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TAKING THE CLAIM SERIOUSLY

BY

JOHN M. QUIGLEY

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TAKING THE CLAIM SERIOUSLY

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I. Introduction

When research results are replicated, they tend to acquire greater credibility. But repetition is not replication. Republishing a single analysis in different contexts adds nothing to its validity, though it can surely serve political ends.

Thus, it may not merely be swatting flies to point out that the analysis which underlies the widely publicized claim that homelessness in America arises from local rent control is *just plain silly*. Between September 21, 1987 and January 12, 1989, a single statistical study has been rewritten by its author on four separate occasions in an attempt to influence public opinion and public policy. This note reviews that claim and its evidence, and also provides a simple alternative analysis.

* Jeffrey S. Simonoff and William Tucker patiently provided more precise information about their original rent control data. Cecile Brach provided valuable research assistance in preparing this note.

II. The Claim

William Tucker, New York correspondent for the American Spectator, has presented "research findings" indicating that the phenomenon of homelessness in America is caused by rent control. The clear implication of these presentations is that homelessness would be reduced substantially if only communities were persuaded to repeal rent control regulations. The first report, published in The National Review¹ in September 1987, concludes, "Unless these cities [which have recently adopted rent control] can be persuaded to give up rent control, the ranks of this minority -- the homeless -- will continue to grow."

Some six weeks later, the same research was described by the author in a New York Times Op-Ed piece.² In this version, Tucker concludes, "Over 200 communities, large and small, have adopted rent control since 1970.... The homeless populations of the 1980's are very much the result of this process."

In 1988, the same material was republished by the Manhattan Institute for Policy Research.³ Finally, in January of 1989 it formed the basis of a report issued by another so-called public interest research organization.⁴ By the fourth version, the policy conclusions were spelled out rather more explicitly. America's homeless were described as "victims of rent control," and the most prominent of the governmental

actions recommended to reduce homelessness was the abolition of rent control:

"Washington must take the lead in abolishing rent control. Federal housing assistance and other community development funds should be cut off for communities with rent control."

III. The Evidence

The research which underlies these conclusions can be summarized briefly. Tucker gathered information on the rate of homelessness in some fifty U.S. cities. He also gathered information on eight other variables thought to affect the level of homelessness. The impact of rent control on homelessness is inferred from an analysis of these nine variables. Tucker presents two forms of evidence, based upon simple correlations and upon multiple regression analysis.

Rows 1 through 9 in Table 1 reproduce the simple correlations which underly Tucker's conclusions. As the table reports, the incidence of homelessness is higher in cities with higher rates of poverty and unemployment. This is to be expected, as is the inverse relationship between homelessness and the vacancy rate for rental housing.

There is a slight positive correlation between the incidence of homelessness in cities and the fraction of public housing units in those cities. Cities with larger populations

TABLE 1
Summary Characteristics of Fifty U.S. Cities Used
in Rent Control Analysis

<u>Variable</u>	<u>Mean Value</u>	<u>Simple Correlation with Homelessness</u>
1. Homelessness (per thousand)	4.58	1.000
2. Poverty Rate(%)	16.76	0.231
3. Unemployment Rate(%)	6.59	0.121
4. Public Housing(%)	1.45	0.157
5. Population(thousands)	689.88	0.108
6. Temperature(average °F)	56.94	0.194
7. Vacancy Rate(%)	7.29	-0.387
8. Rent Control(%)	18.00	0.521
9. Population Growth(%)	-1.49	-0.110
10. Average Rent (\$)	199.36	0.246

Source: Rows 1 through 8: William Tucker, "Where Do the Homeless Come From?" *National Review*, September 24, 1987, p. 35.

Row 9: Telephone conversation with the author, 1988.

Row 10: US Department of Commerce, Bureau of the Census, 1980 Census of Population and Housing, table H-1.

and those with more temperate climates have higher rates of homelessness. There is also a slight negative correlation between population growth and homelessness, suggesting that homelessness is a more common phenomenon in older, decaying cities.

The largest simple correlation, however, is between a variable measuring rent control (coded as one for the nine cities in the sample of fifty cities with rent control and zero otherwise) and the rate of homelessness. As interpreted by Tucker in 1989:

"[b]y itself, rent control accounts for 27 percent of the variation [in homelessness] between cities (with a correlation coefficient of .521). The certainty of such correlations is measured by what statisticians call the 'P-factor.' In the case of rent control, this was below .01 -- about as certain as social correlation ever gets."

The simple correlation between any single factor and the rate of homelessness does not establish the primacy of that factor in causing homelessness. This is recognized implicitly by Tucker in his 1987 presentation. He states, "[i]t's also possible to do the regressions by combining variables...to see if they amplify or detract from each other's significance." He claims⁵

"I reran every possible combination of the ... factors..., but discovered only two noteworthy results. First, when temperature and rent control are run together, temperature becomes significant, explaining an additional 4 percent of the variation in homelessness. [Second,] when we run rent control

and vacancy together...the vacancy factor essentially disappears."

Table 2 reports the regression model preferred by Tucker and his statistical consultant.⁶ The model, reported in column 1, contains three independent variables and explains some 31.1 percent of the variation in the dependent variable. The t-ratio of each variable is reported in parentheses. From the reported t-ratio, it follows that if the growth rate in population were irrelevant to the rate of homelessness, these results would arise only 6 times out of 100 replications. As indicated by the t-ratios for the other coefficients, it is even more unlikely that the temperature and rent control variables are irrelevant to the rate of homelessness. Taken at face value, the coefficient of the rent control variable implies that the level of homelessness is 164 percent higher⁷ in cities with rent control than in other cities.

IV. A Simple Reanalysis

It should be clear, however, that the statistical inferences reported by Tucker are valid only if the author's model is correct.

Is the author's preferred statistical model correct, or even reasonable? Economists would think not. One of the very few things upon which all economists agree is that the demand

TABLE 2
Regression of Homelessness Upon Selected
Characteristics of Cities

<u>Variable</u>	<u>Tucker's Model</u>	<u>Some Simple Alternatives</u>		
		<u>I</u>	<u>II</u>	<u>III</u>
Rent Control	0.420 (3.99)	0.234 (1.69)	0.103 (0.60)	- -
Temperature	0.017 (2.50)	0.013 (1.83)	0.015 (2.09)	0.016 (2.14)
Percent Growth	-0.005 (1.89)	-0.006 (1.99)	-0.006 (1.91)	-0.006 (2.03)
Poverty Rate	- -	0.014 (1.22)	0.017 (1.44)	0.020 (1.92)
Average Rent	- -	0.003 (2.04)	0.004 (2.26)	0.005 (3.45)
Vacancy Rate	- -	- -	-0.018 (1.31)	-0.023 (2.08)
Constant	-0.484 (1.28)	-1.173 (2.34)	-1.264 (2.52)	-1.402 (3.16)
Explained Variation (adjusted R ²)	0.311	0.342	0.353	0.362

Notes:

1. t-ratios are reported in parentheses.
2. The rate of homelessness is measured in common logarithms in a manner consistent with the result reported by Tucker.

for a commodity depends upon its price and household income. For most goods in the economy, when price goes up, quantity demanded goes down; and when income increases so does the demand for practically all goods. We should expect rental prices and household incomes to be relevant.

The simple alternatives reported in Table 2 reflect this basic economic reasoning. Alternative I merely adds a variable measuring low income (the poverty rate) and price (average contract rent) to Tucker's model. The augmented model explains an additional 3.1 percent of the variance in the dependent variable (even after adjusting for the fact that more information is utilized). The magnitude of the rent control coefficient is cut in half, and it is no longer statistically different from zero.

Alternative II adds the vacancy rate to the set of explanatory variables. When this variable is added, the statistical significance of the price and income measures is improved, and the explained variation (again adjusted) improves by another 1.1 percent.

Note however that in this formulation, the coefficient on the rent control measure, 0.103, is essentially zero. The t-ratio of the rent control measure is 0.60. A coefficient estimate of this magnitude would arise more than half of the time by pure chance if rent control were completely irrelevant.

Alternative III simply removes the irrelevant variable measuring rent control from the regression model. The statistical significance of the price and income measures, thought to be important on conceptual grounds, improves substantially. The explained variation in the dependent variable (again adjusted) increases to 36.2 percent.

The existence of rent control is, according to these results, irrelevant to the extent of homelessness in these cities.

V. Conclusions

There are lies, damned lies, and statistics.

This note has neither articulated nor tested a coherent theory about homelessness. Neither is this note intended to defend rent controls. (Perhaps the only other thing upon which all economists agree is the inefficiency of rent controls.)

Opposition to rent control, however, should not be confused with "doing something" about homelessness. Pundits and ideologues should not be taken seriously when they argue that the repeal of rent regulation would affect the level of homelessness in a meaningful way.

FOOTNOTES

- 1 William Tucker, "Where do the homeless Come From?" The National Review, September 25, 1987, pp 32-43.
- 2 William Tucker, "Rent Control as a Cause of Homelessness," The New York Times, November 14, 1987.
- 3 William Tucker, "Where Do the Homeless Come From?" Associates' Memo #5, Manhattan Institute for Policy Research, 1988.
- 4 William Tucker, "America's Homeless: Victims of Rent Control," Backgrounder #685, The Heritage Foundation, January 12, 1989.
- 5 From the text of these reports it is not clear whether Tucker actually estimated 547 different regression equations (i.e. all the combinations of nine variables, taken 1 at a time, 2 at a time, etc.), nor is it clear what criteria were employed for establishing other "noteworthy results." In private correspondence, Jeffrey Simonoff (who conducted the statistical analysis for Tucker) provided copies of selected subsets of regressions with 1, 2, or 3 independent variables.
- 6 This regression itself is never reported by Tucker (although he refers to it unambiguously in his 1987 report). It is, however, noted and discussed in private correspondence from Simonoff to Tucker. This correspondence was kindly made available to us.
- 7 That is, $10^{.42} = 2.64$.

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