

Sprawl in California

A report on quantifying the role of the state's population boom

1. INTRODUCTION

Urban sprawl in California continues to destroy and threaten some of the most important ecological, agricultural and scenic land in the world.

In recent decades, the state's urbanized areas burst outward in an explosion of sprawl that consumed countryside at a breakneck pace. Thousands of square miles of orchards, rangeland, farmland and natural habitats were covered by concrete, asphalt and the structures they underlie.

This has occurred at the same time California's population has expanded from around 10 million in 1950, to 20 million in 1970, to 30 million in 1990, to 35 million in 2000, with no end in sight.

Were the two California phenomena – massive population growth and massive sprawl – related? Or was it primarily coincidental that they have occurred at the same time?

Coincidental, say many anti-sprawl enthusiasts. They argue that it is the increasingly gluttonous appetite of individual Californians for bigger houses, bigger lots, more cars, more parking lots and more roads that is the main culprit behind the sprawl.

Others argue that simple common sense suggests that population is a major factor in sprawl. After all, those new subdivisions spreading like wildfire across much of California are not being built just for the heck of it but to house more people – roughly half a million additional people each year and five million each decade.

1.1. Biodiversity hotspot

Regardless of the cause, urban sprawl has made California one of the Earth's "biodiversity hotspots." A frighteningly high fraction of the state's unique and endemic plant and animal species – and the living communities and ecosystems they comprise – are imperiled by human activity and development associated with Californians' vast numbers and colossal consumption.¹

Despite some of the nation's strongest efforts to tame sprawl, hundreds of additional square miles of the state's rural land are churned under by the forces of urbanization each decade. The ecological as well as the quality-of-life future of California depends on efforts to protect the state's land resources.

1.2. Anti-sprawl effectiveness depends on correct targeting

But to be effective, anti-sprawl efforts must be targeted at the factors that are most responsible for the encroachment on open spaces, natural habitats and farmland.

Approximately two dozen major factors have been suggested as culprits in sprawl:

6. One factor is population growth.
7. All the other factors combine to create growth in per capita land consumption – in other words, an increase in the average amount of urbanized land used by each resident of a city.

The relative contributions of the population factor and the combined consumption factors must be understood if anti-sprawl resources are to be used efficiently and effectively. And understanding is difficult without quantification.

The present report attempts to quantify the relative contributions of items (1) and (2) during the most recent 20-year period for which reliable and comprehensive data are available (1970-90).

1.3. No need for abstract debate

The authors embarked upon this study after a literature search found that media stories, advocacy programs and political statements about sprawl in the last few years have contained very few references to population growth as a significant factor. Nearly all public anti-sprawl efforts have been aimed at the factors that increase per capita land consumption.

Does growth in per capita land use explain virtually all of California's sprawl, as conventional anti-sprawl efforts suggest? Or, rather, is population growth a significant – even dominant – factor?

While there has been little public discussion of this question, acrimonious debate has sometimes ensued when the question has been raised. Arguments on all sides have tended to involve either abstract assertions or non-contextual anecdotes.

This kind of debate is needless, for it is quite possible to quantify the relative roles of population growth and of the combined per capita consumption factors.
