

An Economic History of Zoning and a Cure for its Exclusionary Effects

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Summary. The paper outlines the 20th-century history of American zoning to explain how home-owners came to dominate its content and administration in most jurisdictions. Zoning's original purpose was to protect home-owners in residential areas from devaluation by industrial and apartment uses that had been made footloose by trucks and buses around 1910–20. Completion of the interstate highway system around 1970 made jobs and employees so mobile that suburbs adopted growth controls to stem the tide. If zoning is indeed a substitute for home-value insurance, it seems worthwhile to investigate the possibility of home-equity insurance to reduce the demand for exclusionary zoning.

Introduction

This essay offers an economic explanation for the origins of American zoning, its bias towards home-ownership and its 20th-century evolution. There are three major puzzles to be explained. First, why did zoning take the country by storm in the 1910–30 era rather than before? Secondly, why do zoning laws prefer the owner-occupied, single-family home to other land uses? Thirdly, why did zoning start to have extraterritorial effects on metropolitan housing prices only after about 1970?

The purpose of this historical enquiry is to offer a test of the thesis of my book, *The Homevoter Hypothesis* (Fischel, 2001a). Its central idea is that the way to understand local government behaviour is to see it through the eyes of home-owners—and not renters, developers, business interests, or machine politicians—who are resident in the

community. Home-owners have a special interest in their community that helps overcome the free-rider problem in public affairs. For most of them, home is by far their largest financial asset and, unlike owners of corporate stock, home-owners cannot diversify their holdings among several communities. Fear of a capital loss to their major asset and desire to increase its value motivate owners of homes to become 'homevoters'. They vote their homes in local elections and at public hearings.

The dominance of home-owners and their touchiness about their main asset explain why nearly every suburban zoning ordinance puts the single-family, owner-occupied home at the pinnacle of uses to be protected. The homevoter approach to local government can also explain why zoning came into being when it did (1910–20) and why during the

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1970s it became more generally exclusionary. New transport technologies, specifically the bus and truck in the 1910s and the development of the interstate highway system in the 1960s, put suburban home-owners at risk from value-reducing development in their neighbourhoods and communities. Because home-owners had no means of insuring their assets against these new threats, they and the developers of new homes responded with public land-use regulations that have become increasingly exclusionary. As Albert Breton (1973) first argued, zoning is best understood as an alternative to currently non-existent home-value insurance.

My other purpose in this essay is to explain why a system of home-value insurance might be a useful device to deal with exclusionary zoning. Rather than attacking motives for zoning, which are typically unobservable and for which many substitute rationales can be advanced, a more effective remedy would address the underlying financial anxieties that give rise to exclusionary ordinances. Home equity insurance would pay neighbours of a controversial development for any decline in their homes' value caused by the development. This promise would assuage an important anxiety that motivates residents to oppose new development. Equity insurance addresses without fruitless moralising what may be the essential problem with exclusionary zoning.

1. Zoning's Rapid Rise Requires General Explanations

Zoning started in the US a little after 1910. Many cities had ordinances with some zoning-like features in the 19th century (Fischler, 1998a). Almost all of these, however, addressed particular concerns within the developed area of the city. Concern about fires motivated attempts to regulate building construction. The invention of the steel-frame skyscraper induced selective light-and-air regulations such as maximum height requirements. Some cities also adopted residential districts that forbade certain businesses and, occasionally, multi-family homes.

Yet the zoning in the 1910s represented an important break with the past. The new features were the comprehensiveness of its map and the law's presumption that single-family residences were to get the most protection. Every inch of the city (or other adopting jurisdiction) was made subject to zoning, not just certain sections, as was the case in earlier land-use regulation. Some zoning districts may be permissive either by law or by practice, but there are no unzoned districts. Comprehensive zoning did not, as planners often lament, emerge from a comprehensive plan. But in the process of designating every acre of land to be within one zone or another, the city could now control the future use of its land. Prospective regulation freed the city authorities from having to react to neighbourhood land-use conflicts with *ad hoc* regulations.

The presumption that single-family districts are to get the most protection is so widespread that we seldom ask why it should be so. In other political settings, where one works is at least as important as where one lives, and the services of rental housing are no less important to their occupants than those of owner-occupied housing. Yet the single-family, owner-occupied home appears to be the object of most solicitude in nearly every zoning ordinance. The occasional exceptions that put business purposes at the top, such as the City of Industry in Los Angeles County, California, are sufficiently unusual to seem bizarre.

The attraction of city-wide zoning was the security it gave to early 20th-century home-builders and home-owners. Once zoning was adopted, they were no longer completely uncertain whether the nearby tract of undeveloped land or land ripe for redevelopment would be put for some use that was incompatible with their own. Home-owners and builders could read in a public record what the zoning allowed and they knew that, if a developer sought to change what was allowed, neighbours and other citizens would have some influence on the political process by which the change was made.

Many accounts give New York City's

1916 ordinance the honour of being the first comprehensive zoning law, in that it included the whole city in some zone or another (Toll, 1969). It is clear, however, that several other American cities were developing similar ordinances at the same time (Fischler, 1998a; Weiss, 1987). Had New York not been first, several other cities were poised to take the title.

It seems unlikely, then, that zoning thus was the product of circumstances in one particular place. Nor, I submit, was it the product of planners who had embraced the 'City Beautiful' movement, progressives who supported scientific management of government or lawyers who argued for an expansive view of the police power. The roles of planners, progressives and lawyers were, I believe, supply responses to a popular demand for zoning. This popular demand did not manifest itself as direct democracy. It was filtered through housing developers, who, I shall demonstrate presently, found that they sell homes for more profit if the community had zoning.

Focus on the larger cities for zoning's origins tends to cause modern scholars to overlook that zoning quickly spread to the suburbs and small towns in metropolitan areas. Zoning suburbanised by the 1920s and spread rapidly (Warner, 1972, pp. 30–31). Eight cities had zoning by the end of 1916. By 1926, 68 more cities had adopted it and, between 1926 and 1936, zoning was adopted by 1246 additional municipalities (Toll, 1969, p. 193; McKenzie, 1933, p. 300). If these numbers look small by today's standards, it is worth emphasising that most suburban development prior to 1910 took place within established central-city boundaries or on suburban territory that was quickly annexed to the city rather than independently incorporated (Teaford, 1979, ch. 3). Thus the number of independent suburbs that would have occasion to adopt zoning was relatively small and the fraction that did so was impressive.

The village of Euclid, whose zoning ordinance was the occasion of the US Supreme Court's landmark decision to uphold zon-

ing's constitutionality in 1926, was a young suburb of Cleveland at the time of the legal challenge. Euclid's victory cleared the way for zoning in almost all of the state courts, which had been about evenly split on the constitutionality of zoning up to 1926. A few hidebound courts like New Jersey's continued to resist the zoning tide for a year or two, but the New Jersey Supreme Court's anti-zoning decisions were reversed within a year by a state constitutional amendment (*National Municipal Review*, 1927; *Lumund v. Board of Adjustment*, 1950, p. 584). That New Jersey's constitutional amendment was so quickly and easily adopted in that most suburban of states (its two largest central cities, Philadelphia and New York, are outside the state) is testimony to the suburban enthusiasm for zoning from the outset.

The conventional explanation for zoning's birth invokes the increasing interdependence of urban land use that arose after the dawn of the 20th century and the need to deal with incompatible uses by means other than traditional nuisance law and private covenants. This claim is seldom closely argued, which is just as well. Accounts of urban conditions in the 18th and 19th centuries leave little doubt that the nuisances and near-nuisances that were said to give rise to zoning were much worse in the past (Cronon, 1991; Tarr, 1996). If it was just technical externalities that gave rise to zoning, American cities would have had it decades before its actual inception.

Nor is it credible that no one had thought of zoning before it was imported (at least as an idea) from Germany, whose cities had adopted it around 1870. Regulation of land use, albeit in a less than comprehensive way, goes way back in American history (Hart, 1996) and the extension of regulation to include all land seems like an easily comprehended step. Many 18th- and 19th-century American cities, not just Washington, DC were laid out in detail by their founders (Reps, 1965), so urban planning was not new.

2. The Streetcar Suburbs Set the Stage for Zoning

I submit that a crucial pre-condition for zoning was the spread of a mechanically powered, intraurban transport system. Prior to 1880, most people walked to work in American cities. Horse-drawn streetcars mounted on fixed rails existed in many larger cities before the Civil War, but they were slow, environmentally problematical and limited in their hauling capacity. As a result, the rich tended to live closest to their jobs, since long walks were irksome as well as time-consuming (LeRoy and Sonstelie, 1983; Gardner, 2001).

The development of electric-powered street railroads in the 1880s made it possible for urban workers to live in exclusively residential districts and commute daily to their jobs in the central city. Streetcar lines grew from 3000 miles, all horsedrawn, in 1882, to 22 500 miles of mostly electric lines in 1902 (Cudahy, 1990, p. 49). As the streetcar lines were constructed, homebuilders responded to the housing demands of people who could afford the not-inconsequential commuting fares and the rich started to move to the suburbs. Some suburban developers actually built and subsidised streetcar routes specifically to promote their own building lots (Fogelson, 1967, p. 87; Korngold, 2001, p. 621).

The rich did not, however, adopt zoning upon moving to the suburbs. The best-known history of early suburbanisation along trolley lines is Sam Bass Warner's *Streetcar Suburbs: The Process of Growth in Boston, 1870–1900* (1962). Warner offers a detailed account of the development of Boston's close-in suburbs as the streetcar lines were laid outwards from Boston's core. He describes the construction of homogeneous (as measured by income, not ethnicity) neighbourhoods by a highly fragmented, decentralised building industry. Small-time developers built and marketed tracts of homes whose neighbourhoods look as if they had been subject to the uniform standards of a zoning law, yet zoning was nowhere in

sight. Private covenants were used later in the period (Korngold, 2001), but they typically applied only to the original sub-dividers' parcel and cannot by themselves account for the uniformity that existed across sub-dividers' parcels.

Other observers of development in the streetcar era (1870–1910) have also remarked on the apparent orderliness of suburban development. Andrew Cappel (1991) describes the outward development of New Haven, Connecticut, in the pre-zoning era. The uniformity with which New Haven's homes were set back from the street, a hallmark of later zoning laws, is striking. Using more quantitative methods, Daniel McMillen and John McDonald (1993) examined the land-use patterns and property values of Chicago just before it adopted zoning. Their calculations led them to conclude that the patterns that zoning subsequently enforced cannot have raised land values, as zoning's proponents argued it would. If zoning is concerned, as its many proponents claimed, with promoting neighbourhood uniformity and thus preserving property values, it is not clear why any city would have adopted it during zoning's hey-day.

Cappel (1991, p. 632) suggests a reason why land-use patterns in the pre-zoning era did not mix apartments and commercial establishments with single-family and duplex homes. The impetus for New Haven's suburbanisation was, as in Boston, the electric streetcar line. Streetcars were enormous improvements over walking and horse-drawn conveyances both in speed and comfort. Apartment houses were almost always built near them to take greatest advantage of the convenience they offered tenants. Streetcars did not carry large amounts of freight, so only less-noxious commercial developments, such as retail stores, were pulled out of the central city. Heavy industry remained concentrated around wharves and railheads.

Apartments and commercial activity located near the streetcar lines, making their immediate neighbourhoods rather mixed (von Hoffman, 1996). But it was easy for builders of one- and two-family homes to

avoid these areas. Residential developers just had to build single-family homes a few blocks away from the streetcar tracks. Moreover, the location of streetcar lines and their stations was subject to public review, and both Cappel and Charles Cheape (1980, pp. 29–32) found that homebuilders and organised home-owners used their political influence to prevent streetcar intrusion into residential or prospectively residential areas. Control over the location of streetcar lines, in other words, was a substitute for zoning.

3. Trucks and Buses Undermined Informal Land-use Controls

Cappel found that, in addition to controlling the streetcar lines, New Haven's home-owners and homebuilders relied on a web of informal agreements, mutual understandings and *ad hoc* resort to the law to enforce the patterns that zoning later dictated. Since interlopers and unco-operative developers were only an occasional phenomenon, they could be handled by neighbourhood norms that derived from the ineluctable fact that neighbours have to live with one another for a long time. Close observers of land use perceive the importance of these relationships even today as supplements and sometimes substitutes for land-use law (Ellickson, 1991; Rudel, 1989). The original residents of American streetcar suburbs seemed to have been doing okay without zoning.

I submit that Henry Ford broke up this cosy arrangement. It was not the automobile that did it. Ford's Model-T, which appeared in 1908, actually made it easier for middle-class suburban residents to avoid living near the streetcar lines, enabling developers to fill in the land between the spokes of streetcar lines that radiated from central business districts. It was instead the motor bus and the motor truck, which came into use a few years after the automobile, that undermined the security of suburban, single-family residences.

The truck liberated heavy industry from close proximity to downtown railroad stations and docks. It allowed manufacturers to

take advantage of lower-cost land in residential districts. Leon Moses and Harold Williamson (1967) fix the date of the motor-truck revolution in the 1910s, just as zoning was beginning its meteoric rise. They found that displacement of horses by trucks in Chicago reduced the cost of freight-hauling by about 50 per cent during the 1900–20 period. (See also tables from *Historical Statistics of the United States* (US Bureau of Census, 1975), p. 716, showing a doubling of the number of trucks registered about every other year between 1905 and 1920.) Moses and Williamson (1967, p. 215) concluded that "the introduction of the motor truck had a greater impact on core area firms than those already outside the core" and thus promoted within-city decentralisation of industry.

The motorised passenger bus, another extension of the automobile, likewise liberated apartment developers from close proximity to the trolley tracks in the 1920s. Construction of fixed-rail streetcar lines peaked in 1906. By the early 1920s, jitneys and buses had begun to replace electric streetcars. Streetcar companies themselves began to use buses to supplement and, in lightly travelled suburban areas, supplant trolley lines (Boyer, 1983, p. 180; Schaeffer and Sklar, 1975, ch. 4). Instead of having apartment builders following the rails, the buses could be depended upon to follow the apartment builders. (Buses could be subjected to public regulation like that of the street railways, but the lower cost of changing a bus route made it more difficult for home-owners in a particular neighbourhood to control them.)

4. Homebuyers Worried about Non-conforming Neighbours

Newly footloose industrial and apartment developers created a problem for home-owners and the developers who catered to them. A vacant lot in a partially developed single-family neighbourhood could now easily be sold to a non-residential user or an apartment developer. The greater profitability of doing so undermined the patchwork of common-law and informal relationships that formerly

protected home-owners. Cappel (1991, p. 634) notes that home-owners in 1920s New Haven worried that the boom in apartments facilitated by the new transport media would overwhelm the pre-zoning institutions that had protected their neighbourhoods. Cappel nonetheless regards New Haven's zoning law as having been foisted on an otherwise-contented population by political and planning élites who wanted to put the city in the progressive vanguard (Cappel, 1991, pp. 634–636).

Comments in the 1920s by people without any apparent stake in the planning profession indicate that invasion of residential districts by non-conforming uses was regarded as a serious problem. McMichael and Bingham's respected real-estate treatise, *City Growth and Values* (1923) offered 2 chapters (of 36) on the new institutions of zoning and planning. The authors, a real estate professional and an attorney in Cleveland, discussed the pros and cons of zoning. Among its most prominent advantages was protection of home values, especially in the suburbs, because zoning forestalled the threat of apartments and commercial and industrial uses from settling in the neighbourhood.

By way of illustration of this possibility, McMichael and Bingham (1923, pp. 316, 318) displayed two pictures of residential neighbourhoods invaded by a natural-gas storage tank and by a warehouse in the pre-zoning era. That this sort of problem was endemic at the time is suggested by a Harvard professor's mention of it in his widely used municipal government textbook (Hanford, 1926, p. 234) as well as by state supreme court opinions that upheld zoning at the time (Lees, 1994, notes 179–182). Christine Boyer (1983, p. 156) confirms that such incompatible uses were "commonplace anomalies in the American city of the 1920s". This may explain why McMillen and McDonald's (2002) econometric study found that Chicago's first zoning ordinance in 1923 raised residential land values more than commercial values. They suggest that "residential land-owners valued the insurance that zoning provides against future intrusions of

conflicting commercial land uses" (McMillen and McDonald, 2002, p. 63).

William Munro, a Harvard government professor who had become vice-president of the National Municipal League, pointed out the reciprocal advantages to both residents and businesses of legally enforced separation by zoning

With a city entirely zoned, they [realtors] could assure purchasers of residential property that their neighbourhoods would never be encroached upon by business, while on the other hand, zoning would give business property a touch of monopoly value. Accordingly the signs went up on vacant lots: "Zoned for business," or "Zoned for apartments," with the definite implication that such action on the part of the public authorities had resulted in giving the property a higher and more assured value than it would otherwise have (Munro, 1931, p. 203).

That potential invasion of residential neighbourhoods by incompatible business was a new consideration was suggested by an early zoning advocate, Nelson Lewis. Addressing the issue of zoning, he noted that

a few years ago any plan for such regulations would have had little chance of popular approval, but owners of real estate and building operations appear to realise the danger of unrestricted buildings, and to be ready and anxious to favour action which will prevent further congestion, conserve real estate values, and stabilise the character of districts where that character is desirable and improve it where it is otherwise (Lewis, 1916, p. 353).

The anxiety that footloose business created for home-owners and homebuilders soon trumped the ideology of private property at the highest levels. US Supreme Court Justice George Sutherland, hardly an enthusiast of government regulation, raised the possibility of apartment invasion of single-home districts in his opinion in *Euclid v. Ambler* (1926), still the leading case on the constitutionality of zoning. Sutherland's mention of

apartments is all the more interesting because the plaintiff, Ambler Realty Company, had not even complained about restrictions on apartments. Ambler's claim was that part of its industrial land along Euclid Avenue (just east of Cleveland) had been zoned for residential purposes. Sutherland brought up the apartment issue on his own (although amicus briefs had addressed it) and uttered the famous metaphor of apartments as "a mere parasite, constructed in order to take advantage of the open spaces and attractive surroundings created by the residential character of the district" (*Euclid v. Ambler*, 1926, 272 U.S. at 394).

It is possible, of course, that contemporary jurists and commentators were being influenced by ideas, such as those of the 'City Beautiful' movement, rather than empirical observation. Yet accounts of the effects of zoning's adoption suggest otherwise. In an excellent review of American attitudes towards zoning in the 1910–30 era, Raphael Fischler (1998a) quotes many contemporary sources to show that protection of single-family homes was paramount from the outset.

Even New York City, whose pioneering ordinance is often regarded as the product of commercial interests (Toll, 1969; Warner, 1972), was pressed to protect its residential districts (Fischler, 1998b). Fischler mentions that fear of apartment developments in single-family districts was an important concern in the outer boroughs—although in New York's case, the cause of in-city suburbanites' anxiety was the five-cent subway fare rather than the motor bus. Some outer-borough home-owners were actually eager to see the fares doubled in order to keep the lower classes out, even though it meant they had to pay more themselves (Fischler, 1998b, p. 179). Although the city's zoning protections were initially weak, Fischler's quote from the *New York Times*, 22 October 1916, suggests that home-owners were quickly responding to the new assurance

headline in the New York Times proclaimed: "Home-Coming Season in Murray Hill—Interesting Changes in Old Center; Many Former Residents Moving Back from Uptown—Zoning Act Removes Fear of Business Invasion" (Fischler, 1998a, n. 29).

5. Covenants Had Been Tried and Found Wanting

Fischler describes how protective covenants had been designed to shield the fashionable Murray Hill section of New York City from commerce and apartment development. Covenants succeeded for a time, he noted, because "time honored custom" had prevented commercial development at the edges of Murray Hill (Fischler, 1998b, n. 48). The timing of the breakdown of this custom coincides with the development of trucks and buses. After commerce and apartment development began to invade the district, homeowners opted for public controls.

Murray Hill's experience may shed light on a modern argument about private covenants as an alternative to zoning. Some commentators have advocated covenants as if they had been overlooked when zoning started out (Siegan, 1972). Covenants were in fact attempted by large-scale builders in the pre-zoning years (Weiss, 1987). Judges were sometimes hostile to covenants (Ellickson, 1973, p. 716), but developers nonetheless did employ them. The problem was that they did not cover enough land area. Non-conforming uses located on the borders of well-planned, covenanted sub-divisions, to the detriment of the homebuyers. (One presumes that the transaction costs of acquiring additional land area to provide sufficient protection were large relative to the political costs of initiating zoning.)

Marc Weiss found that the developers who pioneered large-scale residential sub-divisions in Southern California in the pre-zoning era were the prime movers behind the adoption of zoning regulations in Los Angeles (Weiss, 1987, p. 49). Developers found that voluntary covenants were insufficient to

Barely three months after the enactment of the zoning code [of 1916], an optimistic

protect their property's value from incompatible uses on their borders. Even J. C. Nichols, whose famous Kansas City 'country club' residential developments were subject to covenants from 1907 onwards, was an early and active advocate of zoning (Worley, 1990, pp. 121–126). Far from being something forced on developers, zoning was actively promoted by developer organisations at the national level. Commerce Secretary Herbert Hoover was induced by the homebuilder lobbies to promulgate the Standard State Zoning Enabling Act of 1922, which was one of the most successful "model statutes" of all time (Weiss, 1987, p. 28).

Developer support for zoning was not based on starry-eyed faith in the capacity of planners. Zoning was regarded with some suspicion by homebuilders, and its advocates were careful to warn that developers and real estate professionals would have to use their political influence to keep zoning within reasonable bounds (Worley, 1990, p. 90). They also took a larger view, according to Weiss, about the possibility that some of their own parcels might be adversely affected by zoning. Developers believed that zoning "would maximize aggregate land values, and stabilize values at each location, but would not maximize values everywhere" (Weiss, 1987, p. 101). But in the end, developer support for zoning was founded on the need to induce home-owners to invest their savings in a large, undiversified asset. A 1920 zoning advocate pointed out that

So long as undesirable properties could encroach upon an area in which good residences and good income-bearing properties were already established, there would be no stability or trust in real estate as an investment (Cheney, 1920, p. 33).

As planning historian Christine Boyer points out, zoning was seen as a way to provide "an insurance policy that the single-family homeowner's investment would be protected in stable neighbourhood communities" (Boyer, 1983, p. 148).

Modern evidence for the border effect (between sub-divisions subject to covenants and

their neighbours) that developers worried about is found by Paul Thorsnes (2000). He found that present-day developers in central Michigan sites who could assemble larger sub-divisions were able to charge on the order of 3 per cent more per lot for an additional acre of parcel size. (Do not confuse the size of parcels, which is the total amount of land to be sub-divided, with size of individual lots.) Thorsnes found this particularly strong in rural, unincorporated areas because, he speculated, buyers regarded the private sub-division regulations as a substitute for the less stable zoning regulations in unincorporated areas.

Perhaps as problematic as the vulnerable borders of covenanted land was that covenants seldom controlled an entire municipality. This meant that the fiscal fortunes of homebuyers were left uncertain. A developer of upscale homes could reasonably fear that an adjacent tract of land might be dedicated to downmarket housing. Even if there were no direct spillovers, the buyers in the upscale area would worry about whether their taxes would rise or public services decline if the rest of the land in the municipality were developed for lower-valued properties.

The connection between zoning and municipal fiscal capacity is evident in the many studies finding that low tax rates, *ceteris paribus*, raise home values (Palmon and Smith, 1998). The connection leads municipal leaders to consider that zoning could be used to promote the tax-base by encouraging commerce while making sure that it did not adversely affect home values and other components of the tax-base. The report of a municipal tax committee in Pittsburgh that recommended adoption of zoning in 1916 was explicit

If Pittsburgh is to continue to raise practically all its revenues by taxing real estate values, steps must be taken to prevent the needless destruction of those values and to stabilise and promote their increase in every way possible. ... Should we any longer tolerate sky-scrapers of unlimited height

which steal their light and air from their neighbours, or permit the building of public garages, factories or apartments in splendid residential neighbourhoods? (Pittsburgh Committee, 1916, p. 20).

The attention to municipal expenditures and the tax-base in the Standard State Zoning Enabling Act of 1922 (Fischel, 1985, ch. 2) also makes it clear that the progenitors of zoning were thinking well beyond the borders of individual neighbourhoods, where property might be protected by covenants. Indeed, there is evidence that covenants and zoning developed side-by-side. In an account of the development of the Cleveland area after the *Euclid* decision, Gerald Korngold (2001) points out that three nearby communities were developed by a single owner and made subject to comprehensive covenants. The municipalities are nonetheless also subject to zoning and, as if to press home that the two devices are complements rather than substitutes, the covenants are legally administered by the mayors of the three towns. Even where they are comprehensive, covenants may not convey enough control over development to satisfy its residents.

6. Zoning Perpetuated Metropolitan Fragmentation

The motor vehicle's paternity of zoning led to another offspring, the fragmentation of American metropolitan areas. It is well known and, among many academics and planners, regularly decried that most large American metropolitan areas are governed by scores and sometimes hundreds of local governments. The fragmentation reflects the bottom-up approach to local government that has prevailed through most of American history. It was celebrated by de Tocqueville as a source of democratic self-governance in *Democracy in America*

The political existence of the majority of the nations of Europe commenced in the superior ranks of society and was gradually and imperfectly communicated to the different members of the social body. In

America, on the contrary, it may be said that the township was organised before the county, the county before the state, the state before the union (de Tocqueville, 1835, vol. 1, ch. 2, pp. 39–40).

Less well known is that for much of the 19th century and up to 1910, suburban governments were formed, de Tocqueville style, and soon after went out of existence by consolidation with an adjacent, growing central city. Jon Teafor's masterly review of suburbanisation from 1850 to 1970 found that, until about 1910, it was common for an expanding central city to consolidate (and thus politically absorb) its incorporated neighbours as well as to annex adjacent unincorporated territory (Teafor, 1979, ch. 3). The 1850–10 period was characterised by exuberant incorporations of suburbs around growing cities followed by sober incorporation into the larger body.

After 1910, however, a different pattern emerged and began to be the rule by the 1920s (Teafor, 1979, ch. 5). Central cities found that their incorporated suburbs were much more reluctant to give up their independence and consolidate with their large neighbours. In addition, territory that was formerly unincorporated (as part of the county) became more difficult to annex. Residents of unincorporated areas began to consider annexation by the newer suburbs or incorporation as an independent municipality, with no intention of eventually merging with the central city.

I submit that it was the institution of zoning that gave rise to the newfound reluctance of suburbs to merge with their larger neighbour (Fischel, 2001a, ch. 9). Prior to zoning, independent suburbs had to regard urban development and its attendant public costs as inevitable as the tides. There was little to prevent a residential structure from being converted to commercial use, to keep the single-family structure from being sub-divided into smaller apartments, or to stop the vacant lot from blossoming with a high-rise apartment building. Few private covenants would cover sufficient area of land within the

municipality to afford private control over development.

Given their lack of control over development, suburbs adjacent to the central city inevitably found the blandishments of central-city suitors attractive. As they began getting urban uses and urban densities, they began getting urban service demands. Crime and traffic would overwhelm small-town police forces and the better-organised, larger forces of the big city became more attractive. Demand for water for domestic use and fire prevention often exceeded local capacity, which was in most places already chancy and irregular. Many central cities had deliberately acquired excess capacity as bait for their outlying areas.

After zoning became popular around 1910–20, suburbs no longer had to view development like that of its larger urban neighbour as inevitable. A small town could control its land use and fiscal destiny in the face of urban development. Consolidation no longer looked so attractive and suburbs began co-operating with one another to provide water and other basic services that had scale economies, which had previously been the monopoly of the central city. Zoning thus allowed suburbs to remain independent indefinitely.

Support for the influence of zoning on municipal independence can be seen in histories of municipal incorporation activity. Accounts of 20th-century municipal formation by Teaford (1979, 1997), Gary Miller (1981), Richard Cion (1966) and William Fischel (2001a, ch. 10) indicate that 20th-century incorporations were most often motivated by residents' desire to control land use and related fiscal (tax-base protection) issues. This does not mean, of course, that each new city was a suburb that wanted to stop development. There were plenty of pro-development municipalities formed. But even in them, the residential districts were carefully separated from the fiscally profitable commercial and industrial areas.

Development in western and southern metropolitan areas often occurred in 'unincorporated' parts of a formerly rural county.

The county almost always stepped in to provide zoning as development took place. In many of the modern municipal incorporations, however, control over land use was an issue because the county government's zoning was too pro-development, especially in its inclination to rezone formerly single-family areas for apartment units (Cion, 1966; Fischel, 2001a). Because of their larger size, which makes it more difficult for voters to know candidates' positions, county governments were more often responsive to developer interests and thus were regarded as excessively permissive by owners of homes in existing neighbourhoods.

The desire to keep local—read *home-owner*—control of zoning was not only present at the creation of 20th century municipalities. The chief barrier to metropolitan federalism since the 1920s has been whether the proposed regional government would have control over land use (Teaford, 1979, ch. 8). Smaller municipalities are willing to co-operate on many levels with their neighbours, but ceding control over land use within their own boundaries has been a major sticking-point for metropolitanism.

7. Home-owners Became Major Political Players in the Suburbs

So far I have argued that zoning arose because new modes of transport allowed people to separate where they lived from where they worked, and development of motorised buses and trucks undermined traditional means of protecting neighbourhoods. Zoning was preferred to (or added to) covenants because it protected the borders of covenanted land and could protect the municipal tax-base and regulate service demands. That ability in turn made it attractive for suburban municipalities to maintain their independence from the central city. The last piece of the puzzle is why home-owners—as opposed to renters, developers, employment interests, and bureaucracies (including planners)—should have taken over as the primary political group whose interests are protected by zoning.

That the detached and (typically) owner-

occupied home is at the top of the zoning pyramid is evident in nearly all zoning laws. Early illustrations of this hierarchy in fact drew pyramids with single-family homes forming the apex. The primacy of home-ownership remains so widespread that we hardly think of it as something requiring explanation. Yet there is no theoretical reason why other uses of land should be regarded as less important. Apartment-dwellers are as much citizens as home-dwellers; owning has long commanded no special municipal privilege. And the investments, both direct and through employment, that citizens have in commercial, industrial and public-sector land uses are at least as considerable as in their homes. How did home-owners get the zoning game rigged in their favour?

I submit that the urban transport revolution that replaced walking with motorised transport led to a less obvious political revolution (Fischel, 2001a). When people walked to work, they had to live close to work. This usually meant that their homes were within the same municipality as their jobs and businesses. In this respect, most urban workers in the walking cities were like most farmers, who still live where they work. Both would be of two minds about prospective development: it disrupts their home and business life, but it also provides opportunities for financial gain. Proximity of employment to residence in the pre-1910 walking city meant that local governments were responsive to policies that enhanced their constituents' job-related wealth as well as their residential wealth. Home-owners who lived near their place of business would, in deciding which local candidate to support, eye the candidate's platform for its effect on their job-related income as well as their residential amenities.

People who moved to independent suburbs and then commuted daily via train, trolley, bus or car no longer had that binocular vision (Danielson, 1976, ch. 2). The city was where they worked, but the suburb, the locus of their residential wealth, was where they voted. Residential amenities—and prevention of anything that smacked of disamenity—be-

came paramount in the eyes of suburban voters.

We know from present-day studies that the value of owner-occupied homes is greatly affected by the things that local governments do (Oates, 1969; Grieson and White, 1989). Improvements in schools, neighbourhood safety and public parks all raise the value of owner-occupied homes. Conversely, increases in local taxes, local pollution and ugly billboards all reduce home values.

For most people, an owner-occupied home is the largest single asset they own. The risk of devaluation of this asset cannot be insured and few home-owners can self-insure by diversifying their other assets for the simple reason that they do not own much besides their house (Caplin *et al.*, 1997). As a result of this, prospective home-owners are careful shoppers. They know that if things go badly in their neighbourhood, they will be stuck having paid for an asset that they could sell only at a loss. They can avoid the personal consequences of a school system that has unexpectedly gone bad by moving, but they cannot avoid the financial consequences. Potential homebuyers can see the declining test scores, too, and they adjust their offers downwards in response.

The prospect of capital loss or gain influences home-owners' behaviour after they have bought and moved in. It makes home-owners, who now constitute two-thirds of the US household population and even more of the suburban population, especially watchful citizens. They have a powerful financial as well as personal incentive to pay attention to local government land-use policies.

As suburbs formed and became a permanent part of the metropolitan area after 1910, home-owners were motivated to take over local government, or at least the regulatory apparatus. Urban home-ownership was growing rapidly in the early 20th century, especially in the suburbs (Barrows, 1983). Home-owners were numerous, well-motivated and lived in contiguous districts that reduced the transaction costs of political organisation. Having staked their savings in

their communities' character, home-owners became a major force in local politics. They supported zoning, which had originally been proposed by homebuilding developers, and they made their homes the primary object to be protected.

This did not mean, of course, that job-creating business was unwelcome in the community. To the extent that it paid local taxes in excess of the additional cost of local services it required, business was welcome in suburbs if its neighbourhood effects were not too noxious or it could be sequestered into a non-residential area of the town. But the mechanism by which the public was persuaded to accept industry was no longer tied to the voters' employment or investment in the business, as it was in the walking city. Public decisions about industrial zoning now focused on things like helping to pay property taxes and mitigating spillover effects that might reduce home values (Teaford, 1997, p. 52).

8. From Selective to General Exclusion after World War II

The land-use revolution that began in 1916 did not happen all at once, of course. Early zoning laws encountered constitutional and political hurdles that took time to overcome (Revell, 1999). State courts were, up to the late 1940s, often solicitous of the rights of development-minded land-owners (Babcock, 1966; Williams, 1982). The Great Depression and World War II set back real estate development, so the full impact of zoning was not felt until after World War II.

Nearly all municipalities within the developed parts of metropolitan areas had zoning by the 1950s. Yet zoning's effect on housing cost and general metropolitan development patterns was not much of an issue during that era. Part of this may have been inattention by scholars, but even where the issue would seem to come up, as in government reports about housing, zoning made little impression. It was not as if suburbs were open to all. As early as 1953, Charles Haar pointed out the obvious exclusionary intent of minimum

house-size standards that were popular at the time and which courts generally upheld.

Even in the late 1960s, when two parallel federal commissions addressed zoning issues, the primary complaint was about suburban zoning's effect on the *mix* of housing and prices within individual communities, not constraints on metropolitan or regional supply (National Commission on Urban Problems, 1968; President's Committee on Urban Housing, 1969.) Federal commissions that addressed zoning after 1970 have, in contrast, made overall housing prices a major focus (President's Commission on Housing, 1982; Advisory Commission on Regulatory Barriers to Affordable Housing, 1991). Why did zoning have so little effect on metropolitan housing prices before 1970?

My original view on this was that the unprecedented peacetime inflation that began in 1973 had something to do with it (Fischer, 1985, ch. 13). Inflation made new development of the same sort of housing that already existed in the community more of a fiscal burden. Previous residents had financed municipal capital expenditures (water and sewer and streets) at low interest rates. New development required infrastructure that was more costly and could be financed only at interest rates made higher by inflationary expectations. Using the previous methods of financing, infrastructure would raise all property taxes, not just those of newcomers. To avoid assuming a greater fiscal burden, I suspected, existing suburban residents tightened their zoning requirements.

The inflation explanation no longer persuades me. Exactions and impact fees could easily have handled the higher costs of new development, so that zoning would not have had to become any tighter. Legal authority for such fees had long been in place (Heyman and Gilhool, 1964). More important, as of 2002, we have had nearly two decades of much lower inflation and nominal interest rates than the 1970s and early 1980s, but zoning and the housing-price differentials that appear to arise from it do not seem to have let up. We now seem to have a long-lasting differential in housing prices across

regions—California and, to a lesser extent, the Northeast have persistently higher home prices than other regions (Case and Shiller, 1987; Thibodeau, 1992). These differences did not exist in the 1950s and 1960s. As of 1967, regional differences in prices of new single-family homes were small and the region that has become the persistent leader in housing prices, the West (dominated by California), then had *lower* prices than both the North-Central and Northeast regions (US Bureau of Census, 1969).

It is not differential rates of growth that cause the new price differentials, either. The population of California, the 1970s leader in the growth control movement, grew much more rapidly in the 1950s and 1960s, but its persistent higher prices did not arise before the 1970s (Fischel, 1995, ch. 6; Gyourko and Voith, 1992). Southern states that grew rapidly in the 1970s did not experience housing price inflation. In my survey of the growth control literature, I found little evidence that zoning policies affected metropolitan housing prices before 1970 (Fischel, 1990). Something besides inflation seems to have induced a sea-change in zoning behaviour in the 1970s.

I believe that during the 25 years after World War II, zoning's impact on suburban development was mitigated by the large variety of jurisdictions, each of which was able to set its own policies. If Scarsdale was not eager to have more residential or commercial development, then developers could head to the more accommodating suburb of New Rochelle. Most importantly, if the local government of New Rochelle wanted to adopt pro-development policies, there was little that a minority faction within the city or anti-development groups outside the city could do about it. For this reason, the permissive attitude of most courts towards local zoning decisions, under which community decisions were typically upheld if they wanted to retard development *or* if they wanted to promote development (Williams, 1975, ch. 2), had little impact on metropolitan housing patterns. Apartment and commercial developers who were shut out in one

municipality simply rolled up their plans and shopped around for another more willing to cut a deal.

By 1970, however, economic and social trends arose that made suburbs as a group more exclusionary. I will divide these factors into shifts in suburban home-owners' demand for exclusion and a movement along the governmental supply curve of exclusion. The demand factors were: the growing suburbanisation of employment (as opposed to just residences) resulting from the interstate highway system; and, the expansion of egalitarian legal principles that derived from the civil rights movement of the 1960s. The chief element that facilitated the *supply* of exclusion was the environmental movement that dawned on the national scene in 1970.

9. Interstate Highways Made Businesses and Poor People Footloose

As interstate highways were built in the 1960s, jobs began to follow residents to the suburbs at an increasing rate (Glaeser and Kahn, 2001). Suburbs with sufficient amounts of vacant land and residents eager to have help paying their property taxes accommodated this *hegira* with the oxymoronic 'industrial park' and other zoning innovations (Teaford, 1997). The decentralisation of metropolitan employment meant that workers no longer needed to live near a single central business district. This undermined the classic urban-economics conception of jobs in a central city surrounded by successively higher-income rings of suburbs. Once jobs suburbanised, low-income workers who had formerly resided close to central cities to conserve on commuting costs now had to find jobs in the suburbs. Indeed, for those poor without automobiles or confined by racial prejudice to the central cities, the 'spatial mismatch' between jobs and homes became a real concern (Ihlanfeldt, 1997).

Although the suburbs had always been zoned, administration of the rules up to the 1960s was often flexible (Babcock, 1966). Farmland in a developing suburb was often initially zoned for three-acre lots as a tempo-

rary 'holding zone'. Land-owners and civic leaders expected such land to be rezoned to smaller lots as development pressure arose. The new development was not much feared by existing home-owners because it was expected to be more of the same type of homes that were already there. But as jobs decentralised, the 'natural' factors that had established the high-income suburbs—the greater pull for the rich of cheaper suburban land compared with their larger suburban travel cost—started to break down.

Ownership of automobiles grew from 59 per cent of all households in 1950 to 82 per cent in 1970. The difference in travel costs among income-groups was reduced primarily to the opportunity cost of time, which is lower for the poor. Urban miles travelled by passenger vehicles grew by 73 per cent between 1960 and 1970, a higher rate of growth than any previously recorded decade (US Bureau of Census, 1975, p. 718). As jobs for both rich and poor became decentralised, the poor were almost as inclined to live in a distant suburb as the rich.

In one sense this was a replication of the first era of zoning in the 1910–30 period. Just as in the 1910s class segregation by proximity to streetcar lines (where the poor lived closest to them because they had no cars) had been broken by the intraurban truck and bus, so the income segregation of the suburbs was broken in the 1960s by the increasing use of automobiles and the rapid decentralisation of jobs facilitated by new highways.

At the same time, quality of life became a more important issue for existing suburban home-owners, since they, too, were less tied by location near the central city. In the multi-nucleated metropolis, urban jobs are almost equally far from any given suburb. Bruce Hamilton (1982) showed that by the 1970s metropolitan commuting patterns looked almost random when compared with the suburb-to-central-city paradigm. Communities had come to be chosen more for quality of life than for commuting convenience. The Tiebout (1956) model, in which public services are determined by householders 'voting with their feet' among numerous suburbs,

became a more realistic description of location decisions and home values (Oates, 1969). Nowadays, the local school's test scores are a larger determinant of home values than access to jobs (Haurin and Brasington, 1996).

With a community's quality of life a more important determinant of home values than location *vis-à-vis* jobs, home-owners became even more watchful of zoning changes that might affect that quality of life. The formerly relaxed accommodation of development of the 1950s began to harden into a reluctance to rezone. The three-acre minimum lot sizes and farmland categories that had formerly been regarded as 'holding' zones solidified into a permanent cast that kept the poor and higher-density development at bay (Downs, 1973).

10. Civil-rights Law Drove Suburbs to General Exclusion

Besides job decentralisation, the civil rights movement of the 1960s had a profound but subtle effect on suburban land-use decisions. The incipient use of zoning to segregate races by neighbourhood or community had been struck down in 1917 in *Buchanan v. Warley*. Maintenance of segregation by the use of private covenants, which were in any case an incomplete substitute for racial zoning (since holdout land-owners could sell profitably to Blacks), had been legally undermined in 1948 by *Shelley v. Kraemer*. What was new in the 1970s were the federal and state fair-housing laws that made it more costly to keep Blacks out by private discrimination and by informal means, such as racial steering.

Anything that looked like racial zoning was almost never tolerated by the courts. Zoning could, however, be used to reduce potential contact between races, or between high- and low-income people, by the facially neutral expedient of insisting on large lots and single-family homes in residential districts. Racial anxieties could not, of course, be mentioned in any public document as a reason for the ordinance. Local officials

learned quickly to expunge any such language. And, in my opinion, the issue for White suburbanites has rarely been race itself. Zoning in Vermont and New Hampshire, two states with minuscule fractions of racial minorities, does not look very different from zoning in heterogeneous New York and California. Exclusion is far more an income-based, class issue (Fennell, 2001).

The heirs of the civil rights lawyers recognised that the issue of the 1970s has not been just inequality among races, but economic inequality generally. They brought legal tools to bear on what they perceived as the maldistribution of wealth created by suburbanisation. The new legal targets were no longer segregated schools and overt racial discrimination in housing. They were now inequalities in school spending (Wise, 1967) and property tax resources (Coons *et al.*, 1969) and zoning laws that made it especially difficult to build private and public housing for the poor in the suburbs (Sager, 1969). The legal attack on local property tax financing of schools and the assault on exclusionary zoning were undertaken for the same reason, to open the advantages of suburbs to the less affluent.

As an aside, I would note that the attacks on local school-finance systems have had much greater success than legal attacks on exclusionary zoning. Almost half of the states have had plaintiff victories in the school-finance area and, even where suits have been lost, states have responded defensively by centralising school finance and making differences in property tax-bases less important (Hoxby, 1997; Joondeph, 1995). Yet there is almost no evidence that this has reduced exclusionary zoning (Fischel, 2001a, pp. 158–159).

The foregoing changes since 1960—decentralised jobs and civil rights liability—shifted the suburbanites' demand for zoning. The poor were knocking at their gates and public-interest lawyers were poised to man the battering rams. Zoning's older means of exclusion, which overtly favoured single-family homes and discouraged apartments, was newly vulnerable to legal attack. The

Mount Laurel decisions in New Jersey in 1975 and 1985 served notice that deference to municipal exclusivity, once formerly warmly endorsed by the New Jersey courts and most others (Williams, 1975, ch. 5), was now under siege (Haar, 1996). Even though *Mount Laurel* itself has not been widely copied, the sentiments it embodies are shared by courts in almost all states.

The suburbs' response to this new threat was to adopt the facially neutral policy of restricting all development, not just that for low-income people. The rubric for doing so was 'growth management' which became, as Norman Williams (1982, p. 235) put it, "a major movement in the 1970s—apparently springing up spontaneously in local areas all over the country". Faced with the curtailment of selective exclusion, localities began to opt for general exclusion. Moreover, the courts seemed untroubled by this, as shown by the *Mount Laurel* court's dictum

Finally, once a community has satisfied its fair share obligation [a fraction of the region's low-income housing], the *Mount Laurel* Doctrine will not restrict other measures, including large-lot and open area zoning, that would maintain its beauty and communal character (*Mount Laurel II*, 456 A.2d at 421).

Adopting larger lot and 'open space' zoning, two mainstays of growth management, had the drawback of foregoing some fiscally profitable commercial development. For many home-owners, however, that was a fiscally acceptable trade-off. If attracting industry meant having to take the people who worked there, better not to seek it. New commercial development and high-value housing, moreover, were becoming less fiscally profitable in many states as property-tax-base sharing formulas for financing schools were put in place.

11. Environmentalism Supplied the Ideology for General Exclusion

I have so far described the factors that led suburbs to demand more general exclusion of

development. Yet anti-growth politics were not easy to supply. Important changes in zoning such as growth controls require a unifying ideology to get them implemented. Economic advantage is a useful private motivator, but it plays poorly in public discourse. Something less obviously selfish is required to get other community residents to rally around the cause.

The early-20th-century idealisation of the single-family home as a font of virtue is said to have helped unify a potentially disparate group, home-owning residents, into a purposeful political force (Lees, 1994; Fischler, 1998a). Home-and-hearth ideology helped state and federal judges, typically drawn from the same social spectrum as suburban home-owners, to suspend their scruples about the new zoning laws' effect on segregating people by their station in life. Judges on both the left and right side of the political spectrum did worry about this in the 1910s and 1920s.

In the 1970s, however, a new ideology was needed to justify the suburban shift from selective growth to reduced growth. Home-and-hearth ideology, after all, applied to the poor as well as the middle class, to the owners of condominiums and mobile homes as well as to owners of standard single-family houses. The environmental movement of the early 1970s provided a seemingly new and compelling ideology to justify a more general exclusion of development.

Much of the 'limits to growth' literature, which was conceived on an international scale as a computer-simulation project, was quickly adapted to the particulars of local land use (Meadows, 1991). 'Think globally, act locally' became the unofficial mantra, and acting locally typically means preserving open space from the bulldozer. Farmland preservation, which fits somewhat uncomfortably into an environmental agenda (outside the suburbs, farming is usually criticised by environmentalists), has nonetheless also been embraced as a means of shunting development to other communities (Kline and Wichelns, 1994). The mottos of no-growth, slow growth, managed growth and (cur-

rently) 'smart growth' are all facially neutral watchwords which nonetheless are effective substitutes for more selective means of keeping the poor out of the suburbs (Downs, 1994).

As mentioned above, general metropolitan development in the 1920–60 era was not much affected by zoning because of the variety of local governments. For every suburb that was dedicated to exclusionary zoning, there was a not-too-distant town that was more than willing to accommodate development. The pro-development communities were either dominated (for a time) by land-owner and developer interests, or they had started out poor enough (as, say, formerly isolated factory towns) that middle-income housing and apartments looked fiscally attractive to them. Where an affluent suburb might reject a middle-income development because of its impact on local schools, a lower-income suburb might see the same proposal as the road to educational salvation. Variety among the suburbs—still falsely presumed to be 'homogeneous'—ensured that market-driven development had a place to go.

Municipal autonomy in zoning was undermined in the 1970s by several trends that have grown out of the environmental movement. The more universal was the empowerment of neighbours who were dissatisfied with the pro-development decisions of their own local government and its bodies. The legal rule up to the 1970s had been that neighbours usually lose when making these challenges (Williams, 1975, ch. 2).

The environmental legislation of the 1970s, by which I mean both the National Environmental Protection Act (NEPA) and its state-law equivalents and related legislation, empowered private citizens to bring litigation against their own local governments in a different legal setting from the old 'neighbours' cases' (Frieden, 1979). Courts, whose judges share the same environmental attitudes as middle-class home-owners (just as 1920s judges shared the ideology of hearth and home) were more sympathetic to claims that the local decision had failed to account

for environmental impacts than they had been to seemingly selfish claims that neighbours' home values were at risk.

12. The Double-veto System Works against Development

Simultaneous with the new empowerment of neighbours was the development of state and regional authorities whose mission was to deal with regional issues. Dubbed 'the quiet revolution' by Bosselman and Callies (1971), this movement attempted to transcend localism in order to deal with issues that spilled over from one municipality to another. Land use was embraced as one of the regional issues, but regionalism faced (and continues to face) a political problem. As Teaford (1997, ch. 8) showed, regionalism had been rejected after the 1920s because proposed regional governments would supersede local zoning. Individual cities wanted both the right to reject development and to promote it as they pleased.

The regional governance arrangements that began to be formed in the 1970s found a workable compromise. Instead of giving the regional authority plenary power over land use, the systems that evolved were almost all of the 'double veto' variety (Fischel, 1989; Popper, 1988). A real estate developer had to jump through the regional authority's hoop as well as the local authority's. If he missed either jump, he was out of the running. The regional authority, however, could not make the local authority accept a proposal that the locals had rejected. (The exceptions such as the Massachusetts 'anti-snob zoning' act and Portland, Oregon's, metropolitan land-use board, are sufficiently unusual to prove the rule (Danielson, 1976, chs. 9 and 10; Mildner *et al.*, 1996).) The double-veto structure distinguished the Quiet Revolution from earlier regional proposals, and that made it acceptable to the increasingly anti-development suburbs.

I submit that neighbour empowerment and double-veto systems, in conjunction with local application of environmental laws, changed metropolitan development patterns

after 1970. Pro-development communities, which had formerly been the suburban safety valves for higher-density uses, were less able to accommodate lower-income housing. The fact that the objections to the new development came from a small minority of its own residents or from people who did not live in the community, as at a regional land-use hearing, was now less relevant. The tiny minority and the outsiders now could stop or at least delay and modify (mostly by proposing fewer units) development in communities that had previously offered developers one-stop regulatory shopping.

I do not wish to be entirely censorious of this trend. It is possible that the empowerment of neighbours rectified an unjust situation, one in which majoritarian preferences subsumed the well-being of a defenceless few within the community. Putting the necessary but unlovely land use in the poor neighbourhood or in the poor community is a classic example of what the 1990s 'environmental justice' movement sought to rectify (Lazarus, 1992). It is also possible that inter-municipal spillovers sometimes went unaccounted for by those who made land-use decisions. Indeed, social scientists have hypothesised a 'beggar thy neighbour' syndrome, in which a municipality deliberately zones for fiscally profitable but polluting industries along its downwind or downstream borders (Ingberman, 1995).

I say "it is possible" in these cases because the evidence for them is surprisingly slim, especially when compared with the intellectual freight they are made to bear. (They are at the core of the 1970 decision to federalise environmental legislation (Esty, 1996).) Studies of zoning board decisions have found that they have been remarkably sensitive to immediate neighbours' objections, even before neighbours carried the threat of federal environmental lawsuits in their back pockets (Tideman, 1969). Modern searches for systematic examples of 'environmental racism' have mostly come up short (Been, 1994). Likewise, the few documented beggar-thy-neighbour examples turn out on closer inspection to look more like mutually

advantageous deals than one-sided opportunism (Fischel, 2001a, ch. 8).

One reason for optimism in these cases is analogous to why most home-owners try to be civil to their neighbours even if they do not like them. Careless or opportunistic behaviour invites retaliation in kind. The numerous and long-term interactions between municipal neighbours cautions the opportunistic types to think about long-term consequences (Gillette, 2001). The municipal norm may not be 'love thy neighbour', but 'respect thy neighbour' is closer to the truth than the opportunistic hypothesis would have it.

13. Would It Be Better to Discourage Home-ownership?

I have so far argued that zoning and the primacy it gives to owner-occupied housing grew out of anxieties on the part of home-owners that more intensive uses would devalue their homes. As residences were moved away from central-city jobs, local voters paid more attention to their homes than their business. As jobs in turn decentralised and automobile costs continued to decline, the economic constraints that had once kept the poor tied to central cities made it feasible for them to move to the suburbs. The same civil rights lawyers who had helped tear down the wall of officially adopted racism now turned to the more subtle problem of *de facto* economic segregation caused by suburban zoning. In response to this, suburbs enlisted the environmental movement to provide an alternative rationale to pull up the gangplank.

My purpose here is not to indict home-owners or environmentalists. I claim membership in the first and sympathy with the second group and, anyway, it would be like railing against the wind. In fact, the futility of opposing widely popular institutions is what informs my remedy. If the underlying cause of exclusionary zoning is concern about home values, then why not address that concern with a financial instrument and take

away (or at least reduce) the exclusionary motive?

One approach is to reduce the incidence of home-ownership. The major policy that would accomplish that would be to tax the imputed rent on owner-occupied housing. Housing is the largest financial asset that is untaxed by the federal government and it is possible that home-ownership could be reduced substantially from the present 67 per cent of all households if the federal government taxed its imputed net rent. Switzerland, the only developed nation fully to tax imputed rent, has the lowest home-ownership rate in Europe, 30 per cent (Oswald, 1996). To tax imputed rent, the government would have to estimate what owner-occupied houses would rent for and then tax the net income (gross rent less property tax, maintenance, depreciation and mortgage interest) as if it were wages or salaries.

Reducing home-ownership is an unlikely policy. Indeed, many important institutions are dedicated to increasing ownership of homes. There are some good reasons for this. The same risk-aversion on the part of home-owners that gives rise to the NIMBY ('not in my back yard') syndrome and exclusionary zoning also works for more attractive goals. For example, home-ownership motivates childless people to vote for (or at least not vote against) local school bonds that actually improve education (Sonstelie and Portney, 1980; Harris *et al.*, 2001). Someone who owns a home that has more than one bedroom is interested in the quality of schools because prospective buyers will be interested in them. Even if she does not plan to sell soon, her home's value is the major asset against which she can borrow money. (Of those who point to cases where elderly voters do defeat school spending proposals, I ask why all school spending is not locally reduced to its minimum, given that in most places much more than half of the electorate have no children in public schools.)

It is not just schools that get home-owners' support. Numerous studies have pointed out that home-owners are more involved, watchful citizens than renters, even after one ac-

counts for other differences between the two forms of housing tenure, such as differences in income and race (Davis and Hayes, 1993; DiPasquale and Glaeser, 1999). Home-owners participate more in neighbourhood affairs and their children seem to turn out better (Green and White, 1997), just as the single-family zoning advocates of the 1920s said they would.

14. Home-equity Insurance Might Assuage Home-owners

The essential question, then, is how to make home-owners less anxious about development in their communities while still retaining the desirable incentives that home-ownership provides. The answer I have proposed elsewhere is selective home equity insurance (Fischel, 2001b). A prototype was adopted in the late 1970s in Oak Park, Illinois, to discourage panic selling in the face of racial transition (McNamara, 1984). It has apparently been successful and some other communities in the Chicago area have adopted it (Mahue, 1991). I have been told that developers sometimes pay to enroll opponents to their projects in these programmes, which pay the difference between the appraised value and the sale value if it is negative. (The Illinois enabling legislation, 65 ILCS 95, describes the procedures.)

Here I am going to state some of the difficulties in undertaking such an insurance scheme to assuage concerns about neighbourhood change. I undertake this seemingly self-defeating exercise to justify a concerted public effort in this direction. For if home-equity insurance is the answer, why have the creative people who do real estate development and finance not come up with it on their own? To put it more bluntly, if I am so smart (about home values being the key), why am I not rich (by investing in a home-equity insurance scheme)?

For a home-equity insurance plan to work, it has to reduce the risks to a home-owner of a particular development that might affect him without otherwise affecting his or the

developer's behaviour. But home-equity insurance, even more than the regular kind of home-owner insurance, is subject to moral hazard and adverse selection. Robert Shiller and Allan Weiss (1998) have investigated this issue in the context of a metropolitan home-value insurance scheme. Their purpose is different from mine. They are interested in creating home-equity markets to insure against metropolitan swings in value, so that home-owners do not get trapped in a low-value region and become unable to move to a high-value part of the country (such as California and the Northeast). My concern is far more localised; I am considering home-equity insurance for neighbourhoods. Nonetheless, the difficulties in establishing home-equity insurance are similar.

If companies were to offer home-equity insurance as a third-party financial instrument, they would have to monitor closely the behaviour of both developers and home-owners. The reason for this is that some level of NIMBYism is a desirable thing. Planning and zoning officials can seldom learn enough on their own about a given location to be able to tell if a particular development will be a net plus for the community. The present system of relying on the testimony of community members, especially neighbours, has the desirable quality of inducing people to bring out the spillover costs of the development.

A development that would devalue nearby residences by more than it would increase its own land value should not be implemented. But if the neighbours were fully insured, they might have insufficient incentive to reveal the adverse effects. A developer might offer to pay the insurance premium for these people to keep them quiet, knowing that the insurance company will cover the loss. To avoid that problem, the insurance company would have to undertake a cost-benefit calculation of every proposed development.

This difficulty is more easily controlled for insurance against fires, burglary or natural disasters. The 'moral hazard' in such cases can be managed by the insurance company's

insistence on easily monitored precautions, such as installing smoke detectors, putting locks on doors and building outside flood plains. But the moral hazard from adverse neighbourhood conditions is more difficult to monitor because they are typically unique to a particular neighbourhood and the proposed development. The development that could trigger the insurance is, unlike a burglary, often benign. A new convenience store may be a neighbourhood benefit in one place, a net cost in another. To winnow the good from the bad developments, the insurance company would have to hire an experienced land planner to investigate most zoning changes, variances and other exceptions to the *status quo*.

Some readers may have already asked themselves why I approach insurance as if it must be offered by third parties. Why not make the developers offer the insurance? They have more information about what can go wrong than most others, so they should be made liable for it. The problem in my view is that both developers and their opponents, the neighbours, would want to have a third party underwrite the insurance. Developers would want it because their administrative costs would be raised by offering insurance. It is not easy to manage an insurance programme. Indeed, one reason the Illinois programme was called *Home Equity Assurance* was to avoid the regulations that are imposed on the insurance business in every state.

A more important problem is that neighbours would be sceptical of insurance financed solely by a developer. Development is a notoriously unstable business, and it is easy to imagine the developer going bankrupt prior to the time that insurance pay-outs would, if justified, actually be due. It may be possible to overcome this with special bonding arrangements, but that again raises the problem of how a third party (who supplies the bond) can determine whether the developer's project is a good neighbourhood risk.

The other large barrier to home-equity insurance is the development of a local housing price index on which to base pay-outs. (The Oak Park scheme and others like it in the

Chicago area insure only nominal home values and so require costly reappraisals to deal with inflation. This may not be much of a problem in areas where housing prices do not grow rapidly.) A national or even regional price index would not be enough to determine how much, if at all, a particular neighbour's home has decreased in value as a result of a controversial development. Housing prices rise and fall for all sorts of reasons, and it is clear that prices in one neighbourhood can change at a different rate from those in another neighbourhood, even if neither has suffered any localised land-use changes. How would one distinguish a fall in relative home values in a neighbourhood because the school-attendance boundaries were changed rather than from the approval and development of a public housing project? Modern econometric techniques can be applied to net out such effects for a large sample of observations, but it is not clear that such results could be applied to individual claims.

The difficulties of developing a home-equity insurance market, which I think have prevented it from being developed privately, should not be regarded as insuperable. One should not underestimate the creativity of the financial market to overcome them. The secondary market for mortgages must have seemed an unlikely possibility prior to its development. Case *et al.* (1993) have made some, albeit halting progress in developing practical metropolitan housing price indexes, and the lessons learned there might inform development of more local indexes. The public costs of undertaking more research and a demonstration project on this should be balanced against the social and economic costs of the problem of exclusionary zoning. By most indications, they are not trivial costs.

References

- ADVISORY COMMISSION ON REGULATORY BARRIERS TO AFFORDABLE HOUSING (1991) *Not In My Back Yard: Removing Barriers to Affordable Housing*. Washington, DC: US Department of Housing and Urban Development.

- BABCOCK, R. F. (1966) *The Zoning Game*. Madison, WI: University of Wisconsin Press.
- BARROWS, R. G. (1983) Beyond the tenement: patterns of American urban housing, 1870–1930, *Journal of Urban History*, 9(August), pp. 395–420.
- BEEN, V. (1994) Locally undesirable land uses in minority neighborhoods: disproportionate siting or market dynamics?, *Yale Law Journal*, 103(April), pp. 1383–1422.
- BOSSELMAN, F. P. and CALLIES, D. (1971) *The Quiet Revolution in Land Use Control*. Washington, DC: Council on Environmental Quality.
- BOYER, M. C. (1983) *Dreaming the Rational City: The Myth of American City Planning*. Cambridge, MA: MIT Press.
- BRETON, A. (1973) Neighborhood selection and zoning, in: H. HOCHMAN (Ed.) *Issues in Urban Public Economics*, pp. 241–251. Saarbrücken: Institute Internationale de Finance Publique.
- BUCHANAN V. WARLEY (1917) 245 U.S. 60.
- CAPLIN, A., CHAN S., FREEMAN, C. and TRACY, J. (1997) *Housing Partnerships: A New Approach to a Market at a Crossroads*. Cambridge, MA: MIT Press.
- CAPPEL, A. J. (1991) A walk along Willow: patterns of land use coordination in pre-zoning New Haven (1870–1926), *Yale Law Journal*, 101(December), pp. 617–642.
- CASE, K. E. and SHILLER, R. (1987) Prices of single family homes since 1970: new indexes for four cities, *New England Economic Review*, September/October, pp. 45–56.
- CASE, K. E., SHILLER, R. J. and WEISS, A. N. (1993) Index-based futures and options markets in real estate, *Journal of Portfolio Management*, 19(Winter), pp. 83–92.
- CHEAPE, C. W. (1980) *Moving the Masses: Urban Public Transit in New York, Boston, and Philadelphia, 1880–1912*. Cambridge, MA: Harvard University Press.
- CHENEY, C. H. (1920) Zoning in practice, *National Municipal Review*, 9(January), pp. 31–43.
- CION, R. M. (1966) Accommodation par excellence: the Lakewood plan, in: M. N. DANIELSON (Ed.) *Metropolitan Politics: A Reader*, pp. 43–53. Boston, MA: Little, Brown.
- COONS, J. E., CLUNE, W. H. III and SUGARMAN, S. D. (1969) Educational opportunity: a workable constitutional test for state financial structures, *California Law Review*, 57(April), pp. 305–421.
- CRONON, W. (1991) *Nature's Metropolis: Chicago and the Great West*. New York: W. W. Norton.
- CUDAHY, B. J. (1990) *Cash, Tokens and Transfers: A History of Urban Mass Transit in North America*. New York: Fordham University Press.
- DANIELSON, M. N. (1976) *The Politics of Exclusion*. New York: Columbia University Press.
- DAVIS, M. L. and HAYES, K. J. (1993) The demand for good government, *Review of Economics and Statistics*, 75(February), pp. 148–152.
- DIPASQUALE, D. and GLAESER, E. L. (1999) Incentives and social capital: are homeowners better citizens?, *Journal of Urban Economics*, 45(March), pp. 354–384.
- DOWNS, A. (1973) *Opening Up the Suburbs: An Urban Strategy for America*. New Haven, CT: Yale University Press.
- DOWNS, A. (1994) *New Visions for Metropolitan America*. Washington, DC: Brookings.
- ELLICKSON, R. C. (1973) Alternatives to zoning: covenants, nuisance rules, and fines as land use controls, *University of Chicago Law Review*, 40(Summer), pp. 681–782.
- ELLICKSON, R. C. (1991) *Order without Law*. Cambridge, MA: Harvard University Press.
- ESTY, D. C. (1996) Revitalizing environmental federalism, *Michigan Law Review*, 95(December), pp. 570–653.
- EUCLID V. AMBLER (1926) 272 U.S. 365.
- FENNELL, L. A. (2001) Beyond exit and voice: user participation in the production of local public goods, *Texas Law Review*, 80(1), pp. 1–87.
- FISCHEL, W. A. (1985) *The Economics of Zoning Laws: A Property Rights Approach to American Land Use Controls*. Baltimore, MD: Johns Hopkins University Press.
- FISCHEL, W. A. (1989) Centralized control: do we want a double-veto system?, *American Planning Association Journal*, 55(Spring), pp. 205–206.
- FISCHEL, W. A. (1990) *Do Growth Controls Matter?* Cambridge, MA: Lincoln Institute of Land Policy.
- FISCHEL, W. A. (1995) *Regulatory Takings: Law, Economics, and Politics*. Cambridge, MA: Harvard University Press.
- FISCHEL, W. A. (2001a) *The Homevoter Hypothesis: How Home Values Influence Local Government Taxation, School Finance, and Land-Use Policies*. Cambridge, MA: Harvard University Press.
- FISCHEL, W. A. (2001b) Why are there NIMBYs?, *Land Economics*, 77(February), pp. 144–152.
- FISCHLER, R. (1998a) Health, safety, and the general welfare—markets, politics, and social science in early land-use regulation and community design, *Journal of Urban History*, 24(September), pp. 675–719.
- FISCHLER, R. (1998b) The metropolitan dimension of early zoning: revisiting the 1916 New York City ordinance, *APA Journal*, 64(2), pp. 170–188.
- FOGELSON, R. M. (1967) *The Fragmented Metropolis: Los Angeles, 1850–1930*. Cambridge, MA: Harvard University Press.

- FRIEDEN, B. J. (1979) *The Environmental Protection Hustle*. Cambridge, MA: MIT Press.
- GARDNER, T. (2001) The slow wave – the changing residential status of cities and suburbs in the United States, 1850–1940, *Journal of Urban History*, 27(March), pp. 293–312.
- GILLETTE, C. P. (2001) Regionalization and inter-local bargains, *New York University Law Review*, 76(April), pp. 190–271.
- GLAESER, E. L. and KAHN, M. (2001) *Decentralized employment and the transformation of the American city*. NBER Working Paper No. W8117, February.
- GREEN, R. K. and WHITE, M. J. (1997) Measuring the benefits of homeownership: effects on children, *Journal of Urban Economics*, 41(May), pp. 441–461.
- GRIESON, R. E. and WHITE, J. R. (1989) The existence and capitalization of neighborhood externalities: a reassessment, *Journal of Urban Economics*, 25(January), pp. 68–76.
- GYOURKO, J. and VOITH, R. (1992) Local market and national components in house price appreciation, *Journal of Urban Economics*, 32(July), pp. 52–69.
- HAAR, C. M. (1953) Zoning for minimum standards: the Wayne Township case, *Harvard Law Review*, 66(April), pp. 1051–1063.
- HAAR, C. M. (1996) *Suburbs under Siege*. Princeton, NJ: Princeton University Press.
- HAMILTON, B. W. (1982) Wasteful commuting, *Journal of Political Economy*, 90(October), pp. 1035–1053.
- HANFORD, A. C. (1926) *Problems in Municipal Government*. Chicago, IL: A. W. Shaw.
- HARRIS, A. R., EVANS, W. N. and SCHWAB, R. M. (2001) Education spending in an aging America, *Journal of Public Economics*, 81(September), pp. 449–472.
- HART, J. F. (1996) Colonial land use law and its significance for modern takings doctrines, *Harvard Law Review*, 109(April), pp. 1252–1300.
- HAURIN, D. R. and BRASINGTON, D. (1996) School quality and real house prices: inter- and intrametropolitan effects, *Journal of Housing Economics*, 5(December), pp. 351–368.
- HEYMAN, I. M. and GILHOOL, T. K. (1964) The constitutionality of imposing increased community costs on new suburban residents through subdivision exactions, *Yale Law Journal*, 73(June), pp. 1119–1157.
- HOFFMAN, A. VON (1996) Weaving urban fabric: nineteenth-century patterns of residential real estate development in outer Boston, *Journal of Urban History*, 22(January), pp. 191–230.
- HOXBY, C. M. (1997) How to do (and not to do) school finance equalization: the legacy and lesson of *Serrano*, in: *1996 Proceedings of the Eighty-Ninth Annual Conference on Taxation*. Washington, DC: National Tax Association.
- HYLTON, J. G. (2000) Prelude to Euclid: the United States Supreme Court and the constitutionality of land use regulation, 1900–1920, *Washington University Journal of Law and Policy*, 3, pp. 1–37.
- IHLANFELDT, K. R. (1997) Information on the spatial distribution of job opportunities within metropolitan areas, *Journal of Urban Economics*, 41(March), pp. 218–242.
- INGBERMAN, D. E. (1995) Siting noxious facilities: are markets efficient?, *Journal of Environmental Economics and Management*, 29(2), S20–S33.
- JOONDEPH, B. W. (1995) The good, the bad, and the ugly: an empirical analysis of litigation-prompted school finance reform, *Santa Clara Law Review*, 35, pp. 763–824.
- KLINE, J. and WICHELNS, D. (1994) Using referendum data to characterize public support for purchasing development rights to farmland, *Land Economics*, 70(May), pp. 223–233.
- KORNGOLD, G. (2001) The emergence of private land use controls in large-scale subdivisions: the companion story to *village of Euclid v. Ambler Realty Co.*, *Case Western Reserve Law Review*, 51(Summer), pp. 617–643.
- LAZARUS, R. J. (1992) Pursuing ‘environmental justice’: the distributional effects of environmental protection, *Northwestern University Law Review*, 87(Spring), pp. 787–857.
- LEES, M. A. (1994) Preserving property-values—preserving proper homes – preserving privilege – the pre-Euclid debate over zoning for exclusively private residential areas, 1916–1926, *University of Pittsburgh Law Review*, 56(Winter), pp. 367–439.
- LEROY, S. F. and SONSTELIE, J. (1983) Paradise lost and regained: transportation innovation, income and residential location, *Journal of Urban Economics*, 13(January), pp. 67–89.
- LEWIS, N. P. (1916) *The Planning of the Modern City: A Review of the Principles Governing City Planning*. New York: Wiley.
- LUMUND V. BOARD OF ADJUSTMENT (1950) 73 A.2d 545 N.J.
- MAHUE, M. A. (1991) *Home equity assurance programs*. ORER Letter, Office of Real Estate Research, University of Illinois, Urbana–Champaign, Summer.
- McKENZIE, R. D. (1933) *The Metropolitan Community*. New York: McGraw-Hill.
- McMICHAEL, S. L. and BINGHAM, R. F. (1923) *City Growth and Values*. Cleveland, OH: Stanley McMichael Publishing Organization.
- McMILLEN, D. P. and McDONALD, J. F. (1993) Could zoning have increased land values in Chicago?, *Journal of Urban Economics*, 33(March), pp. 167–188.

- McMILLEN, D. P. and McDONALD, J. F. (2002) Land values in a newly zoned city, *Review of Economics and Statistics*, 84(February), pp. 62–72.
- McNAMARA, M. A. (1984) The legality and efficacy of homeowner's equity assurance: a study of Oak Park, Illinois, *Northwestern University Law Review*, 78(February), pp. 1463–1484.
- MEADOWS, D. H. (1991) *The Global Citizen*. Washington, DC: Island Press.
- MILDNER, G. C., DUEKER, K. J. and RUFOLO, A. M. (1996) *Impact of the urban growth boundary on metropolitan housing markets*. Center for Urban Studies, Portland State University.
- MILLER, G. J. (1981) *Cities by Contract: The Politics of Municipal Incorporation*. Cambridge, MA: MIT Press.
- MOSES, L. and WILLIAMSON, H. F. Jr (1967) The location of economic activity in cities, *American Economic Review*, 57(May), pp. 211–222.
- MOUNT LAUREL (1975 and 1983) *Southern Burlington County NAACP v. Township of Mount Laurel*, 336 A.2d 713 (N.J. 1975) ('*Mount Laurel I*'); 456 A.2d 390 (N.J. 1983) ('*Mount Laurel II*').
- MUNRO, W. B. (1931) A danger spot in the zoning movement, *The Annals of the American Academy of Political and Social Sciences*, 155(May), pp. 202–206.
- NATIONAL COMMISSION ON URBAN PROBLEMS (1968) *Building the American City*. New York: Praeger.
- NATIONAL MUNICIPAL REVIEW (1927) Editorial comment, *National Municipal Review*, 16(June), p. 353.
- OATES, W. E. (1969) The effects of property taxes and local public spending on property values: an empirical study of tax capitalization and the Tiebout hypothesis, *Journal of Political Economy*, 77(November), pp. 957–971.
- OSWALD, A. J. (1996) *A conjecture on the explanation for high unemployment in the industrialized nations*. Working paper, Department of Economics, University of Warwick.
- PALMON, O. and SMITH, B. A. (1998) New evidence on property tax capitalization, *Journal of Political Economy*, 106(October), pp. 1099–1111.
- PITTSBURGH COMMITTEE ON TAXATION STUDY (1916) *Report of the Committee on Taxation Study to Council of the City of Pittsburgh, Pennsylvania*. Pittsburgh, PA.
- POPPER, F. (1988) Understanding American land use regulation since 1970, *Journal of the American Planning Association*, 54(Summer), pp. 291–301.
- PRESIDENT'S COMMISSION ON HOUSING (1982) *Report*. Washington, DC: US Government Printing Office.
- PRESIDENT'S COMMITTEE ON URBAN HOUSING (1969) *A Decent Home: The Report of the President's Committee on Urban Housing*. Washington, DC: US Government Print. Office.
- REPS, J. W. (1965) *The Making of Urban America: A History of City Planning in the United States*. Princeton, NJ: Princeton University Press.
- REVELL, K. D. (1999) The road to *Euclid v. Ambler*: city planning, state building, and the changing scope of the police power, *Studies in American Political Development*, 13(Spring), pp. 50–145.
- ROSSI, P. H. and WEBER, E. (1996) The social benefits of homeownership: empirical evidence from national surveys, *Housing Policy Debate*, 7(1), pp. 1–35.
- RUDEL, T. K. (1989) *Situations and Strategies in American Land-use Planning*. Cambridge: Cambridge University Press.
- SAGER, L. G. (1969) Tight little islands: exclusionary zoning, equal protection, and the indigent, *Stanford Law Review*, 21(April), pp. 767–800.
- SCHAEFFER, K. H. and SKLAR, E. (1975) *Access for All: Transportation and Urban Growth*. Harmondsworth: Penguin Books.
- SHELLEY v. KRAEMER (1948) 334 U.S. 1.
- SHILLER, R. J. and WEISS, A. N. (1998) *Moral hazard in home equity conversion*. Working paper 6552, NBER.
- SIEGAN, B. H. (1972) *Land Use without Zoning*. Lexington, MA: Lexington Books.
- SONSTELIE, J. C. and PORTNEY, P. R. (1980) Take the money and run: a theory of voting in local referenda, *Journal of Urban Economics*, 8(September), pp. 187–195.
- TARR, J. A. (1996) *The Search for the Ultimate Sink: Urban Pollution in Historical Perspective*. Akron, OH: University of Akron Press.
- TEAFORD, J. C. (1979) *City and Suburb: The Political Fragmentation of Metropolitan America, 1850–1970*. Baltimore, MD: Johns Hopkins University Press.
- TEAFORD, J. C. (1997) *Post-Suburbia: Government and Politics in the Edge Cities*. Baltimore, MD: Johns Hopkins University Press.
- THIBODEAU, T. (1992) *Residential Real Estate Prices 1974–1983: From the Standard Metropolitan Area Annual Housing Surveys*. Mount Pleasant, MI: The Blackstone Co.
- THORSNES, P. (2000) Internalizing neighborhood externalities: the effect of subdivision size and zoning on residential lot prices, *Journal of Urban Economics*, 48(November), pp. 397–418.
- TIDEMAN, T. N. (1969) *Three Approaches to Improving Urban Land Use*. Unpublished PhD thesis, University of Chicago.

- TIEBOUT, C. (1956) A pure theory of local expenditures, *Journal of Political Economy*, 64, pp. 415–424.
- TOCQUEVILLE, A. DE (1835) *Democracy in America*. London: Saunders and Otley.
- TOLL, S. (1969) *Zoned American*. New York: Grossman.
- US BUREAU OF THE CENSUS (1969) *New One-Family Homes Sold and for Sale: 1963 to 1967*. Washington, DC: US Department of Commerce.
- US BUREAU OF THE CENSUS (1975) *Historical Statistics of the United States, Colonial Times to 1970*. Washington, DC: US Department of Commerce.
- WARNER, S. B. (1962) *Streetcar Suburbs: The Process of Growth in Boston, 1870–1900*. New York: Atheneum.
- WARNER, S. B. (1972) *The Urban Wilderness: A History of the American City*. New York: Harper & Row.
- WEISS, M. A. (1987) *The Rise of the Community Builders: The American Real Estate Industry and Urban Land Planning*. New York: Columbia University Press.
- WILLIAMS, N. JR (1975) *American Land Planning Law*. Chicago, IL: Callaghan.
- WILLIAMS, N. JR (1982) Planning law in the 1980s: what do we know about it?, *Vermont Law Review*, 7(Fall), pp. 205–247.
- WISE, A. E. (1967) *Rich Schools, Poor Schools: The Promise of Equal Educational Opportunity*. Chicago, IL: University of Chicago Press.
- WORLEY, W. S. (1990) *J. C. Nichols and the Shaping of Kansas City*. Columbia, MO: University of Missouri Press.