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Economics of Rural Land-Use Change

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PART I
INTRODUCTION AND BACKGROUND

Chapter 1

Objectives and Perspectives

Kathleen P. Bell, Kevin J. Boyle, Andrew J. Plantinga,
Jonathan Rubin, and Mario F. Teisl

Introduction

Land is an input to the production of an array of private goods, including agricultural crops, forest products, and housing. Private decisions about the use of land, however, often give rise to significant external costs, such as non-point source pollution and changes to wildlife habitat, and external benefits, such as the provision of recreational opportunities. One role of land-use policies is to narrow the divergence between privately and socially desirable outcomes, either by altering the incentives faced by private agents or through direct government ownership and management of land.

The rural landscape of the United States underwent tremendous changes during the 20th century, and these changes have given rise to complex and pressing land-use policy issues. As shown in Figure 1.1, the share of the U.S. population living in rural areas has decreased steadily since 1900. In 2000, approximately 21 per cent of the U.S. population lived in rural areas. Much of the employment in rural areas has traditionally been in agriculture and forestry industries, for which land is an essential input. For example, in 1820 approximately 70 per cent of the U.S. population was engaged in farming, while in 2000 only two per cent of the U.S. population was engaged in farming (U.S. Department of Agriculture 2000). Labor-saving technology, which has reduced the labor requirements in these industries, accounts for some of this decrease. Other factors, such as an absolute decline in farm income, are also responsible. Figure 1.2 shows an almost 33 per cent decline in employment per $1,000 of real gross product in rural land-based industries since the 1950s. In addition, the relative importance of these industries to the U.S. economy has declined. Rural land-based employment and gross product, expressed as shares of U.S. totals, have declined steadily since the 1950s, although the rate of decline has diminished over time (Figure 1.2).

Paradoxically, while many rural areas struggle with problems of declining population and economic activity, other rural areas face problems with rapid population and economic growth. After World War II, there was a dramatic shift in population from traditional rural areas and urban centers to suburban areas. While many factors have contributed to suburbanization, including the availability of low-interest loans for new home construction provided to returning World War II

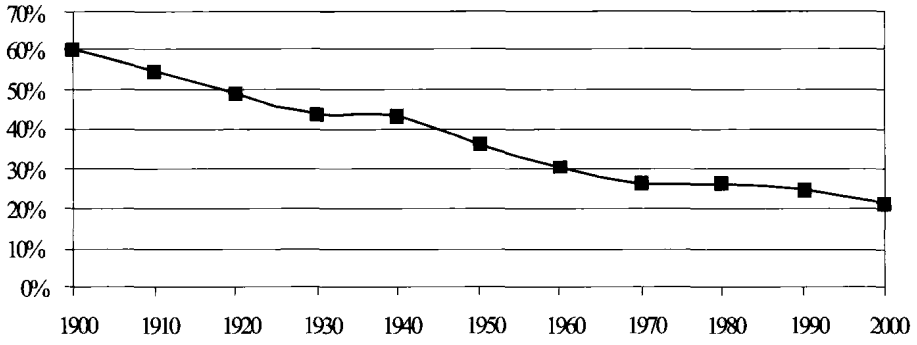

Figure 1.1 Percentage of the U.S. population living in rural areas, 1900–2000

Source: U.S. Department of Commerce, Bureau of the Census.

veterans by the Veterans Administration, it is difficult to overstate the importance of affordable private automobile transportation and public road construction. In 1950, the U.S. population (152 million people) used 43 million cars and trucks to drive 458 million miles. By 1997, the U.S. population (now 268 million people) used 201 million vehicles to drive 2.5 billion miles (Davis 1999). Vehicular transportation was made possible by extensive road construction, including the expansion of the Interstate Highway System, under the Federal Highway Aid Act of 1956, by 3.9 million miles (U.S. Department of Transportation 1999).

Suburbanization has resulted in the conversion of millions of acres of rural land near cities to developed uses (Vesterby, Heimlich, and Krupa 1994). According to the U.S. Bureau of the Census, the area of urban land, which by the Census definition includes suburban areas, increased by about 120 per cent between 1960 and 1990. At the national level, urbanization has outpaced population growth, which increased by only 40 per cent during this period. The post-war migration to suburban areas dramatically altered settlement patterns in the U.S., such that by the 1990s a majority of Americans lived in suburbia (Carlson 1995). These shifts in population have changed the rural landscape from one that provides simultaneous production, economic livelihood and residences for a large percentage of the population to one that provides opportunities for urban and suburban dwellers to relax and recreate.

The impacts of shifting populations and changing landscapes have been documented for many regions of the United States. The repercussions of these transitions are different in rural and urban areas, and across regions. In Maine, for example, a recent analysis revealed that the fastest growing communities (in terms of the rate of population growth between 1960 and 1990) were, in most cases, on the outskirts of traditional city centers (Maine State Planning Office 1997). Over

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