

## **Why Are There NIMBYs?**

by

William A. Fischel  
Professor of Economics  
Dartmouth College  
6106 Rockefeller  
Hanover, NH 03755

(603) 646-2940  
Bill.Fischel@Dartmouth.Edu

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Abstract: An owner-occupied home is an unusual asset because it cannot be diversified among locations and because it is the only sizable asset that most owners possess. Among the uninsured risks of homeownership is devaluation by nearby changes in land use. Opponents of land-use change are called NIMBYs (“Not In My Back Yard”). This article submits that NIMBYism is a rational response to the uninsured risks of homeownership. It explores to the possibilities and drawbacks of providing an insurance market to cover such risks. It concludes that some progress is being made towards developing such markets.

Residents who strenuously oppose development of land in their immediate area are often called “NIMBYs,” the acronymic personification of the expression “not in my backyard.” Opposition of neighbors is an important problem in American land use regulation. It can frustrate the implementation of carefully planned residential development, locally-desired industrial development, and placement of the necessary nuisances of urban life, such as power plants and landfills (Anthony Downs 1994; William Fischel 1991; Robert Nelson 1999; Kent Portney 1991; Terance Rephann forthcoming).

NIMBYs sometimes appear to be irrational in their opposition to projects in the sense that they express far-fetched anxieties or doggedly fight projects whose expected neighborhood effects seem small or even benign. I submit in this note that such anxieties might not be irrational if we consider that most NIMBYs are homeowners, and that homeowners cannot insure their major (and often only) asset against devaluation by neighborhood effects. NIMBYism might better be viewed as a risk-averse strategy. I conclude with a few notes about how an insurance market might be developed to head off these concerns, if indeed they should be allayed at all.

### **§1. It's the Variance, Dummy, Not the Expected Value.**

I had an epiphany about the cause of NIMBYism at a Hanover, New Hampshire, zoning board hearing in 1997. I was chairing a meeting at which a developer, who was a well-known native, was making a request for a routine special exception. (Unlike variances, which are hard to get, "special exceptions" are presumed to be granted if the applicant meets specific criteria set out in the ordinance.) He had purchased land in a lightly-populated residential district and subdivided it into very large lots—larger than required by the zoning ordinance—to build about a dozen single family homes. The proposed homes would be considerably better than those already in the neighborhood, and all of them would be out of sight of adjacent homeowners. All the developer needed from the board was permission to build his driveways across some intermittent streams that qualified as wetlands. He bent over backwards to conform with the rules in that his proposed driveways exceeded the recommended drainage specifications at every crossing.

The opposition came from neighbors, particularly two who lived closest to the proposed driveway entrance. They raised the usual NIMBY-style issues about flood control and character of the area, both of which I thought were likely to be improved by the development. As one opponent went on and on about the supposed ill-effects of this project, I found myself

brought up short: "Wait a minute," I thought. "I know this guy (the NIMBY). His son and mine are friends. I've seen him at school functions and talked with him. He's a sensible guy, salt of the earth type. He's not crazy; he can't believe that this project is likely to harm him. So what's he worried about?"

Light bulb turns on in my head: He's not worried about the likely, *expected* effect of the development, which was benign. He's worried about the *variance* (statistical, not legal) in the outcome. He, like almost everyone else in town who appears at these hearings, owns his home. It constitutes nearly all of his nonretirement assets. He can insure it against it burning down or having its contents stolen, but he cannot insure it against adverse neighborhood effects. So Tom (the NIMBY) was doing his best in the absence of insurance to reduce the possibility that some unlikely event—a flood in his backyard, being kept awake by cars along the proposed driveway—would adversely affect the value of his home.

NIMBYism is weird only if you think solely about the first moment, the rationally expected outcomes from development. NIMBYism makes perfectly good sense if you think about the second moment, the variance in expected outcomes, and the fact that there isn't any way to insure against neighborhood or community-wide decline.

As often happens with my great ideas, I soon found that someone else had thought of it earlier. In an obscurely published paper that I nonetheless had in my files (and so maybe my zoning-board epiphany was just my subconscious at work), Albert Breton (1973) invoked economic theory to explain the existence of zoning and the difficulties it posed for developers. He identified the cause of residents' aversion to development as an incomplete insurance market. Since residents cannot insure against neighborhood change, zoning offers a kind of second-best institution. If homeowners were insured against neighborhood decline, they wouldn't worry so much about seemingly unlikely scenarios and behave like NIMBYs. (An earlier but more general suggestion for home-value insurance is Marcus and Taussig 1970.)

In further support of the idea that the risks of homeownership are the source of the problem, I would point out that both apartment owners and apartment dwellers are rarely NIMBYs, even after accounting for their lower numbers. I don't have numbers on this, but in my ten years experience on a zoning board and my continuous attention to other land-use disputes, it appears that the opposition to land use change is nearly always by homeowners. The only systematic exception is opposition by existing businesses to potential competitors, and even then they usually try to clothe their naked protectionism with appeals to environmental issues that primarily affect homeowners.

Lack of NIMBYism by apartment owners seems strange only if we attribute NIMBYism simply to expected effects of the proposed development rather than the variance of those effects. In absolute dollars, owners of multifamily housing have even more to lose from adverse neighborhood effects than most homeowners. And apartment owners could be pretty effective NIMBYs if they cared to, since they could round up tenants and business allies to oppose the land-use change. But such opposition is rare. The reason is that owners of multifamily homes can spread their risks of ownership much more easily than homeowners. They cannot insure against devaluation of their assets from neighborhood change, but they can divide ownership of rental housing among many owners much more easily by forming a REIT (Real Estate Investment Trust) or some other multi-investor form of ownership.

## **§2. Homeownership Is a Lopsided Asset.**

Homeowners are a major political force in all local decisions, not just land-use regulation. Two-thirds of all American homes are owner occupied, but even this understates the importance of homeowners in local affairs. Homeowners vote in municipal elections fifty percent more than renters do (Rossi and Weber 1996).

An owner-occupied home is a peculiar asset in two respects. The more obvious is that the investor is also the consumer. This dual relationship surely contributes to some of the NIMBY syndrome. Consumers get some surplus from most of the goods in their possession—otherwise they would not long remain in their possession. We should not be surprised that owner-occupants are more attached to the same objects that are for distant investors just so many dollars.

The other peculiarity of homeownership is that it is a high-return, high-risk asset that is held by people who have little ability to diversify that risk. Owning a home is financially attractive because the imputed rent on owner-occupied housing is not taxed and because taxation of capital gains on an owner-occupied home has long been deferrable and is now completely avoidable for most owners. The tax treatment of homes makes it an especially desirable asset during inflationary times. But even in the long run, owning a home—in particular, owning a plot of land on which a home can be built, rebuilt, expanded or simply stay put—has had an excellent average return (Gyourko and Voith 1992).

As with other high-return assets, however, homeownership has a good deal of risk (Crone and Voith 1999). The relative price of housing fluctuates with the national economy (Gyourko and Voith 1992), with regional economic conditions (Case and Shiller 1989), and with changes in community and neighborhood conditions (Stephen Malpezzi 1996). These fluctuations make it a problematical investment.

Suppose an investment advisor told you to take almost all of your assets and purchase a single firm that produced one product in a single location. She assures you that this firm has in the long term been had a good rate of return, but, upon your questioning, she does admit that it has had a lot of ups and downs. Most people would decline to pursue such a strategy when put that way, but that is what owning a home is for most American households.

It might be suggested that the risks of homeownership could be offset by investing one's remaining assets in safer investments. It is possible that Americans do not own enough risky stocks for this reason (Michael Fratantoni 1998). They invest in bonds and safe, blue-chip companies in order to keep their risks low and offset their homeownership risk. But this argument can apply for only a small fraction of homeowners. The vast majority of mature households do not have any savings in anything other than their homes (Venti and Wise 1990). After owning a home, there's not much left to diversify.

It was widely reported in the late 1990s that the bull market for corporate stocks has made the aggregate value of these stocks exceed the aggregate value of homes in the United States. (The last time this happened was in 1968, after which stock prices took a prolonged dive.) However, the 1990s increase in stock-market wealth has not been widely shared. Examining the U.S. Survey of Consumer Finances, Joseph Tracy, Henry Schneider and Sewin Chan (1999) found "that the typical household in 1995 had 66 percent of its total assets in real estate and *no* portion of its assets in corporate equity." (Their emphasis, p. 3. Mutual funds and defined-contribution retirement funds are counted as equity but the present value of social security benefits is not. Other household assets include automobiles, consumer durables, and bank accounts.)

### **§3. Personal Attachments and Reluctance to Trade Also Fan NIMBYism.**

There are, of course, other reasons that homeowners are touchier about changes in their neighborhood than about other types of financial risks. Living in a home for a long time creates a personal attachment for which changes in the neighborhood are upsetting. And the well-known (but often ignored) "offer/ask" disparity in economics indicates that people who are already in possession of something need to be paid a great deal more when asked to give it up than those same people would offer to pay for the same entitlement if they did not currently possess it (Jack Knetsch 1990). In short, you ask more (to give up something you own) than you offer (to obtain something not already in your possession).

I am inclined to discount at least the first of these sentiments, long-time residence, as a prime mover for NIMBY anxiety, though. My experience observing NIMBYs is that newcomers are at least as inclined to object to changes in their neighborhoods as long-time residents. Indeed,

Kent Portney (1991, p. 94) found that long-time residents were *less* opposed than newcomers to the establishment of proposed waste sites in Massachusetts. Perhaps newcomers do form attachments to their homes very quickly, but if it is that quick, there cannot be much to the idea that long-time residence is especially important. The obviousness of the recent purchase price and the obligation of a new mortgage, may fuel newcomer NIMBYism. At any rate, duration of residence does not seem to account for NIMBYism.

The offer-ask disparity is a better explanation but still not entirely satisfying. The problem isn't the concept itself, which has plenty of empirical evidence in support of it (Knetsch and Sinden 1987). (This is one of the few areas in economics in which psychological experiments have played an important role.) The problem is how to decide what objectors should regard as the status quo of their neighborhood.

Taken at face value, NIMBYism regards the status quo as the current use (or nonuse) of land in their neighborhood. They want it left the way they found it. But I have had little trouble convincing more disinterested observers that a more reasonable status quo is the long-standing zoning rules that apply to the neighborhood. If zoning creates, as I think it does, a sense of entitlement, then that entitlement belongs as much to the owners of the undeveloped parcels as to the owners of homes that were developed under the same rules many years earlier.

In other words, the NIMBYs are not being asked to give something up. They are demanding that someone else give up a right similar to that which they (or their predecessors in title) had themselves exercised to their advantage. I must admit that this is a normative conclusion on my part, but I have found historical evidence that state constitution framers did think in such terms when dealing with property and eminent domain. (Fischel 1995). At any rate, it still seems like the lack of homeowner insurance offers a cleaner explanation for the more extreme forms of NIMBYism, which arises even in cases in which developers are not asking for significant regulatory relief.

#### **§4. Capitalization Suggests Calculation.**

One criticism of my rational, risk-aversion explanation for NIMBYs might be that it assumes too much sophistication on the part of homeowners. After all, one seldom hears homeowners express the idea that their opposition is based on financial risk aversion. People only occasionally talk about financial assets when they express their opposition to neighborhood change. They bring up health concerns or traffic congestion or overcrowding the schools or rising crime rates or air pollution or loss of open space (Hunter and Leyden 1995). It's kind of gauche to blurt out the idea that financial considerations are at stake (Frey, Oberholzer-Gee and Eichenberger 1996).

Financial issues clearly are at stake, though. Economists have shown with an enormous range of studies that home values are directly affected by health hazards, congestion, school quality, crime rates, air pollution, and open space. Each of these factors or their positively expressed correlates shows up consistently in capitalization studies (Timothy Bartik 1986; Li and Brown 1980; ). Home buyers appear to know about these conditions and their likely persistence and adjust the amounts they are willing to pay for homes. Indeed, these studies suggest that it is not simply the current conditions that matter, but their likely persistence. The buyer of a home next to an open field will offer more for it if the field is in a zone destined for permanent open space than if it is zoned for commercial or industrial development (Fischel 1990). Home values reflect not just what is happening now, but the odds of what will happen in the future.

Economists do, of course, argue about the details of capitalization. Econometric techniques for estimating how much capitalization occurs in housing markets are quite complex. This is largely because many of the factors that affect a property's value are also determined by the property itself. For example, high property-tax rates tend to reduce a home's value, but determining how much is tricky because tax rates themselves depend on home values. John Yinger and co-authors (1988) found that property-tax capitalization rates are low, but more recent studies by Oded Palmon and Barton Smith (1998) establish that fully anticipated taxes are nearly 100 percent capitalized. My point here, however, is that no economist of my acquaintance disagrees with the principle of capitalization. We all agree that anticipated future events affect the value of a home under normal market conditions.

If home buyers are apparently so sophisticated, why don't they talk about it after they have made the purchase and show up at a land-use hearing? One reason is that talk about one's own financial position seems excessively selfish. In a public forum, the appearance of selfishness is counterproductive. I submit that this is not merely a matter of social convention. Talk of such things as air quality and traffic and schools and open space brings concerns of other people in the neighborhood into the picture. Framing the opposition in terms of public goods and spillover effects cements the opponents around a common issue, and it gives the public officials a reason to prefer the NIMBYs' position against the developer's.

### **§5. If I'm Right, Why Ain't I Rich?**

I have argued that a major—not the only—source of NIMBYism is homeowners' response to uninsured risks. If I am right about this source, and if NIMBYism is responsible for stopping projects that otherwise would raise aggregate land values in the neighborhood, there must be

some potential gains from trade that are unexploited. There is room, in other words, for a smart person to initiate a market for home-value insurance.

Here is the insurance contract that would do the trick: In the event that the insured's property does not rise by the amount that it would have had the development not taken place, the insurer will pay the owner the difference at the time the owner of the property (or his heirs or legatees) chooses to sell it. Once this difference is paid, the succeeding owner acquires no further claim for adverse effects of the development on the property.

The reason the purchaser has no further claim after the insurance claim has been paid to the seller is that the purchaser has been compensated for the adverse effect in the form of the lower price of the house. This is why, incidentally, there is no injustice in the mere fact of differing property tax rates to finance schools in different communities. The higher rates are compensated for by lower housing costs, leaving the owner in the high-rate town with more money to pay taxes (Bruce Hamilton 1976).

To state the contract's basic terms is to illustrate why such insurance is difficult to write. If this were an insurance contract for fire damage to the home, the baseline event that triggers the insurance is easy to identify. The house catches on fire and physically damages the property. There are plenty of collateral issues that follow from this event: Did the owner set the fire or not work hard enough to prevent it? What is the value remaining if the house was not entirely consumed? But the baseline event, at least, is easy to determine, and the "but for" scenario reasonably clear. Either there was a fire or there wasn't.

Devaluation of a home's value, however, can follow from many neighborhood, community, and national events besides the nearby development for which the insurance is written. The appropriate "but for" comparison group may also have changed over time. Even if it did not, the selection of the appropriate price index on which the insurance contract can be based is quite difficult. Karl Case, Robert Shiller and Allan Weiss (1993) have tried to establish metropolitan-wide price indexes to allow people to hedge (insure) against regional price changes. The limited success of their enterprise suggests that it would be even more difficult to establish the *neighborhood* price indexes necessary for NIMBY insurance.

I should note one existing insurance program that addresses the issue of home-value decline. Some neighborhoods in the Chicago area offer home-equity "assurance" programs to help deter panic selling in the face of racial change in their neighborhoods (Michelle Mahue 1991; Maureen McNamara 1984). (It is called "assurance" instead of "insurance" in order to escape the elaborate regulations of Illinois insurance companies.) Home-equity assurance was invented in Oak Park, but it has been adopted most widely in Chicago precincts. Its primary economic

problem, however, is that it insures only the nominal price of homes at risk. Without a local housing-price index, any adjustment for general inflation must be made by the costly process of reappraising the home to be insured.

### **§6. Information Costs Hinder Home-Value Insurance.**

Aside from the price-index problem, home-value insurance presents an especially problematical kind of moral hazard. The moral hazard of fire insurance is that the homeowner might not take efficient care to reduce fire hazards if he is insured. He may decline to install smoke detectors or have the wiring upgraded at his expense. To combat these hazards, the insurer can make insurance rates conditional on the homeowner undertaking certain practices, such as not smoking tobacco and installing smoke detectors.

The insurer of a home against the adverse effects of a nearby development has to deal with less-controllable moral hazards. Here is a concrete example. The developer of a large office building offers to insure nearby residents against devaluation of their homes if they agree to support his project. (How “nearby” is itself a problem, since proximity effects of office buildings are negative for close-in homes but positive for those a little farther away [Thomas Thibodeau 1990].) The developer cannot offer it himself, as the neighbors may fear, with good reason, that the developer could go bankrupt in the next business cycle. So he has to have an insurance company underwrite the contract. Because the insurance company can take on a variety of (hopefully) uncorrelated risks, it is more likely to be solvent if and when the contingent payment must be made.

This may be a good time to note the difference between the developer offering insurance to neighbors and his offering compensation. Both help assuage the opposition, but they address different anxieties. Compensation is a payment that requires the neighbors to accept the risk. Compensation is most often offered as goods-in-kind, such as a neighborhood park, though I have observed straightforward, above-board offers of cash (Terry Lassar 1990). But once compensation is granted, the downside risk of the development’s neighborhood effects remains with the neighbors. Insurance, on the other hand, pays the neighbors nothing if the development has no adverse effects. It is purely contingent on a future outcome, and it insulates the neighbors from risk. The NIMBY problem is not their demands to be left whole via compensation of some sort. It is their unwillingness to accept even that compensation because of their high anxieties about unforeseen effects.

Return now to the moral-hazard problem of third-party insurance. Having made the insurance contract with a third party, the office-building developer can now propose to regulators a layout of the proposed building that is more profitable to him but which is adverse

to the neighborhood. If the adverse effects devalue the neighborhood by more than the present value of the additional profits to the developer, this change should not be allowed. But the regulators, hearing no complaint from the now fully-insured neighbors, go ahead and approve it. The third-party insurer could, of course, attend all of the planning commission hearings and other events at which changes might be made, or she could write the contract so that it is void under such conditions, but all of these add to the costs of writing the insurance and thus reduce the value of the transaction.

What this scenario illustrates is that some level of NIMBYism may be a good thing. It is likely that the immediate neighbors to the development are in a better position to monitor much of the behavior of the planners and the developers than an insurance company. An insurance contract undercuts this motivation.

### **§7. What Is the Right Level of NIMBYism?**

As I suggested at the end of the last section, NIMBYs are not all bad news. Without neighborhood opposition, some projects that devalue their community and neighborhood would get passed. Even local regulators are often unaware of the micro-neighborhood conditions that might be affected by the proposed development. They depend to a large extent on the willingness of neighborhood residents to take the time and expense of testifying about the possible effects. Thus the real trick in dealing with NIMBYs is motivating them to provide information and opposition when it is appropriate to do so, but not further.

This sounds Delphic, sort of like Einstein supposedly saying that one should simplify all models, but not too much. But the conceptual issue for the right amount of NIMBYism is not that difficult. If the excess of NIMBYism is due to risk aversion, then the right amount of it is that generated by risk-neutral neighbors.

Risk-neutral actors are concerned with expected outcomes, not the variance in those outcomes. Thus one wants neighbors to a really bad project to be motivated to show up at regulatory hearings and oppose it. But risk neutral neighbors would not oppose a beneficial project merely because it had some risk of not working out so well. After all, every project has some of that risk; to eliminate it would be to opt for no development at all.

There is a rationale, however, for some degree of public risk aversion. Environmentalists point out that irreversibility is one reason to be risk averse about changes. The dramatic example is species extinction, but it arises also in more mundane development activities. Building a house on what was formerly a nice open view is not physically irreversible, but as a social matter, it's pretty close to it. By this argument, there should be some extra risk aversion expressed by people who are worried about the loss of open space or pleasant views, since the

downside is especially difficult to fix. If we make the developer do two more studies of its impact, goes this argument, it will only put off desirable development that will be easily done in the future. If we rush to make a decision that turns out wrong, it cannot easily be undone. So perhaps there is some reason to want homeowners to block developments as NIMBYs, since they are risk averse.

The problem with this argument is that homeowners aren't just risk averse for reasons we might applaud. They might also oppose development for unsavory reasons, like snobbishness or racism. Since few NIMBYs would admit to such motives in public, assigning them the role of risk-averse stand-ins for the environment still seems excessive.

### **§8. Is It Worth Reducing Homeownership to Combat NIMBYism?**

Another approach to reducing NIMBYism would be to reduce homeownership. Taking away the tax benefits of owning a home compared to owning other forms of capital would surely reduce, though hardly eliminate, the high rate of homeownership in the United States. That this might reduce the incidence of NIMBYism.

As international evidence of this, I note that the Swiss have a homeownership rate of about 30 percent, the lowest in the developed world (Paul Balchin 1996, p. 11). The most likely reason for this is that the Swiss tax the imputed rents on owner-occupied housing, so it is more like other investments there. Bruno Frey and Felix Oberholzer-Gee (1997) find that it is easier to locate nuclear waste sites in Switzerland even though residents report that they worry about its ill effects as much as those of other nations.

Frey and Oberholzer-Gee attribute the deficit of Swiss NIMBYism to appeals to public spirit, which they claim works better than offers of compensation. Be that as it may, their statistical results show that Swiss homeowners, like their American counterparts, were more opposed to uncompensated siting decisions than others. It's hard to say what the Swiss polity would be like if homeownership were doubled, but I doubt it would make locating waste dumps easier.

Reducing the incidence of homeownership might also help reduce unemployment (Andrew Oswald 1996). This is because it is easier to move from high unemployment areas to regions where there are jobs if one does not have to sell one's home and if rental units are plentiful in the job-rich areas. Nonetheless, homeownership policies in the U.S. seem quite well entrenched, and there are reputable studies that suggest that it has some good qualities. Even after accounting for many other differences among households, homeowners seem to be better citizens (DePasquale and Glaeser 1999).

The reason for homeowner's better citizenship is much the same as the reason they are NIMBYs. Because they have a lot at stake in the community, they are inclined to support better schools, for example, even if they don't have kids in school, and even if they plan to sell in the near future (Bergstrom, Rubinfeld and Shapiro 1982). They know that potential buyers of their home are likely to have children at some time and so be interested in good schools. Or, to take the reverse tack, even if they have many children in school, they won't go overboard on school spending if the higher taxes required to do so would make their homes less attractive to buyers. Renters do not have a similar benefit-cost discipline imposed on them, since the rents they pay tend to rise and fall with the quality of public services available. Renters are not residual claimants of the good things and bad things that happen in their neighborhood and community, which may explain why they participate less in local affairs (Moomau and Morton 1992).

I would conclude from this that policies to reduce homeownership would not be a good way to control excessive NIMBYism. Renters don't have *enough* NIMBY incentive, an incentive which, if taken in a risk-neutral context, offers useful information to regulators. The risk aversion presented by present-day NIMBYs does not distinguish between situations in which it may be socially appropriate, as in environmental issues, and those in which it may not, as in social issues. For this reason, I believe that it is worth wrestling with the problems of homeowner insurance contracts as a solution to the NIMBY problem.

There is another approach to the homeowner problem that does not reduce the number of homeowners or insure them from risks. Andrew Caplin and co-authors (1997) instead propose to create a market in homeowner partnerships so that owner-occupants can share their equity with other parties. This would be the homeowners' parallel of a real estate investment trust. This is not insurance, since all owners still bear the risks, but it would allow homeowners to diversify their equity. As I noted earlier, such diversification on the part of apartment owners may account for their lack of NIMBYism.

The housing partnerships envisioned by Caplin et al. and the home-value insurance of Case and Shiller may seem farfetched. But then secondary mortgage markets probably seemed farfetched at one time, too. It may be that the NIMBY problem will fade as a result of more efficient financial markets rather than political reforms.

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