



## How U.S. Building Codes Do – And Should – Shape Cities

Steven Albert Moore, University of Texas at Austin

How many cars can travel on a particular stretch of road without causing congestion? How many enthusiastic dancers will an apartment balcony support? Will building affordable housing near a freeway contribute to high rates of childhood asthma? In the United States such questions are answered not by government engineers or independent experts, but by market-based institutions – the American Institute of Steel Construction, American Concrete Institute, or International Building Code. These institutions develop codes that are adopted by various levels of government, yet they include only a few public officials and a smattering of academics along with many representatives of industry who are primarily responsible to corporate stockholders. The logic behind giving so much authority to such skewed bodies is that the people who make things know them best.

Land use regulation is an important exception to this uniquely American practice. The courts have decided that it is a matter of public safety where and how certain types of buildings are erected—including housing, factories or hospitals. Municipal laws regulate such land uses through zoning ordinances legislated by committees of citizens appointed by local government. Historically, however, such citizen committees, like the market-based institutions mentioned above, tend to be dominated by real estate and construction interests. As a result, city planners and scholars find that city-zoning and building regulation happen through processes that are far from democratic.

Technical codes, standards, regulations, and ordinances that on their surface may seem objective, in fact, bring with them a host of embedded social values. U.S. institutions about these matters are not necessarily corrupt, but they produce codes regulating matters that different social groups interpret differently. What are the current results, and who should write better codes and how?

### Types of Codes

Historically there have been various kinds of codes used by different social groups:

**Tacit codes** are codes most people carry around in their heads but rarely ponder, because these guidelines are embedded in the way things are normally done. In today's society, it is no longer much of a conscious decision to buy a digital phone or drive a car – it is simply a matter of when to buy which brand. Tacit codes are an indicator of the unchallenged values held in common by a society. Changing codes, like driving a car, first requires that problematic consequences be brought into societal awareness, even as a preferable practice, like mass transit or electrical vehicles, becomes readily available. Such changes are only made possible by broad social actions like the Disability Rights Movement and the waves of legislation that followed.

**Sumptuary codes** are generally thought to be an antiquated practice best illustrated by the wearing of a uniform. In the Crown Court of Queen Elizabeth I, there was a pamphlet indicating exactly which fabrics, colors, or lengths of sleeves could be worn by different social classes. That kind of sumptuary code determined what things could, or could not, be consumed by certain social groups. Although such practices may seem very outdated, consider the prestige given to new buildings that display a medallion in their lobby indicating a silver, gold or platinum certification under standards issued by the U.S. Green Building Council. Because the government has stepped away from certifying the quality of food, cosmetics or cloth, a myriad of not-for-profit certification organizations have sprung up to provide consumers with information *not* provided by market-based regulators.

**Economic codes** are innate to capitalist societies and can be categorized into three types.

- **Prescriptive codes** specify building practices that must or must *not* be followed – such as heights and lengths of stairs used to exit buildings in case of fire. Such codes guard public health, safety, and welfare –although industries often claim that they stifle market innovation.
- **Incentive codes** allow local governments to stimulate private urban investments, as when a developer is allowed to build additional stories beyond existing codes in exchange for contributions to public improvements like a park or affordable housing. Although a strategy often used in tax-starved communities, this kind of code tends to erode public trust.
- **Performance-based codes** release builders from strict adherence to prescriptions so long as they demonstrate a plan that is equal or better. Not only does this induce innovation, it may lead to significant cost savings. The single disadvantage to this code strategy is that demonstrating compliance can be very expensive, out of reach for people of modest means.

## Codes as Publicly Debatable Designs

All codes, standards, regulations, and ordinances attempt to guard the public welfare, but they also have unintended social and environmental consequences. Industry and public regulators operate within independent silos often at cross-purposes. Water regulators, for example, have no authority to manage electricity rates, yet water pumping is typically a municipality's single largest user of electricity. Regulators may simply deny consequences outside their recognized jurisdiction. What is more, when new codes are produced, specific goals not usually spelled out, and no one is assigned responsibility for tracking code effectiveness. As a result, the public has no ready way to continually revise and improve codes that are supposed to improve urban life.

Codes could be made more socially just and environmentally responsible through political processes that coordinate different realms of code-making. Although conditions vary greatly from state-to-state and city-to-city, the U.S. Constitution allows municipalities to regulate themselves as long as local codes are shown to be more life-enhancing than the previously legislated norm. Cities could self-consciously experiment – for example with building affordable housing on inexpensive land outside the city center versus on more expensive land already served by municipal infrastructure. The key issues include who benefits, rich versus poor, and which agencies take responsibility and cover costs. Short-term controversies would increase if choices in now-separate regulatory realms were taken together. But it is risky to ignore buried consequences because today's codes shape how people will live in the future.

**Read more in Steven A. Moore and Barbara B. Wilson, *Questioning Judgement in Architecture: The Problem of Codes in the United States* (Routledge, 2013).**