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Rental Housing Assistance for the 21st Century

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Abstract

Current rental housing assistance programs are not designed to provide a safety net for people whose lives are volatile, or to encourage poor people to live in good locations. These failings can be corrected. HUD should establish a program of rental insurance—like mortgage insurance, but for renters. Low-income housing assistance formulas should be revised to reward good neighborhood features, and punish bad.

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The rental market for lower income Americans can work a lot better than it has been working. Tenants (and the landlords who rent to them) can have more security than they have now. Fewer people can experience homelessness. Subsidies can do more for the people who receive them, and for their neighbors. This note explains how. The key is thinking about security and externalities in 21st century terms, not in Great Depression terms.

I'll look at two broad functions that government interventions in the housing market can perform: providing a safety net, and generating external benefits. Our current system performs both functions poorly: it moves too slowly and too arbitrarily to insure people against most of the risks they face, and is least available precisely when most people need it the most; and most of the external benefits it generates are the ones that were important in the first half of the 20th century, not the ones that matter in the first half of the 21st. I'll show how both functions can be performed better. I have suggestions for each of these two problems, and they can be considered independently.

My perspective in this note is overwhelmingly classical: I identify market failures and ask what steps can be taken to correct them. I also identify failures in current policies. Rental markets for poor people would have some serious problems without significant government involvement, and they can still have serious problems if that involvement is not wise.

1.0 A Better Safety Net

1.1 Where we are now

Governments perform a useful function when they provide people with valuable insurance that markets would otherwise fail to provide. The major kinds of shocks that affect poor people today are losses of income, losses of health, and losses of relationships (see O'Flaherty 2009). Families insure these risks poorly (Dynarski and Gruber 1997, Bentolila and Ichino 2008). Governments insure against

income shocks very little (especially for adults not accompanied by kids and those who have used up TANF eligibility), and insurance against health shocks is far from perfect (especially against the income losses that sometimes ensue from health shocks). Neither governments nor private insurers offer much meaningful protection against relationship shocks.

None of these shocks is directly related to housing markets, but they all spill over into housing markets. Food, clothing, transportation and housing are the main things that poor people buy, and rent is generally the largest single bill they receive in a month. Rent is hard to adjust quickly (search and moving are expensive), and relatively easy to borrow against. Gas stations and supermarkets won't let you leave without paying, but landlords can't evict you costlessly when you miss a payment. Thus landlords become insurers of last resort.

This has consequences. Landlords aren't good insurers, and most lack means to spread risk. So they charge too much for this insurance, they screen tenants too strictly, and they under-insure. (To the extent that landlord-tenant law forces them to provide more insurance than they want to, landlords charge even more and screen even more strictly.) Even large landlords with wealthy tenants find acting as an insurance company burdensome; evidence of this is the apparent success of Insurent, a private rental insurance company in New York City that specializes in large, high-end buildings. Tenant payment problems are correlated with the business cycle, and so confront landlords exactly when those landlords face the most severe cash flow problems from vacancies and tight money. Most tenants, moreover, live in apartments owned by small landlords. Structure size and ownership do not map perfectly into each other, but only 18 percent of tenants in 2009 lived in structures of twenty or more units (American Housing Survey).

Current housing subsidy programs do little to mitigate the risks that low-income households face. For households who are already subsidized, rents fall when incomes fall or medical expenses rise,

and so this group has good insurance. But lags are often long. Current year's rent is based on retrospective income, and reporting takes time. The New York City Housing Authority (NYCHA), for instance, begins gathering retrospective income information five months before lease renewal (NYCHA 2008). Thus by the end of a lease, income 29 months ago has more impact on current rent than income last month. NYCHA has "emergency procedures," but even these are slow. Rent can be reduced during the term of a lease for a tenant who loses a job, but only after 13 weeks.

But most poor households are not subsidized, and the connection between their misfortunes and any housing assistance they get is approximately zero. Only if a shock lasts the very long time needed to get to the top of the relevant queue does the shock bring housing assistance, and only if the household was foresighted enough to apply early (and does not contain someone with a criminal record).

Indeed, households are least likely to get housing assistance when they are most likely to need it. A household is most likely to need help when a recession hits—either nationally or just locally. But that is when queues are most likely to be longest and help least likely to be forthcoming. (Queues in recessions are likely to be long both because many people need help and because few assisted households are moving up and making way for others. See Hungerford 1996, Olsen et al. 2005, Ambrose 2005.) HUD assistance is like a stock with a huge beta, a fire department that avoids fires.

Homeless shelters are probably the most effective safety net in the housing market now, and in locations with a rich array of shelters or a right-to-housing, they may perform this function well. But they are expensive and often demeaning. Like hospital emergency rooms, shelters are necessary, but they are not a good substitute for a sound social insurance system.

1.2 What to do

Many economists (e.g., Olsen 2008) have argued for a needs-based housing assistance entitlement program, and on many grounds such a program would be a huge improvement over the current set-up. An entitlement program could also offer much better insurance, since households in distress would not have to queue for assistance, and funding would automatically expand in recessions so that access would not become harder.

Entitlement programs have several drawbacks, however. Bureaucratically, they would be ill-equipped to deal with volatile income, health, and relationships, although perhaps good information technology and careful design could create a nimble and fast system. Current rationed housing assistance programs have small work disincentive effects (Ludwig and Jacob 2008, Susin 2005, Tatian and Snow 2005, Olsen et al. 2005, Shroder 2002), but if program entrance were more closely tied to income these effects might be larger. Current programs probably have significant sharing-disincentive effects (Sinai and Waldfogel 2005, Ellen and O’Flaherty 2007), and an entitlement program would have these effects too, unless it were restructured to be sharing-neutral.¹ And entitlement programs could be expensive (although Olsen (2008) shows some controversial ways that their costs could be considerably reduced, but does not require sharing-neutrality, which any sensible program might have).

1.2.1 Rental insurance basics

The most straightforward way to provide insurance is to provide insurance, and it is likely to be the cheapest way too. The federal government already insures mortgages through the VA and the FHA, and mortgage-backed securities through the GSEs (although this last role may not be continuing). Under some circumstances, this insurance costs the government nothing, although, of course, those are not the circumstances that obtain now. Rental insurance markets might be a good way to reduce risks in this market.

The basic idea is that a tenant pays a small premium when she leases an apartment. If some predetermined event like a job loss, divorce, or major illness occurs during the term of the lease and makes it impossible for her to keep up with the rent, the insurance kicks in and pays the landlord a fixed amount (say \$500) for a fixed number of months (say six months). After the tenant stabilizes her life, the government might seek some repayment, but probably not full repayment. As mentioned, at least one private profit-making company, Insurent in New York, sells rental insurance now, and so the concept is not totally infeasible.

What are the benefits of such insurance? Landlords could relax their screening criteria, require smaller deposits, and charge lower rents; all tenants would benefit. Tenants who encountered setbacks would have breathing room to resolve their problems, or to reduce their consumption deliberately. Social agencies and homelessness prevention services could receive informative advance warnings, and possibly target their activities better. Children might not have to move so often, and the length of assistance could even be targeted to the school year. Shelters would see fewer families who were temporarily down on their luck.

This rental insurance program would not insure against rapid rises in the market price of rental housing. The moral hazard problems would be too great. Fortunately, rent shocks do not appear to be a major risk that poor people face or a major direct precursor to homelessness (O'Flaherty 2009).

1.2.2 Why not just make other safety-net programs better?

Is rental insurance just a weak and politically expedient substitute for a more generous social insurance system, one with larger cash payments and more sensitive triggers? I think not. Two sets of market failures make rental insurance desirable in itself.

The first and probably most important market failures are the external costs of homelessness and of instability for children whose parents do not fully internalize their academic progress. Because of these external costs, the government has an interest in maintaining a tenancy even when a household head would prefer to use the same amount of money for some other purpose, even ex ante.

The second market failure is the inability to write enforceable contracts promising the payment of rent. Partly this inability arises from state landlord-tenant codes that make instantaneous eviction impossible; but even without these codes few landlords would evict all tenants who were a few days late on the rent and promised to pay next week. Because such contracts are not available, some Pareto-improving tenancies never occur. (An equivalent insurance contract would compensate landlords for tenant delinquencies. This contract also appears to be unavailable.)

Some might argue that tenancies can be long-term relationships with flexible prices, and so all mutually beneficial insurance arrangements can be worked out over time. But tenancies can become long-term only if they are allowed to become so, and all tenancies start short. Hubert (1995) and Miceli and Sirmans (1999) show that serious adverse selection problems prevent first-best contracts from being negotiated in tenancies that have a chance of becoming long-term, essentially because incentive-compatibility constraints need to be satisfied. Benjamin et al. (1998) estimate that tenants who are liquidity constrained and cannot make security deposits borrow effectively from landlords at an annual interest rate of around 30 percent.

More deeply, the people who are going to lose their jobs or get sick are going to do these things no matter where they live (to a first approximation). Some landlord is going to have to bear this cost. The time and energy that landlords devote to screening for this possibility is pure waste from a social perspective, since the only goal is to make some other landlord bear this cost instead of themselves. It is just a game of hot potato. Similarly the distorting contracts menus designed to combat adverse

selection create obvious deadweight social losses, but are useful only for playing hot potato. Whether they combat adverse selection well or not is irrelevant, as long as they are costly.

In this sense, by making landlords less concerned with where people are living when adverse events occur, rental insurance can promote efficiency. A formal analysis of this issue has not been done yet, and would be helpful.

On the other hand, rental insurance might work against efficiency by decreasing geographic mobility—“locking in” people to the wrong locations when, for instance, jobs have shifted elsewhere. These efficiency costs, however, may not be large, since rental insurance payments would probably last less than six months, and migration decisions often take longer than that.

1.2.3 Why can't private firms provide this insurance?

Maybe they can, but because of the external costs of homelessness and instability, they would have to be subsidized.

Rental insurance markets, however, are likely to suffer from adverse selection. Prospective tenants are likely to have private information about their health and employment situation, and so may small landlords. Landlords also have private information about the channels through which they recruit tenants.

Subsidies offset adverse selection, and a private subsidized insurance scheme might be viable. But it might be better for HUD to start a program with a large, mainly involuntary base built in. For instance, apartment buildings and multi-family houses with FHA or GSE backing might be required to purchase such insurance. The history of mortgage insurance shows that sometimes the government needs to get a market started.

1.2.4 What about moral hazard?

Like every other kind of insurance, rental insurance will cause some moral hazard problems. Intelligent design can reduce the size of these problems when they occur.

On the landlord side, the obvious behavioral response to rental insurance is to loosen screening standards. This loosening may be desirable, in part to reduce homelessness. Nor is it obvious that markets produce optimal screening standards. Screening by landlord A affects the pool of prospective tenants that landlord B sees, and hence the standards that landlord B finds it optimal to adopt. So the social costs of moral hazard on the landlord side may not be particularly big.

On the tenant side, several behavioral responses may occur. Tenants may seek higher quality and higher rent apartments because they have less to fear if something goes wrong; they may also seek riskier jobs because they have less to fear if the job falls through. The social costs of these behavioral changes may not be large. On the other hand, tenants may work less diligently at their jobs or take less good care of their health. This is a real concern, but the amounts involved are modest and the claw-back provisions can be adjusted to offset this behavior.

Fraud may also occur, of course. Landlords, for instance, could invent fictitious tenants. We need to learn a lot about how to run these programs right.

1.2.5 Whom is this for?

Rental insurance is a complement to existing HUD low-income assistance programs, not a substitute for them. These programs have a variety of goals, and I can't comment on all of those goals in this paper. Unlike these existing programs, however, it is meant to be an entitlement, and so should be one way of mitigating the unfairness of denying assistance to some households while giving large amounts of assistance to other households that are in no obvious way more deserving.

Because rental insurance is an entitlement, HUD-assisted tenants should be able to purchase it. This would probably make HUD's current programs work a little better. Currently, the risk of tenant non-payment is borne by public housing authorities and a multitude of investors and landlords. Many of these are unsophisticated, risk averse, and geographically undiversified; many of them also worry about cash constraints at times of recession. Rental insurance for HUD-assisted tenants shifts some of this risk to the national level, where it can be handled much better. A more efficient allocation of risk should reduce the per household cost of these programs (including any losses from rental insurance), and allow them to serve a few more households.

Should rich people be eligible for rental insurance, too? I don't see why not; healthy people are eligible to buy medical insurance. Whether tenants need the help depends on their current circumstances, not their past circumstances, and eligibility rules have to be based on past circumstances. But if federally sponsored insurance is losing money and rich people are heavily involved, the subsidy should be reduced so that private companies can enter the market. The danger in operating a program without explicit income guidelines is that it might be relatively more attractive to rich people than poor. If this were to happen, the program parameters could be adjusted in cost-neutral ways to make it more attractive to poor people and relatively less attractive to rich—for instance, by reducing up-front premiums and raising claw-back percentages.

Of course, rental insurance is not ready for wide-scale adoption yet. To learn about how it works, starting with specific groups defined by hard-to-change characteristics would be informative and probably productive. For instance, young adults aging out of foster care and returning veterans are two groups that often have trouble finding and keeping apartments. Rental insurance could open doors for them with landlords who might otherwise fear rent delinquencies, and provide social agencies with early warning signs of trouble.

1.2.6 Summary

Designing a practical rental insurance program is tough. A large number of parameters and details must be chosen carefully and consistently. For many questions, experience will have to be the only guide. Some relevant experience is available to draw on: Insurent, the Veterans' Administration mortgage insurance program, and the emergency payment systems that some social service agencies run all have some similarities to rental insurance. But real experience can be acquired only through real experiments.

2.0 Better neighbors

The basic low-income housing subsidy programs were designed many years ago to address the problems that bothered people then. Structural conditions seem to have been the major concern. If people lived in houses that were too small, or too drafty, or without enough sunlight, or without proper water and sewer connections, they and their children would not be healthy, physically or morally. Their ill health would spread by contagion and crime. So the entire society would gain by improving the structural conditions of the housing of the poor. Thus public housing in the 1930s and even Housing Choice Vouchers in the 1970s contained strict rules about structural characteristics, but almost no rules about location.

Times have changed. Structural quality of unsubsidized housing stock has improved tremendously, especially at the bottom of the distribution. The rest of the nation has become more concerned about how well poor kids read, and less about whether they have tuberculosis. We worry about diabetes and fast food outlets, not polio and poor ventilation. Crime remains a great concern, but the causes are seen less as inadequate sunlight and more as inadequate role models.

The externalities, in other words, now come more from location and less from structure. I have never seen a complete study of subsidized housing location externalities in this sense. I don't know if one could reasonably be done. However, something is known about some of the relevant parameters.

In this section, I'll look at how housing location affects what kind of citizens residents are or become—the traditional focus of housing policy (especially ownership policy). Health, jobs, and education will be my concerns here. In section 3, I'll look briefly at two other possible externalities of subsidized housing: how it affects the value of neighboring properties, and how tenant selection affects the cost of other public programs. The final section is about crime, which brings all of these issues together.

I'll concentrate on very specific, hopefully measurable externalities. I will not ask big questions like whether subsidized housing should be in rich neighborhoods or minority neighborhoods. An enormous amount has been written on these questions, and I don't see any consensus. I think there is consensus, however, on more direct issues like carbon monoxide, particulate matter, bad schools, and long commutes; we can also put numbers on these costs. Maybe the difficulty with the big concepts is that they are really amalgams of small concepts. I will concentrate on these areas because the science is pretty well known. I can think about trees a lot better than I can think about forests.

2.1 Health

2.1.0 Basic empirical results

Recent empirical work in health economics establishes a few fairly strong links from location to health. Currie et al. (2009, 2010a) and Currie and Walker (2010) find that higher carbon monoxide levels induce greater school absenteeism and poor infant health outcomes, even at low levels. Living close to

traffic congestion is bad for kids. There is also substantial evidence that particulate matter is harmful. (These dangers seem to be quite localized, with impacts measured in hundreds of feet; census tracts are too coarse.) Currie et al. (2010b) find that children with more access to fast-food restaurants are more obese.

2.1.1 Exogenous nuisances

First, suppose that the location and intensity of noxious sites is fixed and exogenous. Then the role of housing policy is to discourage people from living near them. (In the next section I will examine the more realistic case of endogenous nuisances; my method is to proceed from the simple to the complex.)

In a perfectly functioning private housing market, this would be no problem. Housing consumers, realizing that living near these sites was harmful, would lower their bid-rent by the full amount of the damage. No houses would be built near the noxious sites if the lowered bid rent were not enough to pay for structure and to bid the land away from non-residential uses. If houses were built, the residents would be compensated for the harm by lower rents, and the landowner would bear the damage cost.

Subsidized housing as it is now run short-circuits this adjustment. To a large extent, the rent that a landlord receives is independent of the attractiveness of the location. This holds whether the landlord is a public housing authority (PHA), or a private landlord with Housing Choice Vouchers tenants. Everything else being equal, the absence of location in the subsidy formula is an incentive to place subsidized tenants in the worst possible locations. For supply-side projects, this is because land is cheapest (hence forgone property taxes are the least) in those locations. For Housing Choice Vouchers, this is because the opportunity cost of renting to a subsidized tenant is least there. Thus we expect current assistance programs to do worse than the market would in promoting tenant health, not better.

But even doing as well as the market does is not good enough. Tenants do not pay the full cost of poor health, and parents do not fully internalize the health of their children (especially in the long run). Tenants may also not be aware of the best current research. The argument for subsidized housing can only be that it does a better job than the market.

(That is why the many exceptions to the picture of complete independence of rent from location amenities do not change the basic picture. Landlords of Housing Choice Vouchers tenants with rent above fair market rent (FMR) receive the full value of any change in bid rent at the margin, and so will locate away from nuisances, at least those that are smaller than the difference between actual rent and FMR. Developers planning developments that include both market rate units and subsidized units like Hope VI will bear the cost of nuisances to the extent that part of the project is unsubsidized at the margin, but they will bear only a fraction of the true cost.)

Can current housing assistance programs be revamped so that they do the job they should be doing? The answer is yes and the strategy is obvious: make the federal subsidy depend on how healthy the location is. For most programs, the subsidy should decrease dollar-for-dollar with the increase in the total cost of health-related problems associated with the site. For instance, the penalty per housing unit for a project located near a congested highway should equal the sum of private health costs the tenants will bear because of their exposure to the highway (their willingness to pay to be free of the morbidity and enhanced mortality associated with the pollution) plus the medical costs that third parties and governments will bear. The same penalty is relevant for Housing Choice Vouchers where the tenant is not paying anything on the margin. For Housing Choice Vouchers where the rent is greater than FMR, the landlord is already bearing some of the health costs; the penalty should equal only the external costs in this situation (although “external” may, for instance, include most of children’s costs).

Notice that nothing in this proposal necessarily raises or lowers aggregate subsidies. HUD can either penalize unhealthy locations or reward healthy locations, or do a combination of both. Some combination will be expenditure-neutral. In some ways, this proposal just asks HUD to calculate “fair market rents” in a way that recognizes location, not just structure: the fair market rent for an apartment in a lousy location is not the same as the fair market rent for an apartment in a great location, and HUD should recognize this.

This basic proposal does not specify whether changes in subsidy should manifest themselves as changes in payments to landlords or changes in rents paid by tenants. As we introduce further complications, this issue will be resolved.

One may also ask whether this problem would be better addressed by rules than monetary payments. HUD uses rules to establish minimum structural standards which every subsidized housing unit must meet; why not use minimum location standards too? There are many interesting economic arguments around this question in general, but in this case the advice of practicality is pretty direct. I fear that a very large fraction of currently assisted housing would fail any minimum location standards that HUD could with good conscience promulgate. Rather than mandate healthy living, this proposal “nudges” tenants and landlords toward it.

2.1.2 Endogenous nuisances

The argument above treats the locations of noxious activities as fixed. They are not, and efficiency may require that the noxious activities move or lower the intensity of their operations. Nuisance corrections in housing assistance formulas make these efficient outcomes more likely.

Suppose first we are in a Coasian world. The Coase theorem implies an efficient outcome if the parties can bargain costlessly. Efficiency still fails in the current system because children and third-party

payers of medical costs are affected parties who are unlikely to take part in any bargaining with the nuisance-source. Nuisance corrections in this sense set the table properly for Coasian bargaining.

Transactions-cost reasoning also implies that nuisance corrections should affect landlord payments, not tenant rents. If the landlord internalizes all the nuisance costs that the tenants (and others) bear, she becomes the proper person to negotiate with the nuisance-source; the free-rider problem is mitigated or eliminated.

Much of this Coasian reasoning carries over into a world where nuisances are regulated by state and local governments, not by Coasian bargains. A landlord who has internalized the nuisance externality has good reason to lobby for stricter regulation of the nuisance, since she will gain from any mitigation. Big landlords and PHAs often lobby well.

(An alternative approach would be for HUD to tax nuisances near subsidized housing. Efficiency would be achieved if nuisance-sources could pay subsidized-housing decision-makers not to locate near them. Such a system would probably be legally and administratively unworkable.)

2.1.3 Tenants without subsidies

Imposing a system of nuisance corrections will have three possible outcomes for any apartment that is now subsidized.

The first outcome is that it continues to be subsidized. In that case, there is no efficiency gain, unless the nuisance is abated, since the physical fact of harm will continue.

The second outcome is that the apartment ceases to be subsidized, but continues to be a residence. In that case, there is no efficiency gain either; only the name of the household being harmed is changed. But the landlord bears the private cost of the nuisance in lower rent, and so has a greater

incentive to bargain or lobby for abatement than a subsidized landlord under the current system does (though not so great as a subsidized landlord in the improved system would have),

Finally, nuisance corrections may cause the site to be abandoned for residential use; it might become a parking lot or a warehouse. This is clearly an efficiency gain if the nuisance is large and cannot be abated; it cuts exposure.

Thus under any outcome there is potential for efficiency gains. The fact that under some circumstances nuisance corrections will only change the name of the household getting sick does not vitiate the scheme's utility. Over time, moreover, the efficiency effects are likely to grow: for instance, as stores or single-family houses are built where multi-family subsidized housing might have been built.

2.1.4 Equity

Are there equity impacts as well as efficiency impacts? Definitely, but they depend on many important details of how the programs are implemented and how the market responds.

If the nuisance is abated, there are likely to equity gains as well as efficiency gains. The people the nuisance would have been harming are poor, and those who bear the ultimate cost of abatement are probably not all poor. In many cases, moreover, the nuisances are local public bads, and so their abatement may benefit unsubsidized households as well as subsidized, at least until rents adjust. If the nuisance is not abated, but the area it affects becomes a parking lot or warehouse, the equity implications are similar.

If the nuisance is not abated and subsidized tenants continue living next to it, there is little equity impact. Taxpayers gain and the landlord loses if the subsidy goes down.

The case where the nuisance is not abated and unsubsidized tenants replace the subsidized tenants is slightly more complicated. The equity implications depend on how the subsidies account for

externalities—whether the reform punishes unhealthy locations relative to the status quo, or rewards healthy locations. If the reform raises average subsidies by rewarding more than punishing, then the gap in well-being between subsidized and unsubsidized tenants widens—a result that is probably undesirable from an equity viewpoint—and landlords gain at the expense of taxpayers. If the reform punishes bad locations instead of rewarding good ones, on average, the result is the opposite, generally. This is what you would expect intuitively.

How does this work out on the ground? Consider a reform that only rewards good locations. The subsidized tenant moves to a healthier apartment, because the new apartment’s landlord is now willing to accept the larger subsidy HUD is offering. The non-recipient who would otherwise be renting that apartment is worse off, and possibly less healthy, too. The landlord of the new apartment is better off. Some non-recipient ends up in the old apartment, but we cannot say whether that non-recipient is healthier or not, since we don’t know where that household would have been living otherwise. So in this case, the gap between recipients and non-recipients widens.

In the other case, when the reform punishes bad locations, the subsidized tenant leaves an unhealthy apartment because the landlord can get more from an unsubsidized tenant than from the subsidy. The new unsubsidized tenant is no worse off than she would have been in the absence of the reform, and probably is better off, because she moved willingly from her old apartment, even though she may be less healthy. The subsidized tenant is living somewhere else and is probably healthier, but we don’t know whether she is better off or not. In this case, the gap in well-being between poor recipients and non-recipients does not necessarily widen, and non-recipients become better off. Existing subsidized landlords lose.

2.2 Job access and commuting cost

The arguments about job access and commuting cost are similar to the arguments about health and need not be repeated. In the private market, apartments with better job access and lower commuting costs command higher rents, and so land prices absorb these advantages. Subsidized landlords realize no such premium, and so have an incentive to choose locations with horrible access, and no incentive to lobby for nearby jobs or more convenient commuting. HUD does worse than the market.

The solution is for HUD to pay greater subsidies for apartments with better job access (calculations very similar to those involved in such subsidies can be found in Fisher et al 2009). Jobs have external benefits—taxes, good example, psychological well-being (see Phelps 1997), and commuting has external costs, and so the proper corrections for HUD are likely to be somewhat larger than the corrections the private land market makes.

2.3 Education

To the extent that educational quality depends only on school inputs, observed or unobserved, we can carry over the same logic we applied to health and job access. HUD should pay landlords more for apartments near great schools, less for apartments near lousy schools, and the correction should be greater than the premium that the private land market reflects, because education produces considerable external benefits. PHAs and landlords under such a system would become active advocates for better schools. (They have little or no stake in good schools now, and so school districts with large amounts of subsidized housing do not feel the same sort of economic pressure to perform well that other school districts feel.)

Education, however, is more complicated than health or jobs. Peers matter, not just school inputs, for both cognitive and non-cognitive outputs. The details of peer effects are important for policy design, however, and in some plausible cases it is best to ignore them altogether.

Suppose, for instance, that peer effects are linear. By that I mean that the expected gain a student experiences from having better peers is independent of the student's initial level. The relevant metric for gain here is not test scores, which are unique only to a monotone transform, but willingness to pay (WTP) (assuming that capital markets are perfect and all post-education externalities are internalized). Then the net effect of any student transfers among equally sized classes is zero: whatever students gain in one class students in the other class lose.

My reading of the literature on peer effects in education indicates that there is no strong reason to reject linearity in test scores, and that close to nothing is known about linearity in WTP. Linearity would thus seem to be an appropriate assumption on which to base policy. HUD would then ignore peer externalities, since they sum to zero, and pay for school quality based only on school inputs. The Department of Education seems dedicated to developing measures of school quality, independent of student body composition, and so HUD can use their conclusions. It is important for this program that the measures of school quality be independent of student body composition. The purpose is not to induce the children of subsidized tenants to run away from other poor children.

The interesting question in this case is whether the subsidy should depend on what the inhabitants of the apartment do. Should a PHA be rewarded for siting senior housing in a great school district, or be penalized for lousy neighborhood schools if most resident kids go to good charter schools? Since the goal is to spur education, not to imitate the land market, the penalty or reward should depend on the actual children and the actual schools. This promotes efficiency. A PHA, for instance, faced with poor neighborhood schools will decide for itself whether to try to improve these schools or give its

residents incentives to send their kids elsewhere. Buildings closest to the worst schools will end up being predominantly seniors, as they should be.

The most reasonable alternative assumption to linearity is quality-complementarity: better students gain more than worse students from better peers. Quality-complementarity is the social justification for the elite university that employs me, and so while the empirical evidence is meager, I ought to consider its implications. Quality-complementarity implies that good students should be matched with good students, and poor with poor. A competitive market would create the efficient outcome, because better students would outbid worse students to be with the best students.

In a world with quality-complementarity, poor students from assisted housing might attend schools with better peers than the social optimum would assign them to, and so impose net costs on other students (the losers are the students they attend school with and the students who would otherwise have attended school with these students; the other winners are the students whose peers are better because they are not attending school with the students from assisted housing). If this is a problem, it can be corrected by assessing penalties on landlords when children end up in the bottom part of their classes. This penalty reflects the net external harm a student does by being in the wrong school. (Alternatively, landlords could be rewarded when students are at the top of their classes.)

Such grade schemes may be difficult to administer, and they are justified only by empirical results that have not been found yet. So I don't advocate them seriously. But they show that externalities created by housing residents themselves are not impossible to manage well.

3.0 Other kinds of externalities

3.1 Effects on neighbors

Subsidized housing affects the value of surrounding properties. John Quigley reviews this literature. To the extent that the external benefits are the same across locations, they are an argument for subsidized housing per se, not for any changes in formula. But if the external benefits differ in different settings, then HUD subsidies to landlords should reward settings that are more beneficial to neighbors.

These externalities interact with the ones we have discussed already. If PHAs or subsidized landlords become advocates for cleaner air, more frequent bus service, and better schools, the neighbors will gain too. Subsidized housing tenants may also gain if neighboring properties are more valuable—for instance, they may be less likely to be rented to fast-food outlets or to be taken over by drug-dealers. This is speculation, however.

3.2 Tenant selection

Who receives subsidies can also affect what taxpayers are asked to cover for other programs and how other citizens experience the world. The big issue here is homelessness. A tenancy that reduces homelessness is more valuable than one that does not, *ceteris paribus*. Since homelessness is intrinsically hard to predict, and because existing tenant selection processes are formalized, basing payments on probability of homelessness is not likely to be a good idea. But practices that alter the mix of tenants in the direction of high-homeless-probability people should be encouraged. The best predictor of future homelessness is current homelessness, and so landlords and PHAs should be encouraged to select tenants from shelters and streets (through programs like Housing First). They should also be encouraged to serve more single non-elderly adults, since most homeless people are single adults (another reason why tenant-subsidy formulas should be sharing-neutral). Current income may not be terribly important.

4.0 Crime and safety

Concerns about crime and safety have dominated discussion of subsidized housing during the last two decades. I'll begin with the easy issues and progress to the harder ones.

4.1 Long-run criminogenic influences

The traditional concern in housing discussions has been how the circumstances under which children grow up affect their propensity to commit index crimes in adolescence and adulthood.

The strongest result on this score is that exposure to lead in childhood is very bad (Reyes 2007) (for reasons of education as well as crime). Children can be exposed to lead in paint and lead in the atmosphere. HUD guidelines that prohibit leaded paint—a structural issue—are thus a major crime-fighting tool. Since leaded gasoline was phased out in the 1980s, I am unaware of how atmospheric lead concentrations vary. It would be good to know this. Treating atmospheric lead as a nuisance in the ways I described in section 2.1 could thus cause a long-run reduction in crime, if there still are meaningful differences in atmospheric lead concentration.

Another strong result is that education reduces future crime (Lochner and Moretti 2004, Lochner 2010). The steps I outlined in section 2.3 therefore reduce crime.

Aside from these two results, I'm not aware of any other strong results about childhood experiences that cause future criminality. In particular, nothing about architecture, poverty concentration, or public housing seems to make kids grow up to be criminals. I take this to be the conclusion of Jacob (2004) and Oreopoulos (2003).

Thus to reduce long-run criminality, HUD should continue to be vigilant about structural lead paint, penalize atmospheric lead, and reward good schools in the ways I have discussed.

4.2 Short-run criminogenic influences

Other neighborhood features may increase or decrease the total volume of crime more immediately. Landlords should be rewarded for locating in neighborhoods that have good features, and penalized for locating in neighborhoods that have bad features.

Unfortunately, I don't know much about what these good and bad features are. Folklore says that liquor stores and bars are a bad feature, and perhaps churches are a good feature, but I'm not aware of any hard evidence on these questions (Gyimah-Brempong (2006) tries to connect liquor stores and crime, but does not have a convincing identification strategy). Wilson and Kelling (1982) argue that visible disorder in a neighborhood ("broken windows") encourages crime, but this hypothesis has not fared well empirically (Fagan and Davies 2000, Harcourt and Ludwig 2006). DiTella and Schargrodsky (2004) show that police patrol reduces crime in a natural experiment. But police patrol levels are usually correlated with unobserved features that increase crime—police patrol more in dangerous neighborhoods—and so it makes little sense to reward landlords in neighborhoods with greater police presence.

Dahl and Della Vigna (2009), however, find that violent movies tend to incapacitate violent people while they watch them, and that these people don't compensate fully for the period of incapacitation after the movies. Perhaps landlords should be rewarded for locating near theaters that show violent movies.

In general, incentives should be based on evidence, not speculation. Hence only violent movies should even be considered at this point as a short-run criminogenic influence.

4.3 Short-run neighborhood effects

NIMBY fits in here. People who live in subsidized housing may tend to commit more crimes than wealthier Americans, and so their unsubsidized neighbors may be upset about their presence. Perhaps victimization of neighbors may be an external cost of subsidized housing that should be internalized.

This reasoning, however, is incomplete. Suppose that some subsidized tenants have a high propensity to commit index crimes against their neighbors. Moving them from neighborhood A to neighborhood B hurts the people in neighborhood B, but helps the people in neighborhood A. To the extent that the location of subsidized housing affects merely the location of crime, not its volume or severity, it should be of no social concern. (An analogy is domestic violence: to a first approximation at least, where a family is living when a domestic violence incident occurs is of no concern.)

It's possible to tell all sorts of stories about the type of neighborhoods where crime should be most costly, but there is little empirical evidence. For instance, bringing poor people into a rich neighborhood might increase burglary because there is more to steal, but it might decrease motor vehicle theft because cars are more likely to be in garages at night. White neighborhoods might encourage robbery because whites are less likely to resist, but blacks tend to carry more cash (O'Flaherty and Sethi 2008). Dense neighborhoods present more criminals with more targets, but also confront them with more potential witnesses.

The Moving to Opportunity experiment (MTO) sheds some light on this issue, but not much. Boys who moved to richer neighborhoods committed a few more crimes than those who stayed in poorer neighborhoods, and this suggests that richer neighborhoods are relatively criminogenic in the short run. But we don't know the net change in crime in either set of neighborhoods (the extent to which crimes committed by MTO boys would have been committed by someone else if the MTO boys were not around). Nor does MTO tell us much about older potential criminals.

Until more research is done, then, it seems best to consider criminal effects on neighbors as essentially a wash in social terms.

4.4 Index crime between tenants

The same conclusion applies to index crimes between tenants. If some prospective tenants are likely to commit crimes against their neighbors, it doesn't matter who their prospective victims are: HUD has no dog in this fight. (Indeed, fairness—of the Rawlsian variety anyway—suggests that if HUD should protect someone, it is those poor people who are not lucky enough to receive subsidies; hence HUD should not be eager to dump criminals on the unlucky poor people who don't get subsidies.)

4.5 Street vice

By street vice, Sethi and I (2010) mean illegal commercial transactions involving a willing seller and a willing buyer, where the seller deals with many buyers, but has ongoing relationships with few of them, and where buyer and seller must come together in close physical proximity. Open-air, anonymous drug-selling is the variety of street vice that receives the most attention, and presents special issues for HUD.

Street vice is a business (and almost certainly a business smaller than clandestine, relationship-based drug-selling) that locates where it's most profitable to locate. Sethi and I (2010) set out several reasons why street vice tends to be concentrated in African-American neighborhoods, even though drug demand is not concentrated in these neighborhoods. Street vice carries with it considerable negative external costs for the surrounding neighborhood.

Within any neighborhood, the best locations for street vice depend on physical features that have not been studied—perhaps easy access to highways or clear sightlines in many directions, for instance. Many housing projects seem to have been built with these features, whatever they are. The

setting within African-American neighborhoods, the heavy concentration of potential low-wage workers, the small number of immigrants, the distinctive architectural style, the frequent presence of people outside—all of these might make many housing projects attractive places for street vice. Hence in many neighborhoods HUD-assisted housing, particularly public housing, may be among the best locations for street vice. It would be good to know this for sure.

The obvious solution to this problem is the legalization of most currently illicit drugs or the subsidization of good substitutes. Such a program, however, is not within HUD's purview.

This situation presents two kinds of problems for HUD.

One problem is how to reduce street vice in developments that have not been built yet. Obviously research needs to be done on the structural and locational correlates of street vice. Future developments should be designed with these in mind.

To some extent, of course, better architecture will just shift street vice to less lucrative locations; if that were the case, the investment would be misdirected. As long as the supply of street vice sites is far from perfectly elastic, there will be real effects. While the elasticity of demand for illicit drugs is low, it is not zero, and the elasticity of demand for anonymously-purchased illicit drugs is almost certainly higher than the overall elasticity of demand. Hence making HUD's buildings less attractive places for street vice may not just dump the externalities on someone else. (Clandestine drug sales have considerably lower external costs than anonymous sales.) Moreover, to the extent that HUD-assisted developments are more densely populated than other neighborhoods where street vice might locate in the same city, moving street vice away from these developments reduces the external costs that street vice produces, even if the total volume does not change.

Buildings that have already been built present a different issue. Street vice is a neighborhood blight just like air pollution, and so the basic response should be to reduce landlord subsidies when street vice is occurring nearby. The difficulty with this approach is measurement: you can't reward or punish people for something you don't credibly and verifiably measure. Arrests, for instance, are evidence of action being taken against drug-selling, not of street vice or even drug-selling. HUD, however, could employ testers on a random basis to try to buy drugs anonymously in or near assisted housing, or subsidize local police departments to do so. Testing programs might create big risks for landlords if they sampled too little, and would be very expensive if they sampled too much; the definition of "near" would also produce other tradeoffs. But sampling programs are a straightforward attempt to provide the right incentives, and so some decent tradeoff might be found.

Maybe a better measurement strategy would be to look at reported violent outdoor index crime (excluding rape and domestic violence) and shootings in the vicinity of HUD-assisted housing. This is actually measured, and may be closer to the thing that should be measured. The external costs of street vice are the problem, not street vice itself, and so landlords should have incentives to minimize these costs. (As technology becomes cheaper, HUD might want to install shot-monitoring devices on all assisted housing; this could serve deterrence as well as incentive purposes.)

4.6 One-strike rules

Direct incentives like these are likely to be more effective than one-strike rules because they address the real problem—index crime and street vice near HUD-assisted housing—rather than some variant—index crime and street vice by HUD-assisted tenants. No serious empirical evaluation of one-strike rules has ever been attempted, as far as I know, and theory suggests that their effectiveness is probably tiny.

To understand the theory, think about McDonald's. Suppose in some future world, the US Congress is dominated by vegetarians who, while ethical, are not particularly bright. To discourage meat-eating, they order periodic surprise raids on McDonald's restaurants. In these raids, they detain all the employees. Any HUD-assisted tenants among the employees are evicted immediately; other employees are blacklisted so they may never receive HUD assistance in the future.

What does this policy do? It raises the price of hamburgers a little bit and raises the wage of hamburger-flippers, but many substitutes for HUD tenants and aspiring tenants are available, and so the effect is not large. Most importantly, it doesn't substantially change the locations that McDonald's chooses for its restaurants. If McDonald's found it profitable to put a restaurant near or inside a HUD-assisted project before the dim-witted vegetarians took over, it will almost certainly continue to find it profitable.

Since it appears that labor is supplied to street vice pretty elastically (Reuter et al. 1990), the drug-selling one-strike rule should have the same effect on street vice locations—approximately nothing. That's why a serious empirical evaluation would be helpful. (Essentially the question is whether the elasticity of land supply to anonymous drug-selling is less than the elasticity of labor supply to anonymous drug-selling.)

The current one-strike rule, moreover, imposes real costs on tenants and prospective tenants—breaking up families, for instance. Treating young single adult minority males as pariahs contributes to many social problems that have large external costs—homelessness and homicide, for instance. In thinking about the role of subsidized housing in the larger society, HUD may want to move toward a more goal-oriented and less soundbite-oriented policy. Landlords in a goal-oriented regime may very well bar felons in many cases, but they would be doing so for real reasons.

5.0 Conclusion

You don't have to do all this stuff tomorrow. Just remember that a safety net today is different from a safety net in the 1930s, and externalities today are different too. All the rest follows.

Note

1. Programs have sharing disincentives when they give larger per person subsidies to smaller households. Almost all existing HUD programs have sharing disincentives. Programs are sharing-neutral when the size of the subsidy is not affected by the number of adults one shares housing with. See He et al., 2010, for a discussion of possible reasons for sharing disincentives, and evidence that these reasons are not supported empirically.

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