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THE SECTION 8 HOUSING ASSISTANCE PAYMENTS PROGRAM: AN ANALYSIS
OF THE EFFECT OF THE EXISTING HOUSING PROGRAM COMPONENT
ON THE RENTAL MARKET IN MARYVILLE, TENNESSEE

A Thesis
Presented for the
Master of Science in Planning
Degree
The University of Tennessee, Knoxville

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December 1980

3046679

ABSTRACT

The Section 8 Housing Assistance Payments program was created by Congress with the passage of the Housing and Community Development Act of 1974. One component of Section 8, the Existing Housing program, allows local housing authorities to contract with private landlords for the transfer of housing allowance payments on behalf of eligible tenants in a community. This approach to the provision of housing assistance offers a new flexibility in meeting the needs of lower-income households, but it also raises questions as to the effect of such a program on the local rental market. First-hand experience with the program had caused the author to believe that it was having an inflationary effect on the rental market in Maryville, Tennessee.

Investigation of the previous research into this issue produced mixed results. From an economic theory standpoint, such an intervention into the private market would be expected to induce rent inflation. Findings from the Experimental Housing Allowance Program and from the early evaluations of the Section 8 Existing Housing program, however, have not uncovered any significant disruptions of the local markets.

The author decided to examine the impact of the program on the Maryville market through the development of a Rent Comparison Experiment. In this experiment, Section 8 program units would be carefully matched with comparable units which were not receiving Section 8 payments and the rent levels of these matched-pairs would be analyzed. Units were matched according to the number of bedrooms, the type of structure, and

location. Other factors such as square footage of the unit, assessed value, age and general condition were also considered.

The findings of the Rent Comparison Experiment showed that of the sixty matched-pairs studied, the program unit rents were higher in twenty-six cases, lower in twenty-five cases and the same in the remaining nine cases. The average program unit rented for \$1.89 more per month than the average nonprogram unit. The Wilcoxon matched-pairs-signed-ranks test was used to evaluate the significance of these findings. The test showed that the minor variation in rent levels was not significant. Eleven subsets of the matched-pairs were also tested to see if the Section 8 Existing Housing program was impacting specific submarkets in Maryville. Nine of the subsets produced negative findings, but two of them, the three-bedroom units and the program units matched with identical nonprogram units, were found to exhibit significantly different rent levels. The test of the three-bedroom units showed that the program units were renting for significantly more than the nonprogram units, while the test of the "identical" matched-pairs showed that the program units were renting for less than their private market counterparts.

The overall effect of the Section 8 Existing Housing program in Maryville, Tennessee is negligible. Two submarkets have been identified as being affected by the program, but since these impacts are in opposite directions, they tend to offset one another. The study has allayed the author's concerns about the program, and has shown that the Section 8 Existing Housing program can be a useful tool in providing assisted housing opportunities to lower-income households.

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CHAPTER I

INTRODUCTION

I. STATEMENT OF THE PROBLEM

Adequate housing for all Americans has long been a national goal, ✓
and many federal programs have been developed through the years to help the disadvantaged members of society achieve it. The following excerpt from the 1937 Housing Act illustrates that for over forty years the Nation has deemed it appropriate that federal resources be used for the purpose of alleviating poor housing conditions:

It is hereby declared to be the policy of the United States to promote the general welfare of the Nation by employing its funds and credit, as provided in this Act, to assist the several States and their political subdivisions to alleviate present and recurring unemployment and to remedy the unsafe and insanitary housing conditions and the acute shortage of decent, safe, and sanitary dwellings for families of low income, in urban and rural nonfarm areas, that are injurious to the health, safety, and morals of the citizens of the Nation.¹

A recent federal initiative in the field of subsidized housing is ✓
the Section 8 Housing Assistance Payments Program, set forth as a part of the Housing and Community Development Act of 1974. Under the guidelines of the Section 8 program, the federal government can subsidize private rental units, including (a) newly constructed, privately owned housing developments; (b) existing units which have undergone "substantial rehabilitation"; (c) existing units which have undergone "moderate

¹United States Housing Authority, Low Rent Public Housing (Washington, D.C.: Government Printing Office, 1939), p. 1.

rehabilitation"; and (d) basically sound, existing units.² First-hand experience in working with the Section 8 Existing Housing program has created an awareness on the part of the author of the promise, as well as the potential problems in this approach to subsidized housing, and was the stimulus of this research project.

The Section 8 Existing Housing program involves a type of transfer payment that is earmarked for housing expenditures. Eligible applicants must find suitable living quarters in the private rental market, and the local public housing agency then supplements the tenant's share of the rent with a subsidy payment made directly to the landlord. As a result, the program can increase the effective demand for housing of a specific segment of the local population. The supply of rental units which are available for subsidy through the Section 8 Existing Housing program is relatively inelastic.³ If other factors remain equal under these circumstances, the economic law of supply and demand would dictate that price inflation would occur in such a market. In other words, rents would be expected to increase a disproportionate amount in relation to any increase in the level of housing services received by the tenants.

²This latter program will be referred to as the Section 8 Existing Housing program throughout the remainder of this study.

³The supply of rental units is inelastic for the Section 8 Existing Housing program because the allowable rent levels are not generally high enough to attract newly constructed units into the program, and in most cases, are not high enough to justify the rehabilitation of substandard existing units (thus the need for the other three sub-programs). Therefore, the supply of units for the Section 8 Existing Housing program comes from the stock of standard- or marginal-quality existing units which rent for no more than a specified ceiling figure.

If such an occurrence could be demonstrated, it would represent an important externality which would need to be taken into account in any evaluation of the program.

For many public housing agencies (PHA), the Section 8 Existing Housing program will be their first venture into the private, local rental market. It must be assumed that at least some PHAs will not be fully prepared for such a step outside their normal area of expertise. While the Section 8 Existing Housing program promises to be a useful tool in achieving certain community goals, planners and policymakers must fully understand the impacts and externalities that such a program will generate in order to use it wisely.

The Section 8 Housing Assistance Payments Program is a relatively new program, but there is now enough experience with it in actual operation to begin the evaluation of its performance. Critical evaluation of the program is necessary if housing assistance to lower-income households is to be both effective and efficient. Strong points of the program must be identified and emphasized; weaknesses must be uncovered and eliminated. Since the Section 8 program is currently the federal government's major thrust in the area of subsidized housing, evaluation of the program will provide important insight to policymakers in the field of housing, at all levels of government.

II. NEED FOR THE STUDY

It is the belief of the author that there is no single area under the direct influence of the planning profession that has a greater

impact on the quality of life of an area's inhabitants than their physical housing conditions and immediate living environment. With this in mind, the judicious use of well-conceived housing programs can be an important tool in shaping and improving the living conditions of an area's population, particularly the lower-income households. In the United States, the Section 8 Existing Housing program is a new approach to the provision of housing subsidies. It affords qualified tenants the opportunity to choose their own unit in the private market, in a location that suits their individual needs. It also affords tenants virtual anonymity with respect to participation in the program, thus eliminating the stigma that is often attached to living in a "project." It encourages the dispersal of assisted households throughout the community, thereby avoiding the concentrations of lower-income persons and racial minorities often associated with conventional public housing developments. The program provides an effective incentive for proper maintenance of rental property, and proponents hope that it will even encourage the upgrading of marginal-quality units. From the landlord's point of view, the program should reduce tenant turnover, as well as reduce the length of unit vacancies. Last, but not least, figures from the Office of Management and Budget (OMB) show that it accomplishes all of this at a lower cost per household than is possible with other forms of housing assistance.

With so much to recommend it, it is not surprising that the Section 8 program in general, and the Existing Housing component in particular, has been so widely endorsed by federal housing policymakers. It was

during the implementation of this program at the local level, however, that the author began to suspect that there were certain negative program externalities that needed to be studied, identified, and corrected before the Section 8 Existing Housing program could reach its full potential. The experiences of the Maryville Housing Authority (MHA) seemed to indicate that the program was inducing inflation within the local rental market, at least for those units participating in the program. In the spring of 1979, the results of an informational questionnaire sent by the MHA to all landlords participating in the program seemed to support the feeling that the program was inflationary, and that its impact might affect nonsubsidized units as well as those units participating in the program.

Preliminary investigation of existing research into this question produced mixed results. From an economic theory perspective it appeared as though a "demand strategy" such as a housing allowance program would produce rent inflation in the housing market. There was disagreement among the economists, however, with respect to the expected severity of the inflation. On the other hand, the preliminary findings of the Experimental Housing Allowance Program (EHAP) and limited experience with the Section 8 Existing Housing program nationwide showed no evidence of program-induced rent inflation in local markets.

Faced with these conflicting perspectives, the author decided to test a hypothesis that the program was inflationary as it operated in the Maryville rental market, using a simple, straightforward approach. Rather than attempt to deal with the numerous, complex relationships

within the entire local rental market, the study would be concentrated on the effect of the Section 8 Existing Housing program on the rent levels of those units being subsidized through the program. Program units would be carefully matched with comparable units which were not receiving subsidies. If the research effort showed that the rent levels for the program units were significantly higher than for the nonprogram units, such a finding would support the hypothesis that the program has an inflationary effect.

Certain limitations of this approach should be noted. By looking at only a limited segment of the market, it is possible that some program-related impacts might go undetected. Also, this approach examines the market at one point in time and does not trace possible program-induced dynamics of change in the local market. In other words, if the market has already adjusted to the program, this approach would not detect it. Finally, focusing the study on Maryville means that the findings may not be widely transferable to other communities. Despite these factors, it was felt that this approach would examine the question in a new and potentially rewarding manner.

In 1975, the Secretary of the Department of Housing and Urban Development, Carla Hills, estimated that approximately one-third of the households in the United States could possibly qualify for assistance under the guidelines of the Section 8 program.⁴ In fiscal year 1979,

⁴"Next: Housing Subsidies for 70 Million People?" U. S. News and World Report, September 8, 1975, p. 58.

the operation of the Section 8 program necessitated the expenditure of approximately \$1.3 billion. Since the program obligates funds over a period of up to forty years, the total budget authority for the program is now in excess of \$23 billion. In the first five years of the program, 1,326,500 housing units were authorized for subsidy through the program. Approximately 55 percent of these units are enrolled in the Section 8 Existing Housing program.⁵ The size and growth rate of the program make it imperative that responsible decisionmakers understand the effects of the program on both the national and local housing markets.

Federal housing programs are relied upon heavily by state and local governments as a means of improving the living conditions of lower-income persons. Continuing research into the operation and effect of these programs will provide feedback that can be used to improve program performance at all levels of government.

The Rationale for Government Intervention in the Housing Market

The design and implementation of various housing programs by all levels of government over the last several decades represents an intervention of government in the operation of local housing markets. Charles Stokes comments that "intervention, no matter what form it takes, is an indication of the judgement by Americans and their governments

⁵U.S. Office of Management and Budget, The Budget of the United States Government: Fiscal Year 1979 (Appendix) (Washington, D.C.: Government Printing Office, 1979), p. 303.

that local housing markets do not perform well."⁶ In other words, the American people, through the political process, have decided that the status quo in housing is not acceptable, particularly for lower-income persons. John Weicher notes that "the basic reason for government intervention in the housing market. . . is that, without such a policy, there would not be a sufficient stock of adequate housing in the United States."⁷ Milton Semer comments that "the profit system, operating according to its own principles and mechanisms, has not been able to provide decent housing for the poor in any developed country."⁸

Weicher feels that the question of whether the housing stock is sufficient should be answered on the basis for four criteria:⁹

1. Equity -- Is there a fair distribution of adequate housing for everyone in the U.S.?
2. Efficiency -- Is everyone freely able to buy as much housing as he is willing to pay for?

⁶Charles Stokes, Housing Market Performance in the United States (New York: Praeger Publishers, 1976), p. 1.

⁷John C. Weicher, "The Rationales for Government Intervention in Housing: An Overview," in Housing in the Seventies, U.S. Department of Housing and Urban Development (Washington, D.C.: Government Printing Office, 1976), p. 181.

⁸Milton P. Semer et al., "A Review of Federal Subsidized Housing Programs," in Housing in the Seventies, U.S. Department of Housing and Urban Development (Washington, D.C.: Government Printing Office, 1976), p. 144.

⁹Weicher, pp. 181-182.

3. Special housing problems -- Do minorities or rural inhabitants, for example, face unusual housing problems? This category combines questions of equity and efficiency.

4. National economic conditions -- What is the relationship, for example, between national monetary policy and the impact on local housing markets?

He feels that except for equity considerations, there is little evidence that housing markets suffer imperfections which make government intervention desirable.¹⁰

Economists taking this viewpoint argue that the supply of housing is elastic, and that lower-income persons have poor housing because they lack effective demand. Other economists see the problem as having its roots in an inadequate supply rather than due to insufficient demand.

Wallace Smith sums up the problem this way:

There is historical evidence to support the hypothesis that aggregate housing production in the U.S. is limited by institutional constraints and that housing output has been deficient and unresponsive over a very long period to real, effective demand for better housing, and that much of the perceived "qualitative" or distributional housing problem actually originates in cumulative quantitative deficiencies.¹¹

Any issue that is as complex as the housing issue is unlikely to be an "either-or" situation. There are arguments on both sides of the issue, but the heart of the matter lies in some middle ground between

¹⁰Weicher, p. 191.

¹¹Wallace F. Smith, "A Rationale for Government Intervention in Housing," in Housing in the Seventies, U.S. Department of Housing and Urban Development (Washington, D.C.: Government Printing Office, 1976), p. 440.

either extreme. Therefore, a balanced governmental role for intervention in the housing market should have three components.¹² One component should be a strategy for augmenting effective demand for housing through such means as general government transfers (e.g., welfare and Social Security payments), and rent and mortgage supplements (i.e., housing allowances). A second component would provide for stimulating additions to the supply of housing. This can be accomplished through tax incentives or subsidized financing programs. The final component should be comprised of benefits-in-kind (i.e., public housing). Government has a role to be a "landlord of last resort" for persons and families with special housing needs, and for households that are otherwise unable to function in the private market.

The need for government to have explicit housing goals. Recognition of the need for government intervention in the housing market is widespread, but the goals, objectives, and policies that comprise the government's efforts are vague, often contradictory, and sometimes nonexistent. This shortcoming has been a "continuing source of difficulty and confusion in the design, implementation, and evaluation of Federal subsidy programs."¹³ Related to this is the problem of subjective analysis of the performance of housing programs. Hugh Nourse addresses this when he states that "few issues in public policy include more untested con-

¹²Smith, p. 447.

¹³Arthur P. Soloman, "Housing Allowances and National Objectives," in Housing in the Seventies, U.S. Department of Housing and Urban Development (Washington, D.C.: Government Printing Office, 1976), p. 1279.

jectures than housing."¹⁴ Semer notes that the conclusion that emerges from a review of four decades of American undertakings, experiments, and improvisations in the field of subsidized housing is that from the very beginning the public and the Congress failed to reach -- indeed, failed even to recognize the necessity to reach -- a basic policy decision as to what, if anything the Nation intended to do about the housing of its people.¹⁵ He feels that the people of this country have never felt all that strongly about housing, as such. He suggests that perhaps this is because we have always considered ourselves to be well housed as a national community -- "notwithstanding the deplorable conditions under which everyone recognizes many people are compelled to live."¹⁶

Housing programs have historically been viewed by the public as being more of a "social good" than an economic venture into the housing market. The added difficulty of determining and evaluating social goals, as opposed to economic goals has contributed to the obscurity and confusion surrounding housing goals and policies.¹⁷

This lack of explicit, realistic goals with the subsequent dirth of defined objectives has caused housing policies and programs to drift from one Congressional mandate to the next with no clear understanding

¹⁴Hugh Nourse, The Effect of Public Policy on Housing Markets (Lexington, Mass.: Lexington Books, 1973), p. 1.

¹⁵Semer, p. 143.

¹⁶Semer, p. 144.

¹⁷Bernard Saffran, "Appropriate Role of Government in Housing," in Housing in the Seventies, U.S. Department of Housing and Urban Development (Washington, D.C.: Government Printing Office, 1976), p. 234.

of what needed to be accomplished. The lack of defined goals coupled with an uncertain commitment to solving "the housing problem" (notwithstanding the billions of dollars devoted to it) have led us to where we are today -- spending more public funds than ever before in the name of "housing," while receiving what are still generally viewed as unsatisfactory results. Henry Aaron, in his book Shelter and Subsidies sums it up this way:

Over the years the federal government has experimented with a variety of programs intended to help low- or moderate-income households buy or rent adequate housing. This effort, shaped by conflicting objectives of various influential groups in and out of government, has zigzagged toward a form of housing assistance that incorporates the features the Congress and the President appear to have thought desirable, not necessarily the characteristics that other standards would have dictated.¹⁸

This is not to say that government housing programs are not desirable or necessary. It is meant to illustrate, however, that there are problems with current approaches to housing issues that need to be addressed. This author feels that there is definitely a role that government must play in the housing market, and that the Section 8 program is an important tool to be used in that effort. It must be recognized, however, that other tools must also be used, and that the success of any given policy or program depends upon the validity of the overall goals and the care with which a comprehensive strategy has been designed for achieving those goals. As Semer points out, there are no partial solutions to the housing problem. Also, "it is impossible to rehouse

¹⁸Henry Aaron, Shelter and Subsidies: Who Benefits from Federal Housing Policies? (Washington, D.C.: The Brookings Institution, 1972), p. 127.

all of the ill-housed poor simultaneously but the commitment to the last family housed must be as binding as that to the first, otherwise the enterprise is doomed."¹⁹

Overview of the Study

The remainder of this study will address the issue of the effect of the Section 8 Existing Housing program on the local rental market. Chapter II will provide the necessary background for understanding the various questions involved in this issue. The first section will cover the history of the housing allowance concept. This idea dates back prior to the Housing Act of 1937, and is currently embodied in the Section 8 Existing Housing program. The next section will discuss the economic theory considerations that are relevant to the housing allowance concept. Following this will be a description of the Experimental Housing Allowance Program (EHAP), which was authorized by Congress specifically to study the feasibility of using a housing allowance system as a means of providing housing assistance to lower-income families. The next section details the operation of the Section 8 program, with emphasis on the Existing Housing component of it. This discussion will include the findings, to date, concerning the effect of the Section 8 Existing Housing program on the local housing markets in communities where it has been implemented. Chapter II will conclude with a discussion of the MHA's experiences with the Section 8 Existing

¹⁹Semer, p. 144.

Housing program, and the circumstances that led up to the desire to conduct the research experiment.

Chapter III details the experiment itself, beginning with an overview of the experiment and an in-depth discussion of the methodology employed in the effort. The major findings of the experiment will be presented and discussed.

Chapter IV will conclude the report. First, the major findings will be recapped, with an explanation of their significance. They will be put in the context of the background information presented earlier, and related directly to the MHA experience with the program. Finally, any relevant observations and recommendations will be offered and discussed.

CHAPTER II

BACKGROUND RESEARCH INFORMATION

This chapter examines several concepts and areas of study that provide the background necessary to understand and put into context the actual research experiment discussed in Chapter III. The areas covered in this chapter include (a) the history of the housing allowance concept, (b) the underlying economic theory considerations, (c) a description of the Experimental Housing Allowance Program, (d) a description of the Section 8 Housing Assistance Payments Program, and (e) a description of the Maryville Housing Authority's experience with the Section 8 Existing Housing program.

I. THE HOUSING ALLOWANCE CONCEPT

Economist Frank DeLeeuw has defined a housing allowance as a "general system of grants to low-income households intended to be spent largely on housing."¹ It should be noted that this definition does not tie the use of the allowance to any particular dwelling unit, which is a significant break from the conventional public housing concept. The fact that the allowance is earmarked for housing expenditures differentiates it from a program of general income support.

¹Robert Beckham, "Housing Allowances," Journal of Housing, January 1973, p. 13.

The idea of using a form of housing allowance as a means of providing subsidized housing assistance to lower-income families is not new. Early consideration of the housing allowance concept revolved around the discussion of "rent certificates," and predates the Housing Act of 1937. The Congress decided with that Act, however, to provide housing assistance in the form of conventional public housing. The concept figured in debates on national housing policy during World War II, and was discussed by the Taft Subcommittee in its hearings on proposed postwar housing policy (1944).² The idea was again discussed, but not adopted, during the deliberations which led to the passage of the Housing Act of 1949. In 1953, the President's Advisory Committee on Government Housing Policies and Programs examined the idea at length before rejecting it in favor of continuing the public housing program. The Committee concluded that rent certificates would be degrading, that such a system would not add to the housing supply, that it would deter participation by private enterprise, that the administration of such a program would be complex, and that there would be no feasible way to limit the scale of the program.³

A shift in favor of the housing allowance concept finally came about with the passage of the Housing and Urban Development Act of 1965. Two new housing programs were created which advanced the idea of

²David Carlson, How Housing Allowances Work: Integrated Findings from the Experimental Housing Allowance Program (Washington, D.C.: The Urban Institute, 1978), p. 49.

³Carlson, p. 49.

allowances. The "Rent Supplement Program" established the principle of income-related subsidies, which varied according to need. This assistance was made available to residents of certain privately owned, newly constructed or substantially rehabilitated housing units. This program offered a new flexibility not available in conventional public housing, although the payments were made to the landlords, and the tenants benefited only when they lived in the designated developments.

The "Section 23 Leased Housing Program" was even closer in design to a system of housing allowances. It enabled local housing authorities to lease modest, privately owned housing and then sublease it to lower-income families. The federal government subsidized the difference between the actual rental cost of the unit and the amount the family could afford, based upon a prescribed formula. This form of subsidy is comparable to a "housing gap" type of housing allowance.

The Section 23 program had a number of advantages over earlier forms of subsidized housing, but it was still not a true housing allowance program. It enabled local PHAs to use existing housing units scattered throughout a range of neighborhoods and eliminated the need to concentrate a large number of lower-income persons at a specific project location. It also gave the recipients substantial anonymity as far as their participation in the program was concerned. The major reasons why the Section 23 program was not considered a true housing allowance program are that the subsidy was still tied to the unit rather than the family, and in most cases the PHA was still responsible for the

negotiations with the landlord rather than having the recipients handle these matters.⁴

In 1967 and 1968 the President's Committee on Urban Problems, the "Kaiser Committee," devoted special attention to the housing allowance concept. It strongly recommended the initiation of a national experiment to test the idea, saying "the potential merits of the housing allowance approach are such that it should be tried promptly on the experimental basis suggested."⁵ An outgrowth of the Committee's recommendation was the initiation in 1970 of relatively small-scale housing allowance experiments in Kansas City, Missouri and Wilmington, Delaware under HUD's Model Cities Program.

The Kaiser Committee's recommendation for a national experiment of the housing allowance concept was acted upon by Congress in 1970. The Housing and Urban Development Act of 1970 authorized HUD to conduct the experiment, which came to be known as the Experimental Housing Allowance Program (EHAP). HUD, working with several prime contractors including the Urban Institute, the Stanford Research Institute, ABT Associates, and the Rand Corporation, designed EHAP in 1971 and 1972. The implementation phase of EHAP began in 1973 and was to continue, in some cases, for as long as ten years.

EHAP had three primary components. The "Demand Experiment" was designed to test household behavior under conditions of a housing

⁴Beckham, p. 13.

⁵Beckham, p. 13.

allowance program. The "Supply Experiment" was designed to test the market effects of a housing allowance program. This effort included the development of a computer model that could be calibrated to fit various urban housing markets so that the effects of policy decisions could be simulated with it. The "Administrative Agency Experiment" explored questions concerning the administration of a housing allowance program. A mechanism was also established whereby the findings of the three experiments could be subjected to integrated analysis.⁶

As EHAP got underway in its test sites around the country, another significant development concerning housing allowances occurred in 1973. President Nixon put a freeze on existing subsidized housing programs in response to allegations of scandals in the administration of some of these programs. In a special housing message to Congress on September 19, 1973, the President said we must "search for a better approach. . . new approach. . ." to the provision of housing assistance.⁷ The better approach he suggested was cash allowances for housing. He labelled the assisted housing efforts to date a failure and stated that poor housing is but a symptom of low-income. Thus, direct cash assistance to qualified recipients would give them the freedom and responsibility to make their own housing choices, and would eventually get the federal government out of the housing business. In the long run, Nixon viewed

⁶Carlson, p. 52.

⁷Semer, p. 128.

housing allowances as being the most equitable and least expensive solution to the housing problem.⁸

Nixon's "better approach" to subsidized housing was translated into action in 1974, although in a somewhat modified form. In April the "new" Section 23 program was introduced which made private landlords responsible for the managerial role previously performed by the PHA. Under these revised regulations the PHA would certify the tenants, inspect the units and make the necessary "housing gap" payment to the landlord. The landlord, in turn, would select the tenants and manage the units.⁹

Several months later the Housing and Community Development Act of 1974 was passed, which created the Section 8 Housing Assistance Payments Program. The Section 8 program was very similar to the revised Section 23 program with one crucial difference -- under the Existing Housing component of the Section 8 program the subsidy was now tied to the qualified tenant rather than a specific dwelling unit. By January, 1975, the Section 8 program had been phased in as a replacement for the "new" Section 23 program. Although the conventional public housing program still remains, along with some interest- and mortgage-subsidy programs, in terms of funds appropriated and units subsidized the Section 8 program is undoubtedly the federal government's primary tool

⁸Semer, p. 128.

⁹Carlson, p. 51.

in the effort to provide assisted housing opportunities to lower-income households. Furthermore, the majority of units subsidized through the Section 8 program have been assisted through the Existing Housing component of the program -- the component that can be considered a true housing allowance system.

II. ECONOMIC THEORY CONSIDERATIONS

The investigation into the economic theory considerations concerning the introduction of a housing allowance system into the private rental market uncovered many different points of view. While there was general agreement among the economists that such a system would cause inflationary price increases for housing, the magnitude of the increase and the conditions under which it would occur were widely debated.

Supply and Demand Functions in the Lower-Income Housing Market

Figure 1 illustrates an economist's view of the lower-income housing market.¹⁰ In this figure line DD represents the "demand curve" for housing, with the quantity demanded increasing as the price of housing decreases. Line SS represents the "supply curve" for housing with the amount supplied increasing as the price increases. Under a free-market situation, the point at which the demand curve and supply curve intersect represents the market equilibrium, with quantity Q_1

¹⁰Robert P. O'Block, An Economic Analysis of the Housing and Urban Development Act of 1968 (Boston: Harvard University, 1970), p. 2.

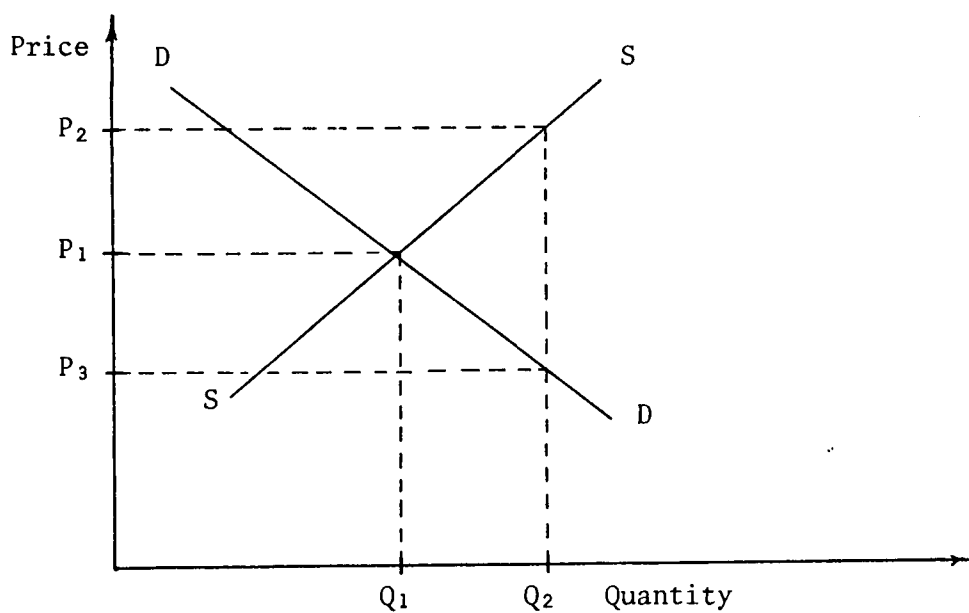


Figure 1. An Economist's View of the Lower-Income Housing Market.

being supplied and demanded at price P_1 . A problem arises, however, in that the actual quantity of housing needed is represented by point Q_2 . Quantity Q_2 will only be supplied by the private market at price P_2 , but the lower-income consumers can purchase quantity Q_2 only if it is offered at price P_3 . A gap exists between the quantity needed (Q_2) and the quantity that the marketplace can provide (Q_1) because the effective demand of lower-income persons is insufficient to cause suppliers to provide the needed housing at a price that will support the enterprise.¹¹

Figure 2 represents the conventional public housing approach to the problem, in which the government theoretically supplies the housing necessary to close the quantity gap. Line S'S' represents the new supply curve, showing the increase in total units supplied because of the government's addition to the free market's total. The demand curve is unchanged. Notice that the quantity needed (Q_2) has been satisfied, but also notice that the equilibrium price has fallen from P_1 to P_3 . With additional units being introduced into the local housing market each individual unit, in theory, becomes relatively less valuable (i.e., less scarce). This has been a major criticism of the government's use of "supply strategies" such as public housing in dealing with the housing problem.

¹¹ It must be noted that the concept "quantity of housing" in this sense can refer to the number of dwelling units available for lower-income persons at a given price, and/or the amount of quality per dwelling at a given price. In other words, the result of the "quantity gap" may be overcrowding, or it may be inhabitation of a substandard house, or a combination of the two.

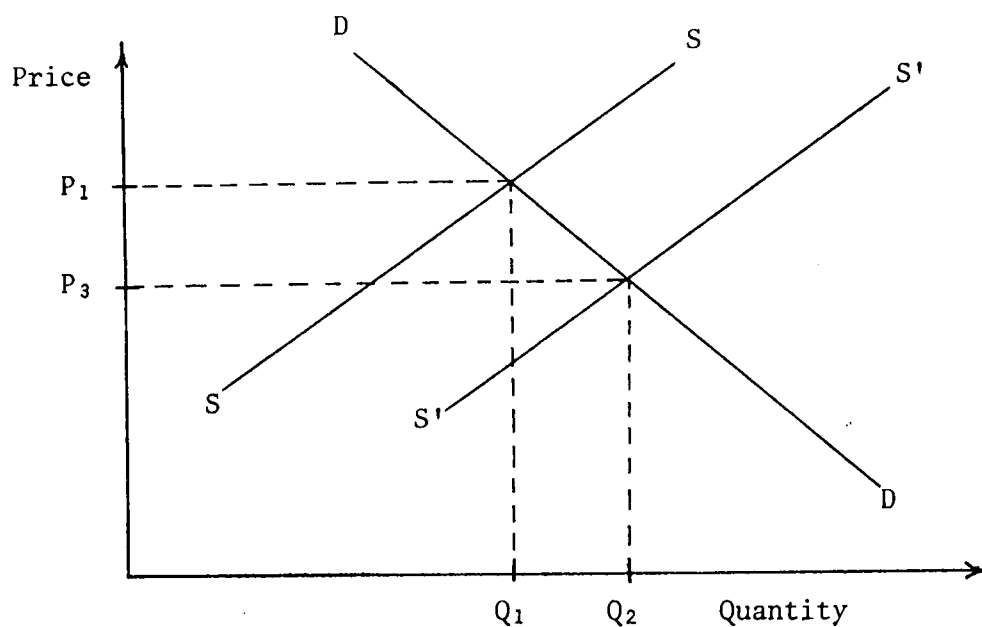


Figure 2. The Lower-Income Housing Market after the Introduction of a "Supply Strategy" Program.

Figure 3 represents the lower-income housing market following the introduction of a "demand strategy" such as a housing allowance program. In this case the housing allowances raise the effective demand, $D'D'$, of lower-income households so that they can afford the quantity of housing that is actually needed. Since the supply of units eligible for subsidy under the Section 8 Existing Housing program comes from the stock of existing dwellings meeting certain quality standards and renting for less than a specified figure, the supply curve is considered to be relatively inelastic and substantially unaffected by a shift in the demand curve.¹² The result, as shown in Figure 3 is that the quantity needed (Q_2) is supplied by the free market when the price consumers are able to pay reaches price P_2 .¹³

This is a very elementary representation of the lower-income housing market and the effect of a supply, and a demand strategy being introduced into it. It is necessary at this point to briefly discuss several other economic concepts that have a bearing on this issue.

Factors Affecting the Supply and Demand Functions

The concept of submarkets. The first consideration which must be taken into account is the fact that a local housing market is not a

¹²Stokes, pp. 92-93.

¹³One must not reach the conclusion from viewing Figures 2 and 3 that the supply strategy is more efficient than the demand strategy since it provides the same quantity of housing, Q_2 , at a lower price, P_2 vs. P_3 . Figure 2 does not show the subsidy cost involved in supplying the additional units of housing, while Figure 3 does include this cost.

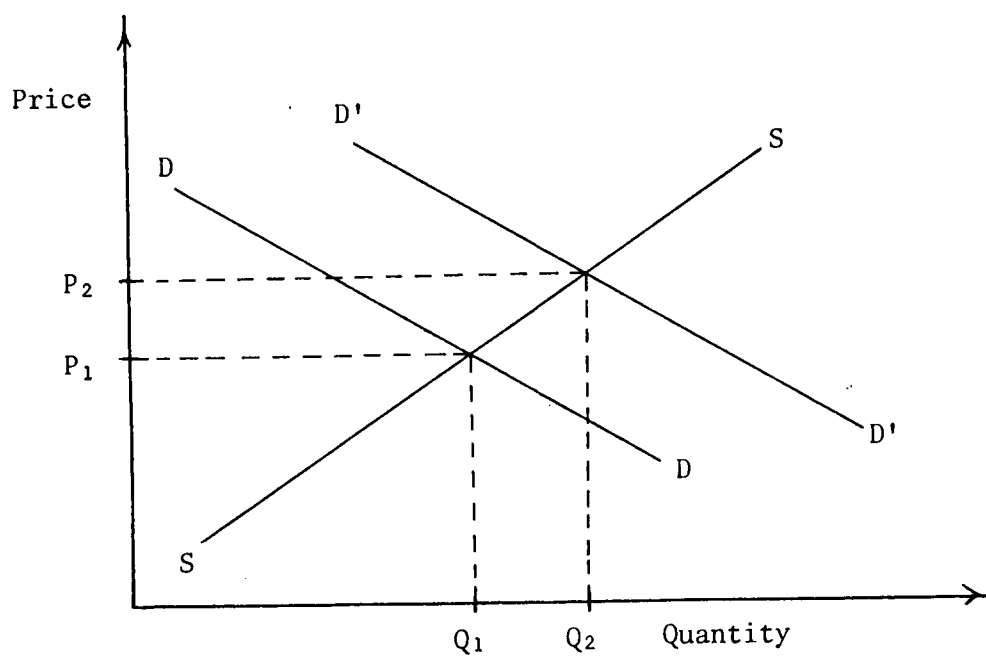


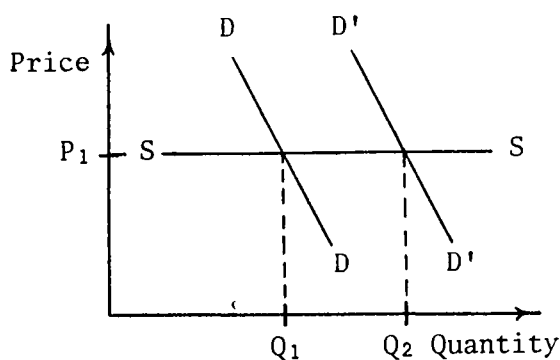
Figure 3. The Lower-Income Housing Market after the Introduction of a "Demand Strategy" Program.

single, unified entity, but rather is comprised of a number of related submarkets. These submarkets may be based on variables such as tenure, structure type, price range, location, race, ethnic background, etc.¹⁴ It is entirely possible to imagine a scenerio in which there could be a drastic disruption (e.g., rent inflation) within a specific local housing submarket, with little or no spillover effect into any other submarket within a given community. On the other hand, in an economically well-integrated housing market a small impact in one submarket could produce impacts in several other submarkets.

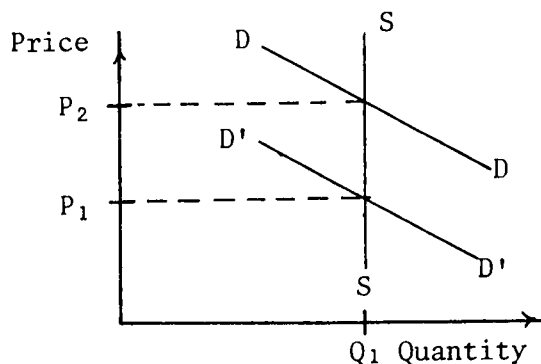
The elasticity of supply. Many economists have discussed the important effect that the elasticity of supply will have on this question.¹⁵ The risk of rent inflation increases as the supply function

¹⁴Jeanne Goedert, Generalizing from the Experimental Housing Allowance Program: An Assessment of Site Characteristics (Washington, D.C.: The Urban Institute, 1978), p. 54.

¹⁵The supply of housing is considered "elastic" if the quantity supplied is responsive to the demand. It is "inelastic" if it is unresponsive. Example 1 illustrates a case of perfect elasticity in which supply (SS) can meet any demand (DD, D'D', etc.) with no increase in price. Example 2 illustrates perfect inelasticity in which supply cannot expand regardless of the demand pressure. In this case, increased demand is merely translated into increased prices.



Example 1. Elastic Supply.



Example 2. Inelastic Supply.

becomes more inelastic. In such a case, increases in demand cause prices to rise faster than the quantity of housing services increases. The short run housing supply function is considered to be relatively inelastic due to the time required to construct new units in response to an increase in demand. Over the long run, supply is considered to be relatively elastic because new units can be brought into the market. It is important to note that a housing allowance system that depends upon the existing stock of units (e.g., the Section 8 Existing Housing program) will face a relatively inelastic supply function even in the long run.

The vacancy rate. The prevailing vacancy rate in an area was thought to be an important factor by the economists, but they could not agree on the manner in which it would impact the local market. Goedert and Barnett felt that the supply curve would be more inelastic in a market with a low vacancy rate (a "tight" market) and that increased demand would translate primarily into higher prices, and profits, for landlords.¹⁶ DeLeeuw, on the other hand, reasoned that in a tight market the value of existing housing would be pushed very close to the cost of new housing. There would be, in other words, very little "discount" in the cost of existing housing. Since new housing could be produced for approximately the same cost as the value of existing housing, the supply curve would be relatively inelastic. Increased

¹⁶Goedert, p. 49; C. Lance Barnett, Expected and Actual Effects of Housing Allowances on Housing Prices (Santa Monica: The Rand Corporation, 1979), p. 6.

demand, therefore, would generate proportionately more output of housing services than increases in the price. He predicted that the greatest danger of price inflation would occur in "loose" markets. Large discounts for existing housing would be reduced by the increase in effective demand generated by a housing allowance program. Until the price of existing housing approached the price of new housing, however, the supply curve would be relatively inelastic, and price inflation would occur.¹⁷

Peter Rydell muddled the waters even more by suggesting that it was necessary to analyze the components of the vacancy rate in a given area before a judgment could be made. He stated that high vacancy rates are caused by either high turnover or long vacancy durations after tenants move out of a unit. Frequent turnover causes landlords to charge tenants higher rents for the inconvenience, while long vacancies cause landlords to reduce rents in order to fill vacancies. Turnover rates depend on the nature of demand, while vacancy durations depend on the relationship of demand to supply.¹⁸

The growth rate of an area. Another factor mentioned was the growth rate of an area. It was felt that a faster growing area would have less of a discount for existing units since there would be a constant demand pressure bringing new units into the housing market. The supply curve

¹⁷Frank DeLeeuw, The Market Effects of Housing Policies (Washington, D.C.: The Urban Institute, 1974), p. 33.

¹⁸C. Peter Rydell, Effects of Market Conditions on Prices and Profits of Rental Housing (Santa Monica: The Rand Corporation, 1977), pp. 4-5.

would be relatively elastic, thereby lowering the risk of price inflation.¹⁹

The scale of the allowance program. The final factor to be discussed here is the scale of the housing allowance program. If the program is open to all lower-income households and there is a high degree of participation, the effective demand of this segment of the population will be increased much more than if the program is limited in scale and can reach only a small percentage of the lower-income families in a community. Given a relatively inelastic supply curve, the degree of price inflation should be fairly proportional to the magnitude of the increase in effective demand. This point has important implications in the later discussions concerning the findings, to date, of EHAP and the Section 8 Existing Housing program.

Expected Outcomes Based on Economic Considerations

Against this very basic background of economic theory, it is interesting to compare and contrast the predictions of a number of noted economists concerning the effect of a housing allowance system being introduced into local housing markets. In general, all of the economists studied were concerned that such a demand subsidy would have inflationary effects. In 1972 Congressional hearings, Henry Aaron estimated the price increase at 10 percent, while Anthony Downs likened the possible effects to those occurring in the price of health care following

¹⁹Goedert, pp. 51-53.

the introduction of Medicare and Medicaid. The Kaiser Committee had argued earlier that if a national housing allowance program was authorized, enrollment should be spread out in order to avoid disruptive price increases.²⁰ Ekanem felt that a housing allowance program would raise housing demand in some submarkets by 40 percent, and that under certain market conditions many nonrecipients might have to pay higher rents without receiving commensurate increases in housing services.²¹

Several sophisticated computer models were used to simulate the market response to a housing allowance program. These efforts are described in more detail in the next section of this chapter, but the pertinent predictions of these simulations are summarized here.

John Kain used the Housing Allowance Demand Simulator (HADS) model which was adapted from the National Bureau of Economic Research's Urban Simulation Model. Results from this effort predicted that nearly 70 percent of the 1970 supply of houses would experience an increase in price, but that the largest increase would be only 22 percent, and 77 percent of the predicted price increases would be less than 10 percent. An interesting additional finding was the prediction that the lowest quality housing units would actually decrease in price since the demand for these units would be transferred to more desirable dwellings.²²

²⁰Barnett, p. 4.

²¹Stokes, pp. 106-107.

²²John F. Kain and William C. Apgar, Analysis of the Market Effects of Housing Allowances (Cambridge, Mass.: Harvard University, 1976), p. 23.

Frank DeLeeuw was involved in the extensive modelling effort of the Urban Institute (UI). He concluded that the results did confirm the fear that a large scale housing allowance program carried the danger of upward pressure on prices, especially in loose housing markets. He predicted that "near eligible households," those with 100 to 150 percent of eligibility incomes would also be impacted, but only by 1 to 2 percent higher rents. Unlike the HADS simulation, the UI model did not predict any submarket price decreases.²³

There was consensus, then, concerning the inflationary potential of housing allowances, but no general agreement as to the magnitude of the problem, or to the exact conditions under which price inflation would occur.

The Perspective of Welfare Economics

Before this discussion is concluded, two additional points should be made which were noted by several of the economists. First, looking at the issue of subsidized housing in general, and housing allowances specifically, it was noted that from the perspective of welfare economics it would be better to provide lower-income households with unrestricted cash grants (i.e., income supplements) rather than earmarking the assistance for housing. Allowing recipient households to choose the manner in which the grant was spent would permit them to optimize their expenditures for any and all of their necessities. It should be

²³DeLeeuw, pp. 32-35.

remembered that the housing allowance concept began to come into its own in the late 1960s and early 1970s, at a time when there was a great deal of discussion about welfare reform, guaranteed annual incomes, etc.

These subjects have not been effectively addressed by the last four administrations, but the housing allowance concept has been, due in part to its narrower focus. Several economists felt that an unrestricted grant would produce very little improvement in the housing conditions of lower-income persons. Ira Lowry stated that his research showed that the income elasticity of housing expenditures is near zero for incomes under \$7,500.²⁴ Kain's computer analysis of the Pittsburgh housing market indicated that participants in an unrestricted program would spend less than four cents out of every subsidy dollar to increase their housing consumption. On the other hand, if the subsidy were earmarked for housing, the estimated increase would be nearly forty cents per dollar.²⁵

One effect of an earmarked subsidy for housing, then, is to increase the effective demand for housing services much more than if the subsidy was in the form of an unrestricted grant. If the housing allowance was further restricted by requiring participants to meet certain housing quality standards or minimum rent levels, both DeLeeuw and Barnett note that there would be additional inflationary pressures within specific submarkets.²⁶

²⁴Ira S. Lowry, Early Findings from the Housing Assistance Supply Experiment (Santa Monica: The Rand Corporation, 1978), p. 7.

²⁵Kain, p. 7.

²⁶DeLeeuw, p. 12; Barnett, pp. 5-6.

The final point that at least two economists made was that, on the whole, current federal housing policies give relatively little attention to the poor. John Weicher notes that tax breaks provided to middle- and upper-income households far outweigh the benefits of expenditure programs for the poor.²⁷ Aaron points out that in 1972 homeowners saved about \$9.6 billion because of income tax provisions. Nearly 60 percent of those benefits accrued to households with incomes in excess of \$20,000 a year.²⁸

This section dealing with the economic considerations of a housing allowance program has been very basic in its content and approach to the problem. Hopefully, however, the discussion has helped to illuminate some of the important issues involved in this question. Textbooks have been written on each of these issues, but the focus of this study is such that any additional discussion is felt to be beyond the scope of this paper.

III. THE EXPERIMENTAL HOUSING ALLOWANCE PROGRAM

As discussed in an earlier section of this study, the idea of using a system of housing allowances to provide housing assistance for lower-income families has been debated for many years. The Kaiser Committee devoted a great deal of attention to the idea in the late 1960s and recommended that the concept be tested by experimental means.

²⁷Weicher, p. 191.

²⁸Henry Aaron, "The Supply and Demand of Subsidized Housing," The Mortgage Banker, May 1973, p. 26.

To briefly summarize the debate, proponents of the idea noted that such a system would subsidize families rather than buildings, and that the cost per assisted family would be less than with other programs. Housing allowances could, therefore, serve a greater percentage of the eligible population and assistance could be more accurately targeted. An allowance program would be readily divisible among the population, with no lower limit to assistance and no barriers to widespread distribution. Such a system would tend to promote competition among suppliers of housing, and would provide an incentive for private rehabilitation of the existing housing stock. It would not promote the concentration of lower-income persons and it would spare various governmental agencies the onus of having to choose a site for a "project." It would give assisted families a choice of housing type and location, and it would subject their conduct to the discipline of the marketplace. Finally, the necessary administrative costs, in both time and money, should be reduced. Critics of the idea stated that such a program would cause unacceptable increases in rents and housing prices; would cause capital losses and abandonment of certain housing units; and would destabilize neighborhoods and produce undesirable forms of neighborhood change.²⁹

Congress agreed with the Kaiser Committee that the idea had enough merit to warrant a test of it. Sections 501 and 504 of the Housing and

²⁹Richard F. Muth, "The Rationale for Government Intervention in Housing," in Housing in the Seventies, U.S. Department of Housing and Urban Development (Washington, D.C.: Government Printing Office, 1976), pp. 192, 199; Ira S. Lowry, The Housing Assistance Supply Experiment: An Overview (Santa Monica: The Rand Corporation, 1976), pp. 1-2; Kain, pp. 12-13.

Urban Development Act of 1970 authorized HUD to establish an experimental program to test the concept of housing allowances. Following the passage of the Act, HUD began development of a detailed conceptual design of an experiment to systematically test the effects of different forms of a housing allowance on household behavior. This effort became known as the "Demand Experiment." In late 1971, the task of developing a conceptual design for the measurement of market effects of a housing allowance program was begun. This effort is known as the "Supply Experiment." As a complementary approach to the estimation of market effects of an allowance program, extensive effort was put forth to develop a model of urban housing markets which could predict the outcomes of housing allowances and alternative public policies. Finally, an effort to gain practical experience with the administration of an allowance program by various governmental agencies was begun. This was called the "Administrative Agency Experiment." By early 1972, conceptual work was complete and organizations were selected to operate the three separate, but interrelated experiments. The combined effort was called the "Experimental Housing Allowance Program" (EHAP).³⁰

Program Design of EHAP

Due to the scope and scale of EHAP, it must be considered unique as far as government-sponsored socioeconomic research is concerned. Lowry noted that because the experimental unit was the housing market rather

³⁰U.S. Department of Housing and Urban Development, Housing Allowances: The 1976 Report to Congress (Washington, D.C.: Government Printing Office, 1976), p. AI-3.

than the recipient or landlord, classical experimental controls were infeasible. However, EHAP was designed to permit before-and-after and cross-site comparisons so that program effects could be sorted out from background effects.³¹

The different component parts of EHAP operated in different cities, for different lengths of time. The Administrative Agency Experiment was conducted in the following cities: Salem, Oregon; Springfield, Massachusetts; Peoria, Illinois; San Bernadino, California; Bismarck, South Dakota; Jacksonville, Florida; Durham, North Carolina; and Tulsa, Oklahoma. The active phase of these programs generally ran from 1973 to 1976. Recipient households received an additional commitment from HUD for assistance for up to three years after the experimental phase of the program ended. This action was felt to be necessary in order to encourage participation in the program. The three year passive phase of the experiment is completed in all cities except Jacksonville, where the initial phase of the program was extended for approximately one year due to slow early enrollment. Jacksonville will close out its experiment this summer.³²

The Demand Experiment was conducted in Phoenix, Arizona, and Pittsburgh, Pennsylvania. The active phase of this experiment ran from

³¹Ira S. Lowry, An Overview of the Housing Assistance Supply Experiment (Santa Monica: The Rand Corporation, 1977), p. 2.

³²U.S. DHUD, Housing Allowances, pp. AII-1, AII-3.

1973 to 1977, and was followed by a two year passive phase. Both of these programs ended in the early months of 1979.³³

The Supply Experiment, the component of EHAP which is most relevant to this study, is still being conducted in its two test sites: St. Joseph County, Indiana, with South Bend as its central city and Brown County, Wisconsin, with Green Bay as its central city. The active phase of this program began in both sites in 1974 and continued through 1979. The passive phase extends through 1984. This longer time period was thought to be necessary for this experiment due to the complex nature of the local housing markets, and in order to determine whether or not housing suppliers will make capital improvements and other long-term investments.³⁴

Operation of the Housing Assistance Supply Experiment

The Housing Assistance Supply Experiment (HASE), as it is formally known, was designed to analyze how housing markets respond to the increased demand generated by a full-scale housing allowance program. Unlike the other programs at the other test sites, HASE permits open enrollment of the entire eligible population, and includes homeowners as well as renters. The design of HASE places particular emphasis upon measuring changes in price and quality of housing and housing-related services brought about by the program.

³³U.S. DHUD, Housing Allowances, pp. AII-2, AII-3.

³⁴U.S. DHUD, Housing Allowances, pp. 4, AII-2, AII-5.

Lowry has identified five program elements of HASE that illustrates how it operates as a true housing allowance system:³⁵

1. Benefits are scaled to income, household size, and local housing costs, thereby enabling participants to afford decent existing units of adequate size.
2. Benefits are paid only when the dwelling unit meets certain minimum quality standards.
3. Renters and homeowners are eligible for assistance on the same terms. In fact, participants can change tenure without jeopardizing their eligibility.
4. Participants are held responsible in the marketplace for their actions. The PHA deals only with the recipients, not with any third parties.
5. Benefits reflect standard housing costs in the community. Participants have an incentive, therefore, to look for "bargains."

The housing allowance is paid monthly to the eligible participant upon submission of proof that the rent or mortgage payment has been made for a dwelling unit that has passed the PHA's inspection. The recipient's share of the housing cost is one-quarter of his adjusted monthly income. The PHA's share is the difference between that amount and the predetermined cost of modest, standard housing of a given size in the community. This type of assistance is termed a "housing gap" formula allowance. Under HASE regulations, however, the recipient is not required to spend one-quarter of his income plus the amount of the allowance. If he can find an acceptable dwelling for an amount less than the predetermined figure, he can keep the "excess" allowance.

³⁵Lowry, The Housing Assistance Supply Experiment, pp. 3-4.

If, on the other hand, he wishes to spend more, in order to purchase more than the minimum housing services required, he is free to do so. In this case, the result would be that the participant would end up paying more than one-quarter of his adjusted income for housing.

Contrasting site conditions. Brown County and St. Joseph County were chosen as the test sites because of their contrasting housing markets. It was felt that the inherent contrasts would better illuminate the impacts of an allowance program over a wider range of market conditions. Brown County has a relatively tight housing market with a rental vacancy rate of 5.1 percent. St. Joseph County has a loose market with a rental vacancy rate of 12.3 percent in South Bend and 8.9 percent in the rest of the county. The housing stock in Brown County is generally newer and of higher quality than that in St. Joseph County. Brown County has been increasing in population over the last few decades while St. Joseph County has been stagnant. Residents in Brown County are relatively more affluent, and only 2 percent of the population in Green Bay is black, compared to 18 percent in South Bend. It is estimated that 17 percent of the households in Brown County are eligible for assistance while approximately 20 percent of the households in St. Joseph County qualify.³⁶

Some writers have criticized the selection of these two sites, saying that they are not representative of either major metropolitan areas or small cities and towns. Once the decision had been made,

³⁶Rydell, p. 2; Carlson, pp. 34-35.

however, to use two sites of similar size but with contrasting market conditions, the selection of Brown County and St. Joseph County seems reasonable. The experience with these two sites would seem to be more transferable to other areas than if two very large or very small communities had been selected.

Predictions concerning probable market effects. As a part of the EHAP effort, several computer models were developed which sought to simulate the market effects of a housing allowance system being introduced into a community. Two of the most ambitious models were developed by the Urban Institute (UI) and the National Bureau of Economic Research (NBER). The UI research concentrated on the Supply Experiment sites while the NBER efforts were focused on the Pittsburgh market, one of the Demand Experiment sites.

It is interesting to compare and contrast the predictions of these two efforts. The NBER model predicted severe disruptions in the Pittsburgh market. It is estimated that after five years, prices of 6 percent of the housing stock would increase by more than 20 percent, while prices of another 16 percent would decline by at least 20 percent. It predicted a median price increase of 8.6 percent.³⁷ Based in large part upon the thinking of DeLeeuw, the UI model predicted that earmarked allowances would produce the greatest price increases in loose markets and the smallest in tight markets. The UI model estimated that

³⁷Barnett, p. 8.

in ten years, the housing prices of allowance recipients in St. Joseph County would increase by 58 percent, while nonrecipients would be paying 7 percent more. In Brown County, the respective increases would be only 12 percent and 2 percent.³⁸ Barnett notes that while the NBER and UI predictions are similar, the UI analyses predicted no price decreases. Also, while both models and a priori analyses agreed that allowances are inflationary, the UI predictions contradicted a priori hypotheses about how market conditions affect price changes.³⁹

Since the UI model simulates market outcomes at the two HASE sites where open enrollment housing allowance programs were offered, it is worthwhile, for the purposes of this study, to examine it in somewhat more detail. Besides taking into account a considerable number of pertinent market variables, this model emphasizes two basic characteristics that distinguish housing from most other goods and services.⁴⁰

1. Durability -- the distinction on the supply side between new housing and the existing stock.
2. Externalities -- the importance on the demand side of neighborhood characteristics as a determinant of housing choice.

DeLeeuw, one of the developers of the UI model, has assessed the strengths and weaknesses of the model as he sees it. He feels the model

³⁸Barnett, pp. 8-9.

³⁹Barnett, pp. 9-10.

⁴⁰DeLeeuw, p. 1.

is grounded in a well-developed theory of housing market behavior, and that its validity has been shown in that it has been fitted to six metropolitan areas displaying a wide variety of housing market conditions. He also feels that most of the broad policy implications hold up well under a range of initial conditions. He sees the major drawbacks to the model as including the fact that analysis is constrained to a time-frame of ten year increments, and that all applications relate to the experience of the United States during the decade of the 1960s. Finally, the model does not consider or address the noneconomic effects of a housing allowance program, and it assumes rational economic behavior on the part of all of the actors in the local housing market.⁴¹

Early findings of HASE. In comparison to the predictions of the market simulations, the findings, to date, of HASE are neither as dramatic nor conclusive. Virtually all of the researchers stated that there was no evidence of any significant program-induced inflation at either site, but some cautioned that further investigation was needed because of the relatively short time-frame of the study, to date, and the need to more closely examine program impacts on specific housing submarkets within the two communities.

In reviewing the early findings of the experiment, Lowry notes that despite their differences both housing markets have absorbed the program "without visible indigestion." He finds that rents in the two

⁴¹DeLeeuw, pp. 55-56.

communities have risen less rapidly than in the Midwest in general, and that virtually the entire increase during the first two years was attributable to rising fuel and utility prices. In brief, the allowances have enabled a large number of recipients to secure modest housing improvements at less public cost per case than is typical of federal housing programs.⁴²

A study of the first one and one-half years of the program in Brown County showed that there was little difference between pre- and post-enrollment rents for most participants. Of the 1,200 households participating in the program at the time, approximately 90 percent remained in the same unit that they were occupying prior to enrollment. Of this group, almost 80 percent were paying no more in rent than before the program, even though approximately 40 percent of the units required repairs before they could meet minimum program standards. Most required repairs were minor, however, generally costing less than \$100 to complete. Rents did generally increase for the 10 percent of the recipients who did move at enrollment, particularly if they moved from a unit that did not meet quality standards to one that did. Rent increases in these circumstances, however, are more reflective of increases in housing quality than of increases in housing prices. Most of the participants that did move found better housing in the same neighborhood, or in a similar type neighborhood. Very few moved from city to suburb, and vice versa.⁴³

⁴²Lowry, Early Findings, pp. 2,4.

⁴³U.S. DHUD, Housing Allowances, p. 33.

In summarizing his experiences with the HASE program, Lowry reports that there is no evidence of price inflation, rip-offs by home improvement contractors, or rapid neighborhood turnover. Nonparticipants generally favor the program and public officials do not find it threatening. He concludes, therefore, that in the absence of negative market effects, the "wisdom" of a national housing allowance program can be judged solely in terms of its effects on participants.⁴⁴

Barnett reports that the early findings of HASE indicate that offering allowances to all eligible households who could secure acceptable dwellings has had no noticeable effect on housing prices. He notes that his finding covered the period of rapid enrollment when anticipated price increases seemed most likely. Now that enrollment has leveled off, it is even more unlikely that allowances will induce severe price increases.⁴⁵ He cautions, however, that more detailed analysis may show disruptions in certain submarkets which have not yet affected the entire housing market. Also, Carlson notes that more analysis is needed since there may be significant delays before the full impact of allowances is felt.⁴⁶

Reconciliation of predictions and findings. The HASE program has provided a great deal of information concerning the operations of local

⁴⁴Lowry, An Overview, p. 22; Lowry, Early Findings, p. 5.

⁴⁵Barnett, p. 10.

⁴⁶Barnett, p. 14; Carlson, p. 35.

housing markets. Much of the program research has focused on trying to understand the reasons why the housing allowances have had such a seemingly small effect on the local markets. Barnett, and others, have determined that market conditions seem to have little effect on rents. To illustrate this point, he notes that despite the differences between the housing markets in Brown County and St. Joseph County, rents in the two communities were nearly identical when they were standardized for differences in housing characteristics. Therefore, any program-induced increases in demand would have little impact on rental costs.

Another factor is that the cost of upgrading dwellings to meet minimum program standards is usually small, so the stock of potential units is much larger than expected. This has the effect of making the supply curve less inelastic than economists first thought it would be. Researchers have also found that the demand curve has not shifted as much as anticipated since program participation rates have been lower than expected. Taken together, these two factors help explain why the impact of the program on the local housing markets has not been great.

Along this same line, it has been determined that participants have increased their housing expenditures by only a fraction of the payments they have received. Related to this is the finding that over half of the recipients were already spending enough at enrollment to obtain acceptable housing. It can be seen, then, that many recipients

were using the allowances to reduce their housing cost burdens.⁴⁷ Other relevant findings were that even in loose housing markets discounts are very small (e.g., approximately 2 percent in South Bend), and that the dynamics of participation are such that several years are required for the program to reach its full-scale level of enrollment.⁴⁸

In trying to reconcile the findings of HASE with the earlier predictions of many economists, including himself, Henry Aaron noted that the housing market, by and large, is quite competitive. There are many small businessmen trying to make sales, and there are many customers. These conditions normally cause an increase in demand to be translated into more supply; in this case, into better housing quality.⁴⁹

Conclusion

This author would like to make one concluding point about the Experimental Housing Allowance Program. EHAP was supposed to test the feasibility of using housing allowances as a means of providing housing assistance to lower-income families. As such, it was designed to scientifically measure the impact of an allowance system on local housing markets. Joseph Fried's article in The Nation in early 1973 proved to be prophetic when he said that there was a great deal of

⁴⁷Barnett, p. 14; Lowry, An Overview, p. 4; Rydell, pp. 8, 15; Carlson, p. xv; Jean Vanski and Larry Ozanne, Simulating the Housing Allowance Program in Green Bay and South Bend (Washington, D.C.: The Urban Institute, 1978), p. 61.

⁴⁸Barnett, p. 14; Rydell, p. 8.

⁴⁹Aaron, "Supply and Demand," p. 36.

concern, both inside and outside of HUD, that EHAP would not be permitted to run its full course, and that a policy decision would be made in favor of housing allowances before all meaningful returns from the pilot project were in.⁵⁰ The policy decision that Fried anticipated was made later in 1973 and was implemented the next year with the passage of the Housing and Community Development Act of 1974 which created the Section 8 Housing Assistance Payments Program. Therefore, while EHAP provided a great deal of useful information and insight into the operation of local housing markets, and even though components of the original program continue today, once the decision was made to go with a system of housing allowances, the primary purpose for conducting the experiment ceased to exist.

The next section of this chapter will examine the Section 8 program, with particular emphasis on the Existing Housing component. Similarities and differences with the EHAP design will be discussed, as will the nationwide experiences and findings, to date, of the Section 8 Existing Housing Program.

IV. THE SECTION 8 HOUSING ASSISTANCE PAYMENTS PROGRAM

The Section 8 Housing Assistance Payments Program was brought into being with the passage of the Housing and Community Development Act of 1974. With its creation, the federal government was taking a new

⁵⁰ Joseph Fried, "Housing Allowances: The Latest Panacea," The Nation, March 5, 1973, p. 305.

approach to the provision of housing assistance for lower-income renter households. Although conventional public housing and some interest- and mortgage-subsidy programs still remain, Section 8 has become the federal government's principal housing program.

Overview of the Section 8 Program

The Section 8 program differs from other federal housing programs in that it is based upon a demand strategy. It subsidizes households rather than buildings, theoretically increasing the effective demand of lower-income persons to the point where the private market will supply the dwellings necessary to adequately house the recipients. Existing interest- and mortgage-subsidy programs attempt to entice housing suppliers into the market by subsidizing a portion of their development costs. Under the conventional public housing program the government becomes a landlord, directly supplying subsidized dwelling units to eligible households. These programs are based upon a supply strategy as the means to solve the lower-income housing problems.

The subsidies provided to lower-income families by the Section 8 program are designed to compensate these households for the difference between the cost of housing they can afford (defined as a percentage of adjusted family income) and the cost of modest, standard housing in the community in which they reside. The program consists of the following four components.⁵¹

⁵¹U.S. Department of Housing and Urban Development, Lower Income Housing Assistance Program (Section 8) - Nationwide Evaluation of the Existing Housing Program (Washington, D.C.: Government Printing Office, 1979), pp. ix-x.

The New Construction program. HUD guarantees to private developers of new housing developments, prior to construction, that it will provide subsidies for eligible households who apply directly to the project's owner to rent units. These guarantees can extend for as long as forty years.

The Substantial Rehabilitation program. This program operates in a manner similar to the New Construction program, but the guarantee of subsidies to eligible households is extended to owners of existing structures that have undergone major repairs.

The Moderate Rehabilitation program. This program was added after the passage of the 1974 Act to fill a perceived gap between the assistance provided by the Substantial Rehabilitation program and the Existing Housing program. It operates much like the Substantial Rehabilitation program, but makes use of existing units needing fewer repairs. As far as the allocation of units is concerned, this program is considered to be a subprogram of the Existing Housing program.

The Existing Housing program. Eligible households are permitted to lease modest existing units in the private market with the understanding that the PHA will subsidize the difference between the market rent plus estimated utility costs and one-fourth of the family's adjusted income. These subsidy payments are made directly to the landlords on behalf of the tenants.

All of the Section 8 program components are forms of housing allowances since the unit of subsidy is the household rather than the

others, however, since the subsidy is not tied to a specific dwelling unit in any way. It is, in fact, the only ongoing federally sponsored housing program that allows participating households to freely choose units in the marketplace. It is the operation of the Existing Housing program in the Maryville rental market that is the focus of this study.

The Section 8 Existing Housing Program Regulations

The basic objective of the Section 8 Existing Housing program is to use the existing stock of standard, nonluxury privately owned dwelling units in a community to provide adequate housing for lower-income households. The program also reduces the housing cost burdens of many of the recipients, and should provide an incentive to landlords to properly maintain their properties. These policy objectives are embodied in the Section 8 Existing Housing program regulations. The three major regulations of the program deal with the composition and income requirements of eligible households, the maximum rent level of subsidized units, and the quality of these units.⁵²

Household composition and income. Households eligible to participate in the Section 8 Existing Housing program must be comprised of either two or more persons living together in a stable family relationship, or consist of a single individual who is elderly, handicapped, disabled, or displaced by government action. The benchmark for the

⁵²The following discussion is based upon the findings of a nationwide evaluation of the Existing Housing program. For a complete presentation of these findings see U.S. DHUD, (Section 8) - Nationwide Evaluation, pp. 27-44.

income eligibility limit is a family of four with an income of 80 percent or less of the local median income. The program income limit ranges from 56 percent of the local median for eligible individuals, up to 100 percent for a family of eight or more persons.

The maximum housing expenditure required of recipients is 25 percent of adjusted household income, except for the neediest of households, whose rental payment will not exceed 15 percent of their gross income. These are generally large families with very low incomes, or families with unusual expenses. The PHA is required to make sure that at least 30 percent of its unit allocation is comprised of renters with very low incomes (i.e., less than 50 percent of the local median).

Program rent ceilings. The program establishes a "fair market rent" (FMR)⁵³ that sets a ceiling on the price of housing that can be used under it. The FMR is a gross rent concept that includes an allowance for tenant-paid utilities, appliances, and maintenance services customary to modest rental units in the private market.

The FMR figures serve two purposes. First, by creating an upper limit on gross rents that are eligible for subsidy, the FMR establishes a ceiling on government contributions. Secondly, assuming that there is a positive correlation between gross rent and unit quality, the FMR

⁵³The "fair market rent" constitutes the rent ceiling for subsidized housing units of a specified size in a SMSA or in a nonmetropolitan county group, based on local average rents for modest dwellings. U.S. DHUD, (Section 8) - Nationwide Evaluation, p. 97.

establishes an upper limit on the housing quality, so that luxury units are not brought into the program.

Housing quality standards. The Section 8 Existing Housing program requires that all subsidized units meet or exceed a minimal level of quality. Since the program draws from the existing stock of modest rental units, it is infeasible to require compliance with new construction building codes, or even local housing codes in some cases. The minimum standards set by HUD cover thirteen areas of housing services such as sanitary conditions, food preparation areas, heating, and security. The emphasis is on basic "health, safety, and welfare" considerations.

Local agencies are allowed considerable discretion in carrying out these requirements. The PHA can use the HUD guidelines exclusively, in combination with state and local codes and ordinances, or rely solely on state and local regulations as long as they fulfill the HUD standards.

Program Administrative Features

Three of the most important administrative features of the Section 8 Existing Housing program deal with the utility allowances, the "rent reasonableness test," and the rent reduction credit.

Utility allowances. The FMR sets a ceiling on the cost of modest housing that can be subsidized in a given area. In addition to the rent payment to the landlord, the FMR includes any tenant-paid utility and

maintenance costs that are normally considered a part of the total housing cost. For example, if the landlord is responsible for all utility and maintenance costs associated with a dwelling, the rent for a standard unit could equal the ceiling established by the FMR. If, on the other hand, the tenant is responsible for paying the electric bill, the provision of a refrigerator, and contracting for trash collection, these costs, as determined by the utility allowance schedule must be added to the contract rent figure before checking for compliance with the FMR. The utility allowance schedule is developed by each PHA, based upon local costs and conditions, for each type and size of dwelling unit on the program. The use of the utility allowance ensures that the program provides equal benefits to recipients who pay for their own utilities and those who do not.

Rent reasonableness test. Before the PHA can approve a lease under the Section 8 Existing Housing program it is supposed to determine that the rent of the subsidized unit is in line with rent levels in the local market. HUD hopes that the use of this test will maintain the FMR figures as ceiling rents rather than target rents. For a number of reasons to be discussed later, many PHAs do not perform this test. HUD has even admitted that there has been more emphasis on rapid lease-up and maintenance of a high percentage of participation than on cost minimization for this program.

Rent reduction credit. In order to provide an incentive for program participants to "shop around" in the local market for "bargains," HUD

devised a rather complicated rent reduction credit through which the participants and HUD share in any cost savings that result from recipients renting acceptable units at a cost below the FMR. Due to the complexity of the procedure and the limited financial reward to the recipient, research by HUD has shown that most participants either do not understand, or do not care about the credit to any great extent.⁵⁴

Interaction of Program Regulations and Administrative Features

The program regulations and other program features do not work in isolation. Working together they affect the volume and quality of units available for use under the program, landlord and household participation, and program costs.

The FMR, the quality standards, and the vacancy rate interact to determine the number of acceptable units available to prospective program participants. It should be noted, however, that participants do not have to relocate in order to be eligible for the program. If their existing residences meet the quality standards or can be brought up to standard, rent for a figure at or below the appropriate FMR, and if their landlords agree to participate in the program, then tenants can receive assistance while they remain in place.

Household participation is affected by program regulations and, indirectly, by landlord participation. An applicant household must meet the program eligibility requirements with respect to income and family

⁵⁴U.S. DHUD, (Section 8) Nationwide Evaluation, p. 39.

composition standards. It then must locate a dwelling that meets the quality standards and FMR constraints. Finally, the landlord must agree to participate.

Landlord participation is also affected by the required quality standards and the FMR limits, as well as by the households participating in the program. Some landlords will refuse to participate because of their perceptions of government housing programs and "welfare" recipients. It should be noted that landlords retain their right, and responsibility, to screen their prospective tenants as long as they do not illegally discriminate against anyone.

Program costs are affected by the size of the average subsidy and the administrative cost per applicant. The subsidy per recipient is the difference between the gross rent and the recipient's contribution. The PHA is reimbursed for its administrative costs through a formula payment based upon the number of units leased to eligible households each month. Its actual administrative costs, however, may vary continually depending upon the amount of turnover of program participants, and the degree of success or failure of prospective participants in finding suitable dwellings.

A Comparison of the Section 8 Existing Housing Program and the Housing Assistance Supply Experiment

The Section 8 Existing Housing program and the Housing Assistance Supply Experiment share many features, but there are also some important differences between the two that affect the impacts the respective

programs have on local housing markets. Therefore, it is not reasonable to assume that the experiences of the two HASE sites will be directly transferable to all of the communities involved with the Section 8 Existing Housing program.

Table 1 compares the major features of the two programs. The most significant difference between the programs is that HASE permitted open enrollment of all lower-income households, regardless of tenure, while the Section 8 Existing Housing program is designed for only a specified number of lower-income renters in each community. These differences of overall scale and tenure eligibility work to limit the impact of the Section 8 program as compared to HASE. The total increase in effective demand will be less, and a smaller range of the local housing market will be affected. Other important differences include the FMR ceiling for the Section 8 program, and the restriction on the households of spending no more than one-quarter of their adjusted incomes on housing. These two requirements act to focus demand within a narrower range in the local market and could, therefore, cause a greater impact within specific submarkets. The Section 8 program also brings the landlord into the system as an active partner. This contrasts with the HASE design that deals only with the tenant and the PHA. Finally, the administration of the Section 8 program is more complex since there are more program requirements and more paperwork to handle.

Section 8 Existing Housing Program Performance

Although it is still too early to make broad generalizations concerning the success or failure of the Section 8 Existing Housing

TABLE 1. A COMPARISON OF THE KEY PROGRAM FEATURES OF HASE AND
THE SECTION 8 EXISTING HOUSING PROGRAM

PROGRAM FEATURE	HASE	SECTION 8 PROGRAM
Scale of program	Open enrollment	Agency ceiling on number of recipients, based on the Annual Contributions Contract with HUD
Tenure eligibility	Renters and homeowners	Renters
Rent limit	None	R typically $< \text{FMR}$; some exceptions permitted
Household contribution rate	$b = .25$	$b = .25$; (.15 for households) ^a
Recipient of payment	Household	Landlord
Payment formula	Housing gap: ^b $P = C^* - bY$	Housing gap with "rent reduction incentive": ^c $P = R - bY + (\frac{\text{FMR}-R}{\text{FMR}})bY$
Administering agency	Research contractors	Public housing agencies
Income definition	Gross income minus \$300 exemptions for each dependent and secondary wage earner, 5% standard deduction (10% for elderly), and other specific deductions	Gross income minus allowances for medical and unusual expenses, less \$300 for each minor

TABLE 1 (continued)

PROGRAM FEATURE	HASE	SECTION 8 PROGRAM
Income eligibility limitation (annual)	Implicit limitation set by payment formula: $Y \leq 4 (C^*) \times 12$ months	80% of median income for program area ^d
Agency profile requirement	No profile requirement	At least 30% of households must be "very low-income"
Rent definition	Gross rent or contract rent plus formula-based allowance for utilities	Gross rent or contract rent plus formula-based allowance for utilities and other services
Locational restrictions	Households restricted to program sites, which typically encompass multiple political jurisdictions	Households may move to another agency jurisdiction if an inter-agency cooperation agreement exists
Definition of household unit	Households of two or more related individuals; elderly, disabled, or handicapped single persons ^e	Households of two or more individuals exhibiting a "stable family relationship"; elderly, disabled, or handicapped single persons; other persons with special circumstances
Housing requirements	Minimum standards: standards may be based on locally defined codes or national model codes	Minimum standards: federal performance requirements with acceptability criteria to be fulfilled; may be supplemented by HUD-approved local criteria

TABLE 1 (continued)

PROGRAM FEATURES	HASE	SECTION 8 PROGRAM
Participant services	Program information (household), housing information and equal opportunity support	Program information (household and landlord), housing information and equal opportunity support

^aThree types of families contribute 15% ($b = .15$) of their gross monthly income: (1) "large, very low-income families," those whose income falls below 50% of median area income with six or more minors in the household; (2) "very large, lower-income families," those whose family includes eight or more minors; (3) "families with exceptionally high medical or other expenses," when such exceed 25% of family gross income.

^b p = allowance payment; C^* = an estimate of market rent for adequate housing; b = the rate at which the allowance is reduced as income increases (sometimes called a household's contribution rate); and Y = program-defined income. C^* varies by the number of bedrooms per unit assumed appropriate for families of various sizes.

^c P = housing subsidy payment; R = gross rent; b = household's contribution rate; Y = program-defined income; FMR = fair market rent estimate.

^dThis figure is for a family of four; the maximum allowable income eligibility is adjusted according to family size.

^eEffective August 1, 1977, single-person households between 18 and 62 years of age became eligible to receive allowance payments; however, the number of these households that may receive payment is limited to 10% of the total recipients authorized for the program under its Annual Contributions Contract.

Source: David Carlson and John Heinberg. How Housing Allowance Work. The Urban Institute, Washington, D.C., 1978, pp. 65-67.

program, the evidence so far would seem to indicate that the program has been able to meet many of its original goals. From the lower-income tenant's point of view, it has enabled many to lower their housing cost burdens, while at the same time reduce overcrowding and improve the quality of their home environment. The program has also enabled landlords to retain good, lower-income tenants, and it provides a pool of qualified applicants from which vacancies can be filled. From the community's point of view the program has encouraged some scattered upgrading of rental units, although it has not produced noticeable neighborhood-wide effects in most areas. The program does provide an incentive for periodic maintenance, however, which should have important long-range implications for most communities. Finally, the program achieves these local goals apparently without major disruption to the housing market.

From the federal government's perspective, the Section 8 Existing Housing program provides housing assistance to lower-income families at a lower cost than other subsidy programs. Current cost estimates of various types of assisted housing clearly illustrate this fact. The estimated annual cost of subsidizing a family in a unit under the Existing Housing program is \$3,000. Other components of the Section 8 program cost \$5,235 per year for New Construction units; \$6,125 per year for Substantial Rehabilitation units; and \$4,200 per year for units under the Moderate Rehabilitation program. The average annual cost to the federal government of providing each unit of conventional public housing is estimated to be \$5,340 which includes only the construction

and financing costs, not the necessary subsidy to the family residing in the unit. This additional cost is approximately \$2,000 per year.⁵⁵

Conclusion

The Section 8 Existing Housing program differs from most other federal programs in that there is a considerable amount of discretion permitted local housing authorities in the administration of it. Certain regulations must be met, of course, but some elements of the program can vary a great deal between localities. Perhaps the best example of this local discretion involves the enforcement of program unit quality standards. The HUD regulations set minimum standards which must be met, but the local agency is permitted to enforce more stringent standards if it wishes to do so. The enforcement of relatively high standards, for example, does not affect only the quality of the units, however, it also affects the probable rent levels of those units, the quality of units potentially available to the program, the number of landlords willing to participate in the program, and the landlords' expectations of the tenants who will be residing in the units. Therefore, although the Section 8 Existing Housing program is nationwide in scope, the actual experience with the program will be somewhat unique in each community. Furthermore, even though the Section 8 Existing Housing program was based in large part upon the EHAP effort, the differences between these two programs, detailed above, ensure that the

⁵⁵U.S. Office of Management and Budget, The Budget of the United States Government: Fiscal Year 1980 (Washington, D.C.: Government Printing Office, 1980), p. 519.

experience of local communities with the Section 8 program, and the EHAP sites will differ to a certain extent. Thus, while the MHA's experience with the program shares many similarities with other communities' experiences with it and with EHAP, there are also some significant differences.

It was noted earlier that researchers in the EHAP supply experiment sites found that rents in those two communities increased less rapidly than either regional or national rents. They concluded that housing allowances had had no significant effect on housing prices. This conclusion, even if correct, is not directly transferable to the Section 8 Existing Housing program, however, for a number of reasons. First, in the EHAP program approximately one-half of the participants were homeowners. Most of these participants remained in their existing dwellings and used the housing allowances to reduce their housing cost burdens. Overall housing costs for these persons would generally not be affected by their participation in the program. Secondly, less than 20 percent of the renters on the program moved to a different unit at the time of enrollment. This means that more than 80 percent of the renters participating in the program were not overcrowded in their existing units, and that these units either originally met the program quality standards or else could be brought to standard, probably with relatively few repairs. Again, the overall rental costs for these units would not be expected to be greatly affected by the program. Finally, the median cost of repairs needed to qualify the units for the EHAP allowance was only \$11. One-third of the units needing repairs required

no direct cash outlay, and it was rare for the cost of repairs to exceed \$100.⁵⁶ The EHAP quality standards were relatively low.

The statistics for the nationwide Section 8 experience, in general, and the MHA experience, in particular, are quite a bit different than the EHAP findings. Nationwide, nearly one-half of the participants in the Section 8 Existing Housing program move at the time of enrollment. Thirty-two percent of all units required repairs, with the average cost of these repairs being \$284.⁵⁷ The researchers felt that these repairs represented normal maintenance, but landlords who were interviewed stated that fewer repairs would have been made if it had not been necessary to meet program standards. On average, the rent per unit enrolled in the Section 8 Existing Housing program had increased approximately \$36 per month. Reasons given for these increases included the need to cover increased maintenance and operating costs, the "need to meet the FMR, and the need to cover upgrading costs."⁵⁸ The researchers felt that most, but not all of the increases were justified, and that overall the program had not had a noticeable inflationary effect on the local rental markets.

IV. THE MARYVILLE HOUSING AUTHORITY'S SECTION 8 EXISTING HOUSING PROGRAM

The Maryville Housing Authority began operation of its Section 8 Existing Housing program in October 1977. The original allocation of

⁵⁶Barnett, p. 18.

⁵⁷U.S. DHUD, (Section 8)--Nationwide Evaluation, p. 63.

⁵⁸U.S. DHUD, (Section 8)--Nationwide Evaluation, p. 64.

150 units was put under lease to eligible applicants during the first fifteen months of the program. Due to program cost savings which occurred as a result of a minor redistribution of units by bedroom size, three additional units were granted to the MHA under its original contract. Given the administrative regulations of the program, it is not possible to maintain all of the units under lease each month. HUD has set a goal of 94 percent occupancy of the units; the MHA's occupancy rate normally fluctuates between 90-99 percent. Within the last year the MHA has received an additional allocation of 50 units, bringing its total contract authority to 203 units. The new increment of units will be leased, on a schedule, by the end of the year. Currently there are approximately 160 units under lease. Slightly less than half of these are located within the city limits, and represent approximately 5 percent of the rental units in Maryville. The remaining units are located within ten miles of Maryville, which comprises the jurisdictional area of the Housing Authority.

Throughout Maryville's experience with the program, HUD's major emphasis has been on rapid lease-up of units and high occupancy rates. Cost minimization has been but a secondary concern. Because of this orientation, there has been no real effort by HUD to ensure that the "rent reasonableness test" has been adequately applied. One comment during a HUD monitoring visit noted that the MHA should consider greater use of its discretionary authority to exceed the FMR since the City's program was well below the average in this occurrence.

Operational Findings of the MHA's Program

The MHA's experience with the Section 8 Existing Housing program in operation has been somewhat different than the findings of the nationwide evaluation of the program. First of all, over 75 percent of the program participants move at the time of enrollment. This is substantially higher than the national average and is probably due to the fact that very few of the MHA's units are specifically targeted for the elderly. The primary emphasis in the Maryville program is to serve nonelderly families. Statistically, it has been shown that the elderly are more likely to remain in-place at enrollment than are the other types of households. The elderly tend to use the program to reduce their housing cost burdens, while nonelderly families often use the program to relieve existing overcrowded conditions. A typical prospective participant in the Maryville program is a female head-of-household with several children who has been residing with relatives or friends.

A second way in which the Maryville program is somewhat atypical involves the required unit quality standards. In order to meet the local standards, over 75 percent of the units require repairs prior to enrollment. The estimated cost of the repairs ranged from \$15 to \$2,200. The median expenditure was \$200 and the mean was \$381. The required improvements fall under the following categories, with the frequency of response noted in parentheses:

1. Painting (18)
2. Screens (14)

3. Security (11)
4. Energy Conservation (10)
- 5/6. Plumbing (9)
- 5/6. General Maintenance (9)
7. Floor or Carpet (8)
8. Electrical Wiring (6)
- 9/10. Ceiling or Wall (3)
- 9/10. Remodeling (3)
- 11/12. Gutters or Roof (2)
- 11/12. Pest Control (2)

Based upon these findings taken from the 1979 MHA questionnaire sent to program landlords, it would seem that the staff of the Maryville program enforces quality standards which are more stringent than the national average.

Nearly one-half of the landlords reported changing the rent of their units at enrollment. Increases in rent were experienced by 87 percent of these units, while the rent decreased in 13 percent of the cases. The changes covered a range of a decrease of \$20 per month to an increase of \$141 per month. The average monthly decrease was \$12.80, while the average monthly increase was \$37.82. The average overall change was an increase in rent of \$31.16 per month. Reasons given for these changes included:

1. The landlord had been keeping the rent low for a particular tenant. (9)
2. To cover the cost of required improvements. (7)

- 3/4. General improvements to the unit. (4)
- 3/4. Rent had to be lowered to meet FMR. (4)
- 5. Rising cost of maintenance, taxes, etc. (2)
- 6. Time for "annual increase." (1)

With respect to changes in unit rents at enrollment, the MHA's program seems to be rather typical when compared with the findings of the nationwide evaluation of the Section 8 Existing Housing program.

Over 80 percent of the landlords responding to the survey felt as though the rent they were receiving under the program was fair, while the rest thought it was too low. When asked how the rent they were receiving for their program unit compared with the rent they received for comparable nonprogram units, 43 percent said they received the same rent, 24 percent said they got more for their nonprogram unit, 5 percent said they got less, and 28 percent said they had no comparable unit. Finally, approximately one-fourth of the landlords said that they used the FMR figures as a pricing guide for their nonprogram units, and that in two-thirds of these cases the effect of this action was an increase in rent for the nonprogram units.

The discretion permitted local housing authorities in implementing certain aspects of the Section 8 Existing Housing program ensures that the actual operation and effects of it will vary somewhat from community to community. Likewise, the differences between the Experimental Housing Allowance Program and the Section 8 Existing Housing program ensure that the findings and experiences of the two are not necessarily interchangeable. The experience of the MHA with its Section 8 program

illustrates some of the similarities and differences between the operation of a local program and the average of the nationwide experiences with it. As detailed above, a greater percentage of participants move from one unit to another at enrollment under the MHA program than do participants in most Section 8 programs and at the EHAP sites. Also, a greater percentage of the Maryville units require repairs than do the average Section 8 or EHAP program units. On average, these repairs are more extensive and expensive under the Maryville program. The average increase in rent for units on the Maryville program is approximately the same as the average increase being experienced nationally under the Section 8 Existing Housing program.

The researchers evaluating the nationwide performance of the Section 8 program felt that the rent increases that were occurring were, in their opinion, justifiable. They concluded that the program was not disrupting the local rental markets, and that there was no evidence that it was stimulating rent inflation.

Stimulus for Research

Two separate findings prompted the author to undertake this research. First, it was apparent that some landlords were receiving tremendous increases in rent at the time they enrolled their units on the program. The rents for several units increased by more than \$100 per month. Some of the increases could be accounted for due to repairs that were required in order for the units to meet program standards, but there was no clear correlation between the amount of repairs and the increase in rents. In fairness to some of the landlords, it should

be noted that some of them actually reduced rents to meet FMR limits, thereby allowing certain tenants to participate in the program. Also, some of the increases occurred in cases where the landlord had been keeping rents artificially low because of the financial condition of certain tenants. The landlord, in effect, had been subsidizing the tenants in certain cases prior to the program. Most of the large increases, however, could not be adequately explained.

The other reason for concern was the direct feedback the staff of the MHA was receiving from tenants and landlords. Both program participants and nonparticipants were complaining that "Landlord X" had raised the rent because "he could get that amount from the Maryville Housing Authority." In these cases the rent quoted was generally the FMR figure for a given size unit, but did not seem to include an understanding of how utility costs must be backed out of the FMR value. In addition, program units must be inspected to ensure compliance with certain quality standards, and then may still not necessarily qualify for the full FMR amount. Since some of the landlords mentioned were not even participating in the program, it seemed that the program was having some spillover effect into the unsubsidized private market.

Related to this factor was a specific finding from a questionnaire sent to all participating landlords in the spring of 1979. Over 70 percent of the landlords responded, representing over 80 percent of the units on the program at the time. The single most disturbing finding of the survey was that approximately one-fourth of the landlords admitted to using the FMR figures as a pricing guide for their nonprogram

units, and that in two-thirds of these cases the result was an increase in rent for the nonprogram units.

Based upon these potential problem areas, this author decided to research the question and try to determine if the perceived problem was truly significant. The background studies for this effort, which are presented in this chapter, were most helpful in gaining "a feel" for the operation of the local housing market and obtaining insight into how a housing allowance system of assistance to lower-income persons might impact the market. The next chapter, which presents the actual rent comparison experiment, begins with an overview of this author's approach to the question of the impact of the Section 8 Existing Housing program on the local market. The methodology used to carry out the experiment will be examined, and then a description of the actual operation of the experiment will be given. The findings of the study will then be presented, along with an analysis of those findings.

CHAPTER III

THE RENT COMPARISON EXPERIMENT

I. OVERVIEW

The research question guiding this study asks if the Section 8 Existing Housing program is inflationary as it operates in the Maryville rental market. More specifically, are the rent levels being received for Section 8 program units higher than the rent levels these units could command in the private market?

Review of the existing research on this subject produced no solid answers. From a theoretical standpoint, economists warned that this method of providing housing assistance would cause rent inflation. There was less agreement as to its expected severity and the market conditions under which it would occur. Actual experience with housing allowances, however, seemed to indicate that the concerns of the economists were generally unwarranted. Researchers monitoring the Experimental Housing Allowance Program (EHAP) reported no evidence of program-induced inflation occurring at the test sites. Likewise, the early findings of the nationwide evaluation of the Section 8 Existing Housing program showed no disruptions of the local rental markets due to the program.

It appeared, however, that the research done thus far had focused on the overall rental market, or the overall housing market in the case of EHAP, and had not investigated the effect of housing allowances on

specific submarkets of the local rental market. Rather than attempt to "track" the entire local rental market over time, the author decided to examine a "slice" of the local market at one point in time. This approach would hopefully avoid the problems associated with sorting out the background effects (e.g., general inflationary pressures, rising energy costs, increased taxes, etc.) from the program effects. What the experiment would try to accomplish would be to conduct a "rent reasonableness test" after the program was in operation rather than at the time each unit was enrolled in the program. By approaching the question in a different manner, it was thought that the experiment might uncover program impacts that had been missed by previous researchers.

II. METHODOLOGY

Hypothesis

The substantive hypothesis for this study is: "The rents received for dwelling units subsidized through the Section 8 Existing Housing program are higher than the rents received for comparable dwelling units in the private market." The statistical hypothesis is stated as follows:

$$H_1 : R_a > R_b$$

where R_a represents the rent received for units enrolled in the program, and R_b is the rent received for comparable units which are not enrolled in the program. The null hypothesis is:

$$H_0 : R_a = R_b$$

meaning that there is not a statistically significant difference between the two rent levels.

If it can be shown that there is a statistically significant difference between the rent levels of program units and nonprogram units (i.e., $R_a > R_b$ at the .025 level of significance -- one-tailed test), then the null hypothesis could be rejected, and the findings would support the hypothesis that the program has an inflationary impact on the local rental market. Such a finding would indicate the presence of a serious program externality that would need to be addressed. If, on the other hand, results of the experiment show no significant difference between the rent levels, this would imply that the program is having no noticeable effect on rent levels. Finally, should the results of the experiment show that the rent levels of program units were significantly lower than the rent levels of the nonprogram units (i.e., $R_a < R_b$), this finding would indicate that the program was being administered in such a way as to secure units for program participants at below market rent levels.

Design of the Experiment

In order to test the hypothesis, it was necessary to design the rent comparison experiment in such a way that it would generate data on the rent levels of both program and nonprogram units. Specifically, program units would have to be matched with comparable nonprogram units and then the rent levels of the two groups would be compared and

analyzed. This is, in essence, a rent reasonableness test for all the program units in Maryville at a given point in time.

In conducting such an experiment, it is important to compare only the "basic rent" levels for the two groups of units since other factors will vary between units. For this study, the "basic rent" is defined as that portion of the rental payment attributable to the unit itself, not including any allowances for utilities paid by the landlord or appliances furnished with the unit. The program utility allowance schedules were used to derive the basic rent for all units.

The Wilcoxon matched-pairs-signed-ranks test was determined to be an appropriate procedure to employ in the analysis of the unit rent levels. This nonparametric test allows for determining the significance of difference between two related samples according to some measured trait.¹ In this case, the related samples are the Section 8 program units and the nonprogram units with which they have been matched. The measured trait is the basic monthly rent.

Selection of the Sample

It was decided to begin the rent comparison experiment using a 100 percent sample of the Maryville Housing Authority's Section 8 Existing Housing program units located within the Maryville city limits. Seventy-two rental units met this condition, and represented slightly less than half of the total number of units on the MHA program as of

¹Dean J. Champion, Basic Statistics for Social Research (Scranton, Pennsylvania: Chandler Publishing Co., 1970), p. 165.

April 1, 1980. Units in Alcoa and in the unincorporated portion of Blount County were not included for several reasons. First, the author was more familiar with the housing stock and housing market in Maryville than in either Alcoa or Blount County. Second, confining the study to one governmental jurisdiction eliminated problems associated with such things as differing tax rates, utilities suppliers, land use policies, etc. Finally, it was felt that it would be unmanageable to attempt to study a 100 percent sample of all the units and that there would be advantages to studying all of the Maryville units as opposed to studying a 50 percent sample of the total number of units, for example.

Selection of the Matched-Pairs

Once the relevant sample of Section 8 units had been identified, work began on the development of a set of matched-pairs in which each program unit would be carefully matched with a comparable nonprogram unit. Since the meaningfulness of the whole experiment depended upon the quality of the matches, a great deal of care was taken in searching for the comparable nonprogram units. In this regard, the author realized that it would probably not be possible to find a reasonable match in every case. Therefore, instead of "forcing" a match, twelve program units were ultimately dropped from the experiment. The following criteria guided the matching process.

Number of bedrooms. The number of bedrooms in a rental unit is one of the most important factors in the selection of a dwelling. The number of bedrooms needed or desired correlates closely with such things

as family size, lifestyle, lifecycle of the family, etc. These considerations help to define specific submarkets within the total rental market. Matches were made between units only if they contained the same number of bedrooms.

Type of structure. Matches were made only between units in the same type of structures. For example, a three bedroom single-family house would not have been matched with a three bedroom mobile home or garden apartment. Again, building type is closely related to varying submarkets in a community. In addition, building type has an important bearing on the value of the structure, and, therefore, on the probable rent of the dwelling. The types of structures included in this study are single-family residences, mobile homes, duplexes, garden apartments, and converted single-family residences. It should be noted that by matching only units having the same number of bedrooms and the same type of structure, the calculations required to derive the basic rent of the matched-pairs from the utility allowance schedules were simplified.

Proximity to one another. As discussed in Chapter II, one unique characteristic of housing is the importance of location as a determinant of value. External neighborhood effects help to define submarkets within a city. It was felt, therefore, that another important criterion in the development of the matched-pairs would be the proximity of the units to one another. In most cases, the matched-pair units were within one block of one another. In some cases they were in the same building, and rarely was it necessary to go more than two blocks to find the best

match. If a good match could not be found within a reasonable distance, the program unit was dropped from the study.

Other criteria. Each matched-pair had to meet the three criteria discussed above or else the program unit was dropped from further consideration. In those cases where there was more than one reasonable match possible, certain other criteria were considered in order to obtain the best match. These criteria included figures on total square footage in the units, date of construction, general condition, and assessed value of the structures.

The "identical" vs. comparable matched-pair issue. One important question that needed to be addressed prior to the development of the matched-pairs involved the issue of "identical" vs. comparable units. Although real estate specialists say that no two parcels of real property are truly identical, due if for no other reason than a difference in physical location, for the purposes of this study certain units were similar enough so as to be considered identical. These cases involved program and nonprogram garden apartments located in the same structure. Without question, these units provided the best match available within the city. The problem with using these identical units for matches, however, lies in the possibility that any spillover effect of the program would mask the potential inflationary impact on it. In other words, if the rent permitted for a specific unit under the program was higher than the rent the landlord had been receiving for his identical units, he might decide to raise the other rents to the program level. In such

a case, the program would have had an important impact on the nonprogram units, but use of the identical unit for a match would not reveal the problem. This issue was felt to be of real importance since approximately one-fourth of the program landlords had previously admitted to using the FMR figures as a pricing guide for their nonprogram units.

After much consideration, the author decided that the importance of obtaining the best possible match outweighed the possibility of overlooking some of the program effects on the market, and chose, therefore, to use the identical matches whenever possible. This was a very conservative approach to take. As it turned out, however, due to the problems associated with making acceptable comparable matches for program garden apartments, the author feels as though the use of the identical units was the proper approach to take.

Presentation of the Matched-Pairs

Through the use of the procedure and criteria discussed above, it was possible to select suitable matches for sixty of the original seventy-two program units. This represented over 80 percent of the Section 8 Existing Housing program units in Maryville and is considered a good sample.

There were a number of different reasons why it was not possible to find a reasonable match for twelve of the units. The primary reason for the failure to match was that many of the units were atypical of the majority of the surrounding units. Some examples of this would be where the program unit was much older (or newer) than the other units in the general area; if the program unit was larger (or smaller) than other

units nearby; if the program unit was located in a predominately owner-occupied neighborhood; or if it was in a type of structure that was uncommon to the area. Another problem was that some units were located in rather small, isolated neighborhoods and there just were no comparable units available. Finally, two units were located on the edge of a redevelopment project area, and the only nearby units were in substandard condition. The units that were not able to be matched are listed in Appendix A.

Table 2 presents the sixty matched-pairs that were made. They are grouped by bedroom size, and matched as to structure type and location. Also, the addresses of identical units matched to program units are preceded by an asterisk. The basic rents of the units are listed and have already been adjusted, if necessary, through the use of the utility allowance schedules.

The structure type listed is as defined by the program utility allowance schedules and includes single-family structures (SF), garden apartments (GA), and duplexes (DU). For the purposes of the utility allowance schedules, mobile homes are included with single-family structures and converted single-family apartments are included with garden apartments. Although these two subtypes are not specifically identified in Table 2, it must be remembered that their match consists of a unit that is of the same type of structure. That is, a mobile home would be matched with another mobile home, and so on.

The sixty program units generally grouped themselves into four neighborhoods or sections of town. These areas are separated by the

TABLE 2. THE MATCHED-PAIRS FOR THE MARYVILLE, TENNESSEE
RENT COMPARISON EXPERIMENT

SET NO.	NO. OF BDRM	STRUC- TURE TYPE	QUAD- RANT	PROGRAM UNIT ADDRESS	BASIC RENT	COMPARABLE UNIT ADDRESS	BASIC RENT
1	1	GA	S	316 Highland	\$128.00	Circle Drive Apts., #10	\$132.50
2	1	GA	S	320 Highland	120.00	Circle Drive Apts., #10	132.50
3	1	GA	S	322 Highland	128.00	Circle Drive Apts., #10	132.50
4	1	GA	S	402 Highland, Apt. #1	128.00	Circle Drive Apts., #10	132.50
5	1	GA	S	318 Cunningham, Apt. A	120.00	320 Cunningham	86.50
6	1	GA	S	228 Magnolia, Apt. #7	130.50	*228 Magnolia, Apt. #3	126.50
7	1	GA	E	841 Sevierville	124.50	*841 Sevierville	124.50
8	1	GA	E	1505 Wales, Apt. #5	143.50	*1505 Wales, Apt. #11	153.50
9	1	GA	N	1205 E. Harper	126.00	*1205 E. Harper	153.50
10	2	SF	S	Park Court #6	135.00	*Park Court #5	135.00
11	2	GA	S	318 Highland	128.00	Circle Drive Apts., #22	154.00
12	2	GA	S	410 Highland	86.00	Circle Drive Apts., #22	154.00
13	2	GA	S	216 Magnolia, Apt. #1	176.50	228 Magnolia, Apt. #8	161.50
14	2	GA	S	216 Magnolia, Apt. #2	176.50	228 Magnolia, Apt. #8	161.50
15	2	SF	S	231 Magnolia	133.00	222 Wilson	150.00
16	2	GA	S	301 Magnolia, Apt. #1	133.50	*301 Magnolia, Apt. #4	139.50
17	2	GA	S	301 Magnolia, Apt. #2	139.50	*301 Magnolia, Apt. #4	139.50
18	2	SF	E	1223 Forest	176.50	1312 E. Broadway	175.00
19	2	SF	E	1310 E. Broadway	155.00	1312 E. Broadway	175.00
20	2	SF	E	1410 Wales	150.00	1312 E. Broadway	175.00
21	2	SF	E	707 Everett High	136.50	717 Everett High	125.00
22	2	DU	E	715 Martin, Apt. B	156.50	*715 Martin, Apt. A	156.50
23	2	SF	E	841 Sevierville	107.50	*841 Sevierville	107.50
24	2	SF	E	2217 Compton	144.00	2210 Compton	200.00
25	2	GA	N	1205 E. Harper	156.50	1402 E. Harper, Apt. #5	139.50

TABLE 2 (continued)

SET NO.	NO. OF BDRM	STRUC-TURE TYPE	QUAD-RANT	PROGRAM UNIT ADDRESS	BASIC RENT	COMPARABLE UNIT ADDRESS	BASIC RENT
26	2	DU	N	1232 E. Harper, Apt. #1	\$156.50	*1232 E. Harper, Apt. #2	\$156.50
27	2	GA	N	1327 E. Harper, Apt. #2	196.50	*1327 E. Harper, Apt. #5	211.50
28	2	GA	N	1327 E. Harper, At. #7	196.50	*1327 E. Harper, Apt. #5	211.50
29	2	GA	N	1327 E. Harper, Apt. #8	196.50	*1327 E. Harper, Apt. #5	211.50
30	2	GA	N	1327 E. Harper, Apt. #11	196.50	*1327 E. Harper, Apt. #5	211.50
31	2	GA	N	1402 E. Harper, Apt. #6	139.50	*1402 E. Harper, Apt. #5	139.50
32	2	SF	N	514 Rule	100.00	1507 Irwin	90.00
33	2	SF	N	412 Shope	165.00	212 Rule	150.00
34	2	SF	N	501 Third	150.00	212 Rule	150.00
35	2	SF	N	1201 E. Broadway	138.00	104 Bruce	100.00
36	2	SF	N	1415 Jefferson	156.50	1407 Jefferson	165.00
37	2	SF	N	1505 Irwin	180.00	1407 Jefferson	165.00
38	2	SF	N	1424 Irwin	145.00	212 Rule	150.00
39	2	SF	N	718 E. Lincoln	110.00	1507 Irwin	90.00
40	2	GA	W	West Side Apts., #5	152.50	*West Side Apts., #7	157.50
41	2	GA	W	West Side Apts., #11	152.50	*West Side Apts., #7	157.50
42	2	GA	W	522 Comfort, Apt. B	147.50	*522 Comfort, Apt. A	147.50
43	2	GA	W	809 Broyles	159.50	West Side Apts., #7	157.50
44	2	SF	W	522 N. Houston	155.00	521 N. Houston	180.00
45	2	SF	W	524 N. Houston	165.00	521 N. Houston	180.00
46	3	GA	S	809 Mt. View	213.00	Circle Drive Apts., #19	162.00
47	3	SF	E	105 Singleton	194.00	1106 Forest	175.00
48	3	SF	E	1201 Woodlawn	210.00	1120 Forest	200.00
49	3	SF	E	1105 Everett Ave.	208.00	1120 Forest	200.00
50	3	SF	E	800 Everett St.	185.00	1106 Forest	175.00

TABLE 2 (continued)

SET NO.	NO. OF BDRM	STRUC-TURE TYPE	QUAD-RANT	PROGRAM UNIT ADDRESS	BASIC RENT	COMPARABLE UNIT ADDRESS	BASIC RENT
51	3	SF	E	813 Prater	\$205.00	815 Prater	\$150.00
52	3	SF	E	803 Oak	185.00	809 Walnut	195.00
53	3	SF	N	912 E. Harper	225.00	309 McGinley	200.00
54	3	GA	N	1337 1/2 E. Harper	188.00	1310 E. Harper	196.50
55	3	SF	N	209 Rule	230.50	309 McGinley	200.00
56	3	SF	N	512 McGinley	225.00	309 McGinley	200.00
57	3	SF	W	613 Dunlap	173.00	902 Morganton	125.00
58	3	GA	W	809 Broyles, Apt. #1	217.50	West Side Apts., #8	202.50
59	3	SF	W	603 Home	193.00	521 Home	180.00
60	3	SF	W	705 York	210.00	521 Home	180.00

* The addresses of identical units matched to program units.

intersection of two major streets in Maryville -- Washington Street and Broadway Avenue. Since these streets run in a northwest-southeast and southwest-northeast direction, they divide the city into north, south, east and west quadrants. These areas generally correspond to the following neighborhoods: Plainfield (N); Municipal Building/High School (S); Everett Hill (E); and Home Avenue (W). These quadrant locations are noted in Table 2. The data was organized in this manner so that it could be analyzed with respect to these variables, as well as in aggregate form.

Certain comparable, nonprogram units were used as a match to more than one program unit. For example, if there were two program units in the same garden apartment complex, the same (identical) comparable unit was matched to each program unit. Likewise, if two nonidentical but very similar program units could be matched to the same comparable nonprogram unit, this was done, if the nonprogram unit was the best match available for each of the program units.

The sixty matched-pairs included nine sets of one-bedroom units, thirty-six sets of two-bedroom units, and fifteen sets of three-bedroom units. Twenty of the sets were located in the north quadrant, fifteen sets were located in the south quadrant, fifteen sets were located in the east quadrant, and the remaining ten sets were located in the west quadrant. Thirty of the sets consisted of single-family structures, twenty-eight of the sets consisted of garden apartments, and duplexes accounted for the remaining two sets. Finally, eighteen sets matched "identical" units, while forty-two were comprised of "comparable" matches.

No rent information was gathered for the nonprogram units until after the matched-pairs had been established. This approach precluded any temptation to select "matches" that would tend to support the hypothesis. Rent data was collected from both landlords and tenants. In both cases the requested information was the current rent for a specific unit, and a listing of any landlord-supplied utilities. In a few cases, the rent quoted appeared to be well below the market level, and another match had to be identified. If no other suitable match could be found, the program unit was dropped from the study.

When the basic rent levels of the program units and the nonprogram units were compared, it was found that in twenty-six cases the program units rented for more than comparable nonprogram units; in twenty-five cases the nonprogram units were higher in rent; and in nine cases the rents were equal. The average program unit rent exceeded the average nonprogram unit rent by \$1.89 per month. In order to determine whether or not this difference was significant, it was necessary to analyze the data more rigorously. In this case, the Wilcoxon-matched-pairs-signed-ranks test was employed to analyze the total set of matched-pairs and several different breakdowns of the total data.

III. DATA ANALYSIS

The raw data from the rent comparison experiment showed that the average Section 8 Existing Housing program unit in Maryville rented for \$1.89 more per month than a comparable nonprogram unit. Twenty-six Section 8 units rented for more than their private companion units,

while twenty-five rented for less and the rents were the same for nine of the matched-pairs. The author had expected that the differential between the program and nonprogram units would have been greater than this, but still, there was a difference and it was in the direction that would tend to support the hypothesis that the program rent levels were higher than the nonprogram rent levels. Before any conclusions could be drawn from these findings, however, it was necessary to test them for statistical significance.

The Wilcoxon Matched-Pairs-Signed-Ranks Test

The Wilcoxon matched-pairs-signed-ranks test is "designed to take into account ranked differences between two samples, where ranks have been assigned according to the magnitude of difference between matched pairs of subjects."² Since the matched-pairs had already been established and the hypothesis set forth, the next step in the analysis was to construct an appropriate table whereby the data could be put in a form that was compatible with the requirements of the Wilcoxon test.

Table 3 presents this data in the necessary form. The first column lists the match number of the pairs of units. These numbers correspond to the numbers in Table 2. The second column lists the basic rents for the nonprogram units, while the third column lists the basic rents for

²Champion, p. 165.

TABLE 3. RENT COMPARISON EXPERIMENT BETWEEN SECTION 8 EXISTING
HOUSING PROGRAM UNITS AND COMPARABLE NONPROGRAM
UNITS IN MARYVILLE, TENNESSEE

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	DIFFERENCE D	SIGNED RANK OF D	RANK WITH LESS FREQUENT SIGN
1	\$132.50	\$128.00	-\$ 4.50	- 5	- 5
2	132.50	120.00	- 12.50	-20	-20
3	132.50	128.00	- 4.50	- 5	- 5
4	132.50	128.00	- 4.50	- 5	- 5
5	86.50	120.00	+ 33.50	+45	
6	126.50	130.50	+ 4.00	+ 3	
7	124.50	124.50	0		
8	153.50	143.50	- 10.00	-16	-16
9	153.50	126.00	- 27.50	-42	-42
10	135.00	135.00	0		
11	154.00	128.00	- 26.00	-41	-41
12	154.00	86.00	- 68.00	-51	-51
13	161.50	176.50	+ 15.00	+26.5	
14	161.50	176.50	+ 15.00	+26.5	
15	150.00	133.00	- 17.00	-32.5	-32.5
16	139.50	133.50	- 6.00	-10	-10
17	139.50	139.50	0		
18	175.00	176.50	+ 1.50	+ 1	
19	175.00	155.00	- 20.00	-35.5	-35.5
20	175.00	150.00	- 25.00	-38.5	-38.5
21	125.00	136.50	+ 11.50	+19	
22	156.50	156.50	0		
23	107.50	107.50	0		
24	200.00	144.00	- 56.00	-50	-50
25	139.50	156.50	+ 17.00	+32.5	

TABLE 3. (continued)

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	DIFFERENCE D	SIGNED RANK OF D	RANK WITH LESS FREQUENT SIGN
26	\$156.50	\$156.50	0		
27	211.50	196.50	-\$15.00	-26.5	-26.5
28	211.50	196.50	- 15.00	-26.5	-26.5
29	211.50	196.50	- 15.00	-26.5	-26.5
30	211.50	196.50	- 15.00	-26.5	-26.5
31	139.50	139.50	0		
32	90.00	100.00	+ 10.00	+16	
33	150.00	165.00	+ 15.00	+26.5	
34	150.00	150.00	0		
35	100.00	138.00	+ 38.00	+46	
36	165.00	156.50	- 8.50	-12.5	-12.5
37	165.00	180.00	+ 15.00	+26.5	
38	150.00	145.00	- 5.00	- 8	- 8
39	90.00	110.00	+ 20.00	+35.5	
40	157.50	152.50	- 5.00	- 8	- 8
41	157.50	152.50	- 5.00	- 8	- 8
42	147.50	147.50	0		
43	157.50	159.50	+ 2.00	+ 2	
44	180.00	155.00	- 25.00	-38.5	-38.5
45	180.00	165.00	- 15.00	-26.5	-26.5
46	162.00	213.00	+ 51.00	+48	
47	175.00	194.00	+ 19.00	+34	
48	200.00	210.00	+ 10.00	+16	
49	200.00	208.00	+ 8.00	+11	
50	175.00	185.00	+ 10.00	+16	

TABLE 3. (continued)

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	DIFFERENCE D	SIGNED RANK OF D	RANK WITH LESS FREQUENT SIGN
51	\$150.00	\$205.00	+\$55.00	+49	
52	195.00	185.00	- 10.00	-16	-16
53	200.00	225.00	+ 25.00	+38.5	
54	196.50	188.00	- 8.50	-12.5	-12.5
55	200.00	230.50	+ 30.50	+44	
56	200.00	225.00	+ 25.00	+38.5	
57	125.00	173.00	+ 48.00	+47	
58	202.50	217.50	+ 15.00	+26.5	
59	180.00	193.00	+ 13.00	+21	
60	180.00	210.00	+ 30.00	+43	

NOTE: $\epsilon T = 587.5$
 $N = 51$
 $Z = - 0.71$
 (± 1.96)

the program units.³ The fourth column notes the difference (D) in rent for each matched pair. A positive D means that the program unit is renting for more than a comparable nonprogram unit. A negative D means that the program unit is renting for less, while a D of zero indicates that the two units are renting for the same amount. In the fifth column, the rank of the absolute differences in rents is given, assigning a 1 to the smallest difference in rent (either positive or negative), a 2 to the next smallest difference, and so on. When a tie occurs in D, the average rank is assigned to each of the tied scores. After the ranking has been completed, the figures in the fifth column are "signed" according to whether the difference in rents (fourth column) was positive or negative.⁴ When there is no difference between the rents (i.e., $D = 0$), these matches are omitted from the ranking procedure and the total number of ranks is thereby reduced; in this instance, from sixty to fifty-one.⁵ The final column lists the ranks with the less frequent sign. In other words, the positive and negative signs of the ranks in the previous column are counted, and since there were more positive ones (26 vs. 25) the negative ones were "less frequent" and, therefore, listed in the sixth column. These less frequent ranks are then summed.

³The order of the presentation of the matched-pairs has been reversed from Table 2 so that the sign of the difference in rents (given in the fourth column) would be more readily understandable.

⁴Champion, p. 166.

⁵Jean D. Gibbons, Nonparametric Methods for Quantitative Analysis (New York: Holt, Rinehart and Winston, Inc., 1976), p. 127.

For data having a sample size of twenty-five or less ranks, the significance of the sum of the ranks with the less frequent sign can be interpreted directly from Table A.23 of Appendix A in Champion. There, at the selected level of significance, is given the critical value associated with the particular sample size. If the sum of the ranks with the less frequent sign is less than or equal to the critical value, the data must be viewed as significant.⁶

Since the case at hand involves a sample size of fifty-one, an alternative formula, a modification of the Z test, must be employed to complete the Wilcoxon procedure. The formula to be used is as follows:

$$Z = \frac{\epsilon T - \frac{N(N+1)}{4}}{\sqrt{\frac{N(N+1)(2N+1)}{24}}}$$

where ϵT = the sum of the ranks with the less frequent sign; and

N = the number of ranks.

Gibbons introduces a correction factor in the denominator of this formula to compensate for those instances when ties occur in the ranking of $|D|$.⁷ In such a case, the denominator becomes:

$$\sqrt{\frac{N(N+1)(2N+1)}{24} - \frac{\epsilon u^3 - \epsilon u}{48}}$$

⁶Champion, p. 166.

⁷Gibbons, p. 128.

where u = the number of absolute differences that are tied for a given nonzero rank.

In this case, the correction factor was calculated to be 25.75, so the equation would be solved as follows:

$$Z = \frac{587.5 - \frac{(51)(52)}{4}}{\sqrt{\frac{(51)(52)(103)}{24} - 25.75}}$$

$$Z = \frac{-75.5}{106.56}$$

$$Z = -0.71$$

Entering the table of Z values, it is found that for a one-tailed test at the 0.025 level of significance, the Z value must be equal to or greater than ± 1.96 to be considered significant. Since the rent comparison experiment, analyzed by the use of the Wilcoxon matched-pairs-signed-ranks test, yielded a Z value of - 0.71, it is determined that such a finding is not within the critical region and that the difference in rent levels noted in Table 3 are not significant. In light of this finding, the null hypothesis is accepted and the hypothesis stating that the rent levels of Section 8 Existing Housing program units in Maryville are higher than comparable nonprogram units is rejected.

Although the analysis of the total sample of matched-pairs found no significant difference between the rent levels of program and nonprogram units, the author decided to continue the analysis with subsets of the total sample in order to investigate the effect of the Section 8

Existing Housing program on various submarkets of the Maryville rental market.

Submarket Analyses

In addition to the analysis of the total sample of sixty matched-pairs presented above, certain subsets of the total sample were analyzed eleven more times using the Wilcoxon test in an effort to uncover any significant disruptions of local submarkets as a result of the Section 8 Existing Housing program. Matched-pairs were analyzed with respect to the number of bedrooms the units contained (one, two or three), location within the city (north, south, east or west), type of structure (single-family residence or garden apartment), and by whether the units comprising the match were "identical" or "comparable." Appendix B details the analysis of each subset with a table similar to Table 3 which presented the Wilcoxon matched-pairs-signed-ranks test for the total sample of matched-pairs. The results of these analyses are summarized below.

Differences between the rent levels for matched-pairs in nine of these subset analyses were found to be not significant, but a statistically significant difference in rent levels was uncovered for the three-bedroom units on the program, and for program units matched with identical nonprogram units. The rents of the three-bedroom program units averaged \$19.40 more per month than the nonprogram units and represented a significant difference. In this case, the findings permit the rejection of the null hypothesis and they support the hypothesis that the

Section 8 program unit rent levels are higher than nonprogram unit rent levels in Maryville for three-bedroom dwellings. In the case of the "identical match" subset, the average program unit rented for \$6.08 less per month than its identical counterpart. This finding also permitted the rejection of the null hypothesis, but it indicates that for this subset of matched-pairs the Section 8 program units were renting for significantly less than the nonprogram units.

The results of all twelve analyses are summarized in Table 4. Column one identifies the sample of matched-pairs being analyzed. The second column gives the raw difference in average rent levels per month for the program and nonprogram units. A positive figure indicates that the program units rented for a higher amount than the nonprogram units, while a negative figure indicates that the nonprogram units cost more. The third column lists either the Z value or the ϵT value for each sample and the appropriate critical value in parentheses. Again, the experimental Z value must equal or exceed the critical value in order for the finding to be significant. For the ϵT values, on the other hand, the experimental value must be equal to or less than the critical value for the finding to be significant. The fourth column notes whether or not the finding is significant.

IV. CONCLUSION

The analysis of the results of the rent comparison experiment for the entire sample of matched-pairs indicates that there is no significant difference between the rent levels of the Section 8 Existing Housing

TABLE 4. A SUMMARY OF THE FINDINGS OF THE RENT
COMPARISON EXPERIMENT

SAMPLE	Δ RENT	TEST VALUE	SIGNIFICANCE
All Units	+\$ 1.89	$Z = - 0.71 (\pm 1.96)$	No
One-Bedroom	- 2.89	$\epsilon T = 9 (4)$	No
Two-Bedroom	- 5.04	$Z = - 1.37 (\pm 1.96)$	No
Three-Bedroom	+ 19.40	$\epsilon T = 6 (25)$	Yes
North	+ 4.80	$\epsilon T = 51 (35)$	No
South	- 1.43	$\epsilon T = 39 (17)$	No
East	- 0.40	$\epsilon T = 40 (14)$	No
West	+ 5.80	$\epsilon T = 17.5 (6)$	No
Single-Family	+ 6.05	$Z = - 1.64 (\pm 1.96)$	No
Garden Apartment	- 3.20	$\epsilon T = 112 (81)$	No
Identical	- 6.08	$\epsilon T = 1 (8)$	Yes
Comparable	+ 5.31	$Z = - 1.65 (\pm 1.96)$	No

program units in Maryville and the rent levels of comparable nonprogram units. This result was not originally anticipated, but after the raw findings of the rent comparison experiment had been obtained, the outcome of the Wilcoxon analysis was not unexpected.

The closeness of the raw findings of the rent comparison experiment for the overall sample is seen again in the closeness of the findings of the analyses of the additional eleven subsets studied. In those, five showed the Section 8 units renting for more than their nonprogram counterparts, while six showed the opposite result. In only two of these cases, however, were the differences in rent great enough to be statistically significant. As noted above, the analysis of the three-bedroom units showed that the program units were renting for significantly more than the nonprogram units, while the analysis of the "identical" matched-pairs showed that the program units were renting for significantly less than the nonprogram units.

While the overall effect of the Section 8 Existing Housing program on the Maryville rental market appears to be negligible, the two cases in which a significant difference in rent levels was found illustrate a strong point and a weakness in the administration of the program, as discussed below.

The analysis of the identical matched-pairs illustrates the usefulness of the rent reasonableness test, and shows the conditions under which it can be most successfully implemented. When the staff of the Section 8 program evaluates a rent request for a potential program unit, the rent level of any identical units generally becomes a

ceiling on the amount that the MHA will approve. Except in extraordinary circumstances, the staff would not approve a rent which was higher than what the nonprogram units were receiving. Generally, the rent would be expected to be equal to the nonprogram units, as it was in eight of eighteen cases in this sample. If, however, the nonprogram units are renting for more than the FMR, the staff may try to get the landlord to accept a lower rent for the program unit. In exactly half of the cases in the test sample, the staff was able to secure units for program participants at below market rent levels. In only one case did the program rent exceed the rent level of an identical unit. The difference was only \$4.00 per month and appears to have been a result of the fact that the two units were put under lease at different times. The findings of this portion of the study indicate that the staff member in charge of landlord negotiations is doing a good job administering the rent reasonableness test in those cases where the best comparable units are available for review.

In the case of the analysis of the three-bedroom units, it must first of all be noted that three-bedroom rental units are relatively scarce in Maryville. This implies that their rent levels will be generally higher and subject to more negotiation than what might otherwise be expected. Furthermore, these units generally consist of single-family residences which means that there are no identical units to which their rent levels can be directly compared for reasonableness. This lack of availability of good comparable units is illustrated in the fact that of the twelve units that could not be matched, seven of them were

three-bedroom units. Finally, the FMR level for three-bedroom units is relatively high, which means that there is a wider range of possible rent levels through which the staff must make judgment. These factors working together help explain why these program units were found to rent for significantly more than the nonprogram three-bedroom units.

The results of the entire experiment indicate that, in general, the MHA is doing a good job in administering the Section 8 Existing Housing program in such a way that it has not adversely affected the local rental market. The staff should try to scrutinize the rent levels of the three-bedroom units more closely, but admittedly, these are among the most difficult cases in which to conduct a rent reasonableness test.

The rent comparison experiment and the subsequent analyses of that data have indicated that the Section 8 Existing Housing program has not had a significant effect on the overall rental market in Maryville, Tennessee. The experiment did show that the MHA was paying significantly higher rents for three bedroom program units than comparable nonprogram units were receiving in the private market. On the other hand, the experiment also indicated that through the program, some tenant participants were securing certain garden apartments at below market rent levels.

Chapter IV will conclude this study. It will review the findings of the experiment and the general experiences of the MHA with the Section 8 Existing Housing program in a broader sense, putting these experiences in the context of the subjects discussed in Chapter II.

CHAPTER IV

CONCLUSION

This study into the effect of the Section 8 Existing Housing program on the rental market in Maryville, Tennessee originated out of a concern that the program was having an inflationary impact on the local market. After examining the nature of the problem and the need for the study in Chapter I, Chapter II presented a great deal of background information on housing allowances, economic theory considerations, the Experiment Housing Allowance Program, the nationwide experiences, to date, with the Section 8 Existing Housing program and the specific experiences of the Maryville Housing Authority with the program. Chapter III detailed the actual rent comparison experiment; the general concept, the methodology used, the data analysis, and the findings of the effort. This chapter will conclude the study. First, it will briefly recap the findings of the study and will seek to explain them. The second section will examine the broader issue of housing allowances as they operate in the Maryville rental market. The final section will offer some general commentary and recommendations on the subject of housing assistance at the local level of government.

I. FINDINGS OF THE RENT COMPARISON EXPERIMENT

Of the twelve various sets of matched-pairs of Section 8 program units and nonprogram units analyzed, the rent levels of only two groups were found to be significantly different from one another. The outcome

of the three-bedroom test indicated that the MHA was paying above market level rents for those units, but the findings of the test of "identical" matched-pairs indicated that the MHA was, in effect, getting a "bargain" on certain garden apartments enrolled in the program. Of the sixty matched-pairs in the overall sample, there was less than a \$2.00 per month difference in the average rent level of program and nonprogram units. Nine matched-pairs rented for the same amount, twenty-six program units rented for more than their private counterparts, and twenty-five nonprogram units rented for more than their corresponding program units. It must be concluded from these findings that the Section 8 Existing Housing program has had a negligible effect on the overall Maryville rental market and only minor, somewhat offsetting, effects on two of eleven submarkets examined.

One of the major concerns with the program, the large increases in rent at enrollment for program units, might well be expected to occur early in the program when the emphasis is on rapid enrollment and the staff is less knowledgeable about the local market. As enrollment pressures have eased and the staff's familiarity with the market has increased, rents for program units have evidently been brought into line at the annual renewal of the housing assistance payments contract with the landlords. It is also difficult to evaluate a landlord's justification for requesting a sizeable rent increase during a period of rapid inflation. A good working relationship with the landlords in the community is essential to the success of the Section 8 Existing Housing program, and the staff must recognize the legitimacy of a landlord's

need to earn a reasonable return on his investment. Arbitrary denial of requested rent levels by staff members could be very harmful to the program.

The regulations of the Section 8 Existing Housing program require that a one-year lease and contract be in effect for all units on the program. This practice of requiring a lease is by no means universal in the private market in Maryville. One effect of having a lease is to freeze the rent level of each unit enrolling in the program for one year. During an inflationary period, this practice should help to hold down rent level increases, at least for program units. At the expiration of the lease and contract, the MHA can only offer a landlord an increase in rent equal to the increase in the FMR during the past year. During Maryville's experience with the program this increase has ranged between 7 and 12 percent. Being constrained by this regulation has helped the staff avoid being pressured into increases exceeding these limits; on the other hand, it has caused some landlords to refuse to continue their participation in the program.

Prior to conducting the rent comparison experiment the author was concerned that this approach might not uncover the program-related impact on the market if the private market had already been pervasively affected by the program. The greatest concern was for that subsample of units that had identical matches where a landlord might price the nonprogram units according to the program FMR levels. Ironically, it was the outcome of this very subsample analysis that did the most to allay this concern. Pretest conjecture for these "identical"

matched-pairs was that these program and nonprogram rents would be more similar than any other subsample. It was this expected similarity that caused the concern that any program-induced impact would be hidden. As it turned out, this was the only subsample tested in which the program units were renting for significantly less than the nonprogram units. In eight of the cases, both units in the matched-pair rented for the same figure, as expected. In nine cases, however, the program units rented for less than their private counterparts. This finding would seem to indicate that in these cases the FMR limits were not high enough to meet the private market levels, let alone high enough to pull the private market levels upward. In only one case did a program unit rent for more than an identical nonprogram unit, and that appeared to be a situation caused more by the timing of the lease than anything else.

This researcher found the local rental market to be more disjointed than imagined, with a large number of small landlords competing in the marketplace. As Henry Aaron noted in Chapter II, this situation permits additional demand to be translated into more supply (i.e., more housing services) without a significant impact on rent levels.

II. MARKET EFFECTS OF THE SECTION 8 PROGRAM

In assessing the effect of the program on the local market in a broader sense than just the findings of the rent comparison experiment, it is now apparent that the local program does not currently generate enough additional demand to impact the market. Although the MHA has contract authority for 203 housing units under the Section 8 Existing

Housing program, the leasing schedule for the most recently approved 50 units runs through the end of 1980. Assuming that the MHA can maintain 95 percent of the authorized total under contract, and that the split between units inside and outside of Maryville remains approximately the same as it is now, the number of program units in Maryville should stabilize at around 95 (there are currently 72 under contract inside the city). As mentioned earlier, this number represents only about 5 percent of the rental market in Maryville. In the absence of demonstrable spillover effects of the program it must be assumed that such a small percentage of units has no significant impact on the market, particularly in light of the outcome of the rent comparison experiment.

Lowry and Barnett make the same point in discussing the reasons why EHAP has had no noticeable impact on the rental markets in the test sites. Even though EHAP was an open enrollment program, less than 20 percent of the population met the eligibility qualifications and only one-half of these households enrolled on the program. Only about 6.5 percent of the total number of households in the test sites were receiving payments at any given time.¹ Goedert questioned whether or not the EHAP test sites were representative in this respect, but the experiences of the MHA with the Section 8 program would tend to support these findings.²

Another finding that helps explain the negligible impact of the program on the local rental market is the elasticity of supply for

¹Lowry, An Overview, pp. 15, 21; Barnett, p. 20.

²Goedert, p. 48.

acceptable rental units. The supply curve for eligible program units was found to be much more elastic than anticipated. Local landlords were willing to make substantial improvements to low quality units in order to qualify them for the program. In addition, some landlords were willing to reduce the rent levels of certain units in order to enroll them in the program. These two factors taken together created a much larger stock of potentially eligible units than expected, and increased the elasticity of the supply curve for program units.

One finding that this researcher encountered in the course of the rent comparison experiment is that there is no uniform price structure for rental properties in Maryville. In many cases landlords were apparently keeping rents below market levels. Sometimes the tenants turned out to be relatives or friends of the landlord, but in other cases no specific reason could be discerned. On the other hand, certain units seemed to be grossly overpriced, but rarely did the tenants complain. For one reason or another they might have been unable to rent other properties, or they just might not have had any idea of what else was available on the market.

Experience with the MHA's program tends to be similar to the EHAP and nationwide Section 8 findings that many participants use the program to reduce their rent burdens. This has the effect of lessening any potential impact of the program on the market. Also, while more MHA program tenants than average seem to use the program to reduce overcrowded conditions, it has been found that prior to enrollment many were already paying enough in rent to obtain acceptable units if they had only searched the market more thoroughly.

It should be noted that while the findings of the rent comparison experiment did not support the hypothesis that the program was having an inflationary effect on the local rental market, these findings did not prove that the program was not causing rent inflation in Maryville. A question of this importance is deserving of additional study. The approach of the rent comparison experiment was to examine a "slice" of the rental market at one point in time. Previous researchers have examined the overall rental markets in several communities over time and come to basically the same conclusions. It might be possible to address the question using a third approach in which the submarket of potentially eligible program units would be tracked over time and examined for program-induced impacts. Such an approach might uncover program externalities that the other approaches have missed.

III. CLOSING COMMENTS

This paper sought to examine the effect of the Existing Housing component of the Section 8 Housing Assistance Payments Program on the rental market in Maryville, Tennessee. The author began with the premise that the program was inflationary as it operated in the local market, and this study has been an attempt to test that hypothesis. In the course of the study, the author learned a great deal about the use of housing allowances as a means of providing housing assistance, and about the economics of the housing market. As a result of the study, it appears as though the MHA's experiences with the program have been fairly representative of the nationwide experiences with it.

Furthermore, it appears that the local market has accepted the introduction of the program without serious disruption.

The study has helped to alleviate the author's concern over the use of the program at the local level of government. The flexibility and adaptability of the program makes it an extremely useful tool for local decisionmakers to use in providing housing assistance opportunities to lower-income residents of a community.

This unique approach to the provision of housing assistance and the fact that the program provides this assistance at the lowest cost per household of any federal housing program does not guarantee, however, that the program is without its critics. Certain interests outside the government feel that the conventional public housing program represents the true cost of meeting the housing assistance needs of the lower-income households in this country, and that the Section 8 Existing Housing program merely represents an attempt on the part of the federal government to buy its way out of the problem cheaply.³ The federal government has expressed concern over the possibility that some local housing authorities may be doing a poor job of enforcing program quality standards, with the result that HUD is put in the position of subsidizing households which may be residing in substandard dwellings. Also, there has been some mention of the opportunity for fraud under the program since there is the necessity to negotiate the rent with the

³Chester Hartman, "The Housing Allowance Delusion," Social Policy, January/February 1974, p. 37.

landlords. Finally, HUD reports that some local housing authorities do not like the program since it can put the PHA in the middle of tenant-landlord disputes.

Despite the altered relationships among the participants involved in the program and the potential for abuse, the author feels as though a well-run Section 8 Existing Housing program can be very important to a community in complementing other locally administered housing assistance programs. The Section 8 Existing Housing program cannot address all of the housing needs of a community -- no single program should be expected to do that. It can, however, add a new dimension to a well-conceived, balanced system of housing assistance.

In the twelve years that the City of Maryville has been involved with federal housing programs, approximately six hundred subsidized rental units have been developed in the city, with an additional three hundred units currently in the planning or construction phase. The Section 8 Existing Housing program should continue to play an important role for the community in the provision of assisted housing opportunities because of the new dimension this program affords local housing authorities.

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APPENDIXES

APPENDIX A

REJECTED PROGRAM UNITS

1. 712 1/2 Neff Street
2. 114 Montvale Road
3. 606 Brown School Road
4. 931 Cherokee Street
5. 931 1/2 Cherokee Street
6. 1007 Court Street
7. 1206 Cupp Avenue
8. 203 Rule Street
9. 205 Rule Street
10. 438 Hilltop Avenue, Apt. #1
11. 445 Hilltop Avenue
12. 1813 E. Broadway Avenue

APPENDIX B

SUBSAMPLE ANALYSES

TABLE 5. TEST OF ONE-BEDROOM UNITS

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	D	SIGNED RANK OF $ D $	RANK WITH LESS FREQUENT SIGN
1	\$132.50	\$128.00	-\$ 4.50	-3	
2	132.50	120.00	- 12.50	-6	
3	132.50	128.00	- 4.50	-3	
4	132.50	128.00	- 4.50	-3	
5	86.50	120.00	+ 33.50	+8	+8
6	126.50	130.50	+ 4.00	+1	+1
7	124.50	124.50	0		
8	153.50	143.50	- 10.00	-5	
9	153.50	126.00	- 27.50	-7	

NOTE: $\epsilon T = 9$
 $N = 8$
 $CV = 4$

TABLE 6. TEST OF TWO-BEDROOM UNITS

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	D	SIGNED RANK OF $ D $	RANK WITH LESS FREQUENT SIGN
10	\$135.00	\$135.00	0		
11	154.00	128.00	-\$26.00	-25	
12	154.00	86.00	- 68.00	-28	
13	161.50	176.50	+ 15.00	+14	+14
14	161.50	176.50	+ 15.00	+14	+14
15	150.00	133.00	- 17.00	-19.5	
16	139.50	133.50	- 6.00	- 6	
17	139.50	139.50	0		
18	175.00	176.50	+ 1.50	+ 1	+ 1
19	175.00	155.00	- 20.00	-21.5	
20	175.00	150.00	- 25.00	-23.5	
21	125.00	136.50	+ 11.50	+ 9	+ 9
22	156.50	156.50	0		
23	107.50	107.50	0		
24	200.00	144.00	- 56.00	-27	
25	139.50	156.50	+ 17.00	+19.5	+19.5
26	156.50	156.50	0		
27	211.50	196.50	- 15.00	-14	
28	211.50	196.50	- 15.00	-14	
29	211.50	196.50	- 15.00	-14	
30	211.50	196.50	- 15.00	-14	
31	139.50	139.50	0		
32	90.00	100.00	+ 10.00	+ 8	+ 8
33	150.00	165.00	+ 15.00	+14	+14
34	150.00	150.00	0		
35	100.00	138.00	+ 38.00	+26	+26
36	165.00	165.50	- 8.50	- 7	
37	165.00	180.00	+ 15.00	+14	+14
38	150.00	145.00	- 5.00	- 4	
39	90.00	110.00	+ 20.00	+21.5	+21.5
40	157.50	152.50	- 5.00	- 4	
41	157.50	152.50	- 5.00	- 4	
42	147.50	147.50	0		
43	157.50	159.50	+ 2.00	+ 2	+ 2
44	180.00	155.00	- 25.00	-23.5	
45	180.00	165.00	- 15.00	-14	

NOTE: $\epsilon T = 143$
 $N = 28$
 $Z = -1.37$
 (± 1.96)

TABLE 7. TEST OF THREE-BEDROOM UNITS

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	D	SIGNED RANK OF $ D $	RANK WITH LESS FREQUENT SIGN
46	\$162.00	\$213.00	+\$51.00	+14	
47	175.00	194.00	+ 19.00	+ 8	
48	200.00	210.00	+ 10.00	+ 4	
49	200.00	208.00	+ 8.00	+ 1	
50	175.00	185.00	+ 10.00	+ 4	
51	150.00	205.00	+ 55.00	+15	
52	195.00	185.00	- 10.00	- 4	- 4
53	200.00	225.00	+ 25.00	+ 9.5	
54	196.50	188.00	- 8.50	- 2	- 2
55	200.00	230.50	+ 30.50	+12	
56	200.00	225.00	+ 25.00	+ 9.5	
57	125.00	173.00	+ 48.00	+13	
58	202.50	217.50	+ 15.00	+ 7	
59	180.00	193.00	+ 13.00	+ 6	
60	180.00	210.00	+ 30.00	+11	

NOTE: $\epsilon T = - 6$
 $N = 15$
 $CV = \pm 25$

TABLE 8. TEST OF SOUTH QUADRANT UNITS

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	D	SIGNED RANK OF D	RANK WITH LESS FREQUENT SIGN
1	\$132.50	\$128.00	-\$ 4.50	- 3	
2	132.50	120.00	- 12.50	- 6	
3	132.50	128.00	- 4.50	- 3	
4	132.50	128.00	- 4.50	- 3	
5	86.50	120.00	+ 33.50	+11	+11
6	126.50	130.50	+ 4.00	+ 1	+ 1
10	135.00	135.00	0		
11	154.00	128.00	- 26.00	-10	
12	154.00	86.00	- 68.00	-13	
13	161.50	176.50	+ 15.00	+ 7.5	+ 7.5
14	161.50	176.50	+ 15.00	+ 7.5	+ 7.5
15	150.00	133.00	- 17.00	- 9	
16	139.50	133.50	- 6.00	- 5	
17	139.50	139.50	0		
46	162.00	213.00	+ 51.00	+12	+12

NOTE: $\epsilon T = 39$
 $N = 13$
 $CV = 17$

TABLE 9. TEST OF EAST QUADRANT UNITS

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	D	SIGNED RANK OF $ D $	RANK WITH LESS FREQUENT SIGN
7	\$124.50	\$124.50	0		
8	153.50	143.50	-\$10.00	- 4.5	- 4.5
18	175.00	176.50	+ 1.50	+ 1	
19	175.00	155.00	- 20.00	- 9	- 9
20	175.00	150.00	- 25.00	-10	-10
21	125.00	136.50	+ 11.50	+ 7	
22	156.50	156.50	0		
23	107.50	107.50	0		
24	200.00	144.00	- 56.00	-12	-12
47	175.00	194.00	+ 19.00	+ 8	
48	200.00	210.00	+ 10.00		
49	200.00	208.00	+ 8.00	+ 2	
50	175.00	185.00	+ 10.00	+ 4.5	
51	150.00	205.00	+ 55.00	+11	
52	195.00	185.00	- 10.00	- 4.5	- 4.5

NOTE: $\epsilon T = -40$
 $N = 12$
 $CV = \pm 14$

TABLE 10. TEST OF NORTH QUADRANT UNITS

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	D	SIGNED RANK OF $ D $	RANK WITH LESS FREQUENT SIGN
9	\$153.50	\$126.00	-\$27.50	-15	-15
25	139.50	156.50	+ 17.00	+11	
26	156.50	156.50	0		
27	211.50	196.50	- 15.00	- 7.5	- 7.5
28	211.50	196.50	- 15.00	- 7.5	- 7.5
29	211.50	196.50	- 15.00	- 7.5	- 7.5
30	211.50	196.50	- 15.00	- 7.5	- 7.5
31	139.50	139.50	0		
32	90.00	100.00	+ 10.00	+ 4	
33	150.00	165.00	+ 15.00	+ 7.5	
34	150.00	150.00	0		
35	100.00	138.00	+ 38.00	+17	
36	165.00	156.50	- 8.50	- 2.5	- 2.5
37	165.00	180.00	+ 15.00	+ 7.5	
38	150.00	145.00	- 5.00	- 1	- 1
39	90.00	110.00	+ 20.00	+12	
53	200.00	225.00	+ 25.00	+13.5	
54	196.50	188.00	- 8.50	- 2.5	- 2.5
55	200.00	230.50	+ 30.50	+16	
56	200.00	225.00	+ 25.00	+13.5	

NOTE: $\epsilon T = -51$
 $N = 17$
 $CV = \pm 35$

TABLE 11. TEST OF WEST QUADRANT UNITS

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	D	SIGNED RANK OF $ D $	RANK WITH LESS FREQUENT SIGN
40	\$157.50	\$152.50	-\$ 5.00	- 2.5	- 2.5
41	157.50	152.50	- 5.00	- 2.5	- 2.5
42	147.50	147.50	0		
43	157.50	159.50	+ 2.00	+ 1	
44	180.00	155.00	- 25.00	- 7	- 7
45	180.00	165.00	- 15.00	- 5.5	- 5.5
57	125.00	173.00	+ 48.00	+ 9	
58	202.50	217.50	+ 15.00	+ 5.5	
59	180.00	193.00	+ 13.00	+ 4	
60	180.00	210.00	+ 30.00	+ 8	

NOTE: $\epsilon T = -17.5$
 $N = 9$
 $CV = \pm 6$

TABLE 12. TEST OF SINGLE-FAMILY UNITS

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	D	SIGNED RANK OF D	RANK WITH LESS FREQUENT SIGN
10	\$135.00	\$135.00	0		
15	150.00	133.00	-\$17.00	-14	-14
18	175.00	176.50	+ 1.50	+ 1	
19	175.00	155.00	- 20.00	-16.5	-16.5
20	175.00	150.00	- 25.00	-19.5	-19.5
21	125.00	136.50	+ 11.50	+ 9	
23	107.50	107.50	0		
24	200.00	144.00	- 56.00	-27	-27
32	90.00	100.00	+ 10.00	+ 6.5	
33	150.00	165.00	+ 15.00	+12	
34	150.00	150.00	0		
35	100.00	138.00	+ 38.00	+24	
36	165.00	156.50	- 8.50	- 4	- 4
37	165.00	180.00	+ 15.00	+12	
38	150.00	145.00	- 5.00	- 2	- 2
39	90.00	110.00	+ 20.00	+16.5	
44	180.00	155.00	- 25.00	-19.5	-19.5
45	180.00	165.00	- 15.00	-12	-12
47	175.00	194.00	+ 19.00	+15	
48	200.00	210.00	+ 10.00	+ 6.5	
49	200.00	208.00	+ 8.00	+ 3	
50	175.00	185.00	+ 10.00	+ 6.5	
51	150.00	205.00	+ 55.00	+26	
52	195.00	185.00	- 10.00	- 6.5	- 6.5
53	200.00	225.00	+ 25.00	+19.5	
55	200.00	230.50	+ 30.50	+23	
56	200.00	225.00	+ 25.00	+19.5	
57	125.00	173.00	+ 48.00	+25	
59	180.00	193.00	+ 13.00	+10	
60	180.00	210.00	+ 30.00	+22	

NOTE: $\epsilon T = -121$
 $N = 27$
 $Z = -1.64$
 (± 1.96)

TABLE 13. TEST OF GARDEN APARTMENT UNITS

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	D	SIGNED RANK OF D	RANK WITH LESS FREQUENT SIGN
1	\$132.50	\$128.50	-\$ 4.50	- 4	
2	132.50	120.00	- 12.50	-11	
3	132.50	128.00	- 4.50	- 4	
4	132.50	128.00	- 4.50	- 4	
5	86.50	120.00	+ 33.50	+22	+22
6	126.50	130.50	+ 4.00	+ 2	+ 2
7	124.50	124.50	0		
8	153.50	143.50	- 10.00	-10	
9	153.50	126.00	- 27.50	-21	
11	154.00	128.00	- 26.00	-20	
12	154.00	86.00	- 68.00	-24	
13	161.50	176.50	+ 15.00	+15	+15
14	161.50	176.50	+ 15.00	+15	+15
16	139.50	133.50	- 6.00	- 8	
17	139.50	139.50	0		
25	139.50	156.50	+ 17.00	+19	+19
27	211.50	196.50	- 15.00	-15	
28	211.50	196.50	- 15.00	-15	
29	211.50	196.50	- 15.00	-15	
30	211.50	196.50	- 15.00	-15	
31	139.50	139.50	0		
40	157.50	152.50	- 5.00	- 6.5	
41	157.50	152.50	- 5.00	- 6.5	
42	147.50	147.50	0		
43	157.50	159.50	+ 2.00	+ 1	+ 1
46	162.00	213.00	+ 51.00	+23	+23
54	196.50	188.00	- 8.50	- 9	
58	202.50	217.50	+ 15.00	+15	+15

NOTE: $\epsilon T = 112$ $N = 24$ $CV = 81$

TABLE 14. TEST OF "IDENTICAL" UNITS

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	D	SIGNED RANK OF $ D $	RANK WITH LESS FREQUENT SIGN
6	\$126.50	\$130.50	+\$ 4.00	+ 1	+ 1
7	124.50	124.50	0		
8	153.50	143.50	- 10.00	- 5	
9	153.50	126.00	- 27.50	-10	
10	135.00	135.00	0		
16	139.50	133.50	- 6.00	- 4	
17	139.50	139.50	0		
22	156.50	156.50	0		
23	107.50	107.50	0		
26	156.50	156.50	0		
27	211.50	196.50	- 15.00	- 7.5	
28	211.50	196.50	- 15.00	- 7.5	
29	211.50	196.50	- 15.00	- 7.5	
30	211.50	196.50	- 15.00	- 7.5	
31	139.50	139.50	0		
40	157.50	152.50	- 5.00	- 2.5	
41	157.50	152.50	- 5.00	- 2.5	
42	147.50	147.50	0		

NOTE: $\epsilon T = 1$
 $N = 10$
 $CV = 8$

TABLE 15. TEST OF COMPARABLE UNITS

SET NO.	COMPARABLE UNIT RENT	PROGRAM UNIT RENT	D	SIGNED RANK OF D	RANK WITH LESS FREQUENT SIGN
1	\$132.50	\$128.00	-\$ 4.50	- 4	- 4
2	132.50	120.00	- 12.50	-15	-15
3	132.50	128.00	- 4.50	- 4	- 4
4	132.50	128.00	- 4.50	- 4	- 4
5	86.50	120.00	+ 33.50	+35	
11	154.00	128.00	- 26.00	-32	-32
12	154.00	86.00	- 68.00	-41	-41
13	161.50	176.50	+ 15.00	+19.5	
14	161.50	176.50	+ 15.00	+19.5	
15	150.00	133.00	- 17.00	-23.5	-23.5
18	175.00	176.50	+ 1.50	+ 1	
19	175.00	155.00	- 20.00	-26.5	-26.5
20	175.00	150.00	- 25.00	-29.5	-29.5
21	125.00	136.50	+ 11.50	+14	
24	200.00	144.00	- 56.00	-40	-40
25	139.50	156.50	+ 17.00	+23.5	
32	90.00	100.00	+ 10.00	+11.5	
33	150.00	165.00	+ 15.00	+19.5	
34	150.00	150.00	0		
35	100.00	138.00	+ 38.00	+36	
36	165.00	156.50	- 8.50	- 8.5	- 8.5
37	165.00	180.00	+ 15.00	+19.5	
38	150.00	145.00	- 5.00	- 6	- 6
39	90.00	110.00	+ 20.00	+26.5	
43	157.50	159.50	+ 2.00	+ 2	
44	180.00	155.00	- 25.00	-29.5	-29.5
45	180.00	165.00	- 15.00	-19.5	-19.5
46	162.00	213.00	+ 51.00	+38	
47	175.00	194.00	+ 19.00	+25	
48	200.00	210.00	+ 10.00	+11.5	
49	200.00	208.00	+ 8.00	+ 7	
50	175.00	185.00	+ 10.00	+11.5	
51	150.00	205.00	+ 55.00	+39	
52	195.00	185.00	- 10.00	-11.5	-11.5
53	200.00	225.00	+ 25.00	+29.5	
54	196.50	188.00	- 8.50	- 8.5	- 8.5
55	200.00	230.50	+ 30.50	+34	
56	200.00	225.00	+ 25.00	+29.5	
57	125.00	173.00	+ 48.00	+37	
58	202.50	225.00	+ 15.00	+19.5	
59	180.00	193.00	+ 13.00	+16	
60	180.00	210.00	+ 30.00	+33	

NOTE: $\epsilon T = -303$; $N = 41$; $Z = -1.65 (\pm 1.96)$

VITA

John Raymond Jagger was born in Racine, Wisconsin on January 3, 1950. He attended public schools in Indianapolis, Indiana and was graduated from North Central High School in June 1968. The following September he entered Ball State University, and in June 1972 he received a Bachelor of Science degree in Urban and Regional Planning, and Economics.

He has held city planning positions with the City of Elwood, Indiana, the Tennessee State Planning Office, and the City of Maryville, Tennessee. He is currently the Assistant Director of Community Development in Maryville.

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