sibling	24.42
V and Sibling	25.24
X , V , and Sibling	30.71

The effect of the sibling variable is substantial, nearly 11 per cent of the total sum of squares, and the causal diagram stipulates that this is a direct effect. Does the sibling classification entirely mediate the effects of the two variables lying behind it? The answer is clearly negative because each of these variables has a larger gross effect than the sibling variable and because each produces a substantial increment over the sibling variable alone, as is shown by the combinations " V and Sibling" and " X and Sibling." Comparing the three single variables with either of these two combinations makes it clear that direct paths from both X and V to education are called for, notwithstanding the sibling classification as an intervening variable. In other words, social origins influence occupational achievement not only by affecting family size and composition but also in ways that are independent of these family characteristics. On the other hand, the sibling variable clearly exerts an influence on education independent of that exerted by the two background variables, accounting for an additional 2.77 per cent of the total sum of squares (30.71 — 27.94).

In sum an attempt has been made to place the multiple factor referring to the family of orientation into the causal model depicting the process of stratification that was developed earlier. Father's education and occupation influence the kind of family he establishes, and the characteristics of this family influence son's educational attainment. The impact of the parental family on occupational achievement seems to be entirely a result of its effect on education. By the nature of the sibling variable this model cannot distinguish between the influence of family size and of sibling position. It therefore cannot reveal