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FROM “FOOD FOR THOUGHT” TO
“EMPIRICAL EVIDENCE” ABOUT
CONSEQUENCES OF
LANDLORD-TENANT LAWS

Werner Z. Hirsch†

Professor Rabin has given us an admirable synopsis of changes in residential landlord-tenant laws, particularly since the 1969 Javins landmark decision. Becoming, in turn, sociologist, political scientist, and social commentator in order to identify and trace the forces which brought about these changes in legal doctrine, his efforts are informative. They are not, however, as profound as his inquiry into the nature of doctrinal changes. When Professor Rabin approaches the third part of his paper and attempts to investigate the effects the changes in residential landlord-tenant law have brought about, he suggests that “[s]cholars have written enough in legal periodicals and in general works to furnish food for thought.”1 By providing information on the work of economists, I hope to go from “food for thought” to more robust evidence, whether as the result of deductive reasoning, empirical research, or both. I will offer, therefore, some deductive reasoning together with empirical evidence about some major effects of two laws. Specifically, I will consider the effect of extending the implied warranty of habitability and of rent control laws on the welfare of indigent tenants and on secular changes in housing quality. Deductive and inductive research results that appear quite convincing also exist for self-help remedies to obtain possession and for certain antidiscrimination laws. Shortage of space, however, will not permit me to review these studies.

I
HABITABILITY LAWS

A. Welfare Effects

Economists have developed a framework within which they can examine welfare effects of the extension of the implied warranty of habitability.2 The framework makes use of a rental housing demand and

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supply system, where the rental housing demand function gives expression to the evaluation tenants place on quantities of housing services. Thus, to the extent that the presence of a habitability law leads to an upward shift of the demand function, the value tenants place on their apartments has increased, and vice versa. But these increases in housing quality are not costless, because resources must be invested to satisfy habitability laws. Thus, in the presence of habitability laws, rental housing supply functions are also likely to shift upward. The question is whether the increase in housing costs, as indicated by the outward shift of the supply function, is greater or less than the increased valuation by tenants of their apartments, as represented by the outward shift of the demand function.

Estimating a rental housing demand and supply function is facilitated by the hedonic housing price approach, which helps estimate shadow rental housing prices and quantities. Such an estimation is necessary, because in real life we do not find information on the prices and quantities of housing services. Instead, all we find is information on rental prices and numbers of dwellings. This approach permits us to estimate hedonic rental housing prices by measuring the distinctive characteristics of a dwelling and expressing these characteristics as a single quantity that reflects the market's consensus about their relative importance. The larger this quantity, that is, the larger the flow of housing service units associated with a given dwelling, the higher the quality. For example, landlords that comply with habitability laws and invest in repair and maintenance tend to provide larger quantities of housing services and, therefore, better housing quality. The hedonic approach views rent as the value of a dwelling that stems from the quantity characteristics—housing service units—and their prices. Once hedonic housing service prices (shadow prices) are obtained in this manner, they can be divided into readily available rents to obtain estimates of shadow housing service quantities. These prices and quantity estimates can then be used to estimate rental housing demand and supply functions.

After demand and supply functions and their shifts have been econometrically estimated, it becomes possible to compare the relative shift of the two functions and to make welfare statements. If, for example, a significantly larger upward shift were found to occur in the demand function associated with the presence of a given habitability law than in the supply function, one could assert that the valuation by renters of improved housing exceeded the accompanying rent increases, and vice versa.

The welfare analysis can be enriched by making use of the concept of consumer's surplus, the gap between total utility and total market value. The consumer gets a surplus because he receives more than he pays for. This is the area below a demand function. Chart I shows that
the consumer surplus analysis can be carried out with point \( C \), the equilibrium in the presence of a habitability law, here a receivership law, and point \( E \), the equilibrium in the absence of any law. The consumer surplus is the area under the demand equation, bounded by the equilibrium price level from below and the vertical axis on the left. In this instance, in the absence of a receivership law, the consumer’s surplus is area \( AEF \); in its presence, area \( BCG \). The change of the consumer surplus due to the law is the difference between areas \( ABCD \) and \( DEFG \).

**Chart I**

**Comparison of Change in Consumer’s Surplus with the Presence of a Receivership Law**

(not drawn to scale)

In a national study of seventy regions with more than one-fourth of the U.S. population, only receivership laws significantly affected the demand and supply functions of low income tenants.\(^3\) Repair and deduct, as well as withholding, laws do not have statistically significant effects on indigent tenants. The effect of receivership law on the supply shift, however, was about three and one-half times as great as the effect on the demand shift, and this difference was statistically significant. Thus, to the extent that legislators design habitability laws to improve the welfare of indigent tenants, they appear to have failed. Indeed, the laws even may have been counterproductive.

\(^3\) *Id.* at 272.
Before concluding that habitability laws are apparently counterproductive insofar as indigent tenants are concerned, it is useful to look more closely at two particular classes of indigent tenants—senior citizens and blacks. When data on senior citizens and black tenants are placed into the demand and supply system discussed above, it appears that habitability laws affect the two groups differently. Specifically, in relation to indigent aged tenants, only receivership laws have a statistically significant effect on both the rental housing demand and supply functions. The effect of that law on the demand function, however, was about equal to that on the supply function: a 9.3% versus an 8.6% upward shift.4

These econometric findings suggest that insofar as indigent aged tenants are concerned, habitability laws are not counterproductive. They enhance the evaluation of these tenants so that it will at least equal and possibly somewhat exceed the increased rent they are forced to pay.

The picture is very different, however, in relation to indigent black tenants. In relation to this class of tenants, the findings closely approximate those obtained in relation to all indigent tenants. Again, only receivership laws had statistically significant effects on both the demand and supply functions. The net regression coefficient of the supply function was 0.238 and the t value 2.89, indicating a statistical significance at a 1% significance level using a one-tailed test.5 The corresponding net regression coefficient of the demand function is 0.069 and the t value 1.45, indicating a statistical significance at a 10% level using a one-tailed test. Moreover, the upward shift of the supply function is three and one-half times as large as that of the demand function and the difference is statistically significant.

How can we explain the difference in welfare effect of habitability laws on indigent aged tenants and on indigent black tenants? One explanation is that, from the point of view of landlords, aged tenants pose distinctly fewer problems than black, particularly young black, tenants. Specifically, senior citizens tend to stay in the same apartment for a longer period than do blacks, and this greatly reduces the maintenance costs to landlords. Whenever a tenant vacates a facility, landlords usually have to paint the unit, clean carpets, and make any necessary repairs. Senior citizens as a class may also be perceived by landlords to be less destructive to property, less noisy, and less litigious.

5 Id. at 22-23.
B. Effects on Housing Stock Quality

What effect, if any, do habitability laws have on the quality of the rental housing stock? Because housing quality changes can be measured using various definitions of “substandard housing,” we will use four different definitions. We will use $L_1$ to define substandard rental units as those that were classified as dilapidated in 1960. In relation to the period 1960 to 1975, $L_1$ is positive in thirty-two out of thirty-nine Standard Metropolitan Statistical Areas (SMSAs), with 3.4% the mean and 2.78 the standard deviation, indicating that rental housing deteriorated between 1960 and 1974-75 by an average of 3.4%.

Variable $L_2$ combines renter-occupied dilapidated units with renter-occupied deteriorating units lacking some or all facilities. Using this expanded definition of substandard rental housing in 1960, observations of $L_2$ in nineteen SMSAs are negative and twenty positive, with the mean $-1.43\%$ and the standard deviation 5.04, indicating an increase in the quality of rental housing between 1960 and 1975 of 1.43%.

$L_3$ offers the broadest definition of low-quality rental housing. Specifically, low-quality rental housing in 1960 is here defined as the sum of units listed as dilapidated and those listed as deteriorating, whether or not they have plumbing facilities. The observations in all but one SMSA are negative and show an increase in quality, with the mean $-12.4\%$ and the standard deviation 6.4.

$L_4$ provides consistency in definition, because in both periods substandard housing units are those rental units that lack some or all plumbing facilities. All thirty-nine SMSAs show an increase in housing quality. The mean value is $-17.0\%$ and the standard deviation is 10.6.

Thus, except when using the narrow definition of $L_1$, there was substantial shrinkage in substandard housing between 1960 and 1975. As expected, the broader the definition of substandard housing in 1960, the greater the improvement. Under the consistent definition of substandard housing as having no plumbing facilities, however, housing also shows large improvement.

But how much of the change in housing deterioration can be explained by the presence of habitability laws? An econometric study of the effect of receivership and repair and deduct laws covering thirty SMSAs indicates that throughout 1960-75, receivership laws had statistically significant effects on the shrinkage of substandard housing in an SMSA, no matter how substandard is defined. The broader the 1960 definition of substandard rental housing, the larger the shrinkage. Thus, the net regression coefficient increases from 0.014 in terms of $L_1$, to 0.023 in terms of $L_2$, and to 0.033 in terms of $L_3$. The coefficient is $6$ Hirsch & Law, Habitability Laws and the Shrinkage of Substandard Rental Housing Stock, 16 Urb. Stud. 19-28 (1979).
largest, at 0.046, when \( L \) is consistently defined as absence of plumbing facilities. It makes sense that landlords would be less inclined to act in accordance with a receivership law if their property was merely deteriorating, rather than dilapidated or lacking plumbing facilities.

A strict habitability law such as receivership imposes heavier costs on landlords than do repair and deduct laws; therefore, it is more likely to be honored. The empirical results are consistent with this hypothesis, because in no case do repair and deduct laws have a statistically significant effect on the shrinkage of substandard rental housing. That a repair and deduct law, by its very nature, cannot induce landlords to install plumbing facilities is confirmed by the regression results.

In conclusion, between 1960 and 1975, in the presence of receivership laws, the stock of substandard rental housing, ceteris paribus, decreased on the average 1.4% to 4.6%, depending on how "substandard" is defined. Thus, habitability laws that were initially promulgated to assist low income tenants rather than to contribute to shrinkage of substandard housing in fact contribute more toward the latter.

II

RENT CONTROL

A. Welfare Effects

A major concern in the area of rent control relates to its effect on rental prices and therefore on the distribution of benefits and costs. Although rent control ordinances differ in detail, they all reduce the freedom of landlords to set rent levels. This commonality makes it possible to analyze the effect of rent control on rental prices. Specifically, when the cost of providing housing services increases, as it does particularly during periods of inflation, rent control ordinances can prevent landlords from passing on part of these cost increases to tenants.

The imposition of rent control under such circumstances is presented in Chart II. Specifically, the two axes are rent (\( R \)) and number of dwellings (\( Q \)). Before the imposition of rent control, an equilibrium number of dwelling units was \( Q_1 \) and their rent was \( R_1 \). For example, as a result of increases in the price of input factors, whether repair and maintenance costs, utilities, or property taxes, the supply function shifts to the left from \( S_1 \) to \( S_2 \). Without a change in demand, a new equilibrium would be reached as \( Q_2 \) and \( R_2 \). Rent control would prohibit landlords from charging the rent they would otherwise have sought. Thus, their rent will be below \( R_2 \). In the most extreme case, where no rent increase is permitted, landlords would supply \( Q_1 \) minus \( Q_2 \) fewer dwellings than would be demanded in the short run. In the long run, rent control is likely to have a chilling effect on investors and therefore curtail the supply of housing. Thus, cumulative declines in low cost
dwellings could be anticipated, accompanied by housing shortages.

Some empirical estimates have been obtained by C. Peter Rydell, and others with him, who investigated the economic effects of the Los Angeles rent control ordinance. The analysis relies mainly on cross section data from the Annual Housing Survey of the U.S. Bureau of the Census. The findings are as follows: after controlling rents for about four years, through May 1982, rents of controlled dwellings were estimated to be about 4% lower than they would have been if rent control had not been in force. Similarly, the price of rental housing services was estimated to be 3.2% lower in May 1982, and the quantity of rental housing services was 1.5% lower.

A temporal analysis indicated that rental housing services would only slowly be restored after abolition of rent controls. Moreover, rent control conferred its benefits early and extracted its costs late. The early effects of rent control are exclusively price reductions, whereas, as time passes, landlords reduce the level of rental housing services in line with the rent they are permitted to charge.

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8 Id. at vi.
B. Effects on Deterioration of Housing Stock

Until recently, economists have paid little attention to the effects of rent control laws on the quality of rental housing stock. The only two major theoretical articles to address this problem are those by Mark Frankena\(^9\) and John C. Moorhouse.\(^10\) A doctoral dissertation is now being written by one of my students, David Mengle.\(^11\) He develops a powerful analytical framework and has also begun to implement it. For the empirical analysis, Mengle is using a sample of 6,500 tenants in eight cities, four of which have rent control. He finds that, in 1974, the probability of a rental dwelling failing the standards for satisfactory dwellings (set by the Congressional Budget Office) was increased eight percent by the presence of rent control laws.

The Rydell study also offers some empirical estimates of rent control induced housing deterioration. It estimated that each year eight percent of the remaining relative price reduction caused by rent control is converted into relative quantity reduction.\(^12\) Admittedly, this deterioration depends on the size of rent reductions under the law, its specific characteristics, and the economic environment.

Thus, rent control ordinances, even those designed especially to aid low income groups, are often counterproductive. In the long run, they are likely to hurt rather than help poor tenants. Whenever rent control reduces rents below what they would be normally, housing service price reductions result to the extent that they are not offset by quantity reductions. At the beginning, almost all of the rent reduction tends to go into price reductions. Later, under-maintenance sets in, resulting in a reduction in housing service quantities and, therefore, deterioration. Price reductions decline and are replaced by quantity reduction.

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11 D. Mengle, Rent Control and Housing Quality (unpublished manuscript).
12 C. Rydell, *supra* note 7, at 82.