

establishments. The wood industries have the highest rate in both categories. The high rate of disappearance of establishments in this group is a natural consequence of the rapid rate of rationalization of the sawmills and planing mills industry; in this industry the role of large establishments has been increasing with a "shakeout" of small establishments as technological changes place a greater premium on economies of scale. It will be seen that the disappearance rate of 118.5 establishments per 1,000 reporting the previous year is well above the appearance rate of 89.4 new establishments per 1,000.

After a superficial examination of the data in Table 17.17, no generalization seems possible, but in some cases high appearance rates and high disappearance rates do go together. It is possible that a high rate of establishments going out of business (probably the most important form of disappearance) makes more room for new establishments to enter, sometimes even if there is an over-all downtrend in the number of establishments in the industry as in the wood industries.

But a situation of high disappearance of establishments does not automatically make room for many new establishments. At the other end of the scale, the industry group with the lowest 1972 rate of appearance of new establishments was the leather industries. This group has the third highest disappearance rate; the industry group has had a slow growth rate with competitive conditions favourable to the closing of establishments. In this case it has not meant opportunities for new establishments, as in the wood industries.

In general, one might suppose that industries with many small establishments could have high rates of both appearance and disappearance of establishments. Actually, there is a low negative correlation between the ranks of industry groups in Table 17.17 with respect to their appearance rate and the average size of all establishments is somewhat more marked but not great (a Spearman rank order correlation of about -0.5). A negative correlation suggests that a smaller average size of establishment makes for a higher rate of disappearance. In practice, small average establishment sizes tend to result from the presence of many very small establishments, often prone to go out of business.

At any rate, it is not surprising that the industry group with the highest average size of establishment, the petroleum and coal products industries, has the third lowest rate of establishment disappearance. This industry group is characterized by large technical units and, therefore, by large establishments and companies; it does not have an extensive small business sector. On the other hand, the printing and publishing industries which do have an extensive small business sector, rank low (fifteenth) with respect to the disappearance rate but rank high (fifth) as to the rate of appearance of new establishments. Again, though one can see some possible reasons, generalizations are difficult.

Size of new and disappearing establishments. It is not really possible to measure the size of establishments satisfactorily from Census of Manufactures data for the year in which they either begin or cease operations. A new establishment may begin at any time during the year and therefore report on only a part of a year's activity in the first survey; a similar situation applies to establishments which "die", as they may cease at any time during the reporting period. (Establishments transferred in or out of the manufacturing industries because of changes in their activity do involve whole reporting years as a rule.)

However, it is informative to some extent to compare the ranking of industry groups with respect to the average reported shipments per new establishment or per establishment which disappeared. There is a noticeable relationship between these rank orders and the average size of all existing establishments in the industry. That is, there is a tendency for the size of new establishments to be greater in industries in which establishments are generally larger; likewise, establishments disappearing tend to be larger, the larger the average existing establishment. (The average shipments reported per disappearing establishments show a Spearman rank order correlation of 0.7 with the average size of all establishments the previous year. This coefficient would rise to maximum possible value of 1.0 if the relationship were perfect and positive.)

Of course, statistics for industry groups are in some cases heavily influenced by one or a few of the industries included in the group, with other industries perhaps showing quite a different level of appearance or disappearance of establishments.

Reclassifications. Not only do establishments appear for the first time in the Census of Manufactures or disappear from it, but establishments are moved between industries of the