

points in the next decade. This relatively small increase will result mainly from design changes and a continuation of the trend toward off-site prefabrication. These developments as well as the change in the mix of the various types of construction involving the somewhat lesser importance of highway construction, will produce varied effects on the consumption pattern of individual materials. Among the various building materials, fabricated structural steel, lumber products, bitumen, and rock products should decline from 1965 proportions (table 2). Metal doors, windows and trim, concrete products, electrical equipment, and pipe (particularly concrete) should rise. Other materials should remain relatively stable.

With regard to changes in the mix of construction, the greatest rate of increase will probably be in hospital and institutional construction, spurred by the demands of medicare and other health programs. Administrative and service building construction will also have a higher than average growth rate as expenditures continue to expand for office, fire, police, park, and recreational buildings. While the growth rate of new educational facilities is likely to be considerably below that of the 1947-65 period when the backlog of needs was particularly large, it is still expected to exceed the average growth rate for State and local construction as a whole. The growth of these building types of construction will particularly increase the proportion of total construction expenditures devoted to plumbing, heating, electrical equipment, and metal doors and trim since they are heavy users of these materials. The relative share of expenditures for fabricated structural steel products will be particularly influenced by the growth of administrative and service buildings construction which because of the office building component has a considerably higher usage factor for this material than does other construction. Some types of materials, such as cement, concrete products, pipe and aggregates will be unfavorably affected by the higher growth rate in nonresidential building construction since for these materials they are inherently comparatively low users.

The growth of sewer construction is expected to be second only to hospitals. This growth is related to the increasing concern for the need for greater control of waste disposal and involving the expansion of Federal aid programs to State and localities for sewer construction. The rapid growth of sewer construction will tend to offset the effects of the lower usage of concrete in nonresidential buildings, since such usage in sewer is double that of the average for all State and local construction. Water construction is also expected to show an above average rate of growth, and like the sewer category will benefit from increased Federal aid. The major implication for materials use is in pipe, since sewer and water construction require from four to five times as much pipe per dollar of total expenditures as in all State and local construction.

Highways is the only category of State and local construction which is expected to have a lower than average growth rate. It will constitute a lower proportion of State and local construction expenditures. The average annual rate of increase for highways in the next decade may drop to less than half of the 8-percent average rate of growth for 1947-65. The stimulus of extensive Federal aid for highways will probably continue as in the past decade, but the satisfaction of other public works needs will receive greater priority. Nevertheless,