

Figure 2-46 Urbanization versus GNP per capita, 1965

Source: J. L. Fisher and N. Porter, "The Effects of Population Growth on Resource Adequacy and Quality," in *Rapid Population Growth* (Baltimore: The Johns Hopkins University Press for the National Academy of Sciences, 1971), © 1971 by the Johns Hopkins University Press.

industrial development. Large industries both require and make possible the concentration of people in urban areas. To some extent this relationship still holds today (Figure 2-46). However, one might also argue that urbanization is simply a function of total population size. As the population grows, the new numbers must be accommodated in cities, since jobs and sustenance in rural areas are not increasing. There is also historical evidence to support this assumption; the globe's urban population has been a regularly increasing proportion of its total population (Figure 2-47). It is probably impossible to decide between these two causal hypotheses statistically, since industrialization and total population are themselves closely related.

We chose to express the fraction of population urban FPU as a table function of total population POP rather than of industrial or total output per capita. We did so primarily because several authors have suggested that the process of urbanization now occurring in nonindustrialized countries is different from the historical urbanization pattern and is more related to total population growth than to economic development (Davis 1965; U.N., 1972a, p. 26). As Figure 2-48 indicates, the developed countries

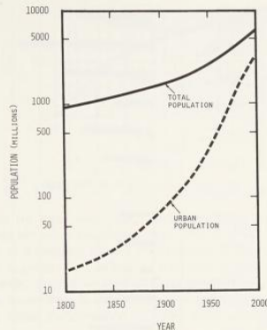


Figure 2-47 Global urbanization as a function of time

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built their cities at least in part by attracting population away from the rural areas with urban industrial jobs. The developing countries, faced with population growth rates far higher than any ever observed before in the history of man, are currently forming cities much faster than the developed countries did; yet their rural populations are also growing. These cities are not necessarily growing because of economic support for greater urban population density.

In some countries the growth of urban population is accompanied by a corresponding industrialization, development of transport and communications, and by decreases in the relative size, and increases in the efficiency, of the agricultural labour force. In many countries, however, this is far from being the case. All too often the movement of migrants from rural to urban areas causes an excessive accumulation of the labour force in marginal service activities, and of families and households in substandard or hastily improvised housing. Nevertheless, judging from the unbroken momentum of urbanization during several decades of the past, even inferior economic and social conditions are rarely a deterrent in this seemingly irreversible movement. [U. N. 1972a, p. 26]