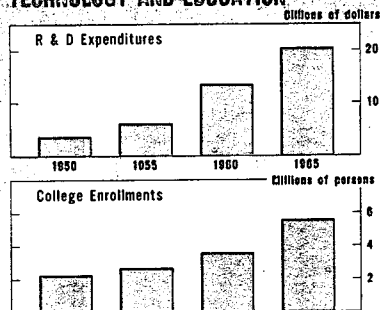
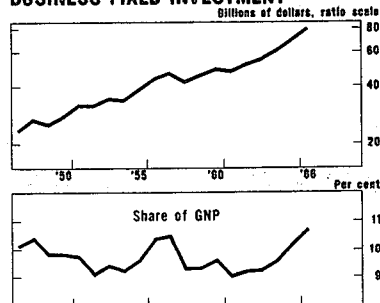
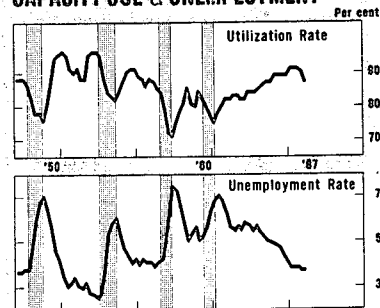


TECHNOLOGY AND EDUCATION**BUSINESS FIXED INVESTMENT****CAPACITY USE & UNEMPLOYMENT**

ing. Expenditures for research and development, supported in part by Federal financing, have risen dramatically since 1950. With technology changing rapidly, business investment decisions may have become less dependent on short-run prospects for sales and profits.

Investment in human capital—represented here by the rise in college enrollment—also has yielded striking returns. The effects of increased knowledge, according to one estimate, may account for as much as half of our growth in total real output.

With population, skills, and technology all advancing rapidly, the upward course of business fixed investment has proceeded with few interruptions. Earlier in the postwar period the rate of increase was relatively modest, despite large replacement needs, but investment advanced rapidly from 1955 through 1957. The slowdown in outlays after 1957 created fears that investment opportunities were becoming saturated. But growth in demands and stimulative tax and credit policies resulted in an acceleration after 1961.

As a share of gross national product, expenditures for business fixed investment are not especially large—varying between 9 and 11 per cent—but they are strategic in terms of maintaining high resource use and economic growth. Providing a financial climate conducive to a high, but sustainable, rate of fixed investment clearly must remain a central objective of monetary policy.

Although the growth rates of business investment and of GNP have been large over the past 20 years, cyclical downturns have been costly. In each of the four postwar recessions, indicated by the vertical shading in the chart, the utilization rate of manufacturing capacity declined, and profits were reduced substantially.