

**EXPANDING THE HOUSING SUPPLY THROUGH
CONVERSIONS OF THE EXISTING STOCK**

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December 1986

B.Sc.Arch., McGill University

June 1984

Submitted to the Department of Architecture in Partial
Fulfillment of the Requirements of the Degree

MASTER OF SCIENCE IN ARCHITECTURE STUDIES

at

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

June 1990

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Abstract

Expanding the Housing Supply Through Conversions of the Existing Stock

by

Sevag V. Pogharian

Submitted to the Department of Architecture on May 11, 1990, in partial fulfillment of the requirements for the Degree of Master of Science in Architecture Studies.

A large share of households remain poorly housed in the United States despite the steady improvement in overall housing conditions throughout the postwar period. Households that face the greatest difficulty in gaining access to suitable housing are those with low-income, i.e. those in the market for low-cost rental housing. These households have difficulty in gaining access to suitable housing because of the mismatch between the demand for such housing and the available supply.

We examine conversions of existing multifamily housing as a way of expanding the housing supply at submarkets which directly serve low-income households. It is assumed that by expanding these submarkets, the barriers against access to suitable housing would be reduced for low-income households.

We focus on the City of Boston as well as on two specific conversion projects to illustrate some of the merits and limitations of multifamily housing conversions as a means of expanding the housing supply at low-income submarkets.

Thesis Supervisor: Nabeel Hamdi

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Acknowledgements

One of the best things about my two years at MIT has been my friendship with my advisor, Nabeel Hamdi. I thank Nabeel for his great help with this thesis and, above all, for simply being a swell guy. I also thank Reinhard Goethert for helping me along and for his friendship. Finally, I thank Phil Clay for expanding my horizon in this vast field of housing.

I am grateful to the Research Division of Boston Redevelopment Authority for generously making their resources available to me.

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PART I: Introduction

Overall housing conditions have steadily improved in the United States throughout the postwar period. Today, the vast majority of Americans are very well housed by any historical or cross-national standard. There are few nations that rival the levels of housing standard that has gradually been achieved in the U.S.; Japan, for example, which is perhaps the current economic powerhouse of the globe, is not close to these levels.¹ Similarly, when compared with historical standards, current levels of housing in the U.S. are higher by every available measure. “Never before have so many been so well housed.”² As recently as 1940, 45% of all occupied units in the U.S. were either dilapidated or inadequate.³ This figure has now fallen to well below 10%.⁴

Today’s 240 million Americans arranged in 90 million households are incalculably better sheltered than were the 63 million people and 13 million households of 1890. The plight of the 1890s--poor health and squalid environment--is no longer the plight of a vast majority of Americans but rather

¹Ford Foundation, *Affordable Housing: The Years Ahead* (New York: Ford Foundation, 1989), P. 5

²P.D. Salins, “America’s Permanent Housing Problem,” P.D. Salins ed. *Housing America’s Poor* (Chapel Hill: The University of North Carolina Press, 1987), P. 2

³Cushing Dolbeare, “The Low-income Housing Crisis,” Chester Hartman ed. *America’s Housing Crisis: What is to be Done?* (Boston: Reutledge & Kegan Paul, 1983), P. 30

⁴*Ibid.* P. 30

that of left-behind segments, many of them concentrated in rural areas, and others, more visibly, in the inner cities.⁵

Although the nation's economy and housing markets have performed very well in providing decent shelter for most Americans, they have not performed perfectly as evidenced by the housing needs that persist today. Despite the fact that most American households are very well housed and despite nearly four decades of federal, state and local government efforts, a large share of households, disproportionately large for people of color, remain poorly housed.⁶ Similarly, although overall housing conditions have been steadily improving since the Second World War for both rich and poor Americans, there are indications, in recent years, that this improvement is slowing.⁷ Substandard housing persists and, in some parts of the country, is even on the rise.⁸ Furthermore, the overall decline in the incidence of substandard housing, experienced during the postwar period, is now offset by worsening neighborhood conditions, the persistence of radically segregated neighborhoods and a rise in the real cost of housing.⁹

America's housing problem is one of access and suitability. Access is a problem insofar as many households simply cannot gain entry even into the rental housing market. Furthermore, access is also a problem insofar as many households, though they are housed, cannot gain access to housing that is suitable to their needs. The barriers to access are external to a household and

⁵Ford Foundation, P. 5

⁶William Apgar, Jr., "The Leaky Boat: A Housing Problem Remains," P.D. Salins ed. *Housing America's Poor* (Chapel Hill: The University of North Carolina Press, 1987), P. 79

⁷Ibid., P. 67

⁸Ibid., P. 67

⁹Ford Foundation, P. 6-7

are either financial, social, physical or spatial in nature. The financial barrier to access is the gap between housing cost and household income, in other words, it is the problem of affordability. The social barrier to access is racial discrimination, a rigidity which is inherently present in the housing market, unlike other markets. Discrimination is a barrier which is most acutely suffered by low-income minority households, especially those consisting of single women with children. The physical barrier to access is inherent to the physical attributes of a housing structure. This barrier becomes significant for households or individuals with special physical needs resulting from such disabilities as being wheelchair bound. Finally, the spatial barrier to access is related to the ability to overcome distances to and from a housing structure; hence, this barrier is a function of the availability, cost and quality of transportation. Suitability is a problem insofar as many households occupy housing units which are unsuitable to their needs. Suitability refers to the match between the characteristics of a housing unit, i.e. its physical attributes, neighborhood attributes as well as quality level, and the particular needs and circumstances of a household. The needs and circumstances of a household can only be established by the individual household and not by societal standards. Consequently, individual households determine, for themselves, what constitutes a match or mismatch. "A great deal of sorting out occurs naturally in the marketplace. Like-minded people congregate residentially in neighborhoods that seem to offer the physical facilities and social milieu to which they aspire."¹⁰ Similarly, households seek housing units that suit their particular

¹⁰Ira Lowry, "Where Should the Poor Live?" P.D. Salins ed., *Housing America's Poor* (Chapel Hill: University of North Carolina Press, 1987), P. 107

needs, circumstances, aspirations, etc. Hence, one cannot simply set out to build suitable houses; one can only hope to make suitable housing accessible to households by, among other things, expanding the supply and choice of housing units that are available to them.

Households that face the greatest difficulty in gaining access to suitable housing are those with low-income, i.e. households in the market for low-cost rental housing. The most formidable barrier that mitigates against access to suitable housing for this group of households is the financial barrier. As the President's Commission on Housing declared, "the ability to pay for decent housing has become the predominant housing problem faced by the poor."¹¹ The financial barrier has become, for low-income households, a major problem in gaining access to suitable housing because of certain shifts occurring on both the demand-side as well as the supply-side of the housing market.

Low-income renters have difficulty in gaining access to suitable housing because of the expanding demand for low-cost housing. Lower-income families have lost real income at an unprecedented rate.¹² If the population of the U.S. is divided into five groups: the highest-paid 20% of all families, the next highest-paid 20%, and so on, and if these quintiles are compared to see how each fared, a disturbing trend emerges. "After adjusting for inflation...the average income of a family that was representative of the poorest 20% fell by 1.4% between 1979 and 1987. They have less purchasing power today than eight years ago. Meanwhile, a typical family in the top 20% has done rather

¹¹Regina O'Grady-LeShane, *Housing in the Greater Boston Area: Who Can Afford it?* (Boston: United Community Planning Corporation, 1983), P. 20

¹²Ford Foundation, P. V

nicely: their real earnings rose 12%.”¹³ This loss in the purchasing power of lower-income families is intimately connected to the rise in the number of poor families as well as the rise in the level of competition for available low-cost rental units. This increase in the level of pressure on the low-end housing submarket is also intimately connected to and, indeed, aggravated by the federal government’s retreat from the area of housing assistance during the 1980s.

In addition to this expanding demand, low-income renters have difficulty in gaining access to suitable housing because of a shrinking supply. The supply of low-income rental housing is not expanding in a way that would eventually give rise to an equilibrium with demand. Once again, the federal government’s drastic withdrawal from the field of housing assistance is a major cause. Federal support for subsidized housing production has declined drastically in the 1980s and is now almost non-existent. In addition to the fact that the supply of low-income housing is not expanding adequately, in some areas, the current supply is actually shrinking. A large number of federally subsidized units are either being lost or are under the threat of being lost due to default or expiration of subsidy contracts. Thousands of rental units built in the late 1960s and early 1970s through public subsidy programs are now at their critical 20-year mark. Owners of these properties have the option to prepay their mortgages at the end of 20 years. Once mortgages are prepaid, all restrictions relative to maintaining these units as affordable housing are removed and the units become prone to filtering upward into market rate housing. Privately owned and unsubsidized rental units disappear from the low-income housing submarket as well; “...over

¹³Aaron Bernstein, “America’s Income Gap: The Closer You Look, the Worse it Gets,” *Business Week* (New York: McGraw Hill, April 17, 1989), P. 78

the period 1974 to 1983 (...the most recent period for which data of this type are available) the number of rental units with real rents less than \$250 per month declined by over two million units.”¹⁴ This decline continues to occur as units fall into disrepair, become uninhabitable and are abandoned or when formerly low-cost units are upgraded to serve higher income tenants.¹⁵ The record vacancy levels of new and existing housing may suggest that there is no shortage of rental housing. Similarly, the record levels of renovation and repair expenditures each year may suggest that the nation’s stock of existing units is being well maintained and preserved. However, “[d]espite high levels of new construction and equally high levels of housing rehab expenditures, the supply of low-cost rental housing continues to decline. The result is continuing tightening of the low end of the rental housing market”¹⁶

The mismatch between the demand and the supply of low-income rental housing heightens, for low-income households, the barriers to gaining access to suitable housing. This mismatch and the resulting tight housing market have restricted choice and have locked many households into existing living situations, even as they enter new lifestages and their needs change. "While all income levels and types of households are affected , tenants are being hit harder than homeowners, especially the elderly, the poor, young singles and

¹⁴William Apgar, Jr., *The Declining Supply of Low-Cost Housing*, (Joint Center for Housing Studies of Harvard University, Working Paper W87-6, 1987), P. 17

¹⁵It is not only the absolute number of losses accruing to the rental sector that is significant, however. Also relevant is the modest half-life of rental units compared to owner-occupied units. The half-life, i.e. the median longevity of the stock, of rental units is a relatively brief forty-years while that of owner-occupied units is far in excess of a century. See J. Hughes & G. Sternlieb, *The Dynamics of America's Housing*, (New Brunswick: Center for Urban Policy Research, 1987), P. 169

¹⁶Ibid., P. 20

newlyweds, along with growing families, minority groups, and those with special housing needs."¹⁷

My aim here is to examine ways of facilitating access to suitable housing for low-income households. The conceptual framework that I use in understanding housing interventions consists of a demand-side and a supply-side. One can conceivably act on the demand-side, the supply-side or both, simultaneously, in attempting to alleviate the problems of access and suitability. Demand-side interventions typically include attempts at raising the level of economic well being of low-income households, thus, increasing their effective demand for housing. This is done with the belief that affordability is really the main barrier faced by low-income households and that increasing their purchasing power will facilitate access to suitable housing by allowing these households to more effectively compete in the private housing market. Community economic development and direct housing assistance to the poor, in the form of rent vouchers, would be examples of demand-side interventions. Supply-side interventions, on the other hand, typically include attempts at expanding or, at least, preserving the housing stock. This, in turn, is done with the belief that expanding the housing stock, at those submarkets which serve low-income households, would untighten this housing submarket, expand housing choice and alleviate, for these groups, the barriers to gaining access to suitable housing. Community economic development, if it has a housing component,

¹⁷Rolf Goetze, *Boston Housing Challenges and Opportunities*, (Boston: Boston Redevelopment Authority, May 1987), P. 1

and housing production subsidies would be examples of supply-side interventions.

Both demand-side and supply-side interventions have merit as means of facilitating access to suitable housing for low-income households. Indeed, no single approach can deal with the entire gamut of low-income housing needs and, often, both demand- and supply-side approaches must be linked in ways to suit the conditions of a given context.

I keep to the supply-side of our conceptual framework in this thesis and focus on one of the many ways in which the housing stock may be expanded. My focus is specifically on the process of expanding the housing supply, at submarkets that directly serve low-income households, through conversions of existing multifamily housing structures.

The body of the thesis consists of Parts II, III and IV. In Part II, I describe the geography of the housing supply system by outlining the possible ways of expanding the housing supply as well as the various actors and activities involved. I also discuss certain policy aspects which influence the system of housing supply and conclude by focusing on housing conversions as a means of expanding the inventory of housing units.

In Part III, I focus my discussion on the City of Boston and examine some recent changes within the city that have affected the demand for and the available supply of housing, particularly at low-income submarkets. I also consider Boston's experience with housing conversions in expanding and improving its housing stock and conclude with two case studies of conversion

projects. The case studies, both of multifamily housing conversions, are intended to illustrate the process of housing conversions.

In Part IV, I briefly reflect on the steps that I traced in the previous sections and attempt to evaluate the merits and limitations of existing multifamily housing conversions in expanding the housing supply at submarkets that directly serve low-income households.

PART II: Elements of the Housing Supply System

The System of Housing Supply

Additions to the housing inventory are needed for several reasons. Additions are necessary in order to house the net increase in households that result from population growth and the trend toward smaller households. Additions are also necessary to replace units lost temporarily or permanently from the inventory in order to continue to house all current households. Finally, additions are needed to ensure an adequate supply of vacant units to: a) accommodate mobility, provide adequate time for property transfers, and other demands for vacant primary residences, as well as b) to meet the demand for second homes and other special-use housing units that are not primary residences but are included in the vacant stock of housing.¹

There are several ways of expanding the housing inventory. Housing units may be added to the housing stock through the construction of new conventionally built housing, the production of new manufactured housing or through conversions of existing structures. The latter, in turn, entails either

¹*Additions to the Housing Stock by Means Other Than New Construction*, (Washington, D.C.: Department of Housing and Urban Development, December, 1982), P. 1

conversions of existing non-housing structures into housing or simply conversions of existing housing, i.e. the splitting of a large unit into two or more units, or the rehabing of units that are abandoned and uninhabitable.²

There are three broad categories of actors involved in the process of expanding the housing supply; they are the public, private as well as community sectors. Each of these actors performs a very different role in the process of expanding the supply of housing. The public sector consists of the federal government as well as state and local governments--including state and local housing finance agencies and the more than 3,000 public housing authorities around the country. The private sector, the most dominant actor, consists of the informal and formal sectors--both of which operate for profit. The informal private sector consists of actors who employ illegal means to achieve legal objectives. A very clear example of the informal sector in housing would be the do-it-yourselfer who builds, with perhaps the hired help of a neighbor, an accessory apartment without obtaining the required permits or zoning variance. Informals are, because of their scale and ephemeral nature, invisible; however, they also have, because of their sheer numbers, a great impact on housing production. The formal private sector, on the other hand, consists of developers, professionals/consultants, tradesmen, material suppliers as well as numerous financial intermediaries such as deposit institutions, insurance companies and pension funds. Finally, the community sector consists of civic and religious groups as well as national and local nonprofit organizations.

²Ibid., P. V

WAYS OF EXPANDING THE HOUSING SUPPLY

			Conventional New Con- struction	New Manufactured Housing	Conversion of existing Stock		
					conversion of existing nonhousing stock into housing	conversion of existing housing	
ACTORS & ACTIVITIES INVOLVED IN EXPANDING THE HOUSING SUPPLY	Public Sector	Federal	Policy Finance Management				
		State	Policy Finance Management				
		Municipal	Policy Finance Management				
	Private Sector	Informal	Production				
		Formal	Production Finance Management				
	Community Sector		Production Finance Management				

EXHIBIT 1: Elements of The Housing Supply System

The activities that are performed in the process of expanding the housing supply generally may be thought in terms of either relating to policy, production, finance or management. The public sector is the only sector that is involved in the policy aspect of housing. Though policies relating to housing emanate from the three levels within the public sector, the federal government has historically been very central in establishing the policies that have shaped the nation's housing. Production involves all those activities undertaken by actors such as for-profit or nonprofit developers, professionals/consultants,

tradesmen, do-it-yourselfers, material suppliers, etc., that directly go into producing or improving housing. Finance involves all those activities that relate to raising the needed capital for a project. Finally, management involves all those activities that go into selecting tenants for a project as well as the overall running of the project once it comes on-line.

Supply Side Policy Aspects

Federal housing policy in the U.S. has certain unique features: housing is not the foremost objective of U.S. housing policy and, furthermore, decent housing for lower income groups is quite incidental. Housing policy in the U.S. has consistently emphasized a host of political and economic objectives. Housing has clearly not been viewed by policy makers as a problem in itself which merits prime attention; it has instead been viewed as a vehicle to remedy general economic ills.³ The first major subsidized housing program in the U.S. was enacted only when the need for better housing coincided with another national objective: the need to reduce unemployment resulting from the Great Depression.⁴ The federal government's housing policy objective has traditionally been to stimulate the economy by using housing production as a lever. *"Housing historically has been viewed as a powerful countercyclical tool, either as a stimulus leading the way out of recession, and pulling the balance of American economy with it--or as a damper banking the flames of an overheated business cycle."*⁵ Housing production is able to be a locomotive for the American economy because of its sheer scale.

Its scale and impact on the economy are barely hinted at when we reflect on an inventory that, by the mid 1980s, approached 100-million units with a market value easily in excess of \$3 trillion; a dynamism only partially revealed by

³Rachel Bratt, *Rebuilding a Low-Income Housing Policy*, (Philadelphia: Temple University Press, 1989), P. 34

⁴Ibid., P. 55

⁵Hughes & Sternlieb, P. 118

average annual removals from the total stock twice as large as the standing inventory of Cleveland; and annual additions whose value, in mid-1980s terms, approached \$150 billion.⁶

The federal government has attempted to achieve its housing policy objectives by pursuing the strategies of supporting financial institutions, providing direct subsidies for production and, finally, providing tax incentives.

Since the Great Depression, the federal government has actively supported financial institutions in order to stimulate housing production. The Federal Housing Administration (FHA) was created, in 1934, primarily to unfreeze the home-building industry and thereby stimulate employment and the economy. FHA insurance of homeowner's rehab loans and mortgages on newly purchased or constructed homes was the first major production-oriented support program for financial institutions.

With FHA insurance, financial institutions were willing once again to lend, with the guarantee that most of the loaned funds could be recovered from the FHA in the event of foreclosure. And with the knowledge that newly built homes could be sold because attractive financing was available, builders became willing to get back into construction, which stimulated the overall economy.⁷

The Federal National Mortgage Association (FNMA) was created, in 1938, to further support financial institutions. FNMA was to provide quick liquidity to financial institutions by purchasing FHA insured loans from those institutions wanting to convert long-term, nonliquid assets into cash. Similarly, the Federal Home Loan Mortgage Corporation (FHLMC) was created, in 1970, to support the "secondary mortgage market"--the buying and selling of mortgage loans

⁶Ibid. P. 103

⁷Bratt, *Rebuilding a Low-Income Housing Policy*, P. 19

after the loans have been originated by private lenders. The purpose in supporting the secondary mortgage market was to insure that mortgage funds remain available in all regions of the country so that all regions benefit from the stimulus to local economies resulting from home-building.⁸

Despite the success of the federal government's strategy of supporting financial institutions--bolstering the economy in the 1930s, enhancing the flow and availability of mortgage credit since then and expanding the overall supply of housing--this strategy has neither been geared to nor has had a major impact on stimulating the production of low-income housing.⁹

There have been two categories of direct subsidies for housing production. The first category consists of housing that is produced and owned by the public sector, while the second consists of housing that is produced and owned by the formal private sector with various public subsidies.

The U.S. Housing Act of 1937 created the public housing program, a major mechanism of public sector production and ownership of housing.¹⁰ This program represents the most direct federal government effort in low-income housing production and the only program that involves government as opposed to private ownership. Although this program was designed primarily as a response to the political and economic ills stemming from the Great Depression, and although it was consistently criticized and undermined by the private sector,

⁸See J.O. Light & W.L. White, *The Financial System*, (Homewood: Richard D. Irwin, Inc., 1979), chapter 18

⁹Bratt, *Rebuilding a Low-Income Housing Policy*, P. 20

¹⁰See Bratt, *Rebuilding a Low-Income Housing Policy*, chapter 3 for an analysis of the public housing program

the public housing program has actually performed better than is widely believed in expanding the supply of low-income housing.¹¹

In 1949, Congress articulated a new role for the private sector in federally subsidized housing programs: “private enterprise shall be encouraged to serve as large a part of the total [housing] need as it can; governmental assistance shall be utilized where feasible to enable private enterprise to serve more of the total [housing] need.”¹² Thus, in 1959, the first in a series of programs providing financial incentives to private builders of multifamily housing was enacted. This was a manifestation of a housing policy attempting to achieve general welfare in housing through furthering entrepreneurial welfare.

Though the strategy of direct subsidies for housing production is a rather effective federal strategy in expanding the supply of low-income housing, it is, in magnitude, dwarfed by federal housing related tax expenditures. Exhibit 2 summarizes, for 1984, the magnitude of these expenditures. The largest federal expenditures related to housing assistance are those provided not through direct assistance but through tax expenditures, particularly through homeowner deductions. The poor, however, do not benefit greatly from housing related tax expenditures, especially from homeowner deductions. While direct housing subsidies go almost exclusively to lower-income households, homeowner deductions go to upper-income households in a highly disproportionate manner.¹³ Of households earning less than \$10,000 per year--25.4 percent of

¹¹ See Rachel Bratt, "Public Housing: The Controversy and Contributions," R. Bratt, C. Hartman, A. Meyerson, eds. *Critical Perspectives on Housing*, (Philadelphia: Temple University Press, 1986)

¹² Bratt, *Rebuilding a Low-Income Housing Policy*, P. 88

¹³ Cushing Dolbear, "How the Income Tax System Subsidizes Housing for the Affluent," R. Bratt, C. Hartman, A. Meyerson, eds. *Critical Perspectives on Housing*, (Philadelphia: Temple University Press, 1986), P. 268

EXHIBIT 2: Housing Related Federal Expenditures, 1984

Type of Expenditure	In \$ Millions
Direct Outlays	8,585 (16.4%)
Tax Expenditures	
<i>Investor deductions</i>	
Historic-structure preservation	320
Tax-exempt rental housing bonds	1,275
Mortgage Revenue bonds	1,785
Accelerated rental housing depreciation	815
Five-year amortization of low-income housing rehab	60
<i>Subtotal</i>	4,225 (8.1%)
<i>Homeowner deductions</i>	
Mortgage interest	23,480
Property taxes	8,775
Capital-gain deferral	4,895
Capital-gain exclusion	1,630
Residential energy credit	630
<i>Subtotal</i>	39,410 (75.4%)
<i>Total Tax Expenditures</i>	43,665 (83.6%)
TOTAL	52,250 (100%)

Source: Cushing Dolbear, "How the Income Tax System Subsidizes Housing for the Affluent," R. Bratt, C. Hartman, A. Meyerson, eds. *Critical Perspectives on Housing* (Philadelphia: Temple University Press, 1986), P. 266

all households in 1981--only one out of eight received either direct assistance or tax deductions. Only 6 percent of these households received homeowner deductions.¹⁴ However, of households earning over \$50,000 per year--7.2 percent of all households in 1981--six out of seven received federal housing assistance. A full 85.1 percent of these households received homeowner

¹⁴Ibid., P. 268

deductions. Furthermore, the average value of these deductions exceeded the previous group's by over 20 times.¹⁵

Housing policy has benefitted homeowners significantly more than it has benefitted the poor. The tax deductions on homeownership are proportional to the homeowner's marginal tax bracket. It is, therefore, an inequitable feature of federal housing-related tax expenditures that the value of homeowner tax deductions jumps sharply with rise in household income.¹⁶ In other words, the more affluent the homeowner, the greater his tax benefits. Another feature of federal housing-related tax expenditures is that "[a]t very low household incomes there is no net tax inducement to owner occupancy; in fact the balance of tax incentives tips slightly toward rental tenure."¹⁷ Hence, not only is federal housing policy such that homeowners are given the lion's share of subsidies but it is also such that the poor are induced to remain renters. These inequities were certainly true during 1984, as shown by the above exhibit, but they were also true for the period prior to 1984 and although the Tax Reform Act of 1986 ushered some changes, it did not significantly reduce these inequities. Federal tax incentives remaining after the 1986 Tax Reform still reward homeownership on the part of the more affluent.¹⁸

U.S. federal housing policy adds up unambiguously to a filtering strategy, a strategy in which the subsidies are focused on the middle- and upper middle-income brackets with the belief that new housing production for the well-to-do

¹⁵Ibid., P. 268

¹⁶George Peterson, "Federal Tax Policy and the Shaping of Urban Development," A.P. Solomon ed., *The Prospective City*, (Cambridge: The MIT Press, 1980), P. 416

¹⁷Peterson, P. 416

¹⁸Goetze, *Boston Housing Challenges and Opportunities*, P. 3

results in improvement in housing quality for the poor. The filtering hypothesis is as follows:

As new housing is built, some families move into it and leave their old housing vacant. The demand for the type of housing they formerly occupied decreases, reducing its price and permitting families with somewhat lower incomes to buy or rent it. In turn, these families move out of housing that is somewhat lower in quality, reducing the demand for that type of housing and enabling families of still lower income to move in. At the bottom of the quality distribution, some households move from substandard to standard housing, and some are able to move out of the worst housing, which then drops out of the stock.¹⁹

Although legislation has been proposed, debated, amended and enacted piece by piece with neither Congress nor the President publicly attempting to develop a coherent housing strategy, the record indicates that, despite this lack of neatness, the U.S. has rather consistently pursued a filtering strategy.²⁰ The success of the filtering strategy in facilitating access to suitable housing for low-income households is open to debate. The success of this strategy, however, in stimulating homebuilding and homebuying is unquestionable.

An alternative to the filtering hypothesis might be the following. The benefits of new housing additions at upper income submarkets rarely filter down to lower income submarkets due to rigidities within housing markets. Hence, it might be argued, the filtering strategy is not the optimum way to facilitate access to suitable housing for low-income households and new housing additions should be directed at those submarkets which directly serve the poor.

¹⁹John Weicher, "Private Production: Has the Rising Tide Lifted All Boats?" P.D. Salins ed., *Housing America's Poor*, (Chapel Hill: The University of North Carolina Press, 1987), P. 53

²⁰Aaron, P.

A criticism that is often leveled at the latter hypothesis is that it would help facilitate access to suitable housing for low-income households through the same mechanism as the filtering hypothesis. In other words, as new low-income housing is built, some families move into it and leave their old housing vacant. The housing they formerly occupied then becomes available for other low-income families who, by moving, would be more suitably housed. At the bottom of the quality distribution, some households move from substandard to standard housing, and some are able to move out of the worst housing, which then drops out of the stock. Hence, a criticism of the direct assistance hypothesis might continue as follows: not only does it depend on the same mechanism as the filtering hypothesis but it also lacks two advantages. First, the benefits of new housing additions at low-income submarkets are felt only at the lower end of the spectrum of housing submarkets, thus, fewer people would benefit through the direct assistance hypothesis than through the filtering hypothesis. Second, new housing additions at low-income submarkets would by necessity require deep subsidies while in the filtering hypothesis, the private market can provide, at upper income submarkets, new housing without any subsidy. A number of things are presupposed in these criticisms, however. It is presupposed that the benefits of new housing additions at upper income submarkets do indeed work all the way down to lower income submarkets. This is clearly not the case during periods when there is an overall surge in housing demand. Under such conditions, the benefits of new housing additions at upper income submarkets do not disperse very far. Similarly, it is presupposed that the private market works without any form of subsidy when it operates at submarkets that serve upper income households. This, however, is

not an accurate presupposition since homeowner deductions, for example, represent a significant form of subsidy to demanders and suppliers of housing at upper income submarkets.

The System of Housing Conversions

A housing structure has several unique properties. It is, for example, an exceedingly long-lived good and, as a result, the number of new units added to the nation's stock in any year is a very small fraction of the existing stock. A housing structure is also a rather immobile good and, consequently, the characteristics of the neighborhood in which it stands become one of the structure's most important attributes. Furthermore, a housing structure may contain one or more housing units and may be modified to contain fewer or more units by changing the size of the units or the size of the structure.

There exist qualitative differences among single-family and multifamily housing structures and the two merit separate discussion. This thesis focuses on conversions of existing multifamily housing structures.

A housing unit may be characterized as a combination of its type of tenure, physical attributes, neighborhood attributes and, finally, its level of quality. Type of tenure refers to whether a unit is a rental or some form of ownership, including condominium or cooperative. Physical attributes include numerous features of the structure like its size, number, organization and character of rooms, materials, as well as mechanical and electrical services; it also includes lot features like size, placement and topography. Neighborhood attributes refer to features like socioeconomic mix, shopping, public services, physical amenities and disamenities as well as accessibility to desirable destinations. The quality level of a housing structure reflects the quality levels of its physical as

well as neighborhood attributes. Quality level is a necessary conceptual tool as illustrated by considering the following scenario. Given two neighboring housing structures of identical physical attributes such as size, layout, materials, etc., and given that one of the structures has, due to neglect, deteriorated while the other has not, then, clearly the two structures ought to be, despite having identical physical and neighborhood attributes, differentiated. Hence, while considering the physical attributes of a housing structure would indicate whether the exterior walls are brick or clapboard, considering its quality level would indicate whether the brick walls need to be repointed.

The nation's housing stock is very heterogeneous and in a continual state of flux. Tenures of units shift from ownership to rental and back again just as structures are altered and rearranged. Furthermore, units are lost temporarily or permanently from the inventory through casualty losses, demolitions, removals from site or through conversions into nonresidential uses. Given this heterogeneity and continual flux in the housing stock, there clearly is no single static housing market.

The housing market is segmented; it consists of many submarkets and each submarket consists of substitutable housing units. Housing submarkets are to some extent insulated from one another because different types of families are in the various submarkets. In other words, "...the linkages among submarkets are, in reality, families. The link distance between two submarkets is determined by the proportion of families in the first market who would react to a given change in the second submarket or vice versa."²¹ The degree of

²¹W. Grigsby, *Housing Markets and Public Policy* (Philadelphia: University of Pennsylvania Press, 1968), P. 48

substitutability of one housing unit by another is a function of the characteristics, i.e. type of tenure, physical attributes, neighborhood attributes and quality level, that they share. The shifting needs and desires of families are met by moving from one submarket to another. These moves may cancel each other out, leaving the demand curve for housing unchanged but usually the net effect is to create upward pressure in some submarkets and downward pressure in others.²²

After all supply adjustment plans come to fruition, the total number of housing units that remain within a given submarket is the sum of the following:²³ 1) the number of new units constructed at a submarket, 2) the total number of units originating at that submarket, 3) the number of units from other submarkets that filter to this submarket, 4) minus the number of units, originating from this submarket, that filter to all other submarkets or are converted to non-housing use or to non-use, i.e. abandonments.

I consider all forms of modifications to the type of tenure and physical attributes of a housing structure as well as certain kinds of changes to its quality level as conversions. A change in the type of tenure of a housing unit from rental to condominium, for example, is referred to here as conversion, not as change-in-use. In this scenario, there is no change in use per se since the housing unit simply remains in use as a housing unit. In the case where there is a conversion in type of tenure from rental to condominium, for example, the housing unit filters from one submarket to another where the destination submarket typically serves households of higher income and offers tax benefits

²²Ibid., P. 33

²³Jerome Rothenberg, "Supply Responsiveness from the Existing Housing Stock vs. New Construction in Stratified Markets," (MIT: Monograph), P. 19

which the originating submarket did not. I reserve "change-in-use" to refer to a subset of conversions, namely, those which convert a structure from providing housing services to nonhousing services or vice versa. Furthermore, any change to the physical attributes of a housing structure--such as the number or organization of its rooms or its lot features--is considered here as conversion. Additionally, certain kinds of changes to the quality level of a housing structure--such as the fairly rapid changes that come about from restoration, renovation or rehabilitation--is also considered here as conversion.

I do not consider, as conversions, changes in the neighborhood attributes of a housing structure, changes in the quality level of the neighborhood attributes and certain kinds of changes to the quality level of its physical attributes--those fairly slow changes to the quality level that are brought on by undermaintenance. I will, for lack of a better word, refer to these types of changes as externalities.

The characteristics of a housing structure may either undergo slow or rapid change. Externalities, i.e. changes in the neighborhood attributes of a housing structure or in the quality level of the neighborhood attributes or the mentioned changes to the quality level of the physical attributes, are by nature slow or slower than conversions. On the other hand, conversions, i.e. changes in the type of tenure, physical attributes and certain quality level changes to the physical attributes, are by nature relatively rapid. The rate of change in quality level of the physical attributes of a housing structure may either be slow or relatively rapid. The mechanism of undermaintenance and the resulting deterioration of the quality of the physical attributes of a housing structure is a relatively slow form of change and considered, here, as an externality.

However, the mechanism of restoration, renovation and rehabilitation and the resulting increase in the quality of the physical attributes of a housing structure are relatively rapid forms of change and are considered, here, as conversions. It must be emphasized that although a rapid change usually implies a willful act, a slow change such as one caused by undermaintenance does not necessarily imply the reverse. Certain housing investors such as slumlords pursue a calculated strategy of undermaintenance to maximize their return.

As the characteristics of a housing structure change, either through conversions or through externalities, the submarket of that structure is also likely to change. I will use the term filtering to refer to this process of change in the submarket of a housing structure. If, for example, a housing unit is converted from rental to condominium, then, a change in submarket would be triggered since these two types of tenure are not perfectly substitutable. Similarly, a housing structure containing a single housing unit of five bedrooms would no longer meet the demands of the same set of families if it is split into two housing units of two bedrooms each. Hence, this kind of conversion, namely splitting, would, in this case, cause a housing structure to change from its original submarket to a new destination submarket where it is substitutable with a different group of housing structures. A change in submarket would also be triggered if the housing units in a structure are consolidated rather than split. Finally, if the type of tenure and physical attributes of a housing structure are unchanged while the quality level of its physical attributes are improved through restoration or renovation, then, depending on certain other factors, the submarket of that structure may change. Whether there is a change in the submarket depends on the degree of change in quality level as well as the nature

of the changes occurring in both the attributes and quality level of the neighborhood.

Changes in neighborhood attributes--socioeconomic mix, shopping, public services, physical amenities, etc.--may trigger a change in the submarket of a housing structure since as the neighborhood attributes of a housing structure change, the households that demand that housing structure may also change. Consider an example of an urban neighborhood which is experiencing a change in its socioeconomic mix resulting from the migration, to the suburbs, by its middle-class residents while its lower income blue-collar residents are left behind. The households demanding housing in this neighborhood prior to the migration would most likely be very different from those following the migration. Similarly, as the quality level of a neighborhood changes, households that demand housing within that neighborhood may also change. Consider the example of the same neighborhood which suffers, as a result of the nature of its migration, an erosion of its tax base and, consequently, a reduction in the level of maintenance of its infrastructure and amenities as well as a reduction in the quality of services such as fire or police protection. Thus, both conversions and externalities may trigger submarket changes or filtering.

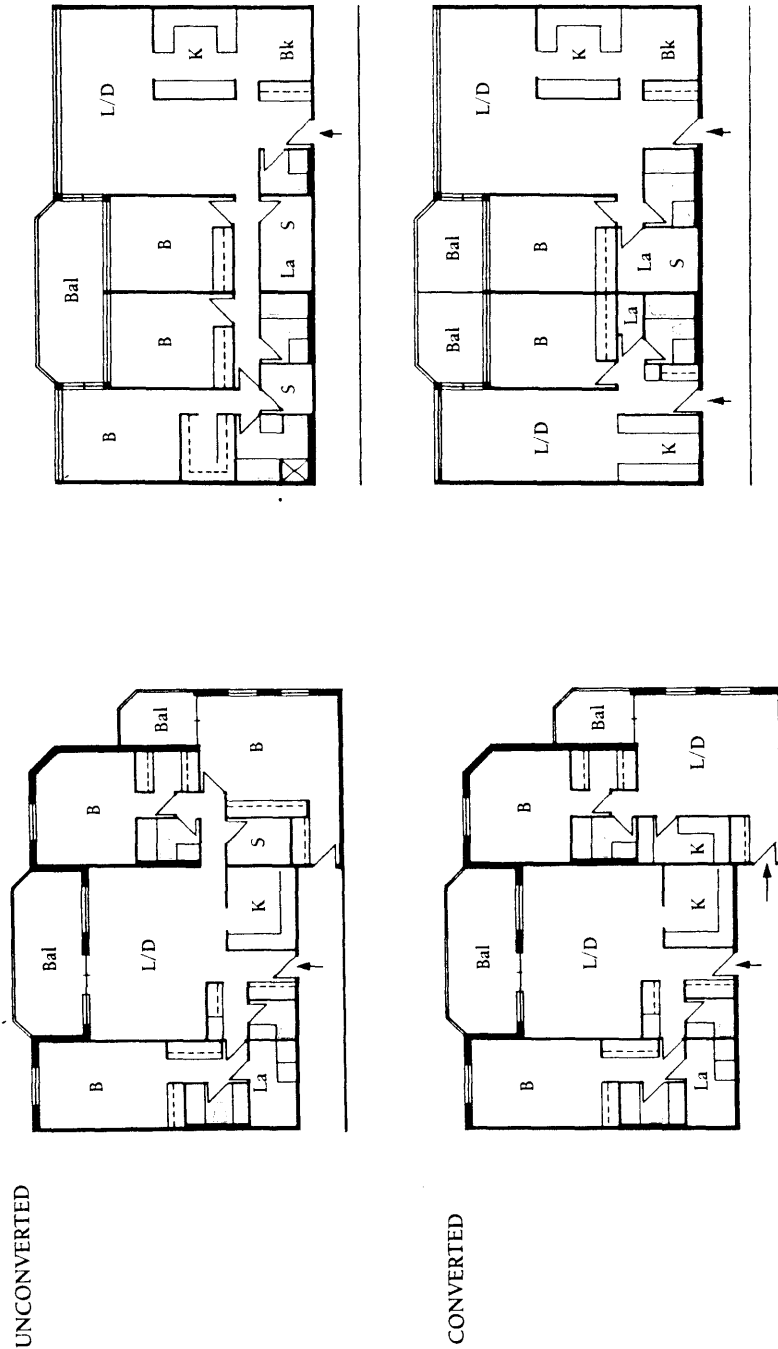
Though conversions and externalities have in common the potential of causing filtering, they also have several important differences. Housing conversions, as we have noted, may create housing units in absolute numbers. This may be achieved through splitting, as shown in Exhibit 3, or retrieving through rehabilitation units that are abandoned and uninhabitable. Housing conversions, however, may also eliminate units in absolute numbers. This may occur through consolidating units into larger but fewer units, i.e. the reverse of

the process shown in Exhibit 3. Thus, conversions of existing housing do not automatically imply expansion of the housing supply. Depending on the type of conversion, the total supply of housing may, in absolute terms, either expand or contract. Externalities, however, do not create housing units in absolute numbers though they do, through the mechanism of undermaintenance, cause units to eventually become uninhabitable and abandoned.

Though housing conversions may create housing units in absolute numbers, the units created do not necessarily expand low-income housing submarkets directly. An abandoned and uninhabitable housing structure may be rehabilitated. However, the end result of this conversion may be anything from luxury condominiums to low-income rental housing. Similarly, a single-family housing structure may be split into two or more units. Yet, the end result of this conversion may again be anything from luxury condominiums to low-income rental housing. Thus, expanding the housing supply through conversions of existing housing does not necessarily imply expanding low-income housing submarkets directly.

A housing structure may, as a result of a conversion, filter from its current or originating submarket to a destination submarket. The destination submarket of a housing structure is determined by the characteristics of the housing structure prior to the conversion, the extent of the conversion and, very importantly, the motive of the actor sponsoring the conversion. An actor from the formal private sector sponsoring a conversion would most likely choose a destination submarket that would maximize his returns. On the other hand, a sponsor from the nonprofit or community sector would choose a destination

EXHIBIT 3: Expanding the Housing Supply Through Splitting



Source: *New Made-to-Convert Housing*, (Ottawa: Canada Mortgage and Housing Corporation, 1988), P. 30 & 32

submarket that would directly contribute to facilitating access to suitable housing for households in need.

It may be argued that expanding the housing supply through conversions, even if the direct beneficiaries are upper income submarkets, would ultimately expand low-income housing submarkets as well. This argument depends heavily on the filtering hypothesis. The benefits of housing additions at upper income submarkets, however, do not filter to lower income submarkets during periods of strong housing demand. During such periods, filtering tends to be upward rather than downward. I will, therefore, examine here the process of expanding the housing supply at submarkets which directly serve low-income households. My focus will be specifically on expanding the housing supply through conversions of existing multifamily housing.

PART III: The Boston Context

Boston's Housing Challenge

Between 1950 and 1980, Boston's population declined by almost one-third.¹ This large scale attrition in population, from 801,000 to 563,000, resulted from loss of jobs and suburbanization and it ushered the city into a "throw-away" housing era; demolition, conversions, and removals totalled 19,000 dwelling units from 1970 to 1980, equal to 8 percent of Boston's 1970 standing stock.

Boston's 30 year trend of decline in population reversed during the 1980s. The city has been experiencing population growth and one of the strongest factors driving its population gains has been economic growth. Between 1976 and 1985, 83,000 new jobs were created in Boston.² Boston Redevelopment Authority estimates that Boston's population increased from 563,000, in 1980, to 604,000, in 1985, an increase of 41,000.³ Coupled with this increase in population has been the trend of declining average household size. The overall household size declined from 2.8 persons per household, in 1970, to 2.4 persons per household, in 1985.⁴ The increase in population along with the

¹Alex Ganz, *Housing Shortage*, (Boston: Boston Redevelopment Authority, 1986), P. 1

²Ibid., P. 2

³Alex Ganz, *The Boston Housing Market and its Future Perspective*, (Boston: Boston Redevelopment Authority, 1985), P. 3

⁴Ganz, *Housing Shortage*, P. 2

increase in the number of households, resulting from shrinking household size, have put enormous pressure on Boston's housing market. Furthermore, an important characteristic of Boston's population, which affects the nature of housing demand, is that "[a]s of Spring 1985, 21 percent of Boston's population was classified as 'in poverty' (less than \$10,600 [gross annual income] for a family of four). Almost half of Boston's population could be classified as low-income (double the poverty income level)."⁵ Thus, a very large segment of the population has very weak effective demand for housing and, therefore, faces acute difficulties in a tight housing market.

Boston's growth in jobs, population, number of households and ultimately housing demand have outpaced the growth in its housing supply. Boston's recent and current housing production has fallen behind demand. In the first half of the 1980s, the housing stock grew at an average annual rate of 1,700 dwelling units, made up roughly equally of net new construction and conversions from residential and nonresidential structures.⁶ Thus, the housing stock expanded from a level of 241,000 in 1980 to a level of 250,000 in 1985. The pace of annual average additions has been increasing in 1985 to approximately 2,000 dwellings per year. However, this rate of annual increase in the number of housing units is only about one-half of what is needed; furthermore, the current housing production pipeline holds little promise of a significant increase in the rate of housing additions. A 1985 estimate by Boston Redevelopment Authority suggests that "Boston would need an average annual addition of 4,000 dwelling units a year over the next ten years, to accommodate

⁵Ganz, *The Boston Housing Market and its Future Perspective*, P. 5

⁶*Ibid.*, P. 4

population and job growth, and at least an additional 1,000 dwellings a year for replacement of old and obsolescent housing. Boston's experience since 1980 suggests that perhaps half of these needs could be met through conversion of older structures."⁷

Radical shifts have been occurring in the mix of Boston's housing stock which heighten, for low-income households, the barriers to gaining access to suitable housing; simply looking at Boston's housing production gap understates the housing problem faced by the low-income. By the end of 1986, Boston had over 26,000 condominiums. "About 45 percent of all condominiums have been created since the beginning of 1984, and of these, less than 5 percent were new or previously nonresidential."⁸ In other words, a very large portion of Boston's condominiums have emerged out of conversions of existing rental housing. Condominium conversions, if they are strictly conversions in type of tenure, add nothing to the housing stock. Such conversions simply diminish the overall rental housing stock and increase the mean monthly gross rents for those units rented out by investors.⁹ Conversions of this sort trigger a change in housing submarket. Boston's experience of this change in submarket has been one where a unit moves from a submarket which serves lower income households to a submarket which serves higher income households. Losses of housing units that serve low-income households are occurring through means other than condo conversion as well. Some 2,600 housing units controlled by Boston Housing Authority (BHA) are currently

⁷Ibid., P. 7

⁸Rolf Goetze, *Boston Housing Challenges and Opportunities*, (Boston: Boston Redevelopment Authority, May, 1987), P. 2

⁹Ganz, *Housing Shortage*, P. 3

vacant and uninhabitable. To deal with this problem of abandonment and deterioration, "BHA plans to reduce its 14,000 family units to about 11,500, through redevelopment and 'reconfiguration' [i.e. consolidation of housing units]."¹⁰ This would mean the disappearance of 2,500, albeit uninhabitable, housing units. Moreover, about 3,600 privately-owned, federally assisted housing units were, in 1985, in default on mortgage payments and in the process of foreclosure by HUD. Also, owners of more than 15,000 units of subsidized housing in Boston, built under federal mortgage programs in the late 1960s and early 1970s, will be eligible to pay off their mortgages as their projects become 20 years old. When these mortgages are prepaid, all restrictions relative to maintaining these units as affordable housing are removed and the units become prone to filtering upward into market rate housing.

The federal government's drastic withdrawal from the field of housing assistance, at a time of rising need for assistance within Boston, has caused the city to lose ground in the production of low-income housing.

Between 1980 and 1982, an average of 4,690 subsidized units were contracted for each year. Forty-five percent of these units received state assistance and the balance were supported with federal funds.

Since 1983, the average annual production of assisted housing decreased by 41 percent to 2,785 units, with the state supporting 89 percent of this new annual production.

¹⁰Don Borchelt & David Netherton, *Supporting Affordable Housing in Boston*, (United Community Planning Corporation, Metropolitan Planning Council, 1985), P. 13

Although the average annual number of state-assisted units increased by 18 percent--from 2,090 to 2,476--this increase was not enough to mitigate the 88 percent decrease in the average annual production of federally-assisted units.¹¹

With the growth of 83,000 jobs between 1976 and 1986, Boston's population and households have risen by 41,000 and 18,000 respectively, while its housing stock has expanded by only 8,000 dwellings.¹² Boston, not unlike Toronto, is choking on its recent success. This surge in demand for housing along with the incomparable expansion of the housing stock have given rise to a very tight housing market. There is a mismatch between the demand and supply of housing and new supply of housing is short of both current and projected demand. This mismatch is reflected by high market rental rates and growing residential sales prices. Exhibit 4 indicates the rise in the level of gross monthly rents of Boston apartments. The rent of a two bedroom apartment increased by 25 percent in 1985 while the median price of a single-family home increased by 37 percent.¹³ Another indication of a tight housing market is the low vacancy rate. A survey conducted in the spring and early summer of 1985 by Rental Housing Association of the Greater Boston Real Estate Board revealed a rental vacancy rate of only 0.9 percent.¹⁴ Although all income levels and types of households are affected by the tight housing market, tenants are hit harder than homeowners. Furthermore, this "[d]emand pressures on the housing supply hold special dangers for poor and low-income households who

¹¹Miriam Colon, "State Assumes Subsidized Housing Leadership," *Massachusetts Housing Report*, (Boston: Executive Office of Communities and Development, Vol. II, No. 2, January, 1990), P. 7

¹²Ganz, *Housing Shortage*, P. 1

¹³Ibid. P. 1

¹⁴Ibid. P. 4

EXHIBIT 4: Mean Gross Monthly Rents of Boston Apartments
(Excluding Newly Constructed and Substantially Rehabilitated Units)

# of Units	1982	1985	Total % Increase	Annual Increase
0 BR	\$359	\$528	47%	18%
1 BR	\$420	\$661	57%	21%
2 BR	\$515	\$863	68%	25%
3 BR	\$592	\$1041	76%	28%
4 BR	\$703	\$1293	84%	31%

Source: Alex Ganz, *Housing Shortage*, (Boston: Boston Redevelopment Authority, 1986), P. 3

are susceptible to being priced out of their housing in this era of burgeoning inflation in rentals and housing values."¹⁵ Twenty-one percent of Boston's population was classified as of spring, 1985, as "in poverty" and approximately one-half was considered low-income .¹⁶ This large segment of Boston's population is very seriously affected by these trends that have led to a tightening housing market.

¹⁵Ganz, *The Boston Housing Market and its Future Perspective*, P. 5

¹⁶Ganz, *Housing Shortage*, P. 3

Contributions of Housing Conversions

Boston's surge in housing demand and the radical shifts in the mix of its housing stock have brought to bear a high level of pressure on those housing submarkets which serve low-income households. This pressure makes it difficult for low-income households to gain access to suitable housing. One way to assist these households would be to expand the housing supply at submarkets that directly serve them.

Increases in Boston's housing stock have not been limited to new construction. Boston's housing stock has expanded in a variety of ways involving housing conversions, i.e. splitting or rehabing. Conversions that may be considered splitting have occurred when: 1) "Owners of apartment buildings have squeezed extra units out of their properties by reconfiguring existing layouts." 2) "Owners of triple-deckers and town houses have converted attics and basements into separate apartments." 3) Owners of single-family structures have converted garages, attics or basements into accessory apartments. Similarly, conversions that may be considered rehabing have occurred when abandoned and uninhabitable housing structures have been retrieved.¹⁷

Between 1974 and 1981, an estimated 60,000 dwelling units have been added through conversions in the Boston SMSA.¹⁸ Similarly, of 14,300

¹⁷See Jacques Gordon, *Hidden Housing Production: Conversion Activity in the City of Boston*, (Boston: Boston Redevelopment Authority, December 1985), P. 8 and *New Made-to-Convert Housing*, (Ottawa: Canada Mortgage and Housing Corporation, 1988)

¹⁸Gordon, P. 10

dwelling units added to Boston's housing stock through major development projects between 1975 and 1984, "44% were added through conversion of non-residential space, sub-division of existing dwellings, or rehabilitation of vacant, uninhabitable residential buildings."¹⁹ This estimate, however, understates the contribution of conversion activity over this period since only developments over \$50,000 and only legal conversions are considered. Thus, conversion projects costing less than \$50,000 and illegal conversions are excluded from this estimate. Boston Redevelopment Authority estimates that there were 8,700 more housing units in Boston in mid-1985 than in 1980. From 1980 to 1985, however, new construction produced an average of 600 housing units per year, including many publicly subsidized units. Hence, if the BRA estimate is correct, conversion activity, i.e. splitting and rehabilitation, accounted for over half of the city's stock over this period.²⁰

Legal conversions are only a small portion of all conversions that take place. Legal conversions tend to involve larger projects, multifamily housing structures and rehabilitation rather than splitting. Illegal conversions, on the other hand, tend to involve small projects, one or two family structures and splitting rather than rehabilitation. The conversion of single-family structures by splitting is less visible than conversion of multifamily structures by rehabilitation and is, therefore, less likely to be undertaken within the regulatory process. Although "[m]ore units have been added through the conversion of non-residential buildings such as factories and warehouses...the conversion of residential structures is increasing at a faster rate and is more difficult to track

¹⁹Ibid., P. 13

²⁰Ibid., P. 13

due to the higher number of undocumented conversion projects. According to city records, 1,093 units were legally added to residential structures between 1974 and 1984. The survey results indicate that this count may miss half of all the units added to residential buildings over this period."²¹

²¹Ibid., P. 3-4

Case Studies

A survey of vacant lands and abandoned or underutilized buildings was conducted for the neighborhood of Jamaica Plain in 1986.²² The objective of the survey was to determine the maximum number of units that could be added, within the limits of the zoning code, to the existing resources of this neighborhood. Five hundred and forty-three vacant lots were identified with a maximum residential potential estimated to be 1,877 dwelling units. Similarly, 62 buildings were identified as vacant or underutilized with a maximum residential potential estimated to be another 187 dwelling units.

The two case studies that follow attempt to illustrate the process of expanding the housing supply, at submarkets that directly serve the low-income, through existing multifamily housing conversions. Both case studies are of projects where underutilized or abandoned buildings, in Jamaica Plain, have been rehabilitated into housing for the low-income. I had intended to also present a case study to illustrate the conversion process involving splitting, as opposed to rehabilitation, of multifamily housing. Such a case, however, proved difficult to find. This leads me to suspect that multifamily housing conversions involve predominantly rehabilitation rather than splitting.

Both case studies are of projects sponsored by Urban Edge, a developer from the community sector. Urban Edge is a private, nonprofit housing

²²Jacob Schaffer with Mary Bourignon, *Residential Development Potential in Jamaica Plain; Survey of Vacant Lots and Vacant or Underutilized Buildings*, (Boston: Boston Redevelopment Authority, November, 1986)

development corporation and was established as an outgrowth of the Homeownership Project of the Ecumenical Social Action Committee (ESAC). ESAC is a multi-service agency sponsored by Jamaica Plain churches.

Dimock-Bragdon Apartments

Background: The Dimock-Bragdon Apartments, formerly known as Columbus Avenue Apartments, consist of seven, three-story, attached brick buildings. The buildings are located in Jamaica Plain, near Egleston Square, at 1841 to 1869 Columbus Avenue. Prior to 1982, the buildings, which were constructed around 1910, stood vacant and severely damaged by fire, vandalism and wet weather. The deteriorated condition of the buildings was quickly worsening and exerting a blighting influence on the neighborhood.

Urban Edge had been trying, since 1979, to gain control of the properties with the hope of rehabilitating the buildings and converting the 94 very small units into 54 larger apartments for low-income renter households. Acquiring the properties was not easy, however, since most of the owners had abandoned them and could not be located. The properties were held in receivership until the City of Boston eventually acquired them through tax foreclosure. The properties, which were slated to be auctioned, were withdrawn from the city's auction list around the end of 1980 and were sold to Urban Edge. Urban Edge bought the properties for \$81,000, i.e. \$1,500 for each of the proposed 54 units, under the condition that the City would credit Urban Edge up to \$500 per unit for maintenance and security services for the period between acquisition and initial closing. Thus, Urban Edge gained control of the properties by the end of 1980. Financing and approvals were obtained by fall 1982 and construction started very soon after. Applications were accepted for the 54 units in June, 1983 and 1,500 households applied. The scarcity of low-cost

rental housing in Boston is very poignantly demonstrated by the number of applications that pour in whenever subsidized units such as these are advertised. The first 12 units were ready for occupancy by fall, 1983. The buildings were fully completed and occupied by March, 1984.

Finance: Urban Edge was awarded a Community Development Block Grant (CDBG) of \$56,886 from Metropolitan Area Planning Council (MAPC) and Massachusetts Executive Office for Communities and Development (EOCD). This grant formed part of the seed money for the project. The funds from the grant were used for staff payroll and non-recoverable costs during the preconstruction period. In addition to the grant, Urban Edge also applied to the same agencies for a 9 month interest-free loan of \$116,000. The loan was granted and was used to cover recoverable expenses, such as architectural and legal fees, during the 9 month period between MAPC approval and closing of the mortgage funding from HUD. This loan was essentially a cash flow loan to assist Urban Edge in getting from preliminary approval to closing. Since, however, cash outlays were required prior to approval by MAPC as well as the awarding of the grant and the loan, Urban Edge had to obtain financing from foundations and other private institutions as well. Massachusetts Community Development Finance Corporation (CDFC) and Local Initiatives Support Corporation (LISC) each provided preconstruction loans of \$115,000 and \$110,000 respectively. All of these loans were made against future syndication proceeds from the project. The \$56,886 CDBG fund leveraged \$60,000 for a training program for residents, \$2.8 million in HUD rehabilitation funds as well as \$360,000 per year for 40 years in HUD rental assistance.

Mortgage insurance for the project was originally based on the premise of 7.5% tandem funds being available. Through the FNMA-GNMA Tandem Plan, federally subsidized multifamily housing developments are able to get mortgage financing at attractive rates. However, in March, 1982, the Federal National Mortgage Administration (FNMA) held a lottery to distribute the remaining tandem financing funds and Dimock-Bragdon was not selected in the lottery. Hence, the submission for mortgage insurance had to be revised and based on the Financial Adjustment Factor (FAF).

Two tax exempt financing plans were pursued--the 103 and the 11B. The 103 financing would be through MHFA and would entail a higher interest rate than the 11B. Though the 11B financing was preferred because of the lower interest rate, it had a problem. The problem was with finding an agency to act as issuer. The project was ultimately financed through MHFA and despite the higher interest rate on the loan, the project was feasible due to the Financial Adjustment Factor allowed by HUD.

On September 30, 1982, mortgage closing was held and construction commenced.

Production: Several actors were involved in rehabing the buildings of Dimock-Bragdon Apartments. Urban Edge, the sponsor of the project, led the development effort. Greater Boston Community Development (GBCD), now known as The Community Builders, was hired to be the lead consultant in the team and to provide technical assistance in developing the project. Stull Associates provided architectural services and John Cruz Construction was selected as general contractor when the original contractor, Raleigh Kelly, went bankrupt.

Urban Edge is committed to hiring minority owned construction firms. Furthermore, John Cruz Construction, a minority owned firm, was required to hire local residents and minorities for the construction workforce. Cruz was also required to utilize local sub-contractors for a portion of the sub-contracted work. The outreach program of Oficina Hispana, an Hispanic multi-service agency located in Jamaica Plain, found both qualified local residents for the construction workforce as well as minorities for involvement in the Roberto Clemente training program. Six individuals, who later became tenants of Dimock-Bragdon Apartments, were given training in plumbing and electrical work through the Roberto Clemente training program. Following the training program, these individuals were hired to work on the rehabilitation of the buildings.

The Dimock-Bragdon Apartments consist of seven three-story attached brick buildings. Urban Edge had been trying, since 1979, to gain control of the properties. By fall 1980, Urban Edge was finally able to gain control of the properties and during the following period, up till fall of 1981, several major tasks were carried out. The architect was selected and the design process monitored; the contractor was selected; the public sector approvals that were needed were identified and obtained; finally, the documents required by HUD were prepared. By fall of 1981, HUD Feasibility Review of the project was completed. By fall of 1982, financing of the project had been arranged and construction started.

The major work items in rehabing the buildings involved the roof, exterior walls, windows, interiors, kitchens, baths and mechanical/electrical systems. New built-up roofing and flashing as well as new insulation were installed; this

work was done first so the construction crew could work indoors over the winter. The exterior brick walls were repointed and new insulation installed. New double-hung windows, with insulating glass and screens, were installed as well. The interiors were entirely gutted. New gypsum wallboard was installed on walls and ceilings and new doors and hardware put in place. The finish flooring material was changed and kitchens and bathrooms were entirely redone. New fixtures, appliances and cabinetry were installed in the kitchens. Similarly, new tiles, on the walls and floors, and new fixtures were installed in the baths. Finally, the entire electrical, heating and plumbing systems were replaced.

The total development cost, i.e. hard and soft costs, of rehabilitating these units came to approximately \$55,000 per unit. The first 12 units were completed and ready for occupancy by September, 1983. Each month, thereafter, 12 additional units were completed and by February, 1984, the building was fully completed. Of the 54 units, 4 are 1 bedroom, 25 are 2 bedroom and 25 are 3 bedroom apartments. Three of the 2 bedroom units and 1 of the 3 bedroom units are wheelchair accessible.

Management: Urban Edge, the sponsor and owner of the Dimock-Bragdon Apartments, formed a community advisory committee to establish and review guidelines for tenant selection and management procedures. The success of the development, it was believed, lay in tenant selection and proper management. GBCD acted as management agent and Oficina Hispana, an Hispanic social agency in Jamaica Plain, helped with tenant referral and the selection process.

One thousand five hundred households applied, on June 17th and 18th, 1983, for the 54 units in Dimock-Bragdon Apartments. To be eligible for an

apartment, applicants had to be a family or, if an individual, handicapped/disabled or 62 years or older. Furthermore, household income could not exceed the income limits established by HUD. The selected households would pay 30% of their income for rent and utilities and the remainder would be subsidized by the HUD Section 8 program.

Urban Edge has been trying to maximize tenant input into the management and overall running of the development. Tenants meet regularly and help establish rules for conduct and identify problems that need further attention by the management. In the long run, Urban Edge hopes to explore with the residents the possibility of sharing in the ownership of the buildings.

The Granite Properties

Background: The Granite Properties consist of 1,800 housing units. These units were sponsored by one developer, Maurice Simon, and consist of approximately half of the 2,000 Section 221(d)(3) properties rehabilitated through the Boston Urban Rehabilitation Program and an additional 800 Rent Supplement units. By mid-1970s, half of the Granites were in default and in a state of severe deterioration; the units had faulty wiring, peeling plaster, lack of adequate heat and plumbing, and leaking roofs.

In May, 1984, the U.S. Department of Housing and Urban Development (HUD) began to foreclose the properties and, thus, took possession of the Granites. HUD's policy for handling foreclosed properties was to auction them to the highest bidder as quickly as possible, often without any commitment to maintaining the housing for long-term low- or moderate-income occupancy. The auction process puts community development groups at an inherent disadvantage since they are easily outbid by developers of market rate housing. Furthermore, it is a process which simply defaults to the highest bidder without providing an opportunity for selecting the most capable owner and manager.²³ HUD split the 1,800 units into five packages for auction but, due to intense pressure from community groups, it granted a three month moratorium on its disposition process to allow nonprofits time to prepare a proposal for a negotiated sale of the Granites to community-based development corporations.

²³See Bratt, *Rebuilding a Low-Income Housing Policy*, Chapter 7, for further on the disposition process

In November, 1984, HUD received a formal request for a negotiated sale of 1,171 of the Granite units from a consortium consisting of Boston Housing Partnership (BHP) and several CDCs. HUD did not respond officially to the request for over 9 months. In August, 1985, HUD finally agreed to sell, as Section 8 rental assistance projects, 944 (later to become 938) of the Granite units to the consortium and 218 to a community-based minority developer. The 938 housing units assumed by the consortium are contained in 51 housing structures scattered throughout Roxbury, Dorchester and Jamaica Plain. When the consortium took over the units, fifty percent were occupied while the remainder were vacant.

Boston Housing Partnership (BHP) played a very central role in the acquisition and rehabilitation of the 938 Granite units. BHP, a nonprofit corporation, was established in 1983 by Boston's business leaders and representatives of municipal institutions and nonprofit community-based development organizations in order to develop affordable housing for low- and moderate-income households. BHP established the BHP II Program and chose the following seven CDCs for participation: Codman Square, Dorchester Bay, Fields Corner, Lena Park, Nuestra Comunidad, Quincy-Geneva and Urban Edge. BHP played the following roles: 1) it negotiated and secured agreement from HUD for the sale of the units; 2) it provided to the participating CDCs information on financing, on comparables for repair and operating costs and it set the standards for rehabilitation and reconfiguration; 3) it aggregated seed money for the CDCs; 4) it established and held reserves for the project to guarantee its success over time; 5) it reviewed MHFA bond issues for the Granites and 6) it syndicated the project. The CDCs, on the other hand, played

the following role: once ownership of the units had been transferred to the consortium, each CDC took its own group of these severely deteriorated units and rehabilitated them. Thus, the rehabilitation was carried out by the CDCs under the auspices of BHP.

The property disposition branch of HUD sold the 938 housing units to BHP II for one dollar. The purchase price is, however, \$10,104,150 which becomes due only at resale or refinancing and only to the extent that the proceeds exceed specified deductions.

Finance: BHP aggregated, for predevelopment expenses, the seed money needed by the CDCs participating in the BHP II Program. The seed money came from a combination of city and state sources and totalled \$1.9 million. Sources for the seed money included a grant from EOCD's Abandoned Housing Program, a loan from CEDAC's MHP Seed Money Fund and from a CDBG from the City of Boston. BHP II received \$3.0 million from the city's linkage program. Part of the linkage fund was also used as seed money and the balance was then augmented with funds from other sources and used during the construction and early operating periods.

The construction and permanent loans for BHP II were provided by MHFA under the HUD co-insurance program. The permanent loan was for \$57 million, for a term of 30 years and at 9.5 percent interest. The city's Public Facilities Department (PFD) approved two loans as well to BHP II totalling \$5.0 million at 3 percent interest. LISC agreed to lend \$50,000 at 6 percent interest and, finally, HUD awarded Section 8 contracts for all the units at 144 percent of fair market rent. In other words, a tenant would pay a maximum of

30 percent of his gross income for rent; HUD would then fill the gap between this and 144 percent of the fair market rent that the unit would command.

Equity for BHP II came from syndication, i.e. by selling the tax benefits that result from the negative after-tax cash-flows of the projects to private investors. The proceeds from syndication totalled approximately \$5.5 million. Construction contracts were signed prior to the end of 1986 in order to benefit from Section 167k of the old Internal Revenue Code which allowed accelerated depreciation for housing projects with low-income residents.

All the CDCs involved in the Granites applied for weatherization grants even if their project was feasible without these funds. This was done for two reasons. First, at the time when the CDCs applied for the weatherization grants, the mortgage interest was not known but only assumed to be a certain rate. If the interest rate at the time of the bond issue turned out to be higher than assumed on the mortgage application, then, the mortgage amount would have to be reduced to keep the debt-service the same. Thus, the weatherization funds would be used to make up the shortfall in the mortgage amount. Second, some of the projects were not feasible at the assumed mortgage interest rate. Projects that were feasible would, therefore, use their weatherization grants to cross-subsidize "weaker" projects.

Urban Edge received \$197,000 in seed money for the rehabilitation of its 65 housing units. Its proceeds from syndication totalled \$1.06 million and the mortgage amount was approximately \$4.57 million.

Production: Urban Edge was responsible for the rehabilitation of 65 of the 938 housing units. These units are located as follows: 24 units in 361-363 Walnut Avenue; 18 units in 3224-3234 Washington Street; 12 units in 38 Walnut Park

and 11 units in 11-15 Waldren Road. Not all the units were vacant when rehabilitation was started. This complicated matters slightly as residents had to be relocated and the project had to be phased to minimize interference with the tenants.

BHP, as described above, was one of the lead actors involved in the production of these units. Urban Edge was both co-sponsor and, during the early stages of the project, it provided architectural services for its 65 units. Later, however, Urban Edge hired an outside architect--Tennant Gadd Associates. Greater Boston Community Development (GBCD), now known as The Community Builders, was a development consultant and John Cruz Construction was the general contractor.

Despite the fact that groundbreaking was in October, 1988, Urban Edge as well as the other CDCs signed construction contracts before the end of 1986. This was done in order to benefit from Section 167k of the old Internal Revenue Code.

The total development cost, i.e. hard and soft costs, of rehabilitating these units is startlingly high; it is approximately \$90,000 per unit. Reconfiguration of the units was kept to a minimum to reduce production costs. According to the project manager at Urban Edge, this high development cost results from the unusually high soft costs, such as legal and administrative fees, entailed by the project.

Management: The Granite units were about 50 percent occupied at the time of foreclosure and a primary goal of both HUD and the BHP II participants was to keep these tenants in place during disposition. The CDCs were required to prepare a tenant relocation plan which had to be approved by MHFA as well as

HUD. It was necessary to relocate tenants temporarily in order to rehabilitate their units. MHFA and HUD also required, from the CDCs, management plans and management contracts.

PART IV: Reflections

I set upon this thesis with the objective of examining ways of facilitating access to suitable housing for low-income households. Given this objective as my starting point, I traced a path which ultimately led me to consider the process of expanding the housing supply, at submarkets that directly serve low-income households, through conversions of existing multifamily housing structures.

A decision I made at the outset was to consider supply-side as opposed to demand-side interventions as a way of facilitating access to suitable housing for low-income households. In other words, I chose to investigate the avenue of expanding the housing supply. The housing supply may be expanded in several ways: 1) conventional new construction, 2) new manufactured housing and 3) conversions of the existing stock. I chose to examine the latter which can be further disaggregated into: 1) conversions of the existing nonhousing stock and 2) conversions of the existing housing stock. I chose to focus only on conversions of existing housing. Furthermore, given my framework of wanting to expand the housing stock, I chose to consider only those conversions which increase the total number of housing units. Conversions in type of tenure--which leave the total size of the housing stock unchanged--or conversions by consolidating housing units--which reduce the total size of the

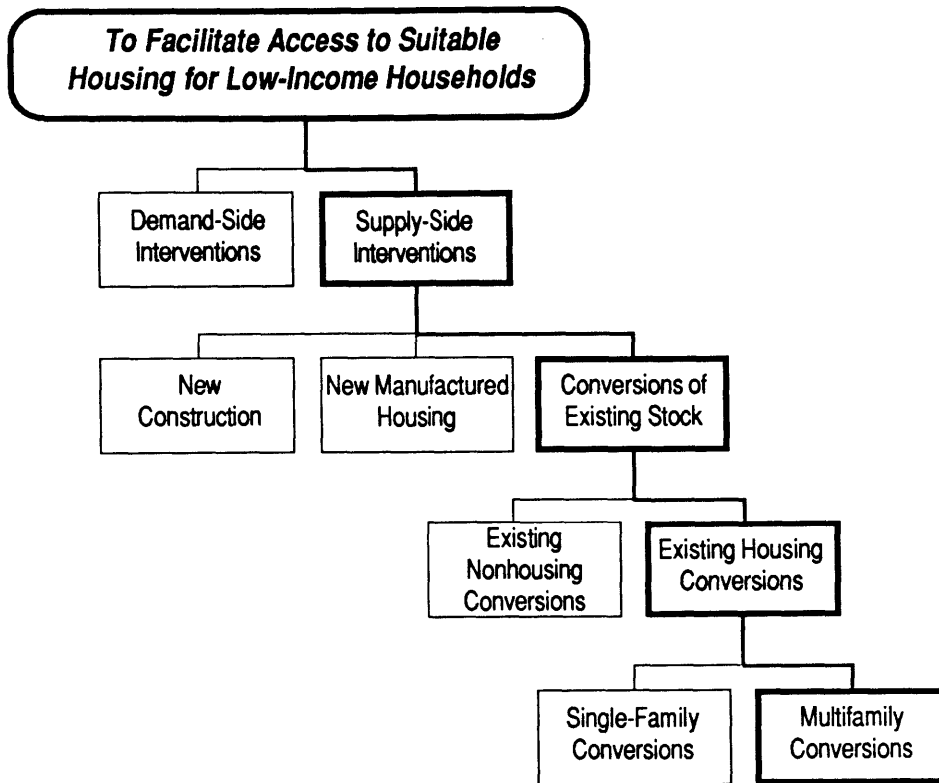


EXHIBIT 5: Outline

housing stock--are excluded from my discussion. Conversions of existing housing can be further disaggregated into: 1) conversions of existing single-family structures and 2) conversions of existing multifamily housing structures. I chose to focus on conversions of existing multifamily housing structures primarily because case studies of single-family conversions proved difficult to find.

Housing units that are created through conversions of existing multifamily housing structures may expand submarkets that serve either upper or lower income households. I chose to consider only those conversions which expand

submarkets that directly serve lower income households. My underlying assumption is that the benefits of new housing additions at upper income submarkets rarely filter down and that the optimum way of facilitating access to suitable housing for low-income households is by expanding submarkets that directly serve the low-income.

Having gone through the above exercise and having looked at two project cases, we can now make certain observations about the merits and limitations of using the existing multifamily housing inventory as potential raw material for creating more and better housing for the low-income. I will look at the merits and limitations in terms of the economies and diseconomies involved as well as the impact on neighborhood quality.

Expanding the housing supply through conversions of the existing multifamily housing stock entails maximizing the performance of existing resources. It is a process in which existing structures are utilized and no new land is developed and no new infrastructure put in place. As a result, this form of housing production affords economies in hard costs, especially if the degree of reconfiguration or rehabilitation is light or moderate. The soft costs involved, however, seem less predictable and more project specific. As we saw in the case of the Granites, the soft costs of a project that is burdened with bureaucratic hurdles, long delays and complicated financing can raise the total development cost of a conversion project to a level approaching that of new construction. Our empirical evidence, albeit a slender sample, suggests that

housing production through existing multifamily housing conversions does not always involve substantial economies.

Strategies for housing the poor that depend on subsidies are, in the face of competing demands for funds, vulnerable and, therefore, unreliable. Housing production through existing multifamily housing conversions involve, in many instances, economies over new construction. This, in turn, translates into less dependence on subsidies and makes this form of housing production a more reliable source of low-income housing than new construction.

Conversion activity is countercyclical to new production. In times of low new construction and in periods of capital market tightness, the market tends to respond by creating housing units out of existing resources.¹ During periods of capital market tightness,

Many homeowners would have to surrender their old, low-interest mortgages if they acquired new homes; such households often find it more profitable to satisfy their demand for more housing by adding onto, replacing parts in, or altering their present homes while retaining their old mortgages. Considerations like these have made the home repair industry one of the strongest countercyclical sectors in the American economy²

Reconfiguration or rehabilitation of single-family structures are, however, more countercyclical than similar activities involving multifamily structures. Larger conversion projects usually occur within periods of new production because of their dependence on the capital market.

¹See *Additions to the Housing Stock by Means Other Than New Construction*, P. III

²George Peterson, "Federal Tax Policy and the Shaping of Urban Development," A.P. Solomon ed., *The Prospective City*, (Cambridge: The MIT Press, 1980), P. 403

Housing conversions through splitting, i.e. reconfiguring a large unit into two or more smaller units, are a logical means of adapting yesterday's housing stock to today's smaller households. Splitting, however, is a type of conversion which involves single-family structures more frequently than multifamily housing structures. This is the case because single-family homes built during the last forty years have been primarily for large households³ whereas units in multifamily structures, built over the same period, have typically been for smaller households. My difficulty in finding an example of a multifamily conversion involving splitting, as opposed to rehabilitation, is manifestation of this. Moreover, the case of Dimock-Bragdon Apartments, which illustrates rehabilitation, is further manifestation of the above since its 94 very small units were reconfigured into 54 larger apartments.

Conversions in the form of rehabilitation and reinvestment in older, deteriorating structures, including abandoned properties, have the benefit of preserving and revitalizing neighborhoods. A significant benefit of such conversion activity is that it contributes, in addition to new units, to preserving neighborhood decline in the form of physical deterioration, population loss, diminution of tax base, decay of infrastructure and loss of economic activity.

A criticism often levelled at expanding the housing supply through conversions of the existing housing stock is that it increases neighborhood densities and aggravates associated problems such as vehicular traffic and insufficient parking. This criticism, however, is not at odds with multifamily housing conversions which, as I have suggested, involve predominantly

³*Additions to the Housing Stock by Means Other Than New Construction*, P. 12

rehabilitation rather than splitting. Multifamily conversions, in most cases, simply restore neighborhoods to their intended densities.

Although Boston's experience with conversions is impressive in light of the number of units that have been produced, it is doubtful that the existing housing stock can be continually relied upon for housing additions.

Boston's current and foreseeable needs for an expanded flow of housing is accentuated by the limited margin currently available for upgrading the quality of the housing stock. The condition of Boston's housing has been very substantially improved. In 1984, 92 percent of Boston's housing was found to be in very good and good condition, with only 8 percent classified as fair or poor, requiring moderate or substantial repair. This contrasted with the findings of a survey carried out ten years earlier (1974) when only 70 percent of Boston's housing met the standard of very good or good. In the interim, Boston's housing stock had been very substantially upgraded through new construction, demolition and rehabilitation. As a consequence, the room for squeezing better housing out of Boston's inventory has been reduced to about 20,000 dwellings.⁴

Houses are urban artifacts; they are the final constructed result of a complex operation that cuts across many disciplines. My curiosity about housing starts with my interest in the artifact, i.e. the house. This thesis is essentially a first attempt at understanding some of the complex operations that prefigure the artifact. I attempt to expand my understanding by merely exploring one of the many possible ways of facilitating access to suitable housing for the low-income. If I had the opportunity for a second attempt, I would trace a different path than the one described by this thesis and would, instead, look at the

⁴*The Boston Housing Market and its Future Perspective*, P. 5

demand-side of our conceptual framework. Building more houses, more economically is one way of alleviating the housing problems of the low-income; however, it is at best merely a short-term solution. A more long-term solution perhaps lies in raising the level of economic well being of these households through a more equitable distribution of wealth.

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