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Sprawl and Fragmentation: The Issues

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CHANGING DEMOGRAPHICS AFFECTING SPRAWL

John F. Dwyer and Susan I. Stewart

ABSTRACT. Demographic changes including population growth, racial/ethnic diversity, aging, expansion of urban areas, and migration to rural areas can bring significant population increases in particular areas that may encourage sprawl. Areas where the pressures for sprawl are likely to be the greatest include the periphery of urban areas, popular retirement destinations, places where seasonal homes are common, areas that are attractive to amenity migrants, and areas where new businesses will locate. Sprawl and efforts to reduce or ameliorate its impacts can influence or be influenced by the management of forest resources across an urban to rural spectrum. With sprawl the forest resource may undergo significant changes, including different owners managing it, for different purposes, and in a very different social context than was previously the case. The extent and implications of these changes depends on the type of sprawl and how policy makers, planners, managers, and residents respond to it.

KEY WORDS. sprawl, demographic change, fragmentation, forest management.

INTRODUCTION

In the simplest sense, sprawl refers to urban expansion into what was previously agriculture, forest, or open lands. Planners and social critics tend to use the term "sprawl" to describe urban growth characterized by low-density single-family housing; insensitivity to existing natural landforms, plant and animal communities, and watersheds; and planning on a parcel-by-parcel basis rather than at the community scale. Such efforts often demonstrate insensitivity to rural social systems as well as ecological systems. To many, "sprawl" is symbolic of change that is not desirable. Other papers in this session discuss sprawl and its implications. Our purpose is to discuss the ties between demographic change and sprawl.

Demographic change is one of many factors that can affect sprawl. Changes in the number, characteristics, and distribution of people across the landscape does not cause sprawl; but rather creates conditions that may contribute to increasing or decreasing rates of sprawl. Some demographic change occurs in response to sprawl, as when people move to take jobs associated with sprawl, or to avoid sprawl and its consequences.

Sprawl is of concern to the managers and users of forest resources for a number of important reasons. First, sprawl often brings major changes in forest resources, to include land cover and land use. Second, sprawl brings new patterns of private land ownership, including smaller parcel sizes and new landowners. Third, sprawl introduces new land management techniques, goals, and objectives. Fourth, sprawl affects access to nearby public and private holdings. Fifth, sprawl brings new forest uses and shifting public interest in forest land management and use. Sixth, sprawl may bring regulations that will restrict forestry practices.

DEMOGRAPHIC CHANGE AND SPRAWL

Among the demographic changes that may contribute to sprawl are population growth, racial/ethnic diversity, aging, expansion or decline of urban areas, and migration to suburban or rural areas. Taken together, these changes suggest that in the years ahead we will have more people, a different age and racial/ethnic structure in the population, and a different distribution of people over the landscape. Demographic changes do not operate in isolation, but rather in complex combinations with other social, economic, and technological changes to influence the patterns of settlement and create conditions conducive to sprawl.

Population Growth

Substantial growth in the U.S. population is expected in the years ahead. By the year 2050 the population is projected to be 382,674,000, up from 254,922,000 in 1992; an additional 127,800,000 people, or a more than 50 percent increase (U.S. Bureau of the Census 1992). Population increases are projected for all states, with the largest increases for states in the South, Southwest, and Far West (Dwyer et al. 1998). There are going to be substantially more people in the U.S. in the years ahead, and while population growth will be widespread, increases will be especially significant in particular areas. While the housing preferences of these new residents is not known, continued demand for single-family, low density housing in suburban and rural settings will tend to encourage sprawl.

Racial/ethnic Diversity

With high rates of increase in numbers of individuals in traditionally "minority" populations, the population of the U.S. will continue to become more diverse. Less than 10 percent of the projected growth in the U.S. population between 1992 and 2050 is expected to be white non-Hispanic (U.S. Bureau of the Census 1992). The largest component of the increase will be white Hispanic (40 percent), followed by Asian American (26 percent) and African American (24 percent). The increasing diversification of the U.S. population may have important implications for the future distribution of the population over the U.S. Individual racial/ethnic groups tend to be concentrated in particular parts of the U.S. (Dwyer et al. 1998), often in urban areas, including the cities that serve as ports of entry for immigrants. To the extent that members of traditionally minority groups tend to locate in particular urban areas, there will be a tendency for these areas to grow substantially in population. With our limited knowledge of the likely settlement and migration patterns of individuals from racial/ethnic minority groups in the years ahead, it is difficult to predict the implications of increased racial/ethnic diversity for future sprawl. There is some evidence of increasing suburbanization and rural settlement by minority groups (Allensworth and Rochin 1998; Cullingworth 1987; Frey and Speare 1989; Pettigrew 1980; South and Crowder 1997) which may have important implications for future settlement patterns.

Aging of the Population

With reduced birth rates and longer life spans, the U.S. population is expected to age across all racial/ethnic groups. One implication of increased aging is that retirement is becoming an increasingly important force for change in lifestyles and location decisions. There is evidence that people are willing to move substantial distances to a preferred retirement location (Mergenhagen 1996). This is likely to be a logical extension of the increasing mobility of the population (Becker 1998). Where people decide to retire can become an important force for change in the distribution of people over the landscape. With increasing numbers of individuals reaching retirement age, there is likely to be population growth in traditional retirement destinations in the South and Southwest; but there is also the prospect of increased retirement to seasonal homes in all areas of the country. This transition can be an important force for change in areas where seasonal homes are concentrated such as rural areas of the Lake States, the Northeast, the Rocky Mountains, etc. A recent survey of Michigan seasonal home owners found that one third wished to retire to their seasonal home, and 40 percent rated the potential for retirement as a very or extremely important reason for owning their seasonal home (Stynes, Zheng, and Stewart 1997). Evidence of increasing ownership of and desire for seasonal homes among some segments of the population suggests that seasonal home ownership may be an even more important force for change in the distribution of retirees in the years ahead (Shaw 1997). It is not clear to what extent the retirement patterns will differ among racial ethnic groups. However, the retirement opportunities and decisions of individuals in these groups are likely to have important implications for shifts in the location of the U.S. population in the years ahead. Retirement of landowners tends to bring the sale of their lands and the possible subdivision of holdings, sometimes among heirs.

Expansion of Urban Areas

Past sprawl trends have included substantial increases in the spatial extent of metropolitan areas over time. This expansion has taken place throughout the U.S. Between 1969 and 1990 urban areas in the U.S. doubled in spatial extent, while between 1950 and 1990 U.S. metropolitan areas nearly tripled in spatial extent (Dwyer et al. 1998). The expansion of urban areas has not only been in response to population growth; but also to the movement of businesses, industry, and residences from the inner city to the periphery and outlying areas. This movement has been fueled, in part, by limitations in living, working, and doing business in inner city areas; and in part by the relative attractiveness of some suburban and ex-urban locations. Improving the livability and attractiveness of inner-city areas through better management of their forest resources could have significant implications for future residential and business location choices, and is among a few key factors that could slow the pace of sprawl.

Migration to Rural Areas

Population trends since 1990 reflect significant population growth in selected rural areas of the U.S., especially through in-migration (Fuguitt and Beale 1996; Johnson and Beale 1995). The highest rates of growth are for those areas that are popular locations for retirement and have significant recreation and related resources. Recent migration to rural areas has included two

important groups, retirees and amenity migrants. Amenity migrants include those who are able to live wherever they want and conduct business via the Internet, phone, fax or mail; as well as those who are willing to take a cut in pay, change jobs, or endure long commutes. Both groups are likely to select resources-rich places to live. The distinction between amenity migrants and retirees may be blurring as more retirees work part-time (Mergenhagen 1996). There are also a number of forces for change that are bringing more jobs to rural areas; such as lower wages and costs of living, the growing availability of social and cultural amenities, and the growth of non-manufacturing industries that can compete from decentralized locations (Mencken and Singelmann 1998). Many of the rural areas where growth is occurring are quite distant from urban or metropolitan areas. Job growth then creates a demand for services, which brings new demands, additional population growth, and perhaps sprawl. Jossi (1997) outlines various approaches that small towns have taken in dealing with these pressures, while McCormick (1998) discusses "last ditch" efforts to stem sprawl on Colorado's Front Range.

DISCUSSION

Demographic changes such as population growth, racial/ethnic diversity, aging, expansion of urban areas, and migration to rural areas can be expected to generate population increases in particular urban and rural areas, which may in turn lead to sprawl. The U.S. will have a larger population that will be distributed differently over the landscape. It is difficult to predict where growth will occur over time, given ongoing changes in the factors that influence where individuals and businesses choose to locate. Without the historically strong "pull" of large industrial centers for people and businesses, future patterns of settlement are very uncertain and may be quite diverse. Areas where the pressures for sprawl are likely to be the greatest include the periphery of urban areas, popular retirement destinations, places where seasonal homes are common, and areas that are attractive to amenity migrants and new businesses. Many of these areas are found in close proximity to significant forest resources.

Increased racial/ethnic diversity of the population, the aging of racial/ethnic groups, and our limited knowledge of the migration and retirement patterns of racial/ethnic groups will make it very difficult to predict the distribution of traditionally minority populations over the landscape in the years ahead.

Forest resources can be significantly impacted by sprawl, as landscapes inside the city, on its periphery, and in rural areas are transformed by our individual and collective settlement choices. Forest resources also play a role in influencing settlement choices, through their significant effects on the health and appearance of all neighborhoods and landscapes. Perhaps the skillful use of trees and other vegetation in the planning of residential developments and seasonal or retirement home communities can reduce the demand for large lots, encourage more compact developments, and protect and preserve forests and other natural areas in these developments. Stewardship of forest resources throughout metropolitan and rural areas is essential for insuring the health of the whole ecosystem - not just its rural components - as these resources bear the load of our growing and changing population.

Demographic changes, in conjunction with changes in communications, transportation, and the U.S. economy, have diminished both the spatial distance and the social distinctions between urban and rural areas. A significant portion of forest resource management has traditionally taken place in rural settings, in the spatial and the social sense. In the future, managers should expect to operate in a much more urban or urban-like setting. Managers should not assume that future battle lines over resource management and use will be drawn along traditional urban-rural lines. Understanding diverse cultures will be essential, and managers should expect to encounter a much wider range of attitudes, values, and beliefs about forest management.

CONCLUSIONS

Demographic changes may generate pressures for development and expansion into what was previously agriculture, forest, or open land. While future patterns of population distribution are somewhat uncertain given changing circumstances, some areas are likely to be more heavily impacted by sprawl. It is likely that areas where the pressures for sprawl will be the greatest include the periphery of urban areas, popular retirement destinations, places where seasonal homes are common, and areas that are attractive to "amenity migrants" or to new businesses. Sprawl and efforts to reduce it or ameliorate its impacts have significant implications for the management of forest resources across an urban to rural spectrum. Management of forests in urban areas may influence the likelihood that individuals and businesses will move to suburban or ex-urban locations. Rural forest managers must cope with a changing social context as well as the consequences of urban expansion and rural sprawl, and their effects on forest resources.

LITERATURE CITED

- ALLENSWORTH, E., and R. ROCHIN. 1998. Ethnic transformations in rural California: Looking beyond the immigrant farmworker. *Rural Sociology* 63(1):26-50.
- BECKER, T.J. 1998. The American way: What's behind our penchant for mobility? We move because we can. *Chicago Tribune* February 1, 1998.
- CULLINGWORTH, B. 1997. *Planning in the USA: Policies, issues, and processes*. New York: Routledge.
- DWYER, J.F., NOWAK, D. J., NOBLE, M.H., and S.M. SISINNI. 1998. *Assessing our nation's urban forests: Connecting people with ecosystems in the 21st century*. Draft. USDA Forest Service North Central Research Station and Northeastern Research Station. 142 pp. and appendices.
- FREY, W.H., and A. SPEARE JR. 1989. *Regional and metropolitan growth and decline in the United States*. New York: Russell Sage.
- FUGUITT, G.V., and C.L. BEALE. 1996. Recent trends in nonmetropolitan migrations: Toward a new turnaround. *Growth and Change* 27:156-174.

JOHNSON, K.M., and C.L. BEALE. 1995. The rural rebound revisited. *American Demographics* 17(7):46-54.

JOSSI, F. 1997. Small town survival strategies. *Planning* 63(10):4-8.

MCCORMICK, K. 1998. Home, home on the ranchette. *Planning* 64(12):4-8?

MENCKEN, F., and J. SINGELMANN. 1998. Socioeconomic performance in metropolitan and nonmetropolitan areas during the 1980's. *Sociological Quarterly* 39(2):215-238.

MERGENHAGEN, P. 1996. *American Demographics* August, 17-18, 20.

PETTIGREW, T.F. 1980. Racial change and the intrametropolitan distribution of Black Americans. In *The prospective city: Economic, population, energy, and environmental developments*. ed. A.P. Solomon, 52-79, Cambridge: MIT Press.

SHAW, D. 1997. Homes away from home. *House and Garden* June, 16-18, 20.

SOUTH, S., and K. CROWDER. 1997. Residential mobility between cities and suburbs: Race, suburbanization, and back-to-the-city moves. *Demography* 34 (4):525-538

STYNES, D.J., ZHENG, J., and S.I. STEWART. 1997. *Seasonal homes and natural resources: Patterns of use and impact in Michigan*. General Technical Report NC-194. St. Paul MN: USDA Forest Service North Central Forest Experiment Station.

U.S. BUREAU OF THE CENSUS. 1992. *Population projections of the United States, by age, sex, race, and Hispanic origin: 1992 to 2050*. Current Population Reports, P25-1092. Washington DC.: U.S. Government Printing Office.

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