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Abstract

Limited equity cooperatives (LECs) are evaluated within the following framework: 1) the effect of resident participation on operating costs, 2) the disutility of time and effort that members devote to co-op activities, 3) the intangible benefits of co-op living, 4) the degree of subsidization, and 5) the financial viability of LECs. As a result of information gathered from interviews of field practitioners and academic experts, the authors’ personal experiences, and a review of the literature, LECs are seen as an effective way of providing home-ownership opportunities for low-income families in the United States.
Introduction

Limited equity cooperatives (LECs) are currently being discussed as one of the ways to offer the opportunity of home ownership to low-income families (Davis, 1994; Hayes, 1993; Task Force, 1993; and Heskin, 1991). According to economic theory, LECs represent a form of publicly assisted housing which provides many of the characteristics of home ownership. This is because LEC residents can both exercise a considerable degree of control over their housing environment and experience the economic consequences of their actions (Miceli, Sazama, and Sirmans, 1995). Thus, if LECs' performance in the real world is consistent with economic theory, LECs could play an active role within the framework of a multi-faceted-publicly-subsidized housing policy.

Part of the current interest in LECs flows from the substantial experience with LECs accumulated in the United States over the last seven decades. Initially LECs became known in the United States through the various union and state and local government programs started in New York City and the upper Midwest in the 1920s. Then in the 1950s and the 1960s in New York approximately 40,000 units of LECs were formed while the New York State Mitchell Lama low interest loans were available to LECs. From the mid 1960s through 1973, the federal government financed about 60,000 LEC units throughout the country by means of its Section 236 and 221 (d) 3 affordable housing loan subsidy programs. With the cut off of these federal programs in 1972, the development of LECs was taken up by non-profit organizations working in collaboration with private funders and city and state governments. These efforts led to some 40,000 units of LEC housing, most of which have been built since 1985. In addition, New York City and Washington DC have converted to LECs more than 25,000 apartment units in privately-owned buildings abandoned to these cities for back taxes. Recently there have also been some
conversions of existing HUD or Resolution Trust Finance Corporation properties to LECs. As a result of this collective experience there are currently over 200,000 (Table 1) units of LECs in the United States as compared to 1.4 million units of public housing (U. S. Department of Housing and Urban Development, 1989).

As the size and very existence of United States Department of Housing and Urban Development continues to be threatened, "Third Sector" housing (sponsored by non-profits) becomes more important. LECs could be more easily financed by this sector if a) there were changes in the restrictions on their funding under the low-income housing tax credit provisions of the 1986 tax code; and b) if FannieMae and Fredie Mac had a more active policy of purchasing private financial institutions' mortgages on LEC properties in the secondary mortgage market (Miceli, Sazama, and Sirmans, 1994).

Further, LECs could play a role if there is to be a future selling off of HUD properties. For example, five of the 18 HOPE demonstration projects (conversion of public housing to private ownership) involved LECs (Rohe and Stegman, 1992).

While both public housing and Section 8 rent subsidy programs have received substantial attention in the literature (Newman and Schnare, 1992, Bratt, 1986; Kraft and Kraft, 1979; and Solomon, 1974), there have been few formal attempts to evaluate the economic performance of LECs in the United States. We hope that this report will begin to fill some of this gap in the affordable housing literature. Our evaluation will be based on: a) our personal field experience 1, b) interviews of field practitioners, and c) a review of the existing literature on LECs. After a brief institutional background section, our evaluation of LECs is organized into five sections, each of which answers questions concerning a specific point of the economic theory of LECs.
Institutional Background

A LEC includes the following economic characteristics:

a) ownership of a share in the cooperative which entitles a member to residency in one of the co-op's living units;  
b) free and voluntary membership, with one household having one vote;  
c) membership control, including membership participation in the basic decisions of the co-op and in the appointment of the management;  
d) a form of "profit sharing" with members receiving the economic benefits and losses resulting from changes in operating costs and general market conditions affecting the co-op;  
e) restriction of initial membership to households with income below some specified limit; and  
f) a limit on the increase in the resale value of member-owned-equity shares in order to keep the LEC available as affordable housing. Characteristics "a" through "d" are typical of all housing cooperatives. Characteristics "e" and "f" are unique to LECs.

1. Does Resident Participation Reduce Operating Costs and Negative Inter-Tenant Externalities?

Resident participation in various aspects of developing and managing a LEC could reduce their housing cooperative's operating costs and the negative inter-tenant externalities. ²

1.1 Project Development

According to our experience and to our interviews of field practitioners, LEC residents have virtually no direct input in project development - that is, in the design, financing, and construction of the
buildings. Therefore, it seems to us that development costs for LECs are comparable to such costs for alternative forms of publicly subsidized housing.

One exception is organizing costs. Recruiting, training, and providing technical assistance for the new co-op members is a cost which is not incurred by developers of private rental property and by public housing authorities. LEC advocates believe these extra training costs are worthwhile because they are an investment in people not just in buildings.

While not frequent, sweat equity has been used effectively in some small cooperatives. The reduction in construction costs is probably less than the value of the equity credit, since the resident-workers are inexperienced. However, on the intangible level, residents obtain a commitment to the buildings and develop inter-personal relations which are necessary for co-op governance to work once the buildings are occupied (Kolodny, 1986; Santana, interview, 1993).

Organizational decisions such as the determination of the limited equity formula and the resident selection criteria usually are specified by the financing legislation or made by the project developers before residents move into their co-ops. Because residents ordinarily do not participate in these decisions, the organizational process itself usually does not have any direct effects on inter-tenant externalities. However, Rohe and Stegman (1993), in their comparison of one successful and one unsuccessful program of converting public housing to LECs, believe that meaningful dialogue with residents on the structure of the co-op organization by the sponsors of the successful conversion was an important explanation for the reduction of negative inter-tenant externalities in that conversion.

1.2 Social Management
Effective resident participation in the social management of LECs is crucial to the reduction of negative externalities. Resident social management includes such activities as: 1) selecting new residents; 2) evicting delinquent residents; 3) setting up and enforcing behavior rules; 4) organizing activities that enhance a sense of neighborhood.

There is some evidence that the social management of LECs is more effective than in other forms of low income housing.

1) Based on informal observations of the authors, residents of LECs have been more effective in socially managing their co-ops than have residents in middle-income co-ops with more isolated life styles. 2) Susan Saegert's analysis of a survey of 2,448 residents of private-owner-buildings abandoned to New York City in the Bronx found that 42 percent of residents of buildings converted to LECs felt that drugs were not a problem in their building, while that view was held by only 12 percent of residents of buildings converted to for-profit rentals, and 25 percent of residents in buildings still managed by the City (See Table 3). 3) Saddaca, et al. found that vandalism costs, and the presence of litter problems were lower in LECs than the two other types of publicly assisted low-income housing that they evaluated (See Table 2).

A report by Dolkart (1993), which is in accordance with the experience of the authors, states that, in distressed neighborhoods, a co-op needs definable and defensible space which clearly separates the boundaries of the co-op from the rest of the neighborhood in order for effective social management to exist. The members can then regulate themselves and deflect disruptive intrusions from outside the co-op. The possible exception to this is when there are scattered site LEC projects that are part of an integrated program to increase neighborhood quality. Two examples of this exception are Oak Center Homes project in Oakland California and Hill Central Community Cooperative in New Haven Connecticut. For effective social management of a
LEC the physical design should also provide appropriate community and private space for co-op members so that a balance can be struck between the community and personal aspects of living in a housing co-op.

Finally, carrying out member selection and eviction have to be done fairly and legally. Writings by I. Fisher (1991) and H. Fisher (1987), and Wallach (1983) indicate that it is possible to achieve this balance through careful communication among the LEC board, its committees, and the residents.

1.3 Physical and Financial Management

"Physical management" is the care of the physical facilities. It includes maintaining the cleanliness of common areas, maintaining the physical structure, and making capital improvements. "Financial management" entails collecting resident monthly carrying charges, filling vacancies, paying co-op bills, and administering co-op reserve funds. In this section we will look at the relative operating costs of LECs, the organizational factors influencing the quality of LEC physical and financial management, and the influence of the project size on the quality of LEC management.

1.3.1 LECs have Lower Operating Costs

Several studies found that co-ops have lower operating costs than alternative forms of publicly subsidized. The first three of these studies pay careful attention to sample selection and use appropriate control groups. However, none of these studies formally consider whether lower operating costs are partially due to LEC members deciding to spend less on structural maintenance expenditures than appropriate for the long term care of their building. (This issue will be discussed in section 4.3.)

First, Claudia Parliament, et. al, (1988) used the financial statements of 18 federally financed (Section 8) housing projects across the country to examine their operating costs. Ten of these projects were organized as co-
ops, eight as rentals. All were managed by for-profit property managing companies. Parliament's research found statistically significant lower operating costs ($16 per unit per month) in the co-ops, with the biggest difference being in the category of "repair and maintenance".

Second, an evaluation of Canadian LECs done by the federal government's Canadian Mortgages and Housing Corporation reported,

"Average operating costs for public and non-profit housing are from $2,700 to $6,000 per unit, depending on the particular program involved, compared with less than $3,000 for all types of cooperative housing programs." (1992, p. 328).

Third, Sadacca, et al., (1972) studied sixty federally subsidized developments, of which 20 were cooperatives, 20 were owned by limited dividend corporations, and 20 were owned by non-profit corporations. These authors used 10 control variables in their analysis to adjust the mean values of the sample of the three ownership forms for differences that could be caused by differences in physical, social, and locational factors. They found that operating expenses were 24 percent lower in co-ops than in limited dividend rentals and 22 percent lower than in non-profit rentals. Total costs of operation were 16 percent lower in the co-ops than they were in the non-profits, and 34 percent lower than in the limited dividend projects (See Table 2).

(Place Table 2 near here)

Earlier studies which found lower relative costs in LECs include those by Peoples' Gas Company of Chicago (1968), and by Roger Willcox (1953).

1.3.2 Other Organizational Influences on Successful Management

In spite of the above findings of lowest operating costs in LECs, there is a debate in the literature on whether or not the ownership form is the key variable in determining the quality of management, or if other organizational
influences are more important. Isler, Sadacca and Dury (1974), in their summary report of a series of Urban Institute research projects on the management of publicly subsidized housing, concluded that "Holding all other characteristics constant, co-ops are the most conducive to successful management and limited dividends the least conducive with non-profits somewhere in between." However, they added, "No form of ownership assures successful management." Indeed, their report stated, "... the style of housing management - the way the owner, manager, and residents benefit one another, and share their common problems can make or break a development much more than a particular kind of ownership." (pp. 2 and 4)

In smaller and less formal studies, Sullivan (1971), Kolodny (1973), and Zimmer (1977) concluded a) the quality of internal leadership; b) having an active and committed resident group; and c) quality outside professional and technical support are more important characteristics of successful resident management than the form of ownership. Nevertheless, all of these studies do point to the relative success of LECs in many aspects of resident management (Sullivan, p. 172; Kolodny, p. 178; Zimmer, p. 61).

Our experience has shown us that when there is resident-ownership, positive relations both among the owner-residents and between them and the management agent are more likely than in other ownership forms.

1.3.3 The Importance of Project Size to Successful Project Management

While we found debate among field practitioners on the maximum number of units for effective resident management of LECs, many believe that about 300 units is optimal (Peterman and Young, 1991; and Stewart, interview, 1993). Even though New York City has financially viable LECs with more than a thousand units, many people believe that with more than 300 units the co-op residents do not know each other, and, as a result, the sense of joint ownership and neighborhood is lost. This loss shackles important motivational
characteristics of LECs. In recognition of this factor, several countries, including Sweden and Chile, have legislation limiting the size of housing cooperatives. Additional research is needed on the optimum size for LECs both from the point of view of effective interaction among co-op members and of economies of scale in operating costs.

Besides concern with maximum size of LECs there is concern with their minimum size. According to our experience and information from our interviews, medium (26 to 100 units) and small (25 or less units) LECs are especially in need of outside assistance and supervision in order to assure consistent management and maintenance. For example, Andy Reicher, (interview, 1994) executive director of the Urban Homestead Assistance Board (UHAB), the technical assistance organization for virtually all of the conversions of New York City city owned property to LECs, spoke of the need for this outside influence. He felt that since the City frequently lets small and medium LECs struggle on their own, financial and administrative problems result, some of which could have been avoided by appropriately timed outside help. UHAB is attempting to organize a more formal network of inter co-op relations.

A second example of the control and supervision of small and medium LECs is the Mutual Housing Cooperative Federation in the Burlington, Vermont area. Based on the Burlington Land Trust's experience in developing and assisting small LECs, they organized a mutual housing federation as a secondary co-op (a co-op of co-ops). This federation has the authority to intervene in the affairs of its member co-ops, which provides not only assurance to financiers, but also stability to the management of specific LECs (Colburn, interview, 1992).

However, outside regulation of small and medium cooperatives opens up a tension between the cooperatives need for assistance and oversight on the one hand, and for autonomy on the other hand. For example, Patricia Spring, the
executive director of Co-Opportunity, a non-profit technical assistance group to LECs in Connecticut (interview, 1993), argues that too much regulation of small cooperatives funded by the State of Connecticut Department of Housing by the State would convert these co-ops into de facto subsidized rental projects. Secondary co-ops which are controlled by the co-ops themselves, appear to be more sensitive to the needs of the individual primary co-ops than are government agencies which also regulate other types of subsidized housing.

2. How Much Is the Attractiveness of LECs Reduced Because of the Disutility of Time and Effort Devoted to Co-op Activities and Because of Free Riders?

The larger the degree of self management, the more time and effort residents must devote to co-op activities. The neoclassical economics perspective assumes that residents will prefer leisure to work, and that since residents will consider the time and effort devoted to co-op activities as "work," there will be a disutility from this time and effort. However, when the formula for resident monthly carrying charges allows, residents are compensated for part of this disutility by the lower monthly carrying charges which result from their time and effort.

Also, since the possibility of free riding is inherent in cooperative activities, potential reductions in operating costs may not be sufficient to induce the socially optimal level of resident effort. Under these circumstances both institutional incentives and the enforcement of community rules are required in order to reduce subsidies to LECs below what they would otherwise be and to induce residents to participate in self management at the socially optimal level.

2.1 Resident Willingness to Participate In LEC Activities
Evidence on resident willingness to participate in the work of running a co-op comes from interviews of community organizers, our own experience, and a survey of co-op officials.

On the one hand, Peterman (interview, 1993; and Peterman and Young, 1991) reported the following types of negative evaluations that some community organizers had of LECs: 1) Rather than resident management, many low-income residents prefer either regular rental arrangements where they purchase their housing services, or subsidized housing services. 2) Many low income people are already struggling with the problems associated with being poor, and therefore they do not have the energy left to work on their housing. 3) Residents do not perceive LECs as sufficiently close to "real" home ownership to warrant their time and effort because of restrictions on the value and resale of equity shares. Accordingly, Peterman considers the enthusiasm for the resident management component of LECs to be due more to the initial idealism of housing advocates, than to the desires of the residents.

On the other hand, community organizers of small and medium LECs in Burlington, Vermont, in Boston and Worcester, Massachusetts, and in various cities in Connecticut spoke not only of successful membership participation, but also of waiting lists for people to get into these LECs (Interviews with Colburn and Wilson in 1992 and Hexter, Spring, and Cunningham in 1993). Furthermore, Donna Smithey, the Director of Peoples' Housing, a non-profit organization on the North Side of Chicago, (interview, 1993) stated that her organization experiences more resident participation in the LECs than in the rental units that they sponsor.

According to our experiences large LECs usually have an outside management agent. Consequently, efforts of most residents tend to be restricted to social-management issues and to attending co-op meetings. Based on our experience within the National Association of Housing Cooperatives, we
believe that most large LECs not only have active and competent boards, but they also have an internal core of leadership. However, they do not seem to have broad membership participation in the day to day running the co-ops. Most of these large co-ops seem to function well with this varying degree of resident commitment to the running of their co-op.

Also according to our experience, cultural factors play a role in peoples willingness to participate in co-ops. For example, ethnic and union ties were important in the founding of the early LECs in New York City. For an excellent discussion of these socio-cultural factors in the organization and running of several Los Angeles area LECs see a research report by Allan Heshkin (1991).

As for survey evidence on residence willingness to participate in co-op activities, Bandy (1993) conducted a mail and telephone survey of officials from the 271 housing cooperatives in California. He had a 49 percent response rate. Those surveyed responded that "few members participate" in 35 percent of the LECs and in 38 percent of the market rate co-ops. To help place this percentages in perspective, Brandy reported that a 1987 survey by Barton and Silverman of presidents of the owners' associations of 770 condominiums and planned unit developments in California stated that 39 percent of the presidents responded that "members really don't care" about participation in the owners association.

While the preponderance of informal information indicates that many low income families are willing and able to participate in co-op activities, further research is needed on the strength of this membership participation.

Finally, it is important to keep in mind that LECs are recommended as only a part of a multifaceted publicly subsidized housing strategy because only some of the poor have the desire and the qualifications to become members of a co-op (Miceli, Sazama, and Sirmans, 1994). LEC members must have
sufficient stability in their personal lives to be able to contribute towards
LEC activities. Among other things, this means that members must have both a
good rent and utility payment record, and an acceptable, but not perfect, credit record.

2.2 Mechanisms to Counteract Low Resident Effort

LEC s have institutionalized a series of mechanisms to counteract potential problems resulting from low member time and effort devoted to co-op activities and the problem of free riding.

2.2.1 A Sense of Home Ownership

Proponents of LE Cs argue that the success of a LEC in creating a sense of home ownership is crucial to a high level of resident participation. Home ownership can be viewed as providing a "bundle of rights." However, some of these rights are restricted in a LEC in order to maintain property affordablity. Unfortunately, if too many of these rights are removed, LE Cs become little more than another form of subsidized rental housing.

While there are no formal studies on the impact of excluding a large number of items from the bundle of property rights in motivating LEC members to participate in co-op activities, mixed circumstantial evidence does exist. For example, some Mutual Housing Associations (MHAs) which are sponsored by the federally created Neighborhood Reinvestment Corporation have been successful even though residents' monthly housing charges are commonly a percentage of their income and there is no resident property equity. However, these MHA residents do have the right to control resident selection, formulate some of the house rules, and the maintain common areas (Bratt, 1990). Besides these components of the "bundle of rights" of home ownership, the success stories among these MHAs appear to us to be more the result of: 1) the efforts of the specific organizers; 2) the careful selection of the initial residents;
3) the establishment of good training programs; and 4) the quality of on-going organizational support.

Residents of LECs using the New York City UHAB model have a larger portion of the bundle of ownership rights than do residents in the above MHAs, as well as support from outside organizers. These LECs have 1) monthly carrying charges which do not change unless there is a change in the LEC's operating expenses; 2) members who can not be forced to move if their income exceeds the limits for initial membership; and 3) a required initial small equity. These factors seem to have resulted in a high level of member commitment to their LECs (Task Force, 1993; Leavitt and Saegert, 1990; Cunningham, interview, 1993; and Spring, interview, 1993).

In order to evaluate fully the importance of the economic incentives for resident-self management of LECs, carefully designed research studies are necessary. Such studies remain to be done.

2.2.2 Economic Penalties

Besides the positive incentives to resident time and effort that flow from a sense of home ownership, LECs also contain economic penalties for negative resident behavior that are not found in other forms of subsidized housing. Most publicly subsidized housing is considered to be the housing of last resort. Consequently, it is quite difficult to evict residents for lack of rent payment or for disruptive behavior (Sleeper, 1990). However, on the basis of both interviews and our own experience we believe that LECs are significantly better than private rental properties in evicting residents for anti-social behavior. This is both because co-op residents are directly affected by such behavior and have the power to do something about it, and also because, unlike public housing, co-ops are not usually the housing of last resort. Also, it appears that LECs are almost as efficient as are private landlords in evicting members for lack of rent payment. Finally,
members' initial equity share purchases serve as quasi-security deposits which is not available in other forms of publicly subsidized housing.

2.2.3 Formal Controls and Informal Factors Influencing Participation

Formal controls on the actions of a LEC and its members are imposed either by regulatory agreement with the mortgagor, long term ground leases, contractual agreements with the development organization, a mutual housing federation, or by the co-op's own governance policy. We know of no explicit analysis of the efficacy of these formal controls.

Informal factors affecting the participation of residents in co-op management are 1) the spatial relationship of the buildings; 2) the income mix of members; 3) the interplay of the personalities of members; and 4) the special interest and inter-racial dynamics of the co-op membership. Anthropologists Cooper and Rodman (1992) did an intensive case study of some of these informal factors in two mixed income LECs in Toronto, Canada. They found differences in the informal pressures on residents to participate in co-op management between the two projects. With similar objectives, Van Ryzin (1994) studied resident participation in six large LECs for the elderly in the Detroit area. He found that residents' perceptions of their control over their co-ops were affected by the extent to which their leaders were judged to be fair and responsive in the execution of management duties. It appears to us that it would be difficult to institutionalize intangible pressures on residents to participate in management duties. The possible remedy for this difficulty is training for boards and members to facilitate inter-resident communication.

3. Does Resident Collective Action Increase the Intangible Benefits of Cooperative Living?
Part of a member's disutility of time devoted to co-op activities can be counter-balanced by the intangible benefits which that a member receives from the satisfaction that is derived from living with a group whom one enjoys and trusts, and with whom one shares common experiences. Also, living in co-ops can develop a resident's personal skills, give her a sense of control and satisfaction, and increase her participation in the community outside of the co-op (Franklin, 1981; Bratt, 1990).

3.1 Performance Indicators of Intangible Benefits

The performance indicators of the intangible benefits of living in a LEC include lower vacancy and turnover rates than found in alternative ownership forms of subsidized housing, as well as the development of personal skills.

Evidence on LEC occupancy turnover and vacancy rates comes from several sources. 1) Susan Saegert analyzed a survey of 2,448 residents of 212 formerly privately owned for-profit rental buildings that were abandoned to New York City (Task Force, 1993). She reported that the average years of residency (of residents not previously in shelters) was 7.2 years for buildings converted to co-ops, but 4 years for buildings converted to for-profit rentals. For buildings still managed by the City the average was 5.3 years (Task Force, 1993, p. 21). This study covered 19 percent of the City-owned or formerly-City-owned buildings from the Bronx. However, the questionnaire was administered somewhat informally by volunteers from among local community organizers.

2) Dewey Bandy (1993) surveyed officials from 49 percent of the housing cooperatives in California. He found a 1990 turnover rate of six percent in both the LECs and in the market rate housing cooperatives. 6 To help put this figure in perspective Bandy reports that 39 percent of households in the LECs
had an annual income of less than $20,000, while only 5 percent of the households in the market rate cooperatives had income in that range.

3) Dennis Cunningham, the director of El Hogar in Hartford, Connecticut (interview, 1993) stated that vacancy rates in co-ops sponsored by El Hogar are significantly lower than neighborhood averages. 4) In their previously discussed study, Sadacca, et al. (1972) found a turnover rate of 16 percent for LECs, 19 percent for limited dividend housing, and 26 percent for non-profit sponsored housing, all of which were financed under the federal 221 (d) 3 and 236 low income housing programs (see row 3 of Table 2). 5) Roger Willcox, one of the authors of this paper, found, while he was president of the Foundation for Cooperative Housing Services (FCHS) in the 1960s, that in case after case of conversions of projects to co-ops in which FCHS was involved that the turnover rate after co-op conversion dropped by over 50 percent from whatever it had been when the project was a rental.

A final intangible benefit claimed for co-op membership is skills development. Verification of this benefit is virtually all hearsay. It stands to reason, however, that if residents are taking over the management of their co-ops and that if this type of activity is new to them, those who participate in management, whether few or many, will develop new skills.

3.2 Survey Measures of Intangible Benefits

Surveys of residents provide another source of information on the intangible benefits of living in a LEC not only in terms of residents' satisfaction with their housing, but also in terms of their general satisfaction with their lives and their participation in their communities.

3.2.1 Residents' Satisfaction With Their Housing

There is good evidence that residents of LECs have greater satisfaction from the intangible benefits of their housing circumstances than do residents
in alternative forms of subsidized housing, but this conclusion is not unanimously found in all of the relevant studies.

The following surveys indicate that residents of LECs have greater satisfaction from their living circumstances than do residents in alternative forms of subsidized housing.

1) Susan Saegert has been involved in two separate surveys of residents in different ownership forms of formerly-privately-owned property which was abandoned to New York City for back taxes. The first survey was part of a careful sociological study done in collaboration with Jacqueline Leavitt. In this survey Saegert and Leavitt analyze the community organizational activities affecting six successful LECs, two struggling LECs, and fourteen rental buildings (1990). They concluded that low income co-ops work, "...and they are preferred by the most vulnerable to rental housing alternatives." (p. 219).

2) Saegert's second report is her previously discussed analysis of a survey of residents of buildings abandoned to New York City in the Bronx (Task Force, 1993). Residents' evaluation of their living circumstances were compared between residents of buildings converted to LECs and residents of buildings converted to other ownership forms. Residents of the LECs judged their living circumstances to be better than or equal to the evaluations by residents in other ownership forms in the following ways: a) good or excellent management quality, cleanliness, and building services, b) no drug problems, 3) a smaller percentage residents wanting to move, d) a stronger participation rate in the resident group, 5) a higher percentage of residents registered to vote. The full results are reported in Table 3.

(Place Table 3 near here)

3) In a small survey of disabled people who live in different kinds of housing, Liebert (interview, 1993) found that disabled people living in a LEC
were more satisfied with their housing and with their lives than were those she surveyed who were living in other kinds of housing.

4) Surveys of residents in LECs or MHAs that show high resident satisfaction with or perceived control of their housing circumstances were done by Van Ryzin (1994), Bratt (1990), and Ellenbecker and White (1987). Unfortunately, these studies lacked control groups for comparison of the degree of resident satisfaction in LECs to that in other ownership forms.

In contrast to the results of the above studies, Donald Sullivan (1971, p. 172) concluded that LECs may not have significant social advantages over public rental housing units after correcting for the physical quality of the buildings and the socioeconomic characteristics of the residents. Sullivan used the standard urban planning criteria for residents' satisfaction with their housing and participation in the community to compare three subsidized housing projects. His conclusions were based on in-depth interviews of a sample of 50 families each from a moderate-income LEC, a moderate-income public housing project, and a low-income public housing project. All families lived in very large high-rise projects located within a few blocks of each other in East Harlem, New York City. Even though this survey included only 150 people in three projects, Sullivan paid close attention to controlling extraneous influences in his analysis. In spite of Sullivan's conclusion that social benefits to the residents are neutral to the ownership form, he did state that LEC tenure created a greater sense of resident responsibility toward the maintenance of common property.

A study that shows mixed results on resident satisfaction from living in a LEC was done by Rhoe and Stegman (1993). They compared two public housing projects which had converted to LECs. They found high resident satisfaction with one LEC and resident dissatisfaction with the second. These authors
admit to concerns about inadequate control groups for their comparison of resident satisfaction.

3.2.2 Residents' Satisfaction with Their Personal Lives and the Level of Their Community Involvement

Co-op advocates claim that co-ops increase residents' satisfaction with their personal lives and increase their participation in community affairs. Rachel Bratt, in her previously-discussed report of the survey of Baltimore MHA residents, states that residents claimed increased personal satisfaction and community involvement since moving into the MHA (1990, p.44).

Rohe and Stegman (1994a, and 1994b) researched these same satisfaction and participation questions for subsidized low-income home buyers. While their study is not on LEC unit "ownership," their results provide some insights into the potential intangible benefits of that alternative form of home ownership. For example, Rohe and Stegman found that even though low-income home buyers claimed to be more satisfied with their lives than did continuing renters, there was no significant difference between the two groups with regard to their perceived control over their lives or to their self esteem. Rhoe and Stegman also found that while low income home buyers are less likely than are continuing renters to visit with neighbors, but that they are more likely to participate in neighborhood and block associations, but not in other types of community organizations such as school associations.

3.3 Qualitative Evidence of Intangible Benefits

The inherent difficulties of comparing cooperatives with other institutional forms of living is indicated by the extensive research comparing producer cooperatives to profit-making firms (Bonnin, et al., 1993). Many of the goals for and the criteria of success for cooperatives are different than those for other ownership forms. For example, producer cooperatives may seek
to maintain employment and high wages rather than profit maximization, which is the goal of a typical private-production firm.

When we apply these differences in the criteria of success to housing cooperatives as compared to other housing ownership forms problems naturally arise for our analysis. The previous discussion has been framed largely by the criteria of neo-classical economics. For example, we organized evidence around sections on the disutility of time and effort of residents participating in co-op activities and free riders. Neo-classical economics assumes "homicus economicus," the notion that rational individuals maximize personal satisfaction subject to constrained income. Many in the cooperative movement believe that this perception of human motivation is a selfish one. They believe instead that cooperative institutions will facilitate cooperative behavior, which in itself provides resident satisfaction.

Cooper and Rodman (1992), both anthropologists, did intensive case studies of group behavior in two LECs in Toronto. They concluded, "The economic benefits of co-op housing were attractive, but the non-monetary rewards seemed more important to the people we interviewed" (p. 270). These non-monetary rewards include the need for security, control, and socialability, in an environment that meets the special needs of single parents and physically disabled persons.

Birchall (1988) provides an extensive discussion of the philosophical arguments for cooperative housing. Most important for our purposes is that the penultimate chapter of Birchall's book contains a balanced, but essentially positive evaluation of case studies of six LECs in England. He evaluates these 6 LECs according to five different "cooperative" criteria. These criteria include the degree of resident participation, the ability of the cooperators to reach common goals, and the residents sense of commitment.
to each other and to the Rochdale cooperative principles (for example, one member one vote).

Finally, because both authors of this paper are members of the National Association of Housing Cooperatives (NAHC), we have come into contact with hundreds of enthusiastic LEC members striving to make their co-ops work.

3.4 Demand for LECs

While many LECs have waiting lists for members (based on information gathered in discussions of the authors with members of the National Association of Housing Cooperatives, and interviews of community organizers), some others are experiencing difficulty in filling new units or in retaining members (Rohe and Stegman, 1993; and Patricia Spring, interview, 1994). In an evaluation of the Canadian federal LEC programs, a report of the federal Canada Mortgage and Housing Corporation stated that the market for cooperative housing in Canadian cities could be expected to be strongest under conditions of low-rental-vacancy rates and where a majority of moderate-income households are unable to afford home ownership (1992, p. 66).

In section 2.1 we discussed individual and cultural factors that effect a resident's willingness to participate in co-op activities. These factors also effect a household's initial willingness to join a co-op, that is the demand for co-op housing. Also, substantial experience has been accumulated in developing and marketing LECs. In a working paper Willcox (1995) discusses the experience of the Foundation for Cooperative Housing Services in developing and marketing over 50,000 cooperative dwelling units in 30 states during the 1960s. Also see reports by Davis (1993) on the Burlington, Vermont experience, and by Leavitt and Saegert (1990) on the recent LEC experience in New York City.
One indication of the relative size of demand for LECs when financial and organizational support is available is that residents of 27 percent of the New York City owned and formerly owned buildings in the Bronx chose to convert, or are in the process of converting, these buildings to LECs (Task Force, 1993, p. 9).

Indeed, it seems to us that the crucial limiting factor for LECs currently is a supply side, not a demand side, problem. As will be discussed in section 4.1, there currently is a lack of funding programs for LECs as compared the number and size of funding programs available for other forms of low-income housing.

4. What Is the Degree of Subsidization for Living in a LEC?

In the previous sections we examined the following influences on a household's decision to join a LEC and to participate in its activities, 1) the effect of resident participation on cost reductions; 2) the disutility of time and effort devoted to co-op activities; and 3) the intangible benefits of cooperative living. In this section we examine the influence of the degree of subsidization for living in a LEC on a household's decision to join and participate in a LEC.

Because LEC residents are formally owners, they do not pay rent. Rather, they pay their portion of project costs through monthly carrying charges. LEC residents' monthly carrying charges are affected by 1) direct subsidies; 2) the design of monthly carrying charge formulae; 3) the comparative costs of developing and operating LECs; 4) the financial riskiness of LECs; and 5) the equity formula provisions used to maintain the affordability of the LECs.
4.1 Types of Direct Subsidies and Numbers of Units

There is a series of subsidy programs which historically have been available for LECs in the United States. Table 1 contains a list of these programs and the number of units constructed under them. Each of these programs has its own unique way of giving subsidies to LECs. Subsidies are given as (1) payment for development, organizing and planning costs; (2) capital grants; (3) below-market interest rates; and (4) direct and indirect contributions toward capital and/or operating costs. Virtually all of the direct-federally-financed LECs were built in the 1960s and early 1970s. The key subsidy in these federally financed projects typically was a 3 percent fixed rate 40 year mortgage, with up to 100 percent federal financing. This below market interest rate program resulted in a reduction of approximately 25 percent of the total annual costs for these federally sponsored co-ops. For the other programs listed in Table 1 typical subsidies were equivalent to 10 percent to 30 percent of annual costs.

As can be seen from Table 1, and discussed in the introduction, the availability of public funds has dramatic impact on the timing of activity and the number of LECs.

Recently, especially in Minnesota and California, some lease-hold LECs have been partially financed with funds available under the tax credit provisions. However, in our view, these lease-hold LECs are not as attractive as full LECs, because they remove still more of the "bundle of rights" of property ownership that economic theory maintains is important to resident motivation. Our preference would be to allow LECs to be funded directly by these tax credits.

Finally, the regulatory procedures for the conversion of existing HUD properties to other ownership forms could be modified for co-ops. Under current regulations existing residents need to be organized into a quasi-co-op
before a community non-profit can make a formal offer to convert a building to a co-op, while for-profit developers can make an immediate bid on the choice buildings (Stewart, interview, 1993). Additional discussion of current sources of funding for LECs can be found in a report by the Agora Group (1992).

4.2 Monthly Housing Charge Formula

Resident monthly costs are also affected by the design of the monthly carrying charge formula. The variety of formulae used to calculate monthly housing charges falls into two distinct types, either a flat fee per unit or a fixed percentage of household income. Most LECs use some variation of the flat fee formula in which the initial fees are calculated as sufficient to cover the unsubsidized portion of costs. Theoretically, because changes in these fees occur only when there are changes in the operating costs of the LECs, these flat fee formulae contain incentives for residents to reduce their operating costs.

When the percent of income formula is employed, residents' charges depend on household income and not on project costs. Therefore, there are no economic incentives within the percent of income formula for residents to reduce project costs (Miceli, Sazama, and Sirmans, 1995). Nevertheless, Roger Willcox has observed that member boards of directors of Section 8 LECs which use the percent of income formula have shown a tendency to increase the quality of life for residents more than is commonly found in Section 8 pure rental projects. The LEC boards do this by encouraging the management to work harder in the interest of improving living conditions in such ways as giving faster service on work order complaints, providing better maintenance standards, and by upgrading community facilities. Furthermore, residents of LECs, unlike those in public housing, ordinarily are not required to leave the
LEC if their incomes surpass the initial eligibility criteria. This factor provides an additional incentive for LEC residents to think of their housing unit as their own, and, therefore, to treat it in a cost effective way.

Unfortunately, there are no formal empirical studies that quantify the effects of the flat fee formula as compared to other influences on operating costs and the quality of life in LECs.

4.3 Limited Equity Formulae

Keeping a LEC affordable requires not only subsidies but also limits on the value of resident owned equity shares in the co-op. These limits on equity share values include both limits on the initial share price and limits on the rate of increase in the resale value of these equity shares so that LECS are initially, and remain, affordable to low-income families. A few LECs permit no increase in share values, but most permit increases either according to some fixed percent or some wage or cost index. Finally, there usually are restrictions so that a share can only be resold to another low-income household which has been accepted by the co-op board.

As will be discussed in the following two subsections, debate over the appropriate design of the limited equity formula raises both efficiency and equity issues.

4.3.1 The Share Value Formula and Efficiency Issues

A key efficiency issue is the role that capital gains in share values plays as an economic incentive for co-op members. According to neo-classical theory, if a homeowner defers structural maintenance expenditures, a decrease in the capital value of the building results. Therefore, if increases in LEC share values are restricted, the economic incentives to carry out appropriate long-term maintenance expenditures are diminished. Roger Willcox counters this argument. He has found that when similar LEC and low-income rental
buildings are found in the same neighborhood, the long-term maintenance of the LEC buildings has been superior.

Evidence supporting the argument that limits on the capital gains the resident receive result in the co-op deferring building maintenance expenditures comes from a study of Canadian LECs done by the federal government's Canadian Mortgages and Housing Corporation. This study found that between 43 percent and 53 percent of the LEC managers surveyed (depending on type of finance program) reported postponement of either maintenance or improvement activities (1992, p. 326). These Canadian LECs have par-vale shares - zero increase in share value. This conclusion on capital expenditures was part of an overall favorable evaluation of the Canadian LEC programs. It involved an analysis of surveys of residents, board members, and managers, as well as physical site visits for a sample of 300 cooperatives from a universe of about 600 cooperatives. No comparative data was presented on the maintenance experience of other Canadian government low-income housing programs.

4.3.2 The Share Value Formula and Equity Issues

The design of the co-op share value formula raises at least four equity (fairness) questions. Deciding the answers to these questions involves trade-offs among the various goals of subsidizing LECs.

1) "What will be the effect of increases in share value on reducing the supply of affordable housing?" It seems likely that if the increase in share values is allowed to reflect the full increases in the market value of the co-op's building, low income families probably would not be able to purchase equity shares when an existing member of a LEC decides to leave the LEC. Thus there is a trade-off between the efficiency effects of the capital gains which were discussed above and the size of affordable housing stock.
2) "How much of the benefits of public subsidies should be realized as capital gains by the LEC members?" If there were weak restrictions on the resale of LEC shares, individuals leaving a LEC would receive benefits from the public subsidies as reflected in the resale value of their shares. Berger and Turner (1991) found in their study of subsidized housing cooperatives in Sweden that windfall capital gains received by households leaving the co-ops increased the demand for housing cooperatives in Sweden relative to the demand for other forms of rental housing. However, there are weak household income limits on membership in these Swedish housing cooperatives.

A related concern about windfall capital gains from public subsidies involves the privatization of the whole LEC so that all existing members can realize a capital gain. Recent battles have developed within and among some of the mature LECs in New York City, Illinois, and Massachusetts over this issue (Smith, interview, 1993; Rappaport, interview, 1993; and consulting experiences of Roger Willcox). Privatization of LECs has been eliminated by legal prohibitions and land trusts. According to Birchall, both France and Italy legally prohibit LEC members from privatizing their LEC (1989, p. 193). A land trust involves a property deed covenant on a parcel of land that restricts its use to affordable housing (Burlington Community Land Trust, 1988). The non-profit that instituted the land trust then contracts a long term renewable lease of the land (for example 99 years) with the housing co-op which owns a building on that land.

3) Another equity question is, "If the capital gains due to subsidies can be clearly separated from increases in value due to member efforts, should members individually receive the benefits of these efforts?" Using a neoclassical economics approach, individual LEC members should be allowed to receive the direct benefits of their actions. However, it has been difficult to design formulas which separate out these benefits from the affects of the
subsidies and changes in general market conditions. Also, some co-op advocates argue that the benefits should be held by the cooperative for the common benefit of all present and future members.

4) "Should residents be allowed to keep part of the capital gains resulting from subsidies in order to facilitate their transition to traditional home ownership?" Those strongly favoring private home ownership argue that LEC residents should keep part of the capitalized value of the subsidies in order to facilitate this transition. On the other hand, many advocates of low-income housing argue that allowing residents to keep subsidized capital gains reduces the availability of affordable housing.

Additional discussions of the issues involved in the design of the equity formula can be found in work by Colburn (1990), Fisher (1993), and Rohe and Stegman (1992, p. 153). But, further research is needed in this area in order to clarify the extent of the economic efficiency effects of limits on equity value, and to consider more carefully the trade-offs of the various equity goals.

5. What is the Degree of Financial Risk of Living in an LEC?

While flat fee monthly carrying charges and financial autonomy create advantages for LECs and their members, these characteristics also create financial risk for them. After a discussion of the types of risks involved, we will explore the available evidence on the financial stability of LECs.

5.1 Types of Financial Risk

Financial risks to LECs and their members are caused by one or a combination of the following: 1) inadequate initial capital expenditures,
subsidies, monthly carrying charges, or reserve funds; 2) poor administration; and 3) economy-wide fluctuations.

If initial capital improvements are inadequate, LECs, especially new ones, will find themselves in financial difficulties. Struggles between the LEC and the sponsoring agency often result, and LEC residents not only remain dependent on the outside agency, but also are subject to increases in monthly carrying charges. These factors, in turn, can cause some members to "jump ship," and thereby throw the LEC into a downward financial spiral. Some examples of this phenomena are found in Rohe and Stegman's (1993) discussion of the Denver Public Housing Authority's conversion of a distressed housing project into a LEC, and Henderson's discussion of financial problems of some of the New York City owned apartments that have been converted to LECs (Task Force, 1993).

The financial viability of a LEC can also be threatened by economy-wide fluctuations in three ways. First, downturns in the real estate market result in a decrease of private rental rates making them competitive with the monthly carrying charges of especially the newer LECs. Members might then leave LECs for the private rentals, which in turn can damage the LECs' financial viability. Second, because LEC members have low incomes, they experience a disproportionate share of the fluctuations in economy-wide unemployment. Since a household's flat fee monthly charges do not decrease when its members' incomes decrease, unemployment can result in eviction. All monthly charges may then have to increase to keep the LEC financially solvent. Third, financial shocks can also cause financial problems. For example, sudden increases in energy costs and inflation in the 1970s, and variable interest rates in the 1980s created serious financial difficulties for some LECs.

It is logical that a LEC will remain financially sound either if its monthly carrying charges are low relative to rents in the current real estate
market, or if it has high subsidies relative to its costs and member income. However, when the level of subsidies is evaluated the real question should not be what level of subsidization is necessary to keep the co-op financially viable, but rather, whether or not the social benefits of the subsidies exceed their social costs. Unfortunately, we know of no studies which address this issue. Also, there is a need for studies that assess the influence of the financial risk of living in a co-op on a household's willingness to join a LEC. The evidence that is available on the financial stability of the housing cooperatives themselves is examined in the following section.

5.2 Available Evidence

The general record of financial viability for LECs is quite strong as is indicated by the ability of most LECs to survive the Great Depression and by various statistical studies. However, there have been occasions when LECs have experienced great financial difficulties.

The Great Depression was especially severe on market-rate cooperatives for high income families. Most such housing cooperatives were in New York City, and by 1934 only two of them remained (Siegler and Levy, 1986, p. 15). However, LECs seem to have done better than did these market-rate housing cooperatives. For example, all of the 13 large low and moderate-income cooperatives constructed during the inter-war period under the State of New York's 1927 Limited Dividend Housing Companies Law, including the 1,400 unit co-op sponsored by the Amalgamated Clothing Workers' Union survived the Depression without seeking new financing and without members being forced to leave their homes (Siegler and Levy, 1986 p.15; and the International Labor Office, 1964, p. 116). Apparently, that these LECs used conservative financial policies such as low debt-equity ratios coupled with the
availability of large accumulated reserve funds, were important to their survival.

Calhoun and Walker (1994) studied the 1958-1989 loan performance records of all federally insured Section 221 (d) 3 and 236 housing projects. The average size of projects under both programs was about 100 units per LEC, and most of them were built between 1963 and 1976 (Angora Group, 1992). Calhoun and Walker found the default rate for LECs under the 221 (d) 3 program to be lower than that for the non-profit and limited-dividend projects that were similarly funded. They also found that under the 236 program the 20 year "survivor rate" for LECs was 78 percent, as compared to 77 percent for non-profits and 90 percent for limited-dividend projects.

Roger Willcox believes that an important explanation for the different default rates under these two LEC funding programs was the difference of the availability of services from a single national sponsor of cooperatives. The Foundation for Cooperative Housing Services (FCHS) helped organize and provide continuing support for most of the cooperatives financed under the Section 221 (d) 3 program. LECs have the strongest financial record under this program. However, by 1969, the time that Section 236 became a primary source of funds for LECs, FCHS was reorganized in such a way that it could no longer function as a national technical assistance organization for LECs.

Bandy (1993), as a result of his mail and telephone survey of representatives of California housing cooperatives, stated that 6 percent of the market-rate cooperatives surveyed indicated that finances were a major problem for them as compared to 20 percent of the LECs. Only one of the 44 LECs responding to the survey reported having serious financial problems. Of course, market rate co-ops have less restrictions on their governance, because they are not subsidized. Also, market-rate co-ops have more flexible sources
of funds because they are owned by middle income families, while LECs are owned by low and moderate income families.

Starting in the mid 1980s there have been dramatic shifts in our nation's real estate markets simultaneous with increases in the financial problems of low-income households. This has had its effect on LECs, especially on the newer ones. For example, while about three quarters of the 650 former New York City-owned-abandoned properties converted to LECs in the 1980s were financially stable in 1993, one quarter of these LECs were experiencing financial difficulties (Task Force, 1993, pp. 65-73; and Reicher, interview, 1994). Causes of these financial difficulties included 1) inadequate structural improvements in some of the buildings before they were turned over to the co-ops; 2) LECs having to absorb the impact of large city-wide increases in property taxes and water and sewer charges that occurred during this period; and 3) a lack of internal human capital and reduced funding for external technical assistance to these LECs.

Finally, in the late 1980s, a few co-ops organized by non-profit organizations were financed both with high or variable interest rate mortgages and with a high percentage of debt financing. They co-ops consequently experienced financial difficulties resulting from the 1990 recession (Institute of Community Economics, 1992, p. 10).

6. Conclusions

Several conclusions on the effectiveness of limited equity housing cooperatives (LECs) are supported by the evidence presented in this paper. First, resident participation in LECs reduces operating costs. Second, there are both economic incentives and penalties, as well as both internal and external institutional factors available to LEC members to encourage them to
provide similar time and effort to co-op activities as they would to their own single family houses. Third, resident collective action increases the intangible benefits of cooperative living. Fourth, LECs require subsidization in order to be available to low and moderate-income households. Fifth, the general record of financial viability for LECs is quite strong. Linking LECs through regional federations and national associations which provide oversight and technical assistance to the member co-ops increases their viability and efficiency. Further study is needed a) to clarify issues in LEC policy, such as design of the formula for resident monthly housing charges, and appropriate sources of funding; b) to evaluate further the above preliminary conclusions, and c) to measure the strength of the incentives for positive resident behavior created by the institutional structure of limited equity cooperatives.

LECs are one way, within a multifaceted policy, for satisfying the need for publicly subsidized housing in the United States. LECs work best when policy objectives include both the need for better quality housing as well as for personal developmental opportunities for member residents. It must be recognized that LECs are not suitable for all low and moderate-income households. LECs work best for those people who can accept the additional responsibility of owning and managing their own housing in a cooperative way. There is evidence that as much as 20 percent of those presently eligible for publicly subsidized housing assistance are willing to accept this responsibility, especially when LECs are properly structured and financed.
References


Interviews


Stewart, R. Ted. Executive Director of the Center for Cooperative Housing, affiliated with the National Association of Housing Cooperatives (NAHC). Statements from a workshop coordinated by Mr. Stewart at the NAHC annual meeting, October 15, 1993.

## Table 1
Types and Number of Limited Equity Cooperative Units in the United States, 1991

Federal Government Sponsored:

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td></td>
</tr>
<tr>
<td>FHA BMIR, Section 221 (d) 3</td>
<td>36,000</td>
</tr>
<tr>
<td>FHA Section 236</td>
<td>23,000</td>
</tr>
<tr>
<td>Section 202 (Senior Citizen)</td>
<td>1,000</td>
</tr>
<tr>
<td>FHA Rural Self Help</td>
<td>3,000</td>
</tr>
<tr>
<td>Indirect</td>
<td></td>
</tr>
<tr>
<td>Conversion of Public Housing</td>
<td>12,000</td>
</tr>
<tr>
<td>Via Community Block Grants</td>
<td>7,000</td>
</tr>
</tbody>
</table>

State and Local Government, and Non-Profit Sponsored:  

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td></td>
</tr>
<tr>
<td>State and City Programs b</td>
<td>60,000</td>
</tr>
<tr>
<td>United Housing Foundation, Labor Unions, and Non-Profit Organizations</td>
<td>35,000</td>
</tr>
<tr>
<td>Other States' Programs</td>
<td>40,000</td>
</tr>
<tr>
<td>Washington DC Abandon Building Conversion Program</td>
<td>7,000</td>
</tr>
</tbody>
</table>

Total c  200,000 - 225,000

Notes:

- a. Many of these programs are assisted by FHA and HUD rent supplement programs, and via federal community block grants. For additional information on this funding see a report by the Angora Group (1993).

- b. Virtually all of these New York LECs have been built either under the State's 1927 Limited dividend Housing

- b. Several thousand of the total units, especially those financed by direct federal programs, have had an expiration of their limits as an LEC and have been converted to market rate co-ops or private ownership. For a discussion of conversions see text section 4.3.

Table 2

Some Measures of Management Success in Three Types of Publicly Assisted Private Housing (Dollar figures are costs per month per unit)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Non-Profit</th>
<th>Limited Dividend</th>
<th>Co-op</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vandalism Cost</td>
<td>$1.55</td>
<td>$2.55</td>
<td>$0</td>
</tr>
<tr>
<td>Presence of Litter Problems (^a)</td>
<td>1.05</td>
<td>1.12</td>
<td>.46</td>
</tr>
<tr>
<td>Annual Turnover Rate</td>
<td>26%</td>
<td>19%</td>
<td>16%</td>
</tr>
<tr>
<td>Maintenance and Operating Expenses</td>
<td>$32.49</td>
<td>$33.47</td>
<td>$25.31</td>
</tr>
<tr>
<td>Total Cost of Operations Including Depreciation</td>
<td>$124.48</td>
<td>$159.94</td>
<td>$105.13</td>
</tr>
</tbody>
</table>

\(^a\) Calculated on a scale of "0" (no problem) to "3" (serious problem).


Table 3

Residents' Evaluation of Their Building, by Type of Building
All Buildings Are Previously Privately Owned Apartments Which Were Abandoned to New York City And Converted by the City to a New Ownership - Management Form

<table>
<thead>
<tr>
<th>View or Characteristic</th>
<th>Limited Equity</th>
<th>For-Profit New Private Managed Co-op</th>
<th>City Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good or Excellent:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management Quality</td>
<td>41</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>37</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Building Services</td>
<td>56</td>
<td>33</td>
<td>38</td>
</tr>
<tr>
<td>Drugs not a Problem</td>
<td>42</td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>Want to Move</td>
<td>41</td>
<td>60</td>
<td>41</td>
</tr>
<tr>
<td>Participate in Resident Group</td>
<td>39</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Registered to Vote</td>
<td>62</td>
<td>40</td>
<td>-</td>
</tr>
<tr>
<td>Income Greater than $20,000</td>
<td>19</td>
<td>34</td>
<td>12</td>
</tr>
</tbody>
</table>

June 7, 1995

Mr. Daniel W. Bromley, Editor
Land Economics
427 Lorch Street
Taylor Hall
University of Wisconsin
Madison, Wisconsin 53706

Dear Mr. Bromley:

This letter is to seek your advice on the submission of an article on limited equity housing cooperatives for publication in Land Economics. Both co-authors have in the past published in your journal. However, we would like your advice on whether an article investigating the performance record of limited equity housing cooperatives and using the methodological approach used in our paper would fall within Land Economics's current interests. A copy of the introduction and abstract of our paper is enclosed.

We hope that this initial feedback process will be more efficient for both you and us than our submission at this point of three copies of the complete paper. In advance, we appreciate any feedback you might provide.

Sincerely yours,

Gerald W. Sazama

Enclosure
Abstract

An Evaluation of Limited Equity Housing Cooperatives

In the United States

Limited equity cooperatives (LECs) are evaluated within the following framework: 1) the effect of resident participation on operating costs, 2) the disutility of time and effort that members devote to co-op activities, 3) the intangible benefits of co-op living, 4) the degree of subsidization, and 5) the financial viability of LECs. As a result of information gathered from interviews of field practitioners and academic experts, the authors' personal experiences, and a review of the literature, LECs are seen as an effective way of providing home-ownership opportunities for low-income families the United States.
Introduction

Limited equity cooperatives (LECs) are currently being discussed as one of the ways to offer the opportunity of home ownership to low-income families (Davis, 1994; Hayes, 1993; Task Force, 1993; and Heskin, 1991). According to economic theory, LECs represent a form of publicly assisted housing which provides many of the characteristics of home ownership. This is because LEC residents can both exercise a considerable degree of control over their housing environment and experience the economic consequences of their actions (Miceli, Sazama, and Sirmans, 1995). Thus, if LECs' performance in the real world is consistent with economic theory, LECs could play an active role in our nation's affordable housing policy.

Part of the current interest in LECs flows from the substantial experience with LECs accumulated in the United States over the last seven decades. Also, in the last decade non-profit organizations sponsored many LECs. With the size and very existence of United States Department of Housing and Urban Development now being threatened, this "Third Sector" housing (sponsored by non-profits) will become more important. Further, LECs could play an increased role given the likelihood of a future selling off of some of HUD's properties. For example, five of the 18 HOPE demonstration projects (conversion of public housing to private ownership) involved LECs (Rohe and Stegman, 1992).

While both public housing and Section 8 rent subsidy programs have received substantial attention in the literature (Newman and Schnare, 1992, Bratt, 1986; Kraft and Kraft, 1979; and Solomon, 1974), there have been few formal attempts to evaluate the economic performance of LECs in the United States. We hope that this report will begin to fill some of this gap in the affordable housing literature. Our evaluation will be based on: a) our
personal field experience, b) interviews of field practitioners, and c) a review of the existing literature on LECs. After a brief institutional background section, our evaluation of LECs is organized into five sections, each of which answers questions concerning a specific point of the economic theory of LECs.

Roger Willcox has been associated with the development of more than 50,000 cooperative dwelling units in 30 states in his capacity as president of the Foundation for Cooperative Housing Services, a technical subsidiary of the Foundation for Cooperative Housing. He has maintained his active interest in housing cooperatives through his leadership in the National Association of Housing Cooperatives. Mr. Sazama became involved in LECs by spending a sabbatical semester doing participant server research as a staff member of Stop Wasting Abandoned Property, a non-profit organization developing a LEC in Providence, Rhode Island.

For an evaluation of resident participation in general see work by Monti (1989), and Peterman and Ng (1991). The latter study also evaluates resident management in alternative types of low income housing.

Methodology of the Canadian co-op evaluation is discussed in section 4.3 of this paper.

Home ownership can be viewed as providing the following bundle of rights: control over the selection of tenants; control over property use; the right to privacy; long term tenancy rights; incentives to reduce operating costs which are consistent with the long term maintenance of the property; a fixed mortgage payment; possibilities of capital gains; autonomy in making improvements; additions; the right of secession of the property to an immediate family member; and control over property design and location.

A sample copy of these documents for LECs sponsored by community based non-profit organizations is available from Regional Housing Legal Services, Glenside, Pennsylvania 19038. Other samples can be obtained from Roger Willcox, the National Association of Housing Cooperatives in Alexandria Virginia, the Center for Cooperatives, University of California at Davis.

The Bandy survey (1993) covered 62 percent of the LECs and 44 percent of all of the housing cooperatives (LECs and market rate) in the state of California. Six of the 44 LECs surveyed were senior home parks.

A lease-hold LEC is an LEC which leases its property from another corporation, rather than owning building directly as do ordinary LECs.

Roger Willcox has been associated with the development of more than 50,000 cooperative dwelling units in 30 states in his capacity as president of the Foundation for Cooperative Housing Services, a technical subsidiary of the Foundation for Cooperative Housing. He has maintained his active interest in housing cooperatives through his leadership in the National Association of Housing Cooperatives. Mr. Sazama became involved in LECs by spending a sabbatical semester doing participant server research as a staff member of Stop Wasting Abandoned Property, a non-profit organization developing a LEC in Providence, Rhode Island.