



**Interim Report on
Development and
Operating Costs of
Permanent
Supportive Housing**

**Multi-Year
Evaluation of
Permanent
Supportive Housing
Financed by the
State of
Connecticut**

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1. Introduction and Research Questions

The State of Connecticut has been developing permanent supportive housing for homeless persons with mental illnesses and other special needs since 1993. In September 2008, the Corporation for Supportive Housing (CSH) engaged Abt Associates Inc, with subcontractor VIVA Consulting LLC, to undertake a multi-year evaluation of the outcomes and cost effectiveness of Connecticut’s PSH efforts.

The overarching research questions for the study are:

- Have Connecticut’s efforts to develop and operate PSH achieved impacts that justify the investments?
- Are properties and outcomes sustainable over time?
- Can the state improve its PSH efforts and/or results with different actions?

This report summarizes the findings from our analysis of development and operating costs of permanent supportive housing in Connecticut. The final report for the study (forthcoming) will bring together an analysis of the costs of developing and operating permanent supportive housing with the service utilization patterns of its residents. The hypothesis is that providing PSH results in reduced utilization of expensive emergency and crisis care and may increase participation in treatment and supports that contribute to greater housing stability. We plan to obtain and analyze service utilization data (including costs) for PSH tenants for the two year period before they entered PSH, during their stay, and (if applicable) after their departure to provide a broader assessment of the cost effectiveness of PSH.

This chapter provides an overview of state-sponsored permanent supportive housing as it has evolved in Connecticut as background for this report on the development and operating costs of Connecticut’s PSH stock.

1.1 What is Permanent Supportive Housing?

Permanent supportive housing (PSH) is a non-institutional form of housing linked to services for people who have special needs but who are able to live independently if they have some assistance. It takes a comprehensive approach to address underlying problems that often result in housing instability or homelessness such as substance abuse, mental illness, and HIV/AIDS. Tenants in PSH have their own apartments, and are required to pay their own (generally subsidized) rent and abide by the terms of their leases. The key component that makes the housing “supportive” is that the housing is linked to services tailored to the needs of each resident, such as case management, job training, and alcohol and drug addiction recovery programs, although use of these services by tenants is voluntary.

The housing is called *permanent* because it is meant to be longer term where tenants have their own leases, unlike housing provided by a shelter or other facility.¹ PSH is sometimes motivated by the practical financial implications of *not* providing housing and services: the alternative to PSH may be a homeless shelter, jail, or a medical or psychiatric hospital, which some research finds to be more expensive.²

Permanent supportive housing is complex both because the development strategy can vary and because the operation of housing and services must be coordinated. Connecticut has had three different PSH initiatives, which further complicates the picture. Permanent supportive housing can be created through new construction or acquisition and rehabilitation of existing units, either on single sites or in multiple locations. PSH projects that involve development or rehabilitation of units are called **development projects**. Alternatively, supportive housing can be “created” by leasing scattered, existing apartments owned by private landlords. This is called **scattered-site** permanent supportive housing, and no public capital costs are incurred.

1.2 Development Projects

In development projects, housing and services coordination is generally managed by nonprofit **sponsor** organizations, which serve as the general partners of partnerships that own the projects. These sponsors are sometimes also the entities that provide supportive services; in other cases, another nonprofit **supportive service provider** does this. Sponsors sometimes act as the property managers; in other cases a separate **property management company** operates the housing. In the PSH units sponsored by the State of Connecticut, the same organization never provides both supportive services and property management because an important role of the service provider is to help resolve problems with property managers for tenants who have lease compliance issues.

In a development project confined to a single site, supportive services are often offered on-site to tenants; in a development in multiple locations case managers are more likely to visit tenants in their homes. Rents are kept affordable using various forms of rental assistance. In Connecticut, the Department of Social Services (DSS) and Department of Mental Health and Addiction Services (DMHAS) administer state and federal rental subsidies to keep the housing affordable.

1.3 Scattered-site PSH

In scattered-site PSH, nonprofit sponsors administer rental assistance which they then provide to households whom they assist in finding housing. Clients are thus provided with both an affordable rent (generally less than one-third of their income) and links to local landlords whose units meet federal housing quality standards, are accessible to transportation and are safe and secure. Clients

¹ In the Connecticut Supportive Housing Pilots Initiative, some of the units are transitional living programs, where residents develop skills before moving to permanent housing. These units are not included in this evaluation.

² See, for example, Mary E. Larimer; Daniel K. Malone; Michelle D. Garner; et al. “Health Care and Public Service Use and Costs Before and After Provision of Housing for Chronically Homeless Persons With Severe Alcohol Problems,” *Journal of the American Medical Association*, 2009;301(13):1349-1357.

have their own apartments, leases, and pay their own rent.³ A landlord may have one or more PSH tenants in a building. As with most rental housing, costs of operating the housing are paid by landlords.⁴

1.4 Services for PSH Tenants

Tenants in both scattered-site and development projects work with case managers. Some of the case management services provided relate to helping tenants obtain and sustain their leases. After clients move into housing, case managers typically visit them regularly in their homes to try to address any problems that arise (housing-related and otherwise). In the three state-sponsored PSH initiatives evaluated in this report, funding for case management and supportive services is provided by DMHAS and/or DSS. Case managers also link tenants to other mainstream services for which they are eligible, such as SSI or SSDI, Medicaid-funded health services and treatment programs, food stamps, and Temporary Assistance to Needy Families (TANF).

1.5 Assessing the Costs of Permanent Supportive Housing

The analyses in this report serve four purposes: First, this report provides a descriptive assessment of the costs of developing permanent supportive housing, including the factors that may influence costs. Second, it provides a review and analysis of operating costs at the development properties financed by the State of Connecticut and addresses the properties' operating sustainability over time. Third, it provides a review of the public costs of PSH units that are not developed, but are leased from private landlords. Fourth, the development cost data are combined with data on the costs of operating PSH and providing services to its residents.

This report focuses on research questions related to development and operating costs of state-sponsored PSH:

- What are the full development costs for each project?
- What is the state funding used? What other funding sources are utilized?
- How do per-unit and per-square foot total development costs compare across projects, development strategies, and production programs?
- What contributes to major cost variations (soft costs, hard costs, fees, reserves, etc.)?
- What are per-unit operating costs, and are the projects financially sustainable?
- What are the costs of providing services to PSH tenants in leased units? How do these costs compare with development projects?

³ One sponsor of scattered-site units in Connecticut master leases scattered-site units and then subleases units to tenants. In this case, tenants enter into a lease with the sponsor, not directly with the landlord, and pay rent to the sponsor.

⁴ Some utilities may be paid by tenants and covered, along with contract rents, by rent subsidies.

- What are the annualized costs of PSH, including development and operating costs (for development projects)?

Chapter 2 provides some background and policy context for Connecticut’s PSH financing and production system. Chapter 3 describes the data used in the analysis and the approach used for evaluating development and operating costs. Chapter 4 analyzes the public cost of supportive housing in Connecticut, first analyzing development costs, then operating costs. Development costs of PSH units in Connecticut are compared with those of similar housing in Massachusetts. Chapter 5 combines development and operating costs to analyze the public costs of PSH in Connecticut on an annualized basis. The next chapter identifies some risks in project financial performance to date that may have implications for Connecticut’s financing system, and Chapter 7 concludes with some areas for further research needed in fully evaluating whether the approach is efficient and sustainable.

2. Background and Policy Context: Connecticut's Coordinated Supportive Housing Financing and Production System

This report presents the results of an analysis of available data on development costs for projects developed under three initiatives funded by the State of Connecticut:

- Supportive Housing Demonstration Program (1996-1998),
- Supportive Housing Pilots (2001-2008), and
- Next Steps Initiative Round I (2006-present).

As a condition for being selected for this study, projects had to have been operating for at least two years at the time we prepared our data collection plan in 2008. Two years of operations were required because the first year of operating costs can be anomalous and a poor representation of longer-term costs. Next Steps Round II and III (2007-present and 2008-present, respectively) projects are not included in this analysis because they had been in operation less than two years at the time we selected the properties for study. The Supportive Housing Pilots and the Next Steps Initiative included scattered-site housing as well as development projects, so this report also analyzes the costs of providing services to PSH tenants in scattered-site housing (538 units leased from private landlords) under these programs. The next section provides an overview of Connecticut's PSH financing and production system, and the section following that briefly summarizes the key features of the PSH initiatives.

2.1 Coordinated PSH Financing and Production System

Financing the development of PSH projects is complex, because it involves obtaining funding sources for three separate activities:

- Development (capital costs)
- Operations (operating costs)
- Services

Connecticut has taken a collaborative approach to facilitating the development of PSH units. The Demonstration program and the following Pilots and Next Steps programs involved multiple state agencies in a single initiative in order to provide coordinated, simplified, and expedited development and oversight.⁵

The State of Connecticut partnered with the Corporation for Supportive Housing (CSH), a national non-profit intermediary organization that provides advocacy, expertise, leadership, and financial resources to facilitate the creation and operation of supportive housing, to initiate the collaborative approach. In addition to initiating the collaborative approach, CSH provided predevelopment

⁵ Arthur Andersen LLP, "Connecticut Supportive Housing Demonstration Program: Program Evaluation Report," prepared for The Corporation for Supportive Housing, May 2002.

financing to projects, assembled project teams of developers and service providers, and now oversees quality assurance and improvement. CSH also provides technical assistance to the nonprofits that serve as PSH sponsors, maintains and manages operating reserves, and helps secure financing.

The partner agencies collaborating in Connecticut’s PSH efforts include DMHAS, the Connecticut Housing Finance Authority (CHFA), the Departments of Social Services (DSS) and Economic and Community Development (DECD), the Office of Policy and Management (OPM), and CSH. As described in more detail in the sections below, DECD, CHFA, and DMHAS have all played roles in financing the capital costs of PSH development, as have private funders and the Low-Income Housing Tax Credit (LIHTC); DSS and DMHAS provide funding for services and administer rental subsidies.

Funding for operating costs – primarily in the form of rental subsidies – also comes from a variety of sources. These subsidies are both project-based and tenant-based, as shown in Exhibit 1. These include federal project-based Section 8 rental assistance, the Department of Housing and Urban Development’s (HUD’s) Shelter Plus Care and Supportive Housing Programs (SHP), the state’s Rental Assistance Program (RAP), and others. LIHTC is also a source of funding for operating costs.

Exhibit 1. Funds for Operating Costs

	Project-Based	Tenant-Based
Single-Site	Shelter Plus Care Supportive Housing Program RAPs Operating reserves capitalized by LIHTC	Tenant-based Section 8 Tenant-based RAPs
Scattered-Site	N/A	Tenant-based Section 8 Tenant-based RAPs Tenant-based Shelter Plus Care

Shelter Plus Care is a HUD homeless assistance program that provides rental assistance that local grantees (states, units of local government, and public housing authorities) must match with appropriate supportive services. The funding is targeted to homeless persons with disabilities such as serious mental illness, chronic substance abuse, and/or AIDS and related diseases. In Connecticut, this federal funding is matched with DMHAS funding for supportive services. DMHAS is the grantee and administers the subsidy. Shelter Plus Care can provide rental assistance in several different ways; in Connecticut it is both project-based and tenant-based and used in both development projects and in scattered-site units.

The grant amount is calculated by multiplying the number of units to be assisted by the HUD fair market rent (FMR) for the area times the length of the subsidy period. If actual rent costs are lower than that amount, the remainder can be used to cover some administrative costs, damage payments, and rent increases. Grants are for five- or 10-year periods (five for new construction; 10 for rehabbed buildings), and renewal of the grants is not automatic, although the experience in Connecticut and elsewhere is that grants generally are renewed. Renewal grants are for one-year periods.

Other federal rent subsidies used include *project-based Section 8 assistance* and the *Supportive Housing Program*. Project-based Section 8 assistance is committed either by a local housing authority or by DSS. At the time of this study, DSS-funded units used the State of Connecticut DSS Section 8 Voucher Payment Standard Schedule, effective March 1, 2008 and its associated Housing Unit Allowance for Tenant's Utilities. This form of rental assistance is primarily used in the Pilots and Next Steps programs, not the Demonstration program.

Section 8 vouchers, presumably in the form of Housing Choice Vouchers administered by local public housing authorities, are used for tenants in scattered-site units. In the absence of information on the actual housing assistance payment amounts, we assume the HUD FMRs for the localities where they are provided are a reasonable proxy for the maximum contract rents for them, although actual rents could be less than the FMRs.

The state's *Rental Assistance Program* (RAP) subsidies are from the State general fund and administered by DSS. Although these are typically tenant-based, they are project-based in the case of supportive housing. The program has a Maximum Allowable Rent Schedule and an associated Housing Unit Allowance for Tenant's Utilities.

As is typical, *LIHTC* was used to fund development costs. Somewhat unusually, in the Demonstration program these tax credits were also used to fund operating reserves at a much higher level than required in typical underwriting (e.g. a reserve of six months of debt and operating expenses). As described in more detail below, tax credit investors capitalized large operating reserves to cover annual operating losses including payment for debt service because tenant payments and rent subsidies were not expected to cover operating costs.

2.2 Supportive Housing Demonstration Program

The Supportive Housing Demonstration Program, a collaboration of the State of Connecticut and CSH, began in 1992 as an effort to address housing issues and service needs for homeless and at-risk populations. Some 281 units were created in nine single-site developments located in six communities. The projects were initially occupied between 1996 and 1998. A summary of the characteristics of all the development projects included in this analysis is provided in Exhibit 2.

The State identified the funding and CSH agreed to dedicate \$900,000 to the initiative for predevelopment costs as well as to raise matching funds and staff the initiative. The public funders of the initiative include the Connecticut Housing Finance Agency (CHFA) and a number of other state agencies as well as the federal Department of Housing and Urban Development. Private funders included CSH, national and Connecticut philanthropic organizations, and the National Equity Fund.

Exhibit 2. Summary of Development Project Characteristics

Project	Sponsor	Location	Year Lease-Up	Development Strategy	Type	New/Rehab	Number of Units	% 0 BR	% 1 BR	% 2+ BR	% Supportive Units*	Largest Source(s) of Financing
Demonstration												
Atlantic Apartments	St. Luke's Lifeworks	Stamford	1998	Single	Individual	Rehab	27	100%	0%	0%	48%	LIHTC
Brick Row Apartments	United Services	Willimantic	1997	Single	Individual	Rehab	30	20%	80%	0%	70%	LIHTC/DECD mortgage
Cedar Hill Apartments	HOME, Inc.	New Haven	1997	Single	Individual	New	25	100%	0%	0%	52%	not available
Colony Apartments	St. Luke's Lifeworks	Stamford	1997	Single	Individual	New	29	100%	0%	0%	48%	not available
Crescent Apartments	Central CT Coast YMCA	Bridgeport	1997	Single	Individual	Rehab	34	82%	18%	0%	45%	DECD mtg
Fairfield Apartments	Central CT Coast YMCA	Bridgeport	1998	Single	Individual	New	34	91%	9%	0%	50%	not available
Hudson View Apartments	Broad Park Development Corp	Hartford	1996	Single	Individual	Rehab	28	43%	57%	0%	43%	LIHTC
Liberty Commons	The Connection	Middletown	1996	Single	Individual	Rehab	40	100%	0%	0%	50%	not available
Mary Seymour Apartments	My Sisters' Place	Hartford	1998	Single	Individual	New	30	0%	100%	0%	50%	LIHTC/DECD mortgage
Pilots												
Avery Street/Reliance House	Reliance House	Norwich	2006	Single	Individual	New	4	0%	100%	0%	100%	CHFA 1st mtg
Ferry Mutual	Mutual Housing Assoc of SW CT	New Haven	2006	Scattered	Family	New & Rehab	24	0%	17%	83%	25%	LIHTC/CHFA 1st mtg
Women's Center	Women's Center of SE CT	New London	2006	Scattered	Mixed	Rehab	6	0%	25%	75%	100%	CHFA 1st mtg
Groton Family	The Connection	Groton	2008	Scattered	Family	New	6	0%	0%	100%	100%	CHFA 1st mtg
Leeway Condominiums	Leeway	New Haven	2005	Scattered	Mixed	Rehab	5	0%	80%	20%	100%	CHFA 1st mtg
Middlesex Pilots	The Connection	Middletown	2006	Scattered	Mixed	New	21	0%	29%	71%	100%	LIHTC/CHFA 1st mtg
Soromundi Commons	YWCA of Hartford Region	Hartford	2005	Single	Individual	Rehab	48	27%	73%	0%	33%	LIHTC/CHFA 1st mtg
Valley Park Apartments	Torrington Community Housing Corp	Torrington	2006	Single	Mixed	Rehab	13	0%	54%	46%	38%	PILOT deferred/CHFA 1st mtg
Whalley Terrace	HOME, Inc.	New Haven	2008	Single	Individual	New	22	0%	100%	0%	45%	LIHTC/CHFA 1st mtg
Sound Community Services	Sound Community Services	Groton	2007	Scattered	Individual	Rehab	13	100%	0%	0%	100%	CHFA 1st mtg
Next Steps												
Jarvis Court	Operation Hope	Fairfield	2008	Single	Family	New	8	0%	0%	100%	100%	CHFA 1st mtg/FHLB

*Supportive units are those set aside for tenants who are formerly homeless or have special needs, although support services are offered to all tenants in all of the Demonstration projects.

Under a 1994 MOU, the Connecticut Department of Economic and Community Development (DECD) agreed to provide \$20 million in taxable general revenue bond financing, and CHFA agreed to provide \$4 million in loan funds from its Investment Trust Fund.⁶ DECD and CHFA provided construction and permanent loans at an annual interest rate of 1 percent. DMHAS provided annual service grants for tenants with special needs.

Financing also included a somewhat unusual use of Low Income Housing Tax Credits (LIHTC). Only half of the units in each development received rental subsidies; the other half were subsidized through capitalized operating reserves. Therefore, all of the properties were projected from the outset to have cash flow insufficient to cover operating expenses and debt service. In fact, six of the nine properties were projected to have negative Net Operating Income (NOI) starting in their very first year of stabilized operations: that is, from the time that the properties were developed, it was expected that rents would never be sufficient to cover basic operating expenses. Nevertheless, all of the properties were financed with first mortgage loans from CHFA that require interest payments on a monthly basis, lack of cash flow notwithstanding.

In order to compensate for the insufficiency of rental income to cover operating costs and debt service obligations, the properties were financed with very large initial operating reserves – as much as \$1.5 million – with the intention that the properties would draw on these reserves over time to cover operating deficits and debt service. CSH manages and administers these reserves. This reserve fund was created for each project by selling LIHTCs allocated to the projects by CHFA. The National Equity Fund syndicated the tax credits to yield a 15-year stream of investment income for investors, who in turn capitalized operating reserves to provide payment for debt service and other operating costs and covered development costs over the \$75,000 per unit limit of the loan terms.

As described above, nonprofit sponsor organizations serve as the general partners of partnerships that own the projects. Property management companies operate the projects and nonprofit supportive service providers provide on-site support to the tenants (the sponsor sometimes serves as either the property manager or the service provider, but not both). At least 70 percent of each property's units must be occupied by individuals who were formerly homeless or at risk of homelessness and about 50 percent are reserved for people with special needs such as mental illness, chronic substance abuse issues or HIV/AIDS. The rest of the units are not targeted to individuals with special needs, but are affordable units targeted to tenants with incomes below 50 percent of HUD's area median income. To keep rents affordable, DMHAS administers federal rental assistance from HUD's Shelter Plus Care program.

Basic Characteristics

The nine Demonstration projects were completed (defined as the date that lease-up began) between 1996 and 1998. Final cost information was available for eight of the nine: Atlantic Apartments, Brick Row Apartments, Cedar Hill Apartments, Colony Apartments, Crescent Apartments, Fairfield Apartments, Hudson View Apartments, Liberty Commons and Mary Seymour Apartments. In the

⁶ While DECD agreed to provide \$20 million, ultimately only about \$17 million was committed because three projects did not complete the development process. CHFA funds were less than the \$4 million pledged for the same reason.

case of Mary Seymour Apartments, only total final costs were available. Because line-item detail was not included, this project could not be included in every analysis. We also excluded Liberty Commons because operating reserves appear to be significantly underreported.

In many respects, the projects have much in common. All are located in areas CHFA designates as “urban.” As shown in Exhibit 2, most have a similar proportion of units of supportive vs. non supportive housing.⁷ The percentage ranges from a low of 43 percent (Hudson View Apartments) to a high of 70 percent (Brick Row Apartments); however seven of the nine are roughly half supportive housing, having 50 percent supportive housing plus or minus five percentage points.

Five of the nine projects are rehabilitations of existing buildings; Mary Seymour Apartments, Colony Apartments, Cedar Hill Apartments, and Fairfield Apartments are new construction. All of the projects are on a single site. Brick Row consists of multiple buildings on a single site; the remaining projects consist of a single building.

Finally, the project size and bedroom mix is fairly uniform, ranging from a low of 25 units to a high of 40 with an average of 31. All units at all developments have either zero or one bedroom, reflecting an intention to serve single adults. Four of the nine developments have exclusively zero bedroom units.

2.3 Supportive Housing Pilots

The Supportive Housing Pilots Initiative is also a collaborative effort of state agencies and CSH. It built on the work of the Demonstration program, expanding to more communities and including non-urban (and thus smaller) projects. Importantly, it also provided units specifically targeted to homeless families. Pilots units began occupancy in 2005 in a combination of development projects and leased scattered-site apartments. A total of 593 units were created as of the end of 2008, 213 of them newly developed (or acquired and rehabilitated) units, and another 380 leased scattered-site units.

The target population is people affected by mental illness or chemical dependency who are facing homelessness. Like the Demonstration program units, tenants receive supportive services through nonprofit service providers. Services are funded through contracts with DMHAS and DSS. This services funding is used to match federal rent subsidies from HUD for some of the scattered-site units; some units use state rental subsidies.

Given the inclusion of smaller projects in the Pilots program, financing strategies also shifted somewhat, with small projects using sources of capital financing other than the LIHTC program. Capital financing for development projects comes from DMHAS’ Community Mental Health Strategic Investment Fund, DECD bond funds, and CHFA reserves. Project-based rental assistance from the federal Section 8 program and the State Rental Assistance Program is provided through DSS. Some projects had Shelter Plus Care subsidies, administered by DMHAS. CSH provided pre-development funds, and CHFA provided access to low-interest loans and state (HTCC) and federal

⁷ Supportive units are those set aside for tenants who are formerly homeless or have special needs, although support services are offered to all tenants in all of the Demonstration projects.

tax credits. The Demonstration Program strategy of using large initial operating reserves mentioned above was not replicated in the Supportive Housing Pilots Initiative.

Single-site Pilots projects must reserve at least 25 percent of units for people with special needs, but in projects with more than 20 units, no more than 50 percent of the housing units can be reserved for this population. This “mixed” or “integrated tenancy” was motivated both to improve acceptance of PSH development projects by host communities and to avoid stigmatizing people with special needs. The remaining units must be occupied by households with incomes at or below 80 percent of HUD’s area median income.

Basic Characteristics of Development Projects

The Pilots development projects examined for this study completed construction between 2005 and 2008. Final cost information was received for 10 projects: Avery Street/Reliance House, Ferry Mutual, Sound Community Services, Groton Family, Leeway Condominiums, Middlesex Pilots, Soromundi Commons, Valley Park Apartments, Whalley Terrace and Women’s Center.

The projects reflect a varied range of characteristics, as shown in Exhibit 2. First, there is a much greater range in project size than among the Demonstration projects. Projects range in size from 4 to 48 units with an average of 16 units. The number of very small projects (less than ten units) is nearly half of all projects. Interestingly, only one project, Soromundi Commons, is larger than the average size of the projects in the Demonstration group. Other than Soromundi Commons, all these projects fall in the smaller range of affordable housing projects.

There is also more variation in the percentage of supportive housing units and the bedroom mix in these projects. As Exhibit 2 shows, six projects are 100 percent supportive housing while the others are integrated supportive housing with 25-50 percent PSH and the remaining units are affordable. While four projects are exclusively zero or one bedroom units, the Pilots projects include several projects with family units of two or more bedrooms. One project, Ferry Mutual, even has four-bedroom units, and five projects include some three-bedroom units. Two are exclusively family units.

Five of these projects are rehab (Leeway Condominiums, Sound Community Services, Valley Park Apartments, Women’s Center and Soromundi Commons), and the remainder are new construction, with Ferry Mutual including both rehab and new construction. Only one, Groton Family, is characterized as a suburban site. More than half (six of 10) are on scattered sites.

2.4 Next Steps Initiative

The Next Steps Initiative built on both the Demonstration Program and the Supportive Housing Pilots Initiative, with a goal of creating 500 units of affordable, service-supported rental housing. It was authorized by the Connecticut Legislature in 2006. Unlike the Demonstration and Pilots programs, Next Steps included an additional focus on young adults aging out of Department of Children and Families’ (DCF) care, such as from foster homes. As of the end of 2008, 149 leased scattered-site units had been created, and 131 units in development projects had been either developed or were in development, for a total of 280 units. Another 156 units were under development in the second round

of funding for the Next Steps Initiative, but none are included in this report because they were not operational at the time of our analysis.

Also unlike the Demonstration and Pilots programs, Next Steps' primary funding mechanism is 501(c)(3) bonds issued by CHFA and backed by the State of Connecticut. Equity raised through the state Housing Tax Credit Contribution (HTCC) program's \$2 million Supportive Housing set aside is also used for capital funding. Supportive services and funding for these services is provided primarily by DSS and DMHAS. DCF provides support service funding for young adults aged 18-25 transitioning from youth systems.⁸

Mixed tenancy is also used in the Next Steps program, except in small projects. In developments of less than 12 units, all units may be reserved for families or individuals with special needs; in developments of 13-20 units, no more than 60 percent of units can be reserved for this population; in projects with 20 units or more, the maximum units that can be set aside is 50 percent.

Only one Next Steps development project is included in this analysis, Jarvis Court, which completed construction in 2008. It consists of eight clustered family units in a suburban setting (see Exhibit 2). All of the units have three bedrooms, and all are permanent supportive housing units. Because there is only one Next Steps project in this analysis, it is generally combined with Pilots projects in the exhibits throughout the remainder of the report.

⁸ Details from CHFA's website at www.chfa.org.

3. Data and Methods

This report on Connecticut's Permanent Supportive Housing examines the costs of 19 developments offering housing and supportive services to individuals and families in Connecticut, as well as the costs of providing tenant subsidies and supportive services in scattered-site units. This chapter describes the data collected for the analysis and the methodology used in analyzing development costs and operating costs. Some incomplete data placed limitations on the analysis we were able to conduct. These limitations are described briefly in this chapter, and in greater depth in Appendix A, Limitations of the Analysis.

3.1 Development Cost Data and Analysis Methodology

Development cost information is based on data requested and received from the Connecticut Housing Finance Agency, the Corporation for Supportive Housing and, in one instance, a developer/owner. Material used for the study includes:

- CHFA Cost Certifications (including, depending on the project, Mortgagor's Long Form Certifications of Costs and Independent Audits, Maximum Mortgage letters and Supplemental Cost Certifications);
- Low Income Housing Tax Credit Cost Certifications (for Fairfield Apartments only);
- A chart of key project information completed by CHFA staff; and
- A chart of project unit mix and gross square footages completed by CSH staff.
- Data on the development costs of projects developed with assistance from the Community Economic Development Assistance Corporation (CEDAC) in Massachusetts for purposes of comparison.
- The developments represent 19 of the 20 which had completed cost certifications as of August 2009. There was no available final cost information for Colony Apartments, a Demonstration project completed in 1997.

One issue for the cross-project comparisons is that development occurred over roughly a ten-year period. We have adjusted for inflation by using the Producer Price Index (PPI) for residential construction to inflate development costs for all projects to 2010. However, land costs can also vary significantly by year, even beyond general inflation rates, so these comparisons should be interpreted with caution.

3.2 Operating Cost Analysis Methodology

Because of the differences in data available for PSH units in each program, a slightly different approach was taken for assessing operating costs in Demonstration program development projects, Pilot and Next Steps development projects, and scattered-site PSH units.

Demonstration Program Development Projects

The research team's analysis of operating costs at the Demonstration Project sites proceeded in an iterative fashion. In early 2008, under a previous contract with CSH, VIVA Consulting conducted a longitudinal analysis of the financial performance of these nine properties. VIVA performed a statistical analysis of ten years of audited financial data for each of the nine properties, beginning with the first year of stabilized operations through the 2006 audit year. In addition to analyzing trends in revenues, expenses, and reserves, VIVA compared actual performance to the original long-term financial projections prepared by NEF at the projects' initial financing. VIVA also conducted a limited number of interviews with property managers and CSH staff. The study, entitled "*Connecticut Supportive Housing Demonstration Program: Longitudinal Revenue and Expense Analysis*" was published in September 2008. Subsequently, VIVA extended the original analysis to include audited financial data from both 2007 and 2008, again with a limited number of interviews with property management staff to help clarify the data. The results of these three consecutive analyses are provided in this report.

Supportive Housing Pilots Program Development Projects

For the Supportive Housing Pilots program, the team intended to provide a longitudinal analysis on two complete years of data (2007 and 2008) in a manner comparable to the one performed on the Demonstration Projects. We received original revenue and expense projections on five projects from which to conduct the analysis. However, we did not always have two full audit years for all five projects (some achieved only partial occupancy in 2007). Therefore, this report is limited to comparing 2008 audit results to the projections for 2008 revenues and expenses when all five projects had 12 full months of operation.

Scattered-Site PSH Units

The scattered-site units created under the Pilots and Next Steps programs do not incur direct operating costs. Most tenants of scattered-site units receive a tenant-based subsidy that they use to rent an apartment from a private landlord. In these cases, the operating costs of the housing itself are not relevant because they are not a public cost of PSH. Rather, the cost is the cost of the rental subsidy, plus the amount paid to sponsors for providing services to tenants.

The team used a two-pronged approach to evaluating the public costs of the scattered-site units. First, we analyzed the amount of rental subsidies paid to landlords through one of several rental assistance programs participating in the PSH scattered-site program. These subsidies, combined with the corresponding tenant rental payments, are a proxy for what the landlord pays to operate the property. The second portion of *public* costs is the payments made by DMHAS to service providers. We obtained a schedule of payments to service providers from DMHAS in 2011.

Second, we also analyzed landlord-related (not case management) costs that were not covered directly by rental subsidies, tenant rental payments, or service contracts. These costs incurred by service providers are considered "uncompensated landlord services," and although they are not a public cost of PSH, they are an operating cost incurred in providing scattered-site PSH units.

To analyze these uncompensated landlord services, we interviewed a number of staff at four organizations, located in different parts of the state, identified by CSH as being actively involved in

providing ongoing case management support to PSH scattered-site tenants. In addition to this primary function, some of these organizations also carry out some functions that in other circumstances would be the responsibility of the landlord. These organizations had experience with a sufficient number of PSH scattered site tenants for a long enough period to provide meaningful data and insight. The data collection for this analysis involved interviewing a number of staff at each participating organization in April 2009, using a detailed questionnaire that was supplied to the groups ahead of time.

The groups that participated were: Center for Human Development (aka Connecticut Outreach West), Chrysalis, Family and Children's Agency and Reliance House. They provide case management services to 356 (or 66 percent) of the 538 PSH scattered sites identified by CSH for the purposes of this study.

3.3 Limitations of the Analysis

During the data collection phase, we were unable to collect some pieces of data that limit somewhat our ability to answer some of the research questions. The limitations of the analysis are summarized here and described more fully in Appendix A.

In general, the small sample size for this analysis – 17 development projects – warrants caution in drawing firm conclusions. This is particularly the case in our examination of the factors that may contribute to variations in cost. The small sample size is in part a result of missing or incomplete data, which meant that not all projects could be included in all parts of the analysis. Final cost data were missing or incomplete for two projects, Colony Apartments and Mary Seymour Apartments. Similarly, information on project funding sources was not available for eight projects.

We also have concerns about the quality of some pieces of information. Specifically, it appears that long-term reserves are not consistently reported in information received from CHFA and CSH. This report reflects the best data available on the amount of the operating reserves culled from the Mortgagor's Certificate of Final Costs from CHFA, LIHTC cost certifications, and auditors' reports to the extent they were available. Nonetheless, in several cases, it appears the amount of the reserves has not been fully stated, thereby understating the total cost of the project. One project, Liberty Commons, was excluded from the analysis because reserves appear to be significantly underreported.

One planned analysis could not be conducted because of missing data. Copies of the original applications for funding were not available for many projects, so the planned analysis of development costs at the time of application compared to final costs was not performed.

4. Public Costs of Supportive Housing in Connecticut

This chapter analyzes the public costs of PSH in Connecticut, examining first development costs and then operating costs. As described previously in Chapter 3, the analysis of costs is quite different for development projects and scattered-site projects. As their name suggests, development projects involve acquiring land and constructing new units (or renovating existing units), with the developer fees, hard costs, and soft costs that entails. The Demonstration projects also had operating reserves funded during the development phase of the projects to offset anticipated operating cost deficits. As discussed earlier, the Pilots and Next Steps projects did not use this mechanism for financing operating costs. Because of this, however, the distinction between development and operating costs in the Demonstration projects is not entirely clear. Therefore, Chapter 5 combines development and operating costs to allow for an analysis of total public costs of PSH.

This approach also allows the costs of development projects to be compared with scattered-site units, which do not involve any development costs because they are leased from private landlords. Public operating costs are limited to the contracts for services DMHAS enters with service providers and to the rental subsidies PSH tenants receive. We also conducted analysis of the uncompensated landlord services that service providers sometimes perform. Although these costs are not public, this analysis is included in this chapter to provide the broader context of total costs of scattered-site housing. Although not a public cost, landlords use tenants' portion of rental payments to cover their operating costs in scattered-site housing so these are also included here.

4.1 Development Costs

A total of 22 development projects from the Demonstration, Pilots, and Next Steps programs were complete and had final cost certifications by mid-January 2009, the criteria for inclusion in this analysis. We did not receive complete data for five of these, so 17 projects are included in the analysis described in this section.⁹ Because the projects were constructed and occupied over a period of more than 10 years (1996 to 2007), all costs are inflated to 2010 using the Producer Price Index (PPI) for residential construction.

Total Development Costs of Supportive Housing

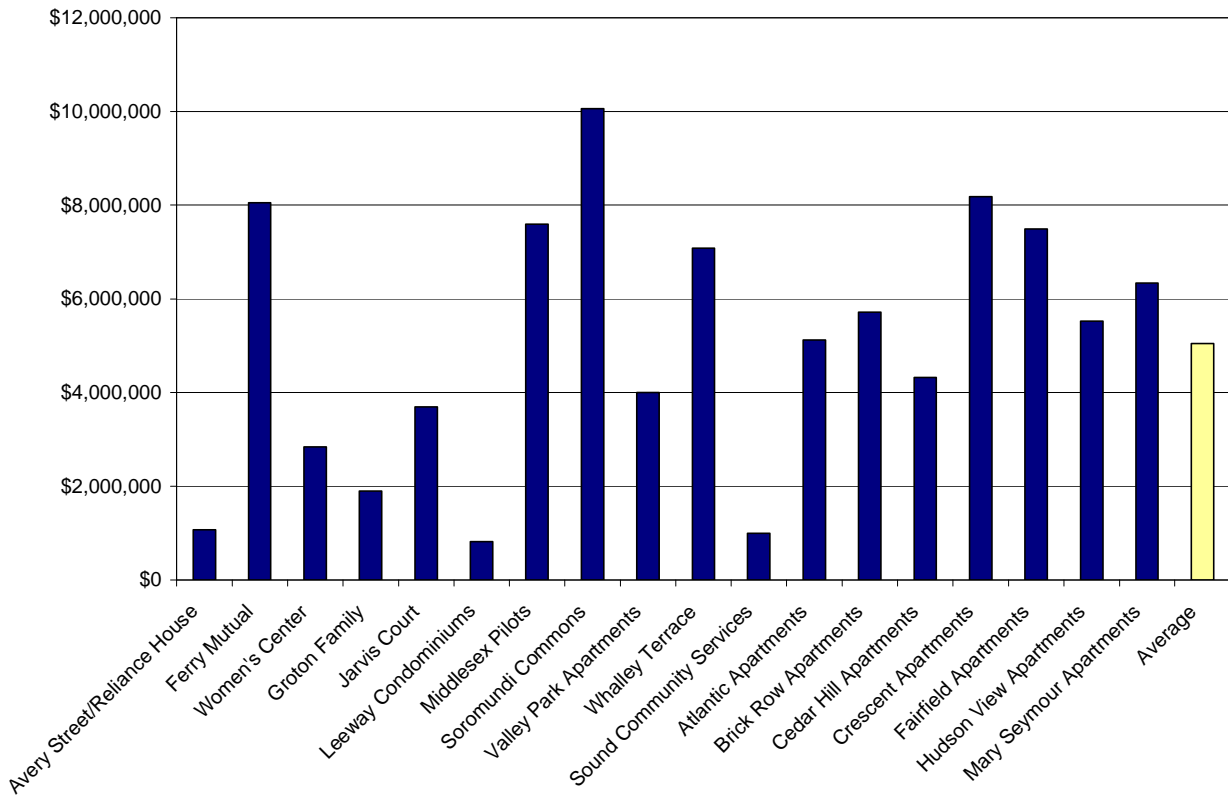
As shown in Exhibits 3 and 4, total development costs (TDCs) of the permanent supportive housing projects vary widely, from Leeway Commons, which was just over \$820,000, to Soromundi Commons, at more than \$10.0 million. The average across all projects was slightly more than \$5.1 million. Demonstration development projects had higher average TDCs than Pilots/Next Steps projects, at about \$6.1 million and \$4.4 million, respectively. The range of TDCs was much larger in the Pilots/Next Steps projects than in the Demonstration program.

⁹ Liberty Commons is excluded from this analysis because operating reserves appear to be significantly underreported. For Mary Seymour Apartments, no cost information by line item was available, only total costs. Because there is only one Next Steps project in this analysis (Jarvis Court), the Next Steps projects are combined with Pilots projects.

Exhibit 3. Total Development Costs Overall and by Production Program

	Average	Low	High	Standard Deviation
Pilots / Next Steps	\$ 4,373,646	\$ 820,094	\$ 10,056,545	\$ 3,278,332
Demonstration	\$ 6,099,453	\$ 4,327,333	\$ 8,177,343	\$ 1,246,894
All	\$ 5,100,301	\$ 820,094	\$ 10,056,545	\$ 2,709,577

Exhibit 4. Total Development Costs



4.2 Percent of Total Costs by Cost Category

Exhibit 5 shows that the contributors to total development costs – the percentage of total costs borne in each major cost category – were quite varied. Acquisition costs averaged 13 percent, but ranged from a low of 2 percent of total development costs (Fairfield Apartments) to a high of 43 percent (Leeway Condominiums). In general, acquisition costs were higher for Pilots and Next Steps projects than for Demonstration Projects. Construction costs were typically, but not always, the largest category of expense. Leeway Condominiums and Sound Community Services both had higher costs for acquisition than for construction. On average, construction accounted for 51 percent of costs, but this ranged from 34 percent (Sound Community Services) to 68 percent (Ferry Mutual).

Operating reserves were also quite variable, averaging 15 percent across all projects, but ranging from 0 percent to 37 percent. Reserves for Next Steps and Pilots projects were considerably lower than those for Demonstration projects, ranging from 0 percent to 15 percent of total costs. In these programs, large long-term reserves were not required by CHFA or syndicators; some projects had no reserves. By contrast, reserves for most of the Demonstration projects were at least 20 percent of total costs, with a high of 37 percent. According to discussions with CSH, this reflects a shift in the parameters for the Next Steps and Pilots programs, with less of an emphasis on funding reserves to cover anticipated operating shortfalls and more of an emphasis on obtaining long-term rent subsidies that would fully cover operating costs over time.

There was little variation in the category that includes developer fees and overhead costs, although these costs were a larger percentage of the total for Pilots and Next Steps projects than for Demonstration projects. All the Demonstration projects took either a 5 percent or 6 percent fee. Among Pilots and Next Steps projects, developer fees and overhead costs ranged from 6 percent to 9 percent (and were probably subject to a cost cap). Across all projects, the average was 7 percent. There was also near uniformity in fees and financing costs for Demonstration projects, but more variability in this cost category for Pilots and Next Steps projects. Fees and Financing Costs were either 1 or 3 percent for Demonstration projects; for Pilots and Next Steps projects, they ranged from 1 to 11 percent.

Soft costs averaged 12 percent and ranged from 6 percent (Jarvis Court) to 18 percent (Leeway Condominiums). Within programs, differences were larger among Next Steps/Pilots projects than among Demonstration projects.

Exhibit 5. Percent of Total Costs by Cost Category

	Next Steps	Pilots										Demonstration						All Projects	
	Jarvis Court	Avery Street/ Reliance House	Ferry Mutual	Women's Center	Groton Family	Leeway Condominiums	Middlesex Pilots	Soromundi Commons	Valley Park Apts	Whalley Terrace	Sound Community Services	Atlantic Apts	Brick Row Apts	Cedar Hill Apts	Crescent Apts	Fairfield Apts	Hudson View Apts	Average	Standard Deviation
Acquisition	29%	4%	8%	27%	16%	43%	20%	5%	9%	8%	35%	10%	4%	6%	3%	2%	4%	13%	12%
Construction	52%	62%	68%	43%	61%	20%	56%	61%	68%	56%	34%	51%	46%	45%	53%	43%	46%	51%	13%
Soft Costs	6%	13%	14%	12%	11%	18%	9%	14%	9%	12%	11%	10%	13%	12%	9%	10%	10%	12%	2%
Fees & Financing Costs	1%	11%	1%	11%	2%	11%	1%	1%	2%	2%	8%	1%	1%	1%	3%	3%	1%	4%	4%
Reserves	4%	4%	2%	0%	4%	0%	7%	12%	3%	15%	5%	22%	31%	32%	27%	37%	33%	15%	13%
Total Developer Fee and Overhead	9%	7%	6%	8%	6%	8%	7%	6%	8%	8%	7%	6%	6%	5%	6%	5%	6%	7%	1%

4.3 Development Costs per Unit and Square Foot

Common methods of comparing costs are through analysis of total development costs per unit and of total development costs per square foot. For a subsidized housing program, the more important measure is cost per unit, because that reflects how many individuals or families can be helped. Because of the large reserves required for the Demonstration projects, the developments were further analyzed with and without reserves, as shown in Exhibit 6.

Exhibit 6. Average Costs per Unit

	Average	Low	High	Standard Deviation
Costs per Unit	\$ 255,103	\$ 77,013	\$ 473,289	\$ 104,129
Costs per Unit, without reserves	\$ 228,394	\$ 73,324	\$ 473,289	\$ 115,880
Costs per SF	\$ 285	\$ 174	\$ 466	\$ 75
Costs per SF, without reserves	\$ 248	\$ 155	\$ 362	\$ 66

Costs per unit with reserves range from a low of about \$77,000 per unit (Sound Community Services) to a high of about \$473,000 per unit (Women’s Center, whose costs are discussed in more detail below). The average is \$255,103, with a sizeable standard deviation of \$104,129.

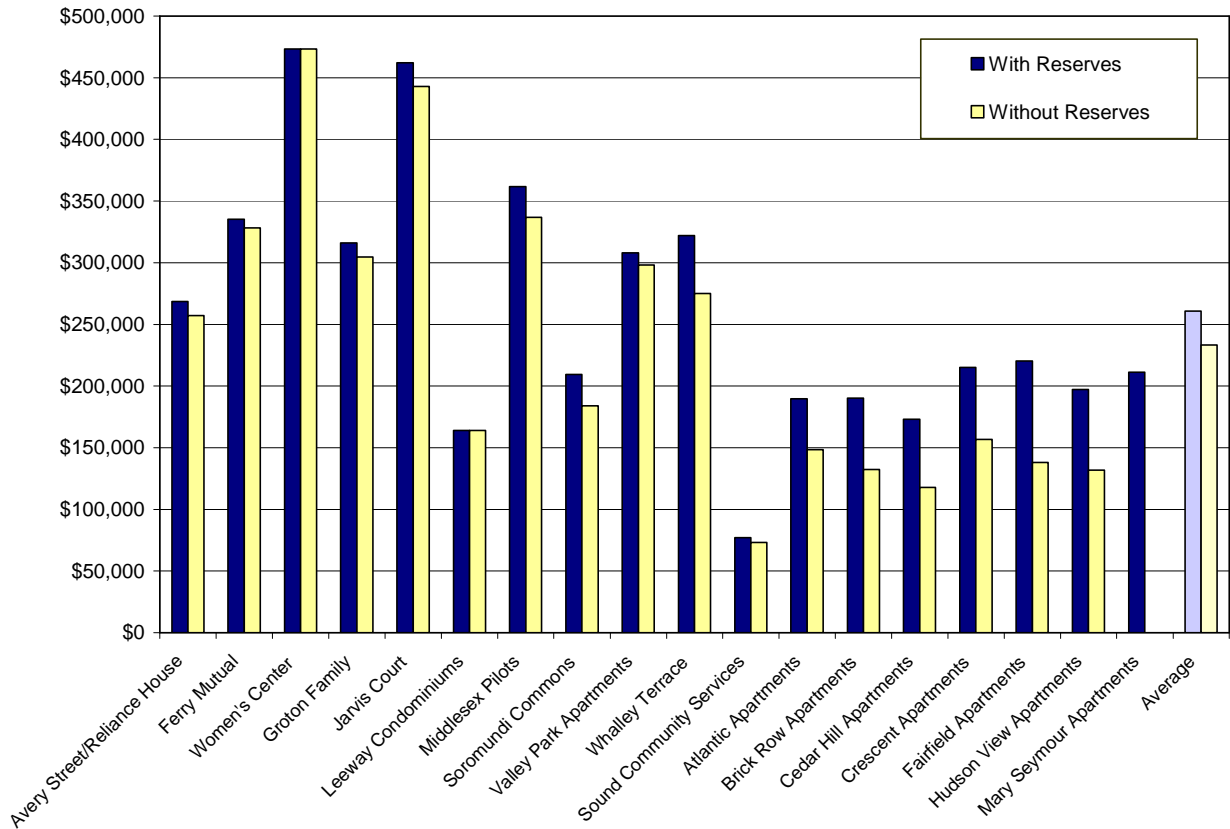
4.4 Variations in Development Costs

To examine variations in development costs, we compared development costs by project, development strategy, and production program. As discussed below, many other factors likely also play a role in variations in development costs, such as the number of units in the project, the number of bedrooms per unit, and whether the units are on a single or multiple sites.

Variation by Project

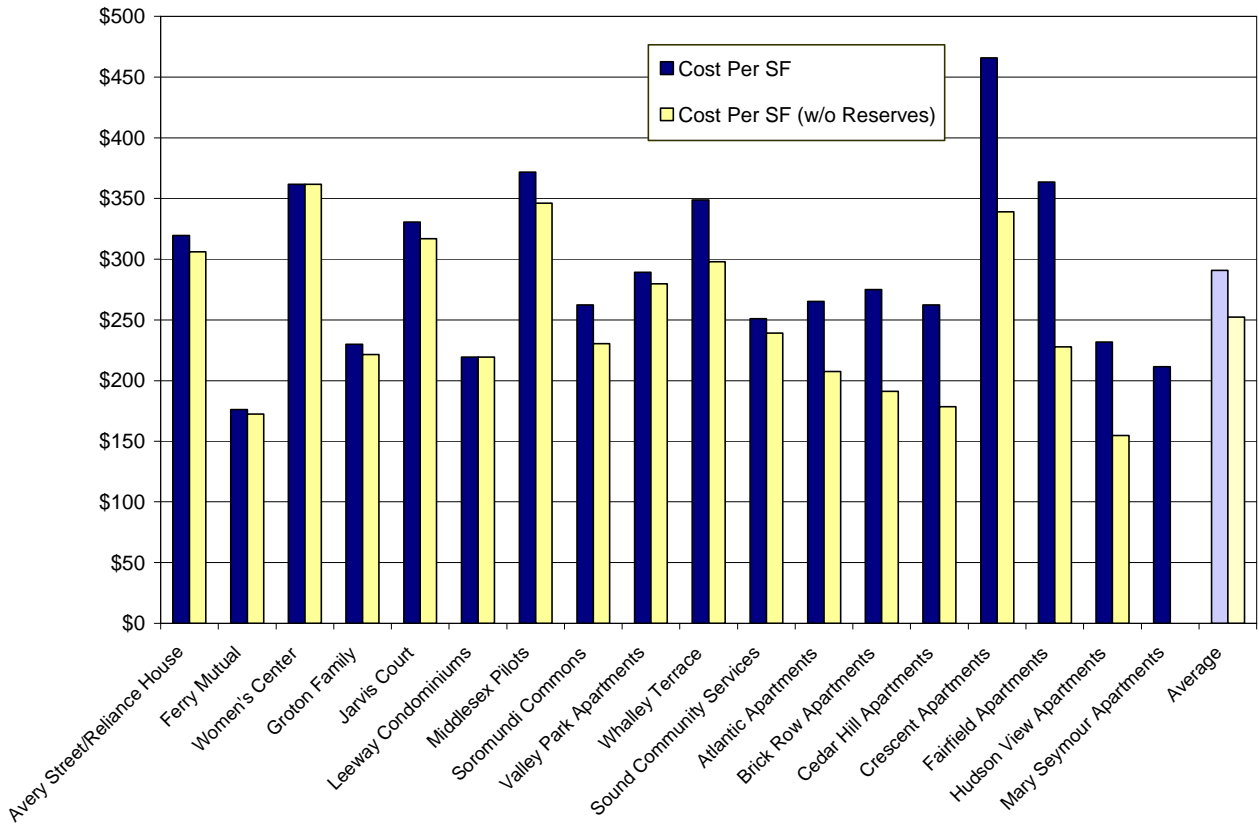
Exhibit 7 shows average costs per unit by project. There is a great deal of variation across projects, as suggested by the large range in costs and standard deviations in Exhibit 6 above. The least expensive project, Sound Community Services with 13 units, is a relatively small project, which might lead to higher costs. However, it is composed entirely of zero-bedroom units, and has the smallest square footage per unit – 307 compared with an average of 921 square feet per unit – which may help to explain the low costs per unit.

Exhibit 7. Average Cost per Unit by Project



Women’s Center, with the highest costs per unit, has relatively large units – 1308 square feet on average. This does not entirely explain the costs however, as several other projects have larger average unit sizes. Other contributors include acquisition costs, which were much higher than average (\$115,033 per unit at the Women’s Center compared with \$36,961 on average) and fees and financing costs, which were among the highest of the projects analyzed (11 percent of total costs compared with 4 percent on average).

Exhibit 8. Average Cost per Square Foot by Project



Costs per square foot vary considerably across the projects. Consistent with its high per-unit costs, Women’s Center has the highest per-square foot costs. Women’s Center is rehab as opposed to new construction, but other projects with high overall costs per square foot are primarily new construction (Avery Street/Reliance House, Jarvis Court, and Middlesex Pilots).

Variation by Development Strategy

Per-unit costs for new construction were higher on average than for rehab projects, \$296,653 compared with \$235,963. The range of per-unit costs in rehab projects was much larger, however. Both the least and most expensive projects on a per-unit basis were rehab (Exhibit 9). The development strategy had very little impact on the cost per square foot, however (Exhibit 10). These costs were very similar for new construction and rehab: \$290 for new construction compared with \$280 for rehab. Differences between the per-unit costs of rehab and new construction projects, therefore, are more closely related to differences in square footage than the development strategy chosen. Units in rehab projects had an average square footage of 885, compared with 1,075 for new construction.

Exhibit 9. Average Cost per Unit by Development Strategy

	Average	Low	High	Standard Deviation
New Construction	\$ 296,653	\$ 173,093	\$ 461,990	\$ 88,923
Rehab	\$ 235,963	\$ 77,013	\$ 473,289	\$ 109,875
All	\$ 260,792	\$ 77,013	\$ 473,289	\$ 104,066

Note that Ferry Mutual includes both rehab and new construction, so is included in both average costs per square foot.

Exhibit 10. Average Cost per Square Foot by Development Strategy

	Average	Low	High	Standard Deviation
New Construction	\$ 290	\$ 176	\$ 372	\$ 72
Rehab	\$ 280	\$ 176	\$ 466	\$ 81
All	\$ 291	\$ 176	\$ 466	\$ 72

Note that Ferry Mutual includes both rehab and new construction, so is included in both average costs per square foot.

Variation by Production Program

Exhibit 11 shows average costs by production program. As shown, the average cost of Pilots/Next Steps units was substantially higher than the average cost of Demonstration units, about \$300,000 per unit vs. \$194,000 per unit.

Exhibit 11. Average Cost per Unit by Production Program

	Average	Low	High	Standard Deviation
Pilot / Next Steps	\$ 299,738	\$ 77,013	\$ 473,289	\$ 118,111
Demonstration	\$ 193,729	\$ 152,710	\$ 220,297	\$ 22,737
All	\$ 255,103	\$ 77,013	\$ 473,289	\$ 104,129

There was comparatively little variation in per-unit costs among the Demonstration projects. Given the relative uniformity of location, construction type (rehab vs. new construction), timing and bedroom mix, one might expect some uniformity in costs among these projects. However, as shown

in Exhibit 12, there is considerable variation in per-square foot costs. It appears likely that the projects were subject to per-unit caps or targets for costs, a common feature of many state and federal housing programs.

Costs per square foot vary considerably among the Demonstration Projects, and this is probably because seven of the nine are rehab projects. Rehab costs vary significantly depending on building condition, previous use of the property, and the owner's chosen scope of work. None of these specific factors can be ascertained from the data available.

Exhibit 12. Average Cost per Square Foot by Production Program

	Average	Low	High	Standard Deviation
Pilot / Next Steps	\$ 287	\$ 176	\$ 372	\$ 65
Demonstration	\$ 281	\$ 174	\$ 466	\$ 93
All	\$ 285	\$ 174	\$ 466	\$ 75

The variability in cost per unit of the Pilots/Next Steps projects is much greater. This is not surprising given that the projects vary much more in terms of size, mix of tenancies (single individuals vs. families), construction type, and bedroom mix than the Demonstration projects. Examining potential causes for the variation in costs, clear trends do not emerge. Of the five projects with costs above the average (Avery Street/Reliance House, Sound Community Services, Jarvis Court, Middlesex Pilots and Whalley Terrace), four are new construction. Others among the higher-cost projects—most notably Middlesex Pilots and Jarvis Court—have very high acquisition costs spread over a small number of units. Both had acquisition costs of over \$1,000,000.

Other potential explanations do not seem to bear out. For example, common thinking in real estate development is that smaller projects cost more given that certain costs such as financing and legal fees are independent of project size and get spread over fewer units and fewer square feet. Only one Pilots/Next Steps project has more than 40 units. There is a division between very small projects with less than 10 units (five developments) and those with more than ten units (six developments.) If one arrays the projects from smallest to largest to test the hypothesis that the smaller projects are more expensive, there is no clear trend. Further the average per-square foot costs for the two size categories are quite close: the difference in costs per square foot among projects with fewer than 10 units and those with 10 units or more is less than 5 percent.

Otherwise, the above-average cost developments do not appear to share characteristics not found among the other projects. They include a range in bedroom mix, tenancies, location, etc.

4.5 Sources of Development Funding

Information on sources of development funding was only available for five of the nine Demonstration projects, and eight of the 11 Pilots projects. As shown in Exhibit 13, LIHTC and state sources (in the form of CHFA first mortgages and DECD mortgages) represented a large majority of development funding for these permanent supportive housing projects (87 percent of the total). The state sources were generally successful in leveraging virtually equal amounts of tax credits, although a few Pilots projects entirely relied on state lending sources. Five projects received all of their funding from these three sources, and for an additional three, these sources made up more than 90 percent of funding. Only two projects, Jarvis Court and Valley Park Apartments, were funded primarily by other sources (for Jarvis Court, only by a small margin).

Aside from LIHTC, two other tax credit funding sources were used. One Demonstration project used Historic tax credits. In addition, four Pilots projects accessed the Connecticut Housing Tax Credit Contribution (HTCC) program. This funding stream, available to affordable housing projects, expanded from \$5 million to \$10 million annually in 2006 and allows projects to leverage private investment along with public sources.

It is noteworthy that other than tax credits, the Demonstration projects had very little leverage of other funding sources. Nonprofit sponsored affordable housing projects routinely rely on multiple funding sources. It is not unusual for there to be five to eight funding sources in a development. While not necessarily efficient from a sponsor's point of view, as this entails many layers of regulation and coordination among funders, a range of funding sources can diminish the need for state resources or allow resources to be spread over more developments. In the Demonstration developments, however, few other resources were leveraged. Only one project used a local resource (Atlantic Apartments used City of Stamford funds), and only two used private resources (Atlantic Apartments and Mary Seymour Apartments used Federal Home Loan Bank funds). Finally, two projects used General Partner Capital Contributions (Crescent Apartments and Mary Seymour Apartments). In the case of the latter, this could be another source that was structured in as a capital contribution.

There was greater variety in the Pilots/Next Steps sources used than in the Demonstration projects including several that used private funding in the form of foundation support. However, as with the Demonstration Projects, local resources were notably absent. Many projects in both the Demonstration and Pilots/Next Steps programs are located in larger communities—including some of the state's largest cities—which would have local resources available to support such projects.

Interestingly, the one Next Steps project included in our sample – Jarvis Court – leveraged a greater variety of sources than any other project. Jarvis Court received funding from eight different sources; all other projects used five or fewer sources of funding.

Exhibit 13. Demonstration Projects: Sources of Development Funding

	Next Steps	Pilots Projects							Demonstration Projects					Total
	Jarvis Court	Avery Street/ Reliance House	Ferry Mutual	Middlesex Pilots	Soromundi Commons	Valley Park Apartments	Whalley Terrace	Women's Center	Atlantic Apartments	Brick Row Apartments	Crescent Apartments	Hudson View Apartments	Mary Seymour Apartments	
Major Sources of Development Funding														
LIHTC	0%	0%	68%	44%	52%	0%	50%	0%	51%	45%	38%	46%	42%	42%
CHFA First Mortgage	49%	65%	32%	40%	48%	17%	43%	100%	7%	9%	8%	9%	8%	29%
DECD Mortgage	0%	0%	0%	0%	0%	0%	0%	0%	36%	45%	41%	45%	42%	16%
Total	49%	65%	100%	84%	100%	17%	93%	100%	95%	100%	87%	100%	93%	87%
Other Sources of Development Funding – used in more than one project														
FHLB	9%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	2%	1%
HUD Supportive Housing grant	0%	0%	0%	2%	0%	6%	0%	0%	0%	0%	0%	0%	0%	1%
Developer Equity	14%	11%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
HTCC (State Tax Credit)	0%	8%	0%	12%	0%	10%	6%	0%	0%	0%	0%	0%	0%	3%
GP Capital	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.4%	1%	0%	5%	0%
Other Sources of Development Funding – used one project														
PILOT Deferred	0%	0%	0%	0%	0%	57%	0%	0%	0%	0%	0%	0%	0%	3%
Private Mortgage	12%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%
CHFA ITA Proceeds	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	1%
Developer fee loan	0%	0%	0%	0%	0.4%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Pilots Grant	0%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Melville Trust	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fairfield Community	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
NEF Note	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Near & Far Foundation	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Contributions	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Noble Charitable Trust	0%	0%	0%	0%	0%	0%	0.1%	0%	0%	0%	0%	0%	0%	0%
CHFA Working Capital	0%	0%	0%	0%	0%	0%	0.3%	0%	0%	0%	0%	0%	0%	0%
City of Stamford	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%
Historic credits	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12%	0%	0%	1%

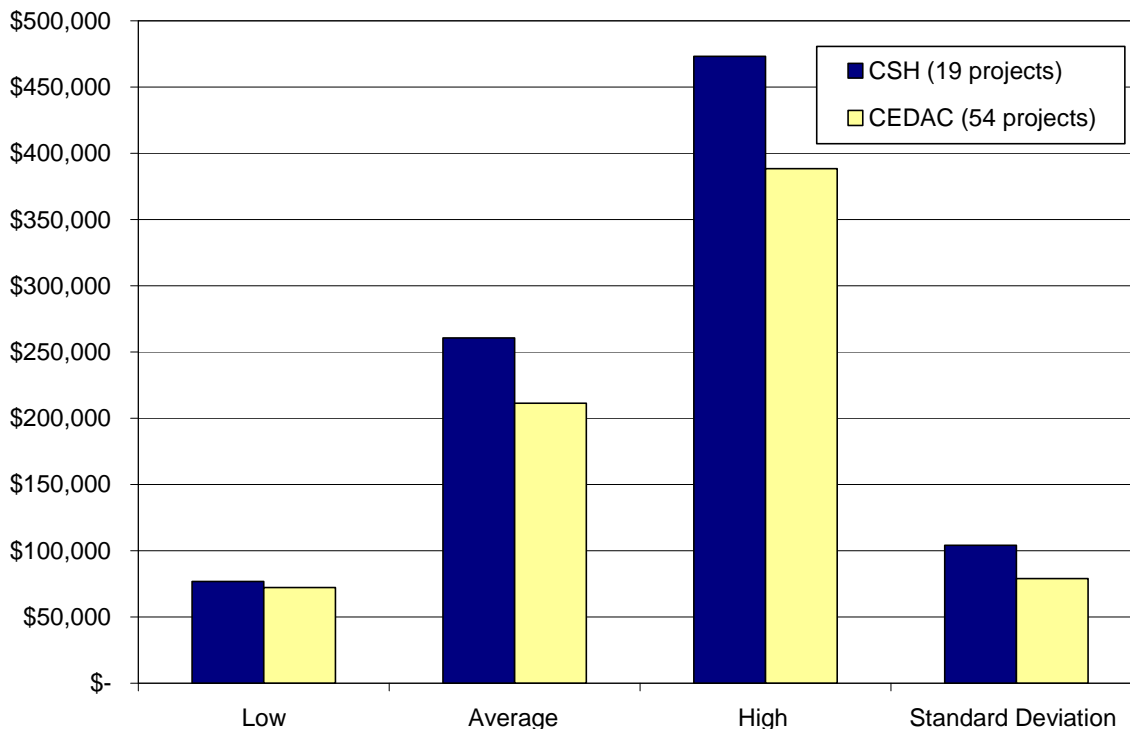
4.6 Comparison of Development Costs in Connecticut and Massachusetts

After examining various configurations of development costs among PSH units in Connecticut, the question still remains: are costs reasonable? Are PSH units more or less expensive to develop than those in other places? We compared the per-unit costs of 19 projects developed under the Demonstration and Next Steps/Pilots programs to those of 26 projects developed with assistance from the Community Economic Development Assistance Corporation (CEDAC) in Massachusetts.

Although there is no PSH program in Massachusetts that exactly mirrors Connecticut's, we selected the most relevant projects for comparison. For example, we excluded any transitional housing, assisted living, veterans' housing, group home shelters, and projects primarily for physically disabled tenants. Some projects in Massachusetts serve only elderly tenants. These may be similar to PSH in some ways, in that units tend to be small and projects typically include some common space, but they may not be identical. Therefore, we compared costs between Connecticut and Massachusetts both with and without elderly housing projects.

The averages in the two states are similar. Excluding CEDAC's elder projects, Exhibit 14 shows that in Connecticut the average is \$255,000 per unit compared with \$230,000 in Massachusetts. Excluding the capitalized operating reserves to more typically represent total development costs, the average unit cost in Connecticut was slightly lower than in Massachusetts, \$228,000. The lowest-cost projects in the two places are also similar, at \$77,000 in Connecticut and \$80,000 in Massachusetts, and the standard deviation in average per-unit costs is similar. The highest-cost project in Connecticut, however, is substantially more than the highest-cost project (on a per-unit basis) in Massachusetts at \$473,000 compared with \$389,000 per unit. Excluding the highest-cost Connecticut project from the comparison does not substantially change the picture. The next highest-cost project in Connecticut is \$462,000 per unit, again compared with \$389,000 per unit in Massachusetts. With elder housing projects included, the difference in average development cost in Connecticut and Massachusetts is somewhat larger: \$255,000 per unit compared with \$211,000 per unit.

Exhibit 14. Comparison of CSH and CEDAC Development Costs, Excluding CEDAC Elder Projects



Other information is lacking that would allow us to compare development costs of PSH in Connecticut and Massachusetts in more detail, such as whether the construction is new or rehab, costs per square foot, and the number of bedrooms. However, this initial comparison suggests that costs of developing PSH in Connecticut are in line with those of another high-cost New England state.

4.7 Operating Costs

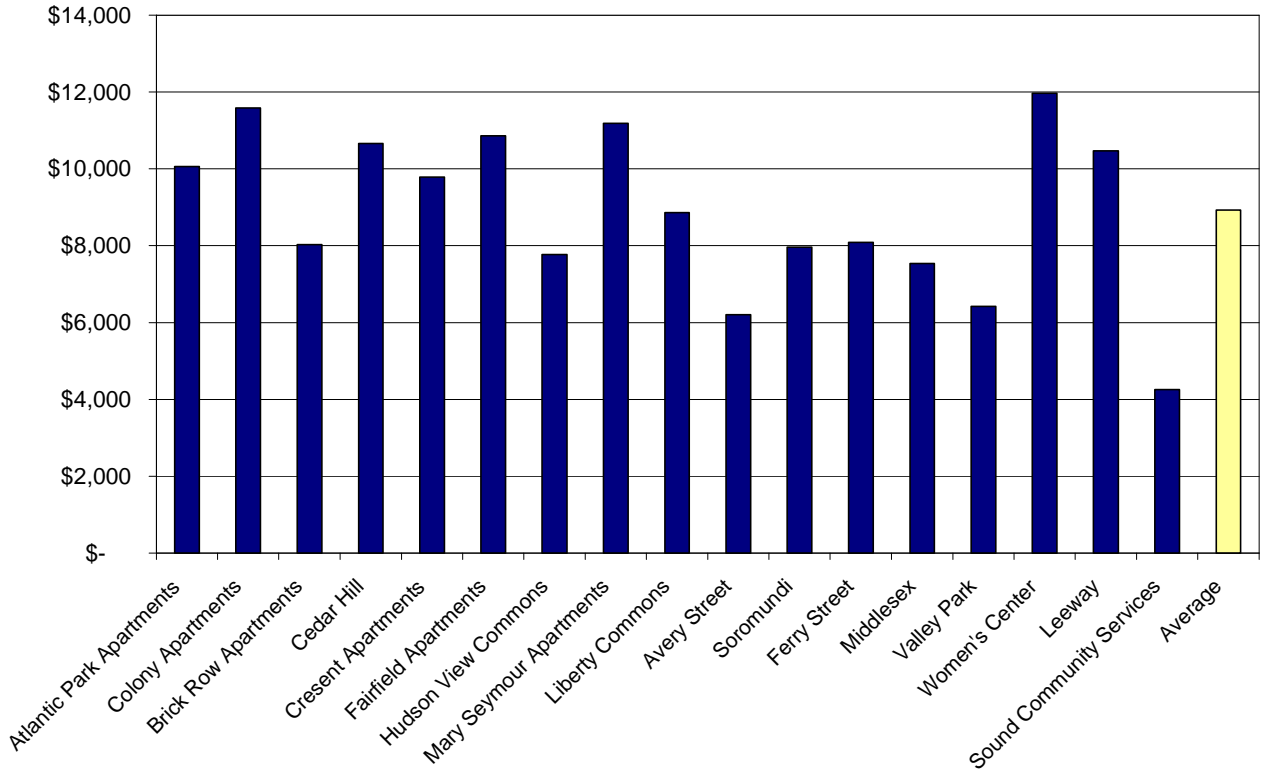
As discussed above, operating costs for development projects and scattered-site units are analyzed separately, because scattered-site units do not have true operating costs. Instead, “operating costs” of these units are reflected in the value of rental subsidies. The service funding provided by DMHAS is the same for both development and scattered-site units. Therefore, this section describes first operating costs for development projects and the sources of funding for these costs; then tenant rent payments and rent subsidies for scattered-site units; then services funding for both types of units.

Operating Costs for Development Projects

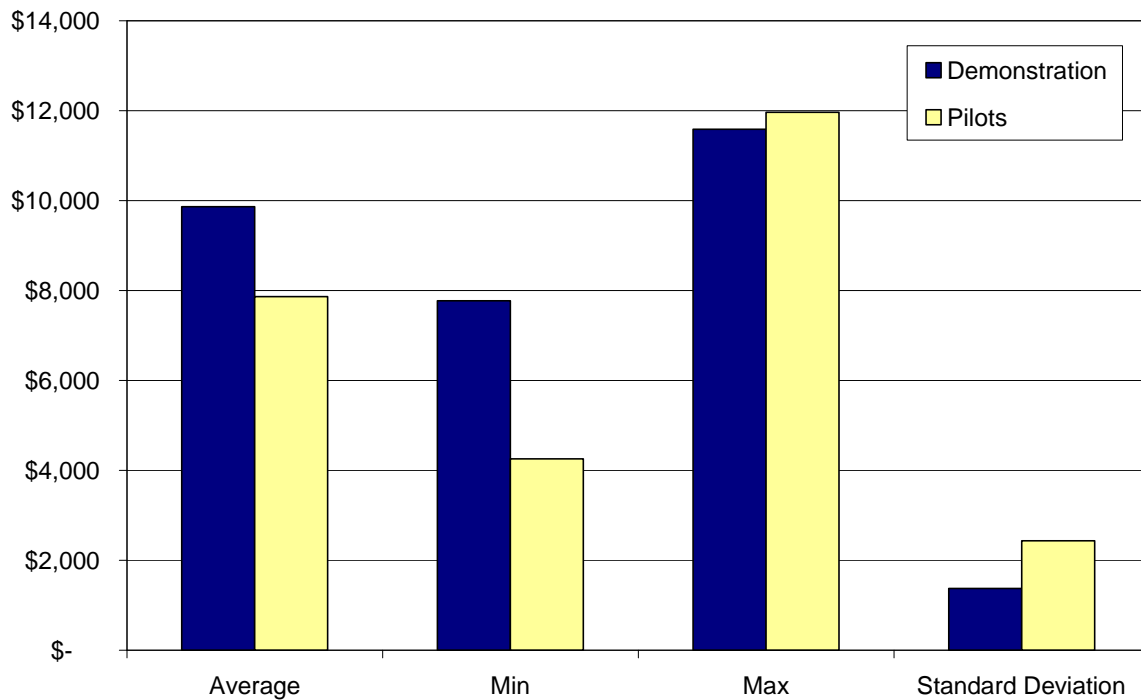
Operating costs of PSH developments, like other rental housing, include administrative costs, management fee, maintenance, utilities, taxes and insurance. Based on analysis of Demonstration and Pilots projects, average per-unit operating costs per year were \$8,923 (Exhibit 15). Data are from 2007 for Demonstration projects, when properties had been operating for several years and had stabilized, and from 2008 for Pilots projects, which was earlier in the projects’ lives. Operating costs

ranged from \$4,259 (Sound Community Services) to \$11,965 (Women’s Center). The standard deviation was \$2,146.

Exhibit 15. Per-Unit Operating Costs, 2007 or 2008



Average per-unit operating costs were higher for Demonstration projects than for Pilots projects, \$9,866 and \$7,862, respectively (Exhibit 16). Some of this difference is driven by extremely low operating costs in one Pilots project (Sound Community Services). Without this project, the average operating cost of the Pilots projects was \$8,377. The range of operating costs among Pilots projects was larger than among Demonstration projects, as shown by the Pilots program’s relatively large standard deviation (\$2,437 compared with \$1,375).

Exhibit 16. Variation in Per-Unit Operating Costs (2007 or 2008) by Production Program

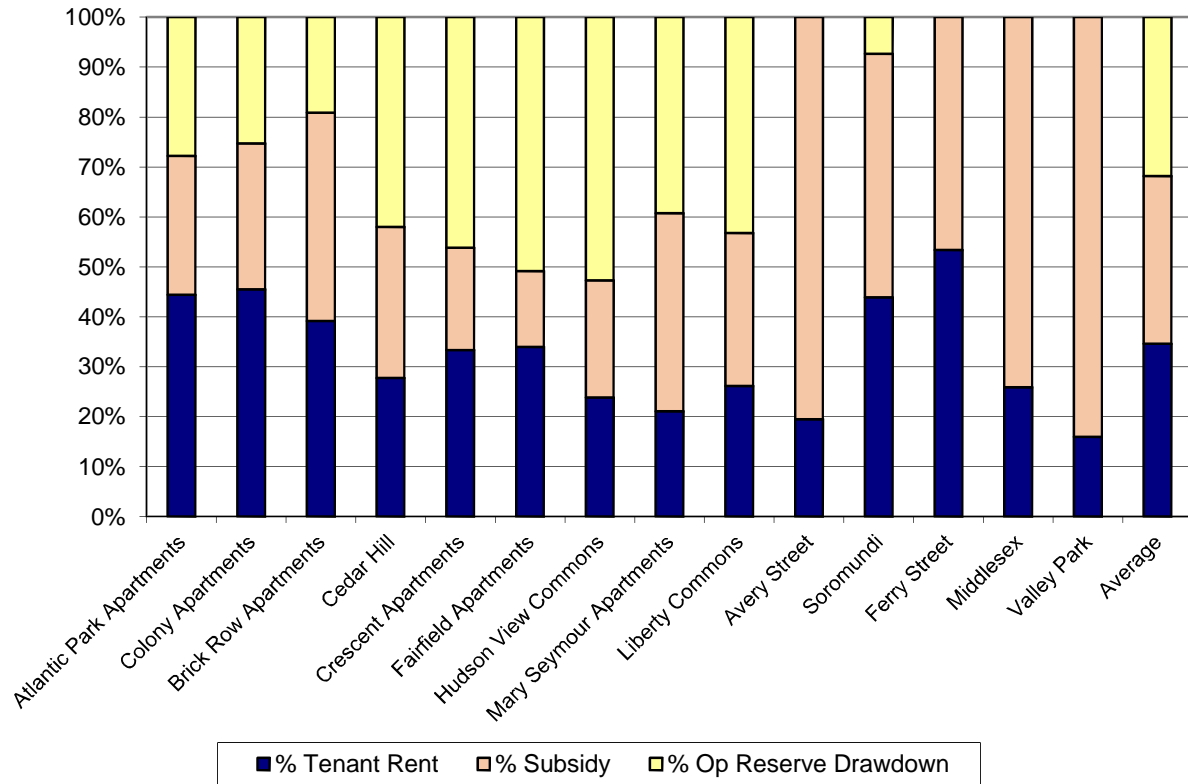
In-depth analysis of individual operating expenses was possible only for the Demonstration projects. Detailed analysis of Demonstration projects, shown in Appendix B, found that:

- Projects' operating costs have increased more rapidly than projected. The underwriting assumptions used by the National Equity Fund (NEF), the syndicator of the Demonstration projects expected 4.0 percent annual increases compared with 7.4 percent actual annual increases.
- Security costs have been the biggest wildcard in property operating costs, in some cases taking up close to 25 percent of the operating budget. It appears that for many of the projects, these costs were largely unanticipated.
- Utility expenses were also highly variable and increased more rapidly than anticipated.

Tenant Rent Payments and Rental Subsidies for Development Projects

The Demonstration and Pilots developments get their cash for operating expenses and debt service from three sources: tenant rents (37 percent on average for the portfolio as a whole), rent subsidy payments (31 percent on average), and drawdowns from operating reserves (32 percent). The relative proportions of these three sources of operating cash vary widely from property to property, as shown in Exhibit 17, which is based on 2008 audits. Avery Street and Middlesex Pilots rely very heavily on rent subsidies. Hudson View Commons and Fairfield Apartments rely on drawdowns from operating reserves for more than half of operating cash; four projects do not rely on this source of operating cash at all.

Exhibit 17. Sources of Operating Cash, 2008¹⁰



The average rent per unit paid by tenants in 2008 was \$3,727, or \$311 per month (Exhibit 18). Per-unit tenant rents vary widely across projects. Colony Apartments had the highest average tenant rent at \$7,119, or about \$593 per month. Avery Street and Middlesex Pilots, projects that received very little operating cash from tenant rents, had average rents of \$1,420 (\$118 per month) and \$2,001 (\$167 per month) respectively. Overall, rental subsidies were almost as important a source of operating cash as tenant rents. The average rental subsidy per unit in 2008 was \$4,224, or \$352 per month (Exhibit 19). As expected, this varied widely, from \$2,281 (\$190 per month) to \$7,677 (\$640 per month).

¹⁰ The split between subsidy and tenant rent was not available for Valley Park for 2008. We obtained the split between the two revenue sources for June 2010-May 2011, when tenant rents represented 16 percent of the total. We assume that the share of tenant rents is fairly stable over the history of a project and that the tenant share of total revenue was the same in 2008.

Exhibit 18. Tenant Rents per Unit, 2008

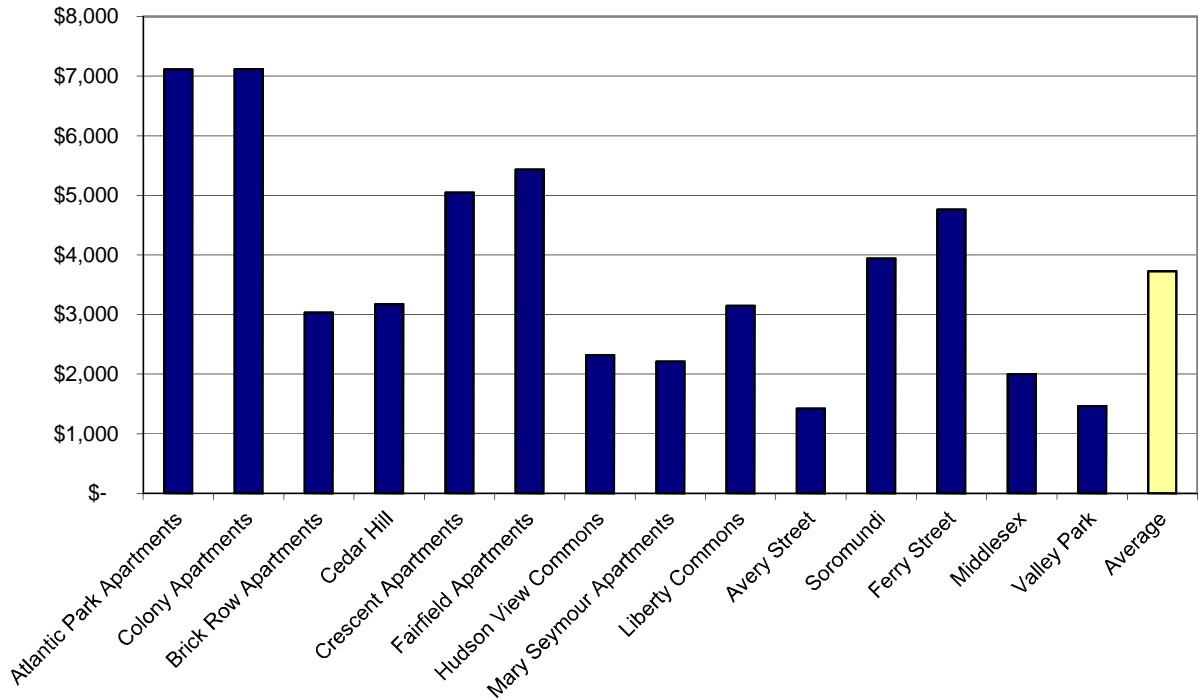
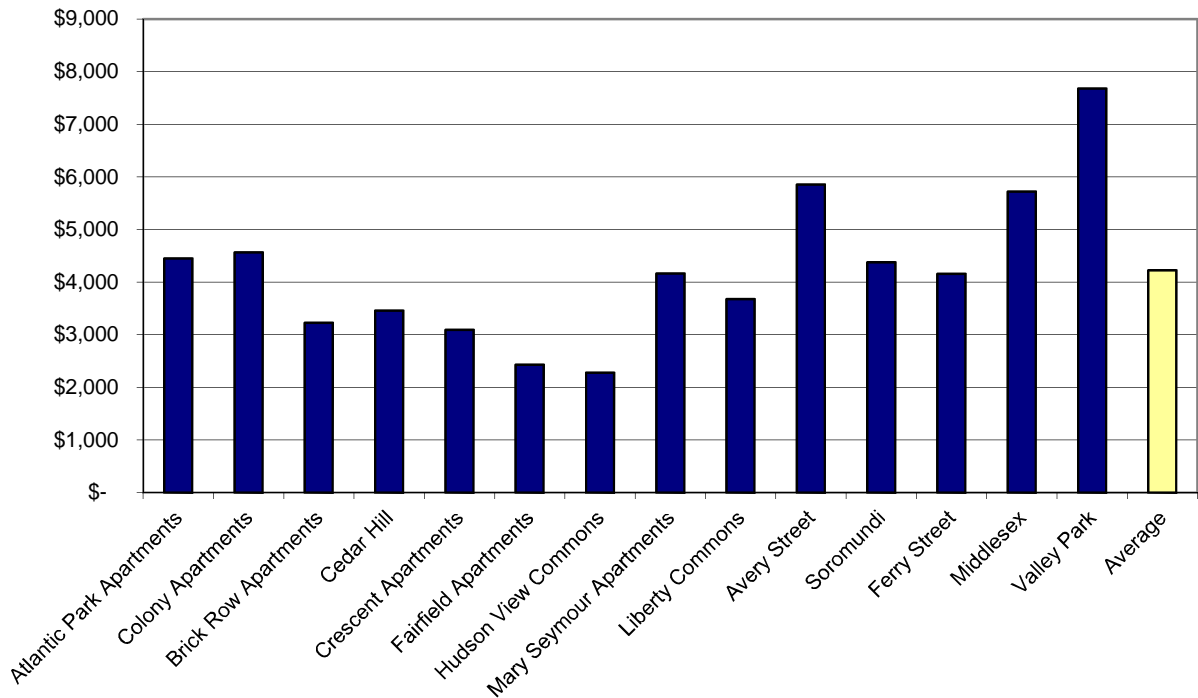


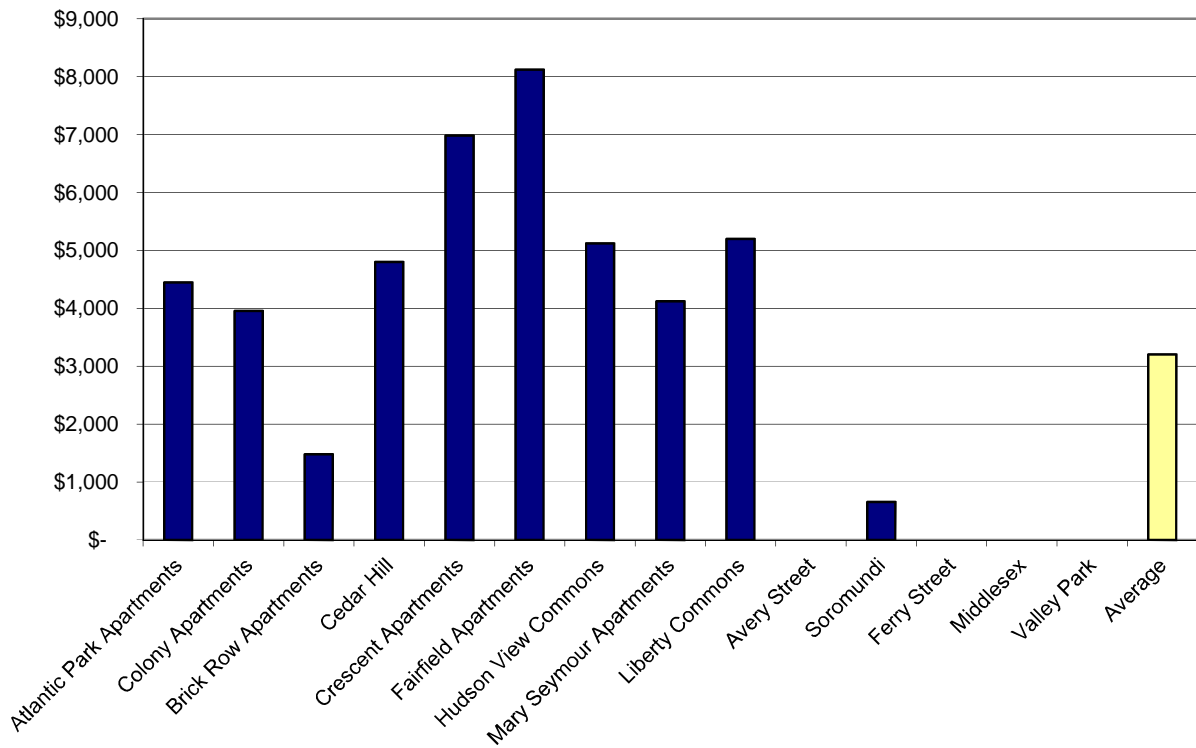
Exhibit 19. Rental Subsidies per Unit, 2008



Operating Reserve Drawdowns for Development Projects

Operating reserve drawdowns per unit also varied widely (see Exhibit 20). The average across all the development projects was \$3,206, but drawdowns ranged from \$0 to over \$8,000. The four projects with no operating reserves did not have drawdowns at all. Fairfield Apartments, at \$8,126 in operating reserve drawdowns per unit, had the highest drawdowns, followed by Crescent Apartments, which had \$6,985 in operating reserve drawdowns per unit.

Exhibit 20. Operating Reserve Drawdowns per Unit, 2008



Variation in Operating Costs and Sources of Operating Cash by Program

Sources of operating cash varied widely by production program as shown in Exhibits 21-23. Rent subsidies were higher on average for Pilots units (\$5,558 per unit, Exhibit 21) than for Demonstration units (\$3,482 per unit), illustrating the fundamentally different financing strategy used in the two programs. Rent subsidies were designed to be higher in Pilots program developments, thus reducing or eliminating the reliance on operating reserve drawdowns.

Offsetting the differences in rent subsidies, average operating reserve drawdowns in Demonstration program units were much higher than those in Pilots program units. The average among Demonstration projects was \$4,915 per unit compared with just \$132 in Pilots program units (Exhibit 22). The range of operating reserve drawdowns per unit was quite small across Pilots projects, ranging from \$0 per unit to \$658 per unit. The standard deviation was \$294. The range across

Demonstration projects was relatively large, from \$1,479 to \$8,126; the standard deviation was \$1,881.

Per-unit tenant rent payments were much higher in Demonstration projects than in Pilots projects at \$4,288 and \$2,717, respectively (Exhibit 23). Much of this difference is attributable to very low tenant rents for units at two Pilots projects, Avery Street and Valley Park Apartments. The range in per-unit tenant rents was smaller among Pilots projects, varying from \$1,420 to \$4,760. In comparison, the range among Demonstration projects was \$2,212 to \$7,119.

Exhibit 21. Variation in per-Unit Rent Subsidies by Production Program, 2008

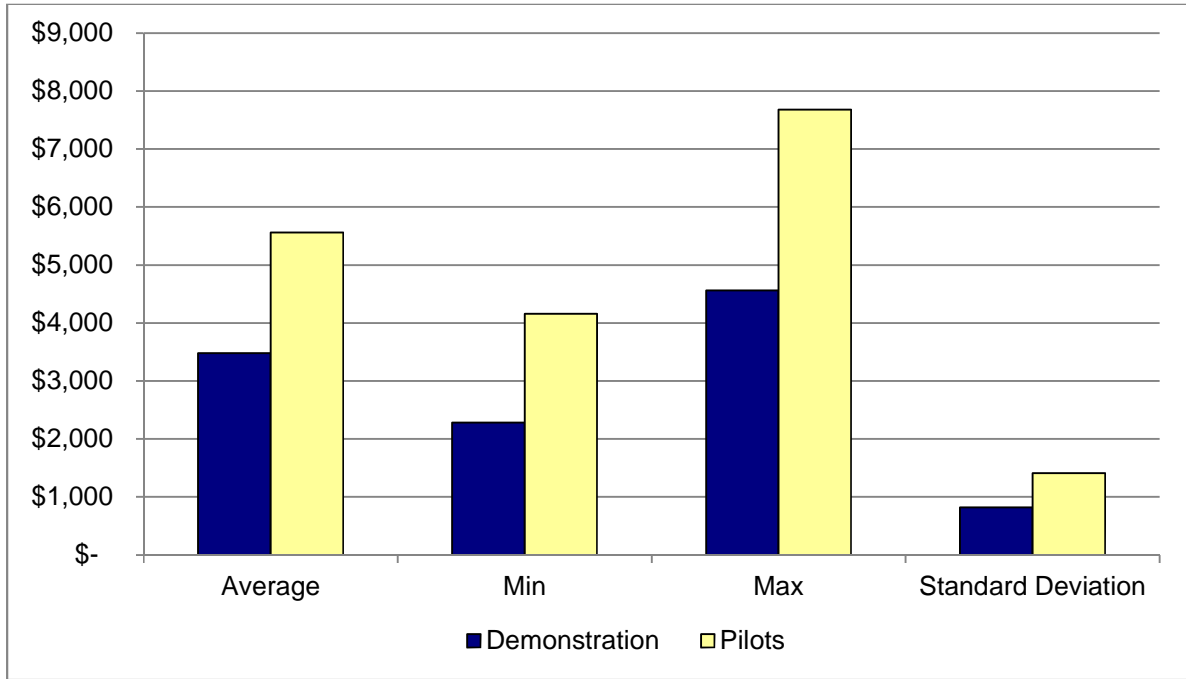


Exhibit 22. Variation in per-Unit Operating Reserve Drawdowns by Production Program, 2008

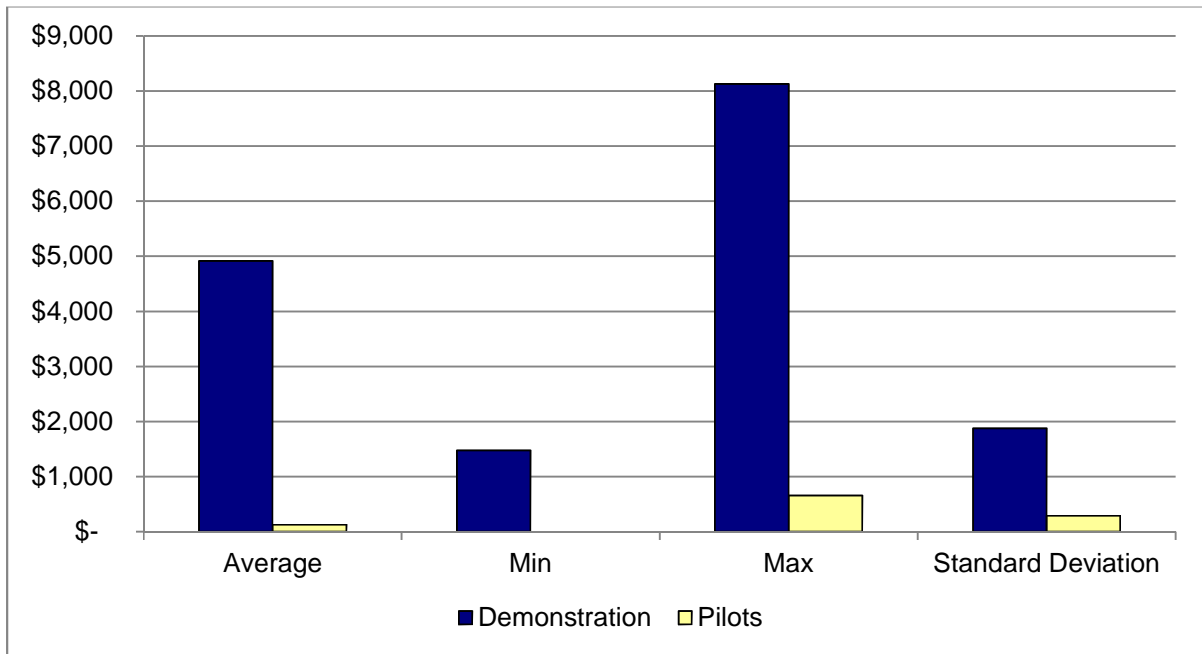
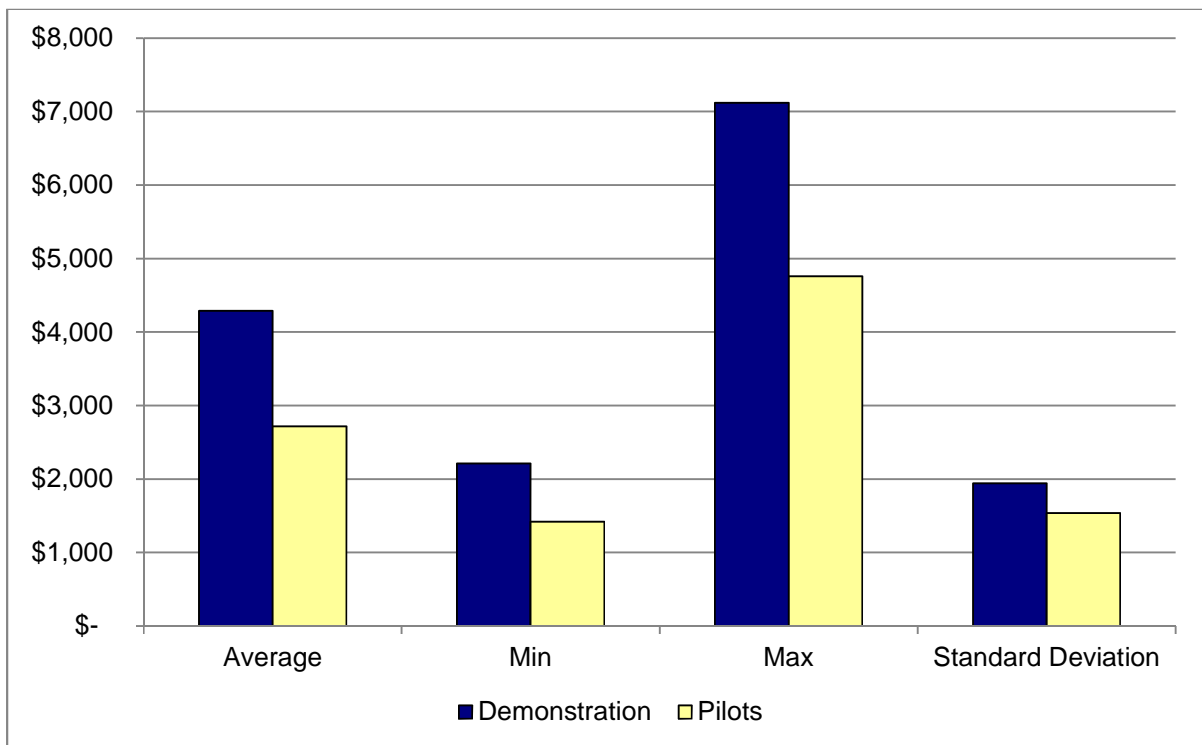


Exhibit 23. Variation in per-Unit Tenant Rents by Production Program, 2008



4.8 Costs for Scattered-Site Units

Our analysis of costs for scattered-site units is quite a bit simpler than the analysis of operating costs for development projects. We have no information on the landlord’s costs of operating units, and none is needed because the cost to the public of these units is simply the amount of the rental subsidy. The information we were able to obtain is for “contract rents,” which includes both the subsidy amount and the tenant portion of the rent payment. To split the contract rent into the subsidy and the tenant rent, which is necessary to estimate the public costs of scattered-site housing, we assumed that tenant rent payments for scattered-site housing are similar to tenant rent payments for development units, and used these as a proxy.

This section provides details on the contract rents for scattered-site units, followed by our estimate of the split between rental subsidies and tenant rents. Other costs of scattered-site units – specifically the uncompensated¹¹ landlord services performed by service providers – are also discussed. The cost of providing services to PSH tenants is the same as the cost for development units and is described in the next section.

Contract Rents

Several programs provide rental subsidy support to the 529 PSH scattered site units in this study. The number and percentage of units receiving each type of subsidy is summarized in Exhibit 24 below. Rental subsidy information was missing for 13 (2.5 percent) scattered-site units.

Exhibit 24. Scattered-Site Rental Subsidies

Subsidy Type	Number of Units	% of Scattered-Site Units	Subsidy Administrator
Rental Assistance Program (RAP)	37	7.0%	DSS
Shelter Plus Care	291	55.0%	DMHAS
Section 8 vouchers	104	19.7%	Various, primarily PHAs
HUD's Supportive Housing Program (SHP)	55	10.4%	Various, including Continuums of Care
Other (HOPWA, Agency certificate)	29	5.5%	Various
Missing	13	2.5%	
Total	529	100%	

Contract rent amounts were not always available. For the state-administered programs, RAP and Shelter Plus Care, CSH contacted DMHAS and DSS to obtain de-identified rental histories. Although the total number of clients with subsidies by location is not consistent from year to year, and the bedroom count of units occupied can change, this snapshot of contract rents in four years provides a good estimate of this portion of the costs of scattered-site units. For the Section 8 and SHP subsidies,

¹¹ Uncompensated in the sense that they are not paid for by the owners of the housing, but instead by the budgets of the service providers.

we did not have information on actual unit rents, so we used the HUD Fair Market Rents (FMRs) for the localities where they are provided. These are a reasonable proxy for the contract rents for these units, although they could be considerably less than the FMRs. Each of these subsidy types and their associated costs is discussed below.

Shelter Plus Care

With 55 percent of the units in our sample (291), HUD's Shelter Plus Care program is by far the largest source of rental subsidy provided to the scattered-site units. The "contract rent," which is the rental subsidy plus the tenant-paid portion of rent (30 percent of the tenant's income), is the amount the landlord receives to operate the unit each month, and is shown in Exhibit 25. The 2008 averages for Shelter Plus Care range from a high of \$969 per month (\$11,628 per year) in New Haven to a low of \$603 per month (\$7,236 per year) in Torrington.

Exhibit 25. Shelter Plus Care: Average Monthly Contract Rents: 2006 - 2009

PSH Sponsor	2006	2007	2008	2009
New Haven – Liberty	\$606	\$770	\$801	\$783
New Haven – Home Recovery	921	895	969	1,008
New Haven – Columbus House	751	960	790	870
Meriden/Wallingford – Rushford	762	787	819	752
New London – Sound Community	699	703	751	825
Norwich – Reliance House	664	681	699	786
Torrington – Center for Human Development	588	606	603	N/A
Middletown – The Connection	805	756	781	825

Section 8 Vouchers

Almost 20 percent of scattered-site units (104 units) were identified by CSH as receiving Section 8 rental assistance. It is assumed that the assistance is provided in the form of Housing Choice Vouchers administered by local public housing authorities. As noted above, because we lacked information on actual HAP amounts, we used HUD FMRs for each metro area as a proxy for the contract rents. These are shown in Exhibit 26. HAPs could be lower than FMRs, so the rents shown may be slightly overestimated.

Exhibit 26. 2008 Section 8 Fair Market Rents (FMRs)

HUD Metro FMR Area	0 BR	1 BR	2 BR	3 BR
Windham County (Killingly)	\$563	\$681	\$820	\$1095
Hartford-West Hartford-East Hartford (New Britain)	673	806	985	1,183
New London-Norwich (Groton)	674	800	926	1,133
Bridgeport	760	982	1,171	1,399
New Haven–Meriden	834	946	1,142	1,367
Danbury	942	1,143	1,451	1,737
Stamford-Norwalk	1,079	1,314	1,642	2,140

Supportive Housing Program

Just over 10 percent of units (55 units) receive rental subsidies from SHP. No direct information on the amounts of these subsidies was available at the time of the study, and the SHP rents probably are quite variable. The SHP program provides operating grants rather than rental subsidies so it is not possible to use FMRs to approximate the contract rents.

RAP

Another 7 percent (37 units) received rental subsidies from the state RAP, administered by DSS. DSS provided the average statewide HAP contract rents shown in Exhibit 27. These rents averaged \$675 per month (\$8,100 per unit per year) in 2008.

Exhibit 27. RAP Program: Average Monthly Contract Rents: 2006 - 2009

Year	2006	2007	2008	2009
Average Annual Monthly HAP	\$625	\$650	\$675	\$700

Rental Subsidies and Tenant Rent Payments

For the purposes of this report, the rental subsidies used in scattered-site units are important because they represent the public costs of the housing units. The combination of rent subsidies and the costs of supportive services are the public costs of scattered-site units; tenant rent payments and other costs incurred by landlords, service providers, sponsors, and others are private costs. We split the contract rents provided into tenant rent payments and rental subsidies using the following procedure.

First, we used estimated contract rents for each scattered-site project and subsidy type. Some scattered-site projects have more than one source of rental subsidy; for example, some units are subsidized using Shelter Plus Care and other units are subsidized with Section 8 vouchers. We used rents from 2008, which did not differ by bedroom count for RAP and Shelter Plus Care. Where we were missing the average contract rent for a specific location (such as Bridgeport) with a Shelter Plus Care subsidy, we substituted the average Shelter Plus Care contract rent across all locations. For HUD FMRs, which vary by bedroom count, we took the FMR for one-bedroom units as an average for zero-, one-, and two-bedroom units. Occasionally, the subsidy type was missing or was from HUD's SHP, for which no rental subsidy or contract rent information was available. For these units, we also used the average Shelter Plus Care contract rent across all locations as a proxy.

Using this approach, we estimated an average contract rent across all scattered-site units of **\$800 per month**.

Next, we used tenant rent payments in development project units as a proxy for tenant rents in scattered-site units. Demonstration projects include only single individuals, not families, and relied on operating cost reserves to make up for rental subsidy shortfalls, so we used tenant rent payments from Pilots projects as a more accurate estimate of the target population and financing structure used in scattered-site units. In these Pilots units, **tenant rent payments were 48.5 percent** of the total sources of cash to cover operating expenses; the other 51.5 percent was rental subsidies and operating reserve drawdowns (50.0 percent rental subsidies, 1.5 percent operating reserves). For scattered-site units, we assume that tenant rent payments are also 48.5 percent of the contract rent, or **\$388 per month**. The remaining **\$412 is the subsidy amount per month**.

Uncompensated Landlord Services Performed by PSH Service Providers

Although the primary function of service providers is to provide ongoing case management support to PSH scattered-site tenants, some also carry out some functions that in other circumstances would be the responsibility of the landlord. Although these costs are not public, this analysis is included in this chapter to provide the broader context of total costs of scattered-site housing. As discussed below, any landlord functions performed by these service providers are quite modest.

We interviewed four organizations that are actively involved in providing ongoing case management support to PSH scattered-site tenants about the landlord functions they perform. The organizations that participated were: Center for Human Development (aka Connecticut Outreach West), Chrysalis, Family and Children's Agency, and Reliance House. They are located in different parts of the state and provide case management services to 356 (or 66 percent) of the 538 PSH scattered sites identified by CSH for the purposes of this study.

The interviews revealed that service providers' costs are related much more to case management activities they carry out with the tenants than to providing any direct landlord services. Most of the organizations' landlord activity costs involve assisting the landlord with tenant selection by making referrals or explaining the lease to the tenant because the landlord does not routinely do so. Exhibit 28 summarizes the estimated landlord costs (as distinct from case management services) these four service providers incurred at their own expense.

Exhibit 28. Uncompensated Landlord Services Performed by PSH Service Providers

	Chrysalis	Connecticut Outreach West	Family and Children's Agency	Reliance House	Totals
Scattered-site units	180	112	30	34	356
Landlord Services Provided by PSH Service Provider					
Tenant lease orientation – initial		\$287.53	\$87.78	\$42.00	\$417.31
Tenant lease orientation – ongoing	\$6,931.80	\$519.40	\$117.04	\$168.00	\$7,736.24
Reporting to third parties	\$318.90				\$318.90
Replace batteries				\$306.00	\$306.00
TOTALS	\$7,250.70	\$806.93	\$204.82	\$516.00	\$8,778.45
PER UNIT	\$40.28	\$7.20	\$6.83	\$15.17	\$24.66

In addition to providing case management services, Chrysalis performs two unique landlord services that are not identified in Exhibit 28 above. The first is for 30 units that it subleases and then performs landlord administrative functions, primarily rent collection. The second is maintaining an internal waiting list for all 180 units in its scattered-site portfolio (Exhibit 29). The administration of these two functions is described by Chrysalis as a full-time job.

Exhibit 29. Additional Landlord Functions Performed by Chrysalis

	Admin Work for 30 Subleases	Waiting List Management	Total
Chrysalis	\$ 5,302.44	\$ 58,039.80	\$ 63,342.24
Per Unit	\$ 176.75	\$ 322.44	\$ 301.63

Service providers also arrange for or pay themselves expenses tenants may incur such as security deposits, damage charges, utilities, and cleaning. Reliance House in Norwich has paid \$13,898 in tenant expenses over seven years (\$1,985 per year or \$58 per unit per year). Family and Children's Agency in Norwalk has paid \$26,780 in security deposits and been repaid \$10,009 (net expense of \$16,771) over eight years (\$2,096 per year) on 22 of its scattered-site units (\$95 per unit per year). Connecticut Outreach West has paid approximately \$3,193 in security deposits on behalf of tenants over three years (\$1,064 per year or \$10 per unit per year).¹²

¹² Although these are expressed as per-unit amounts in order to provide a basis for comparison, the amounts paid are extremely variable on a per-unit basis and may involve a small or large number of units.

4.9 Supportive Service Costs for Development Projects and Scattered-Site Units

In addition to costs of operating the housing units, a cost is also incurred for the supportive services linked with the units. The levels of funding provided in the three PSH programs – for both development units and scattered-site units – are shown in Exhibit 30. Services funding for Demonstration projects, which included only units for individuals, was \$5,000 per individual per year. This amount increased for Pilots projects service providers, who received \$9,000 per individual or family per year. Next Steps projects were funded at a level of \$9,500 for individuals and \$13,000 for families.

Exhibit 30. DMHAS Funding for Supportive Services

	Individual	Family
Demonstration (1996 and 1997)	\$5,000	n/a
Pilots (1999-2004)	\$9,000	\$9,000
Next Steps (2006-present)	\$9,500	\$13,000

These contract amounts are typically adjusted annually to allow for inflation. Exhibit 31 shows estimated cost-of-living adjustments (COLAs) for DMHAS service contracts. COLAs based on the state's fiscal year were converted to a calendar year basis, and COLAs prior to 2000, which were not available, are estimated using the consumer price index (CPI-U) for each year. In 2008 through 2010, there were no COLAs.

Exhibit 31. Annual COLAs for DMHAS Service Contracts (Estimated)

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
COLA	3.00%	2.30%	1.60%	2.20%	2.80%	3.00%	3.20%	0.80%	0.40%	2.80%	3.00%	1.00%	0.00%	0.00%	0.00%

Service contracts awarded in 1996 at \$5,000 per individual are estimated to be funded at about \$6,271 by 2010. Likewise, Pilots service contracts awarded in 2005 at \$9,000 per individual or family are estimated to be funded at about \$9,363 by 2010.

There are some indications that resources provided by DMHAS for case management services are insufficient. In our interviews with four service providers, case manager case loads were reported to be between 9 and 13 clients. It is widely reported that DMHAS funds case manager workload for the scattered-site units by estimating 15 clients per case manager. The organizations reported that, as a consequence, they find other resources to support the smaller caseloads. Understanding the cost of this shortfall is not part of this study and does not necessarily represent a public cost of PSH, but it represents a financial burden for the service providers.

5. Per-Unit Public Cost of Supportive Housing in Connecticut

To get a broader picture of the overall per-unit public cost of supportive housing, we combined public operating costs (rental subsidies, service contracts, and operating reserve drawdowns) with development costs. Complete information on both development and operating costs was available for 11 development projects containing 157 supportive housing units. The remaining 160 affordable units in these projects are not included in this analysis. All 529 scattered-site units are included.

To do this analysis, several simplifying assumptions were required. Annual data on rental subsidies and operating reserve drawdowns are not available for development projects, so this comparison uses the operating cost and revenue from either 2007 or 2008 (data were available for Demonstration projects for 2007 and for Pilots and Next Steps projects for 2008). These amounts are assumed to be **the same** in prior years as for 2007 or 2008 (but are adjusted for inflation). Assumptions used in estimating rental subsidies for scattered-site units are described in the previous chapter.

In estimating service contracts amounts, we assumed that there were no gaps in service contract payments. That is, service providers were paid for case management for the full year for each PSH unit. Cost of living adjustments were not available for service contract amounts for years prior to 2000, so amounts were instead adjusted by the consumer price index (CPI).¹³ In the case of scattered-site units, we did not have information on the mix of families versus individuals being served, so we assumed that half of the units were occupied by individuals and half by families. This is relevant only for Next Steps scattered-site units, for which service providers were paid higher amounts for families than for individuals.¹⁴

We use development costs excluding operating reserves funded up front, because for this analysis operating reserves are treated as operating costs.

Exhibit 32 compares average operating costs per unit in one year between units in development projects and scattered-site units. The year 2008 is chosen because it is a year when all the units in the analysis were in operation and when actual data on operating costs and revenues were available for most of the development projects (2007 data were substituted for 2008 where necessary).

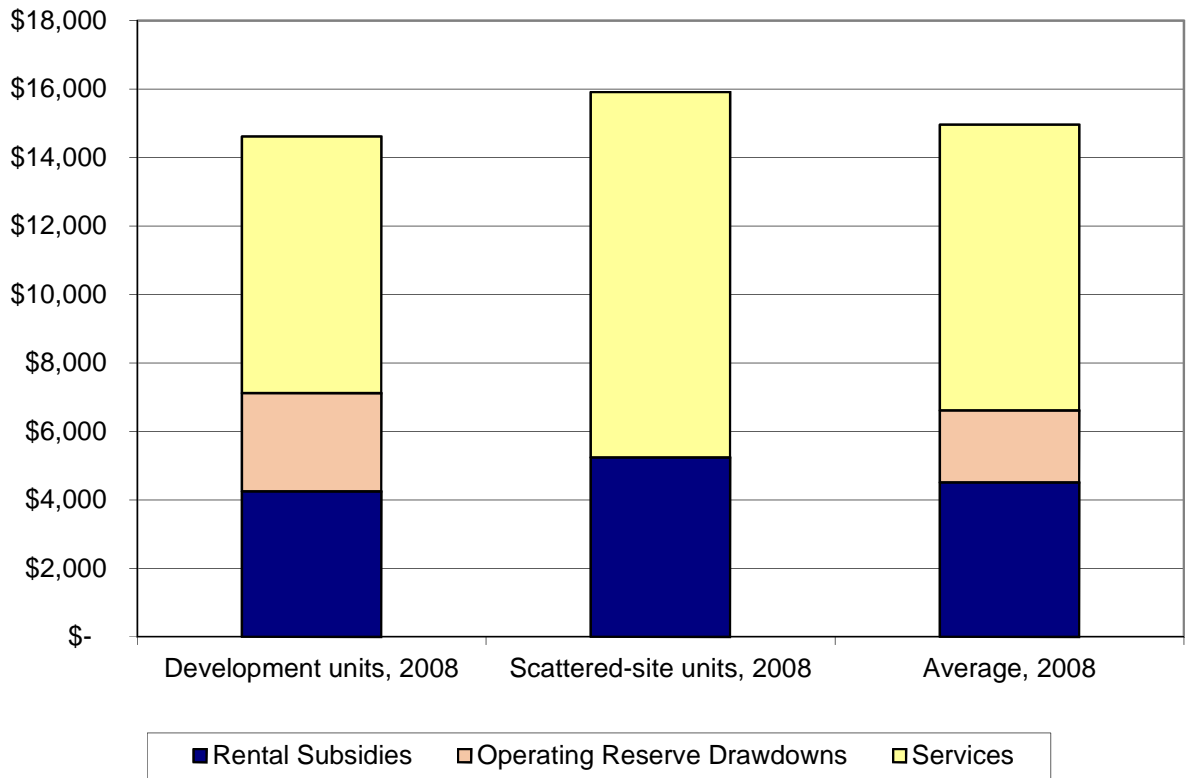
The average cost per unit of permanent supportive housing units for operating costs (including services) in 2008 was \$14,964. Public costs for scattered-site units were higher than those for development units (\$15,914 vs. \$14,614), both because rental subsidy amounts were higher and because service contract amounts were higher. All of the scattered-site units were created as part of the Pilots or Next Steps programs, which had substantially higher service contracts amounts than the Demonstration program. About two-thirds of the development units included in this analysis were constructed under the Demonstration program.

¹³ In some years, the COLA was 0 percent.

¹⁴ This may be an overestimate of the number of Next Steps scattered-site units occupied by families, but the impact on costs is fairly small. If we assume that only 20 percent of units are occupied by families, then the average annual per-unit service contract amount is \$10,413, and total operating costs for scattered-site units is \$15,651 compared with \$15,914.

The operating costs shown in Exhibit 32 for scattered-site units are the full public cost of these units on an annual basis. Fluctuations in costs over time are strictly related to changes in FMRs (for rental subsidies) and general inflation (for cost-of-living adjustments in services contracts). This exhibit does not account for the full costs for development units, however.

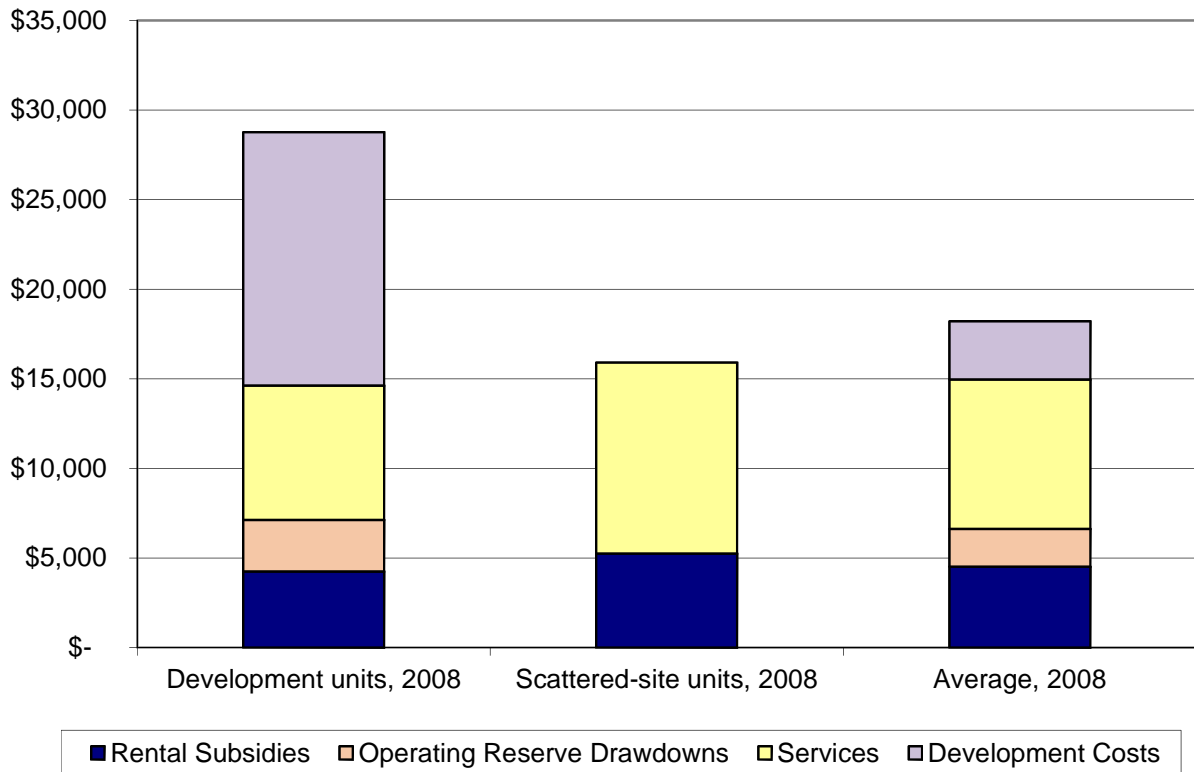
Exhibit 32. Average Operating Costs per Unit, 2008



Unlike operating costs, development costs are incurred over a relatively short period of time, before and during construction. For this reason, development costs do not readily lend themselves to comparison on an annual basis. To compare development costs for projects built at different times on an annual basis, therefore, we considered the following question: what would be the annual payment on a loan to cover per-unit development costs? This perspective translates the development costs into an annual cost that can easily be compared across projects and can be added to operating costs for an analysis of total annual costs. We assumed a loan term of 15 years – the length of the LIHTC compliance period – and a below-market rate of interest, similar to the terms of loans actually used in financing the development projects.

Doing this generates an annual cost of \$14,157 per development unit for development costs, or a total of \$28,775 per year (Exhibit 33) for both operating and development costs, compared with \$15,914 per scattered-site unit.

Exhibit 33. Average Operating and Development Costs per Unit, 2008



This analysis suggests that the development units we analyzed are nearly twice as expensive as the scattered-site units. Chapter 6 discusses the financial sustainability of the development units, including the status of operating and replacement reserves. It also shows that project revenues have been higher than expected. Chapter 7 summarizes the report and then highlights some benefits of development units that are not reflected in the cost analysis.

6. Sustainability of Connecticut's PSH Financing System

To examine the sustainability of Connecticut's PSH financing system, we analyzed differences in operating costs as projected with historical costs – that is, those actually experienced in development projects. The following are some central themes that emerge across the three years of analysis of Demonstration projects' operating costs. These results may be specific to the funding strategy used for Demonstration projects, a combination of rent subsidies for some units and capitalized operating costs to subsidize other units.

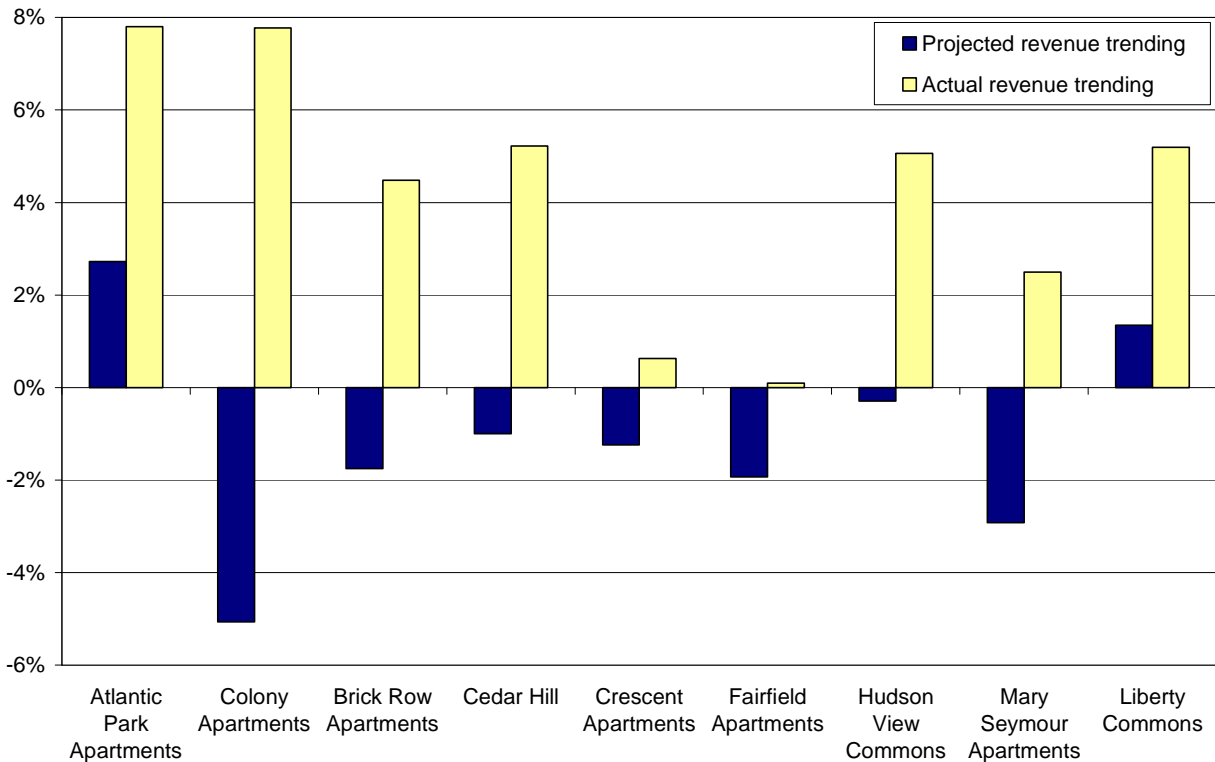
- While both revenues and expenses have accelerated more rapidly than anticipated, all of the properties have remained solvent: that is, they all have sufficient cash to cover their operating expenses and debt service obligations.
- Continuation of Supportive Housing Program project-based operating subsidies has been critical to these properties' continuing financial viability.
- Vacancy and rent loss rates have been relatively low, given the challenges of housing and serving these populations.
- Security costs have been the biggest wildcard in property operating costs, in some cases taking up close to 25 percent of the operating budget. While the initial operating budgets are not available in much detail for these projects, it appears that many of the projects did not initially project incurring significant security costs.
- All of the Demonstration properties were financed to operate at a deficit and to draw on operating reserves over time. In some properties, particularly those where security costs increased at an unanticipated high rate, operating reserves are being drained at a rate that may result in their depletion before the end of the tax credit compliance period.

The comparisons of projections and actual cash flows, and their impacts on the sustainability of Connecticut's PSH units are described in detail below. This chapter focuses on Demonstration development units, which require both development and operating subsidies, compared with scattered-site units, which require only operating subsidies. Four of the five Pilots projects we have revenue and expense data for have been in operation for only a year, so very limited analysis could be conducted to assess financial sustainability. Where results are available, they are included in the discussion below.

6.1 Project Revenues Have Been Higher Than Expected

On average, Demonstration project rent revenues have increased by 4.2 percent per year between the first year of stabilized operations and 2008. This performance significantly outstrips the original NEF projections, which actually assumed that revenues would drop over time in most projects. Exhibit 34 compares the original and projected revenue trends through 2008.

Exhibit 34. Actual versus Projected Revenue Trends¹⁵



Revenues were originally projected to drop because project-based rent subsidies were due to end. It was assumed that all of the properties would lose their project-based subsidies at some point in the compliance period (original assumptions are shown in Exhibit 35). However, all of the properties have retained their subsidies.

¹⁵ Note that the trending shown for Liberty Commons represents trending projected through 2007; the original projections were no longer available at the time of the 2008 audit update.

Exhibit 35. Year of Originally Projected Operating Subsidy Loss (NEF projections)

Project	Year of Projected Loss of Rent Subsidies
Atlantic Park Apartments	2009
Colony Apartments	2002
Brick Row Apartments	2007
Cedar Hill	2008
Crescent Apartments	2007
Fairfield Apartments	2003
Hudson View Commons	2007
Mary Seymour Apartments	2003
Liberty Commons	2007 ¹⁶

By 2008, actual revenues significantly outstripped the original projections not only in the rate of change, but also in the absolute dollar amounts. On average, 2008 revenues were 140 percent of the revenues originally projected. These results can be attributed, in part, to the unexpected retention of the rental subsidies along with higher-than-expected increases in rents. Even in the years when the rental subsidy was expected to be retained, NEF had only projected rents to increase at 2.8 percent. Apparently, the rent increases provided by subsidy programs were higher than that. Even in the first year of stabilized operations, revenues significantly exceeded projected first-year revenues: actuals were 115 percent of projections.

Of the Pilots projects, four out of five are performing better than projected on their revenues. The one that is not, Middlesex Pilots, did not achieve stabilized occupancy until December 2007.

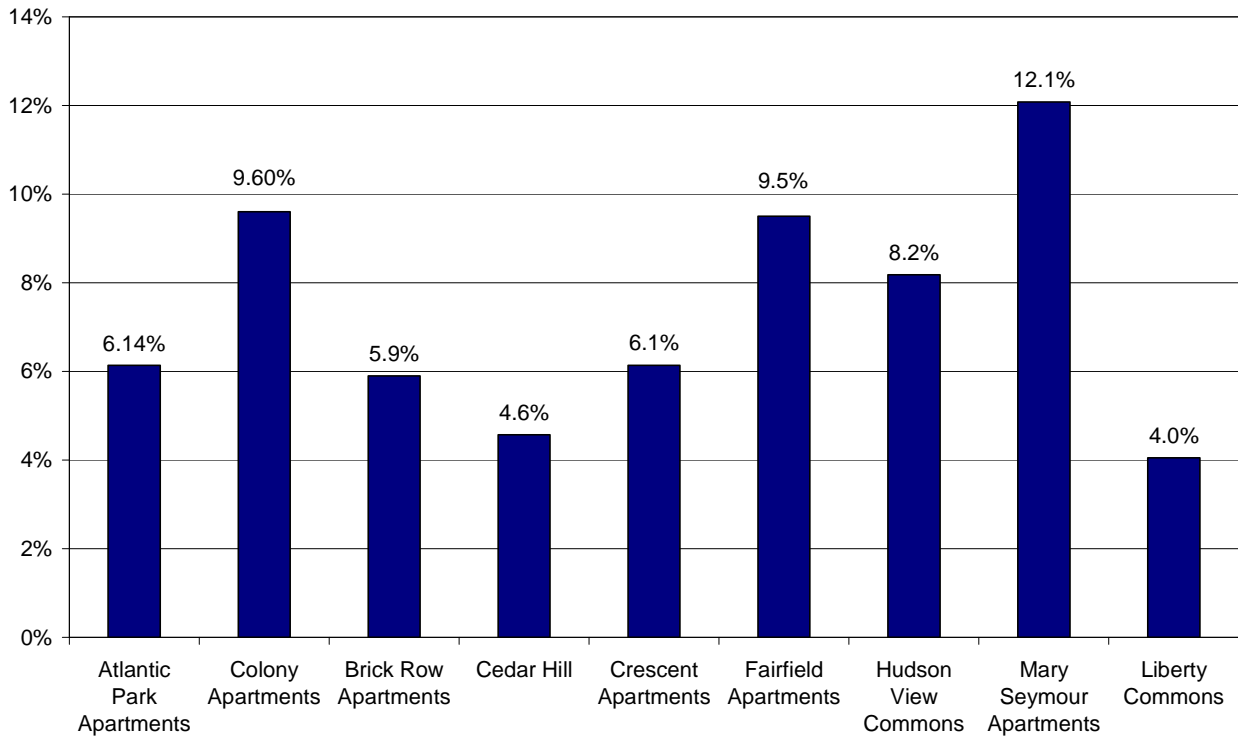
6.2 Project Expenses Have Also Been Higher Than Expected

On average, operating expenses (including administrative costs, management fee, maintenance, utilities, taxes and insurance) increased by 7.4 percent annually between the first year of stabilized operations and 2008. NEF's underwriting assumptions were that operating expenses would trend upward at a 4.0 percent annual rate. Only one project (Liberty Commons) met that target, while expense trends for the rest of the portfolio have varied widely. Exhibit 36 shows the annualized rate of expense growth from each property's first year of stabilized operations through 2008. Expenses averaged 108 percent of projections in the projects' first stabilized year of operations. By 2008 expenses were, on average, 139 percent of what was originally projected for that year.

Expense trends do not seem to relate to location or sponsor. For example, Stamford's Hudson View Commons and Mary Seymour Apartments have St. Luke's Lifeworks as their sponsor, but their expenses have trended at 8.2 percent and 12.1 percent respectively. A similar situation exists in Bridgeport where the Central Connecticut Coast YMCA sponsors Crescent Apartments and Fairfield Apartments whose expenses have trended at 6.1 percent and 9.5 percent respectively. Crescent Apartments and Fairfield Apartments also have the same management agent.

¹⁶ Projected date of loss of rent subsidies inferred from the CHFA projections rather than the NEF projections for Liberty Commons.

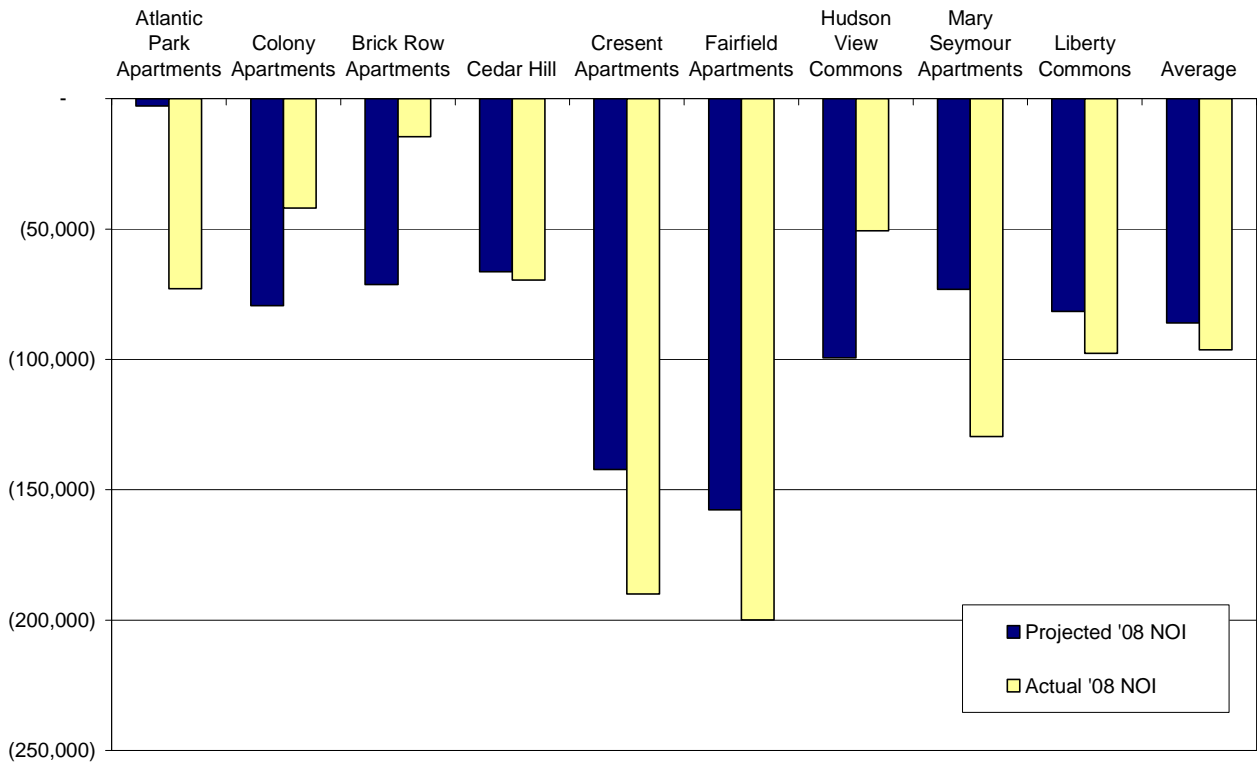
Exhibit 36. Annualized Operating Expense Increases



6.3 Net Operating Income is Negative, as Projected

All of the properties were underwritten to have negative net operating income (NOI, revenues minus expenses) within several years; some were underwritten to have negative NOI from their very first year of operations. By 2008, all properties did indeed have negative NOI, as shown in Exhibit 37. In four of the properties, NOI was less steeply negative than anticipated; in four it was more so. On the average, the portfolio NOI was quite close to projected levels (as seen in the “Average” bar on the far right of Exhibit 37).

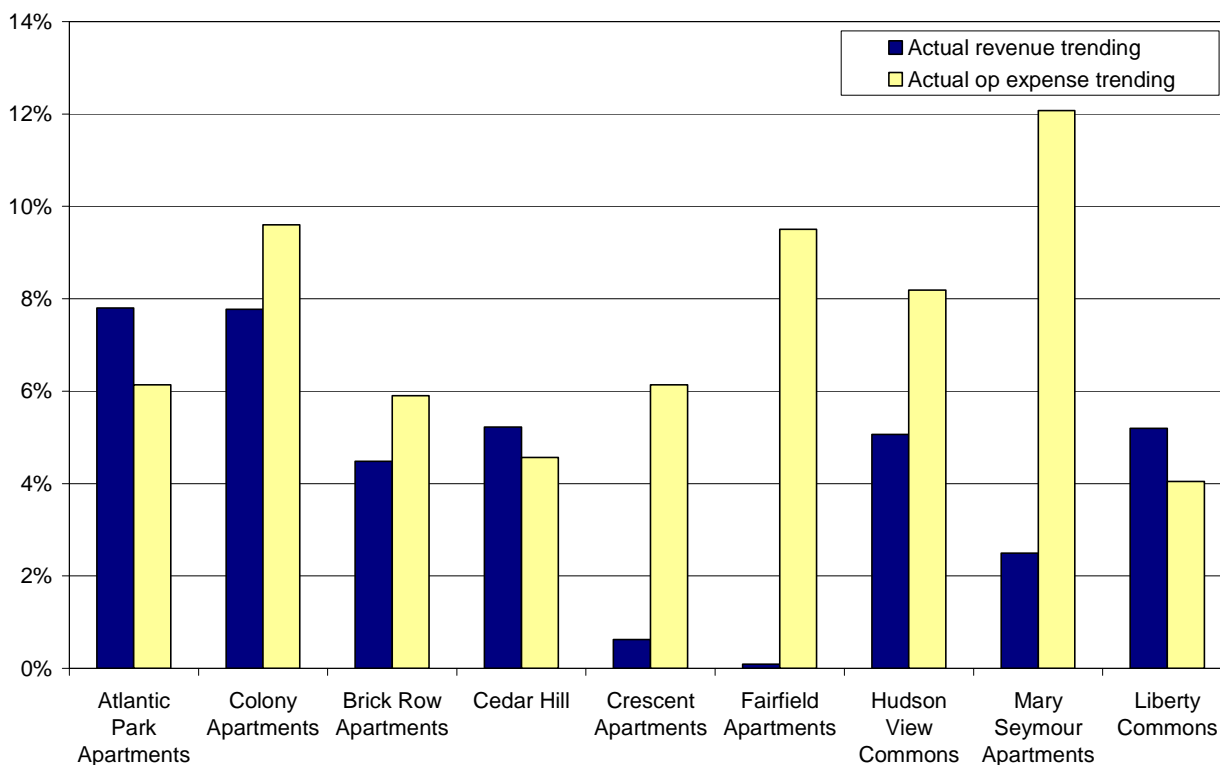
Exhibit 37. Net Operating Income, 2008



Overall, from initial occupancy to 2008, revenues increased more slowly than expenses in most properties, as shown in Exhibit 38.

As noted above, developments have seen their revenues increase by 4.3 percent annually, while expenses have increased by 7.4 percent. However, rents were much higher than projected at initial occupancy, 115 percent of projected levels, while expenses were at only 108 percent of projections in the initial years; so revenues had, so to speak, a running start.

Of the Pilots projects, three out of five projects had higher 2008 expenses than projected, but those that did (Sorumundi, Ferry Street and Valley Park) also had higher revenues than projected to compensate for the higher expenses.

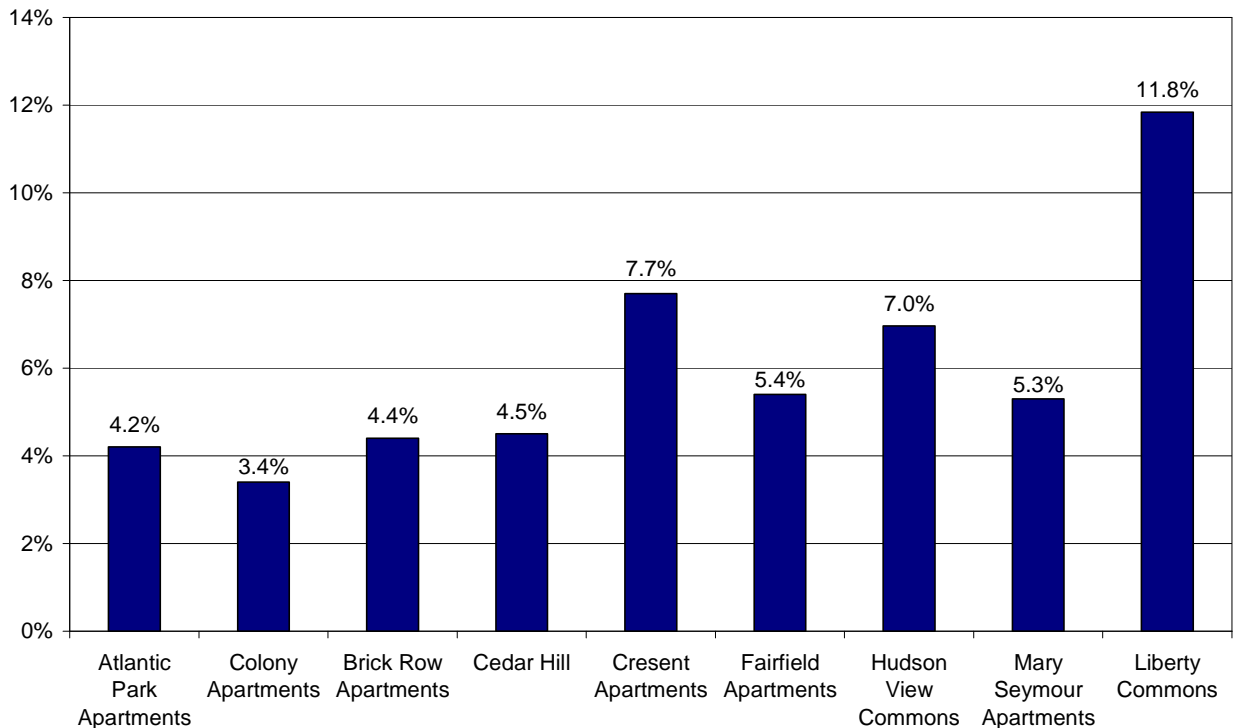
Exhibit 38. Revenue and Expense Trending, Initial Occupancy through 2008**6.4 Rent Loss is Lower Than Projected**

Rent loss (Exhibit 39) is the total of vacancy loss and bad debts. Projections were not made for bad debts, but the pro forma projections trended vacancy loss at 7.0 percent. With actual rent loss experience of 6.3 percent across the properties' entire lifespan, the properties as a portfolio outperformed these projections.

In interviews, the property managers of the two properties with the highest historic average rent loss, Crescent Apartments and Liberty Commons, reported that rent loss levels had dropped since the audits reviewed for this report. The data had already begun to show improvement in rent loss performance in 2008: weighted average rent loss across the portfolio was only 5.9 percent in 2008, compared to the historic average of 6.3 percent for the properties' entire stabilized history.¹⁷ Property managers attributed the improved performance largely to on-site staff efforts.

¹⁷ In order to conduct this analysis for 2008 audits, it was necessary to adjust for a change in the accounting practices of the new property manager for many of the properties. Konover Management uses the convention of stating gross potential rent as the maximum allowable tax credit rents. It then adjusts for the "actual" rent charged, often much below the allowable tax credit rent, in the "concessions" line of the vacancy section of the audit. Thus, both rental revenue and vacancies are overstated, but the net rental revenue is not. The analysis presented in this report adjusts gross potential rent to tax credit levels, eliminating the concessions line item, and bringing the 2008 audits into conformity with the convention in previous years' audits.

Exhibit 39. Average Rent Loss, Initial Occupancy through 2008



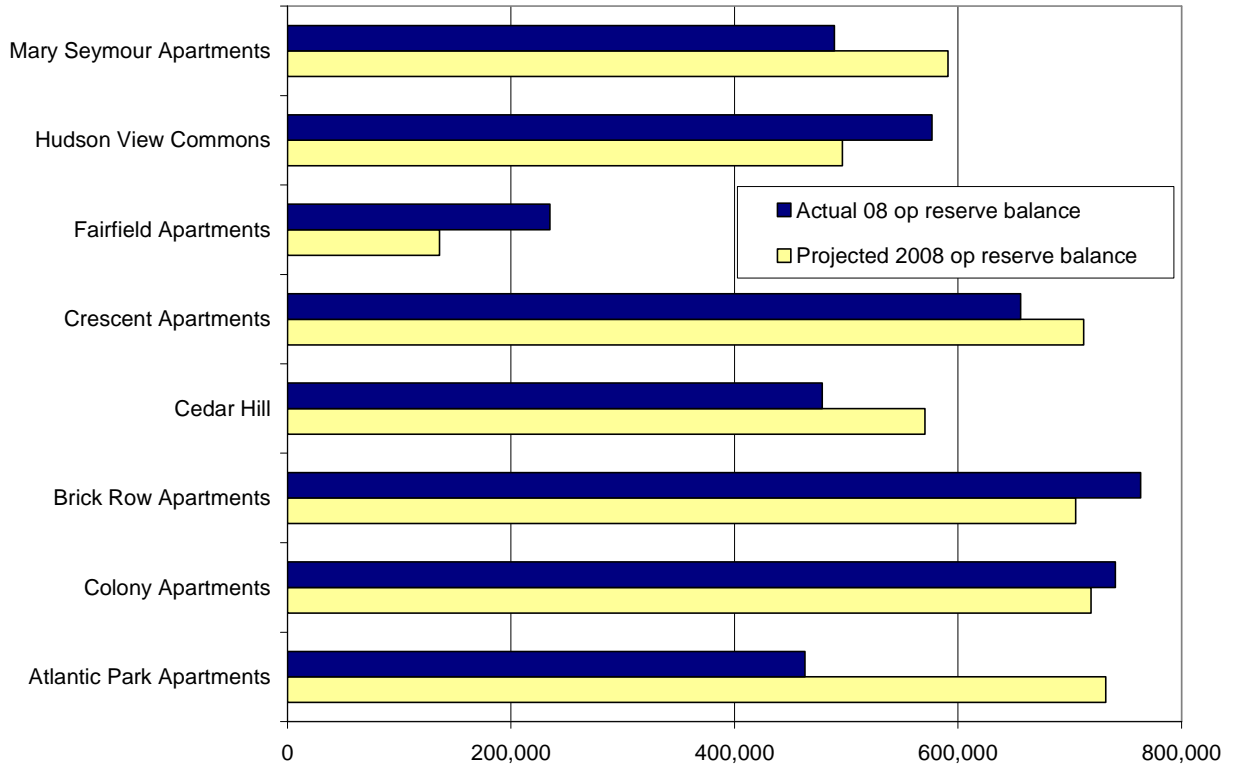
Likewise, managers of properties with the lowest rent losses say the quality of the on-site staff explains their success. The collaboration of site managers and case managers to maximize successful tenancies is described as central to efforts to limit rent loss. The objective is to avoid costly evictions by working with residents to comply with the lease in terms of behavior and timely rent payment. A possible connection between the target population and vacancy rates was revealed in interviews with property managers: the property with the lowest rent loss served only individuals who signed a sobriety pledge, while the highest rent-loss property reportedly served many active substance abusers.

6.5 Drawdown of Operating Reserves is Higher Than Expected

Substantial operating reserves are an essential feature of the financial structure of all of the Demonstration projects. The projects were financed with the expectation that the properties would earn insufficient revenues through tenant rents and subsidies to cover operating expenses, let alone required debt service. To meet these financial needs, the properties were expected to draw down annually on the very substantial operating reserves established in the properties' initial capitalization. Reserve draws are based on annual budgeted shortfalls approved by CHFA and NEF and are funded quarterly by CSH. In 2008, the average draw on reserves was \$4,915 per unit.

For the portfolio as a whole as of the end of 2008, operating reserve balances were at 92 percent of projected levels.¹⁸ Three projects had reserves above projected levels, but the remaining projects had reserves below the levels projected in the initial pro formas (see Exhibit 40.)

Exhibit 40. Actual Operating Reserves Balances, 2008, versus Projected Reserves

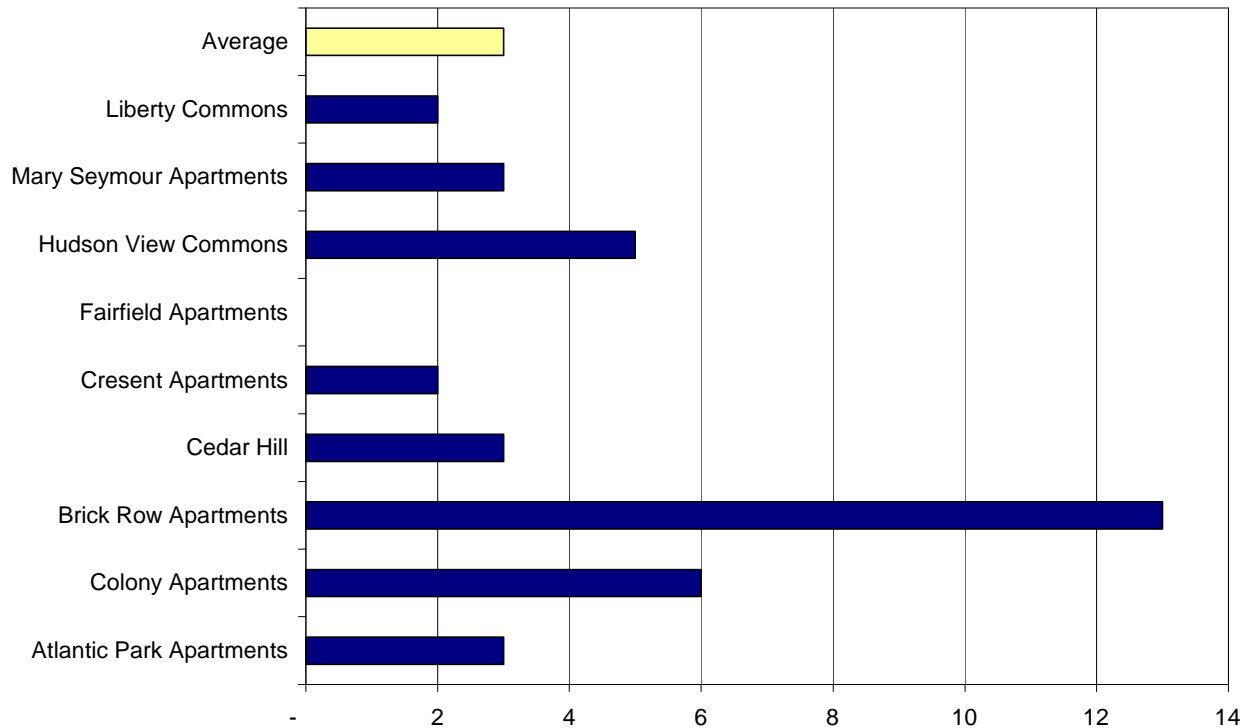


The spend-down of the operating reserves is offset to a small degree by interest earnings on the reserves. But as the reserve balances shrink, they generate interest in decreasing amounts. On average, given the current average “burn rate” (and assuming continuation of the rent subsidies that have survived intact thus far), the properties’ operating reserves will be depleted by 2011, about one year before the tax credit compliance period has ended. Three properties (Fairfield, Liberty Commons and Crescent Apartments) are projected to run out of operating reserves by the end of 2010, and four are projected to exhaust their operating reserves by 2011 (Mary Seymour, Hudson View, Cedar Hill and Atlantic Park).

¹⁸ Liberty Commons is excluded from this analysis because projections were not available for 2008.

We do not have information on current reserve balances, but as of the end of 2008 there were reasons for concern. For properties relying on reserves to cover both operating and debt obligations, the then-current rate of withdrawals were not sustainable, meaning that the properties' reserves were not projected to hold out until the next refinancing. Presumably, this will occur at the end of the tax credit compliance period – in roughly 2012 for most of the portfolio.¹⁹

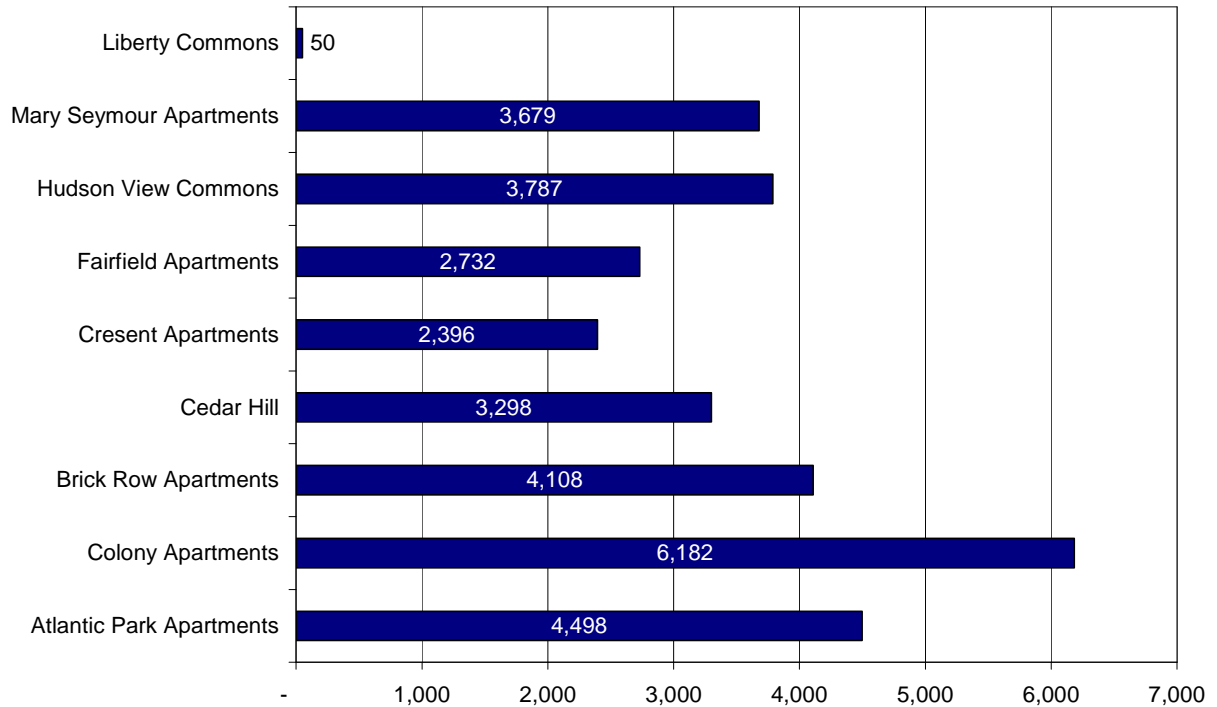
Exhibit 41. Years Before Operating Reserve is Depleted (starting 1/1/2009)



¹⁹ According to CSH, the properties are in the process of being refinanced as of late 2011 and their operating reserves are unlikely to be depleted.

Replacement reserves remain at a more robust level, overall, with a total of \$3,414 per unit. Only one project, Liberty Commons, has depleted its reserves; the rest remain at higher levels.

Exhibit 42. Replacement Reserves per Unit, 2008



Among Pilots projects, 2008 operating reserve balances are very close to where they were projected to be. However, this early in the projects' lives, this may not be indicative of predictable trends. Across the portfolio, actual reserve levels were at 99 percent of 2008 projections.

7. Summary and Conclusions

This report examined the development and operating costs of Connecticut's Permanent Supportive Housing Program in both development projects and for scattered-site units under three initiatives: the Supportive Housing Demonstration program, the Supportive Housing Pilots Initiative, and the Next Steps initiative. The initiatives were the result of unusual coordination among a large number of state agencies and private and non-profit organizations. The result of the initiatives to date has been a total of over 1,300 units of both PSH and affordable housing: almost 800 developed units (55 percent supportive and 45 percent affordable) and over 500 leased scattered-site units.

This report examines the development and operating costs from several different angles. First, we reviewed the costs of developing PSH and identified factors that may influence costs. Second, the public costs of PSH units that are not developed, but are leased from private landlords, are analyzed. Third, the development cost data are combined with data on the costs of operating PSH and providing services to its residents to estimate an annualized cost of permanent supportive housing. Last, we analyzed operating costs at the development properties to address the properties' financial sustainability over time.

7.1 Development and Operating Costs of PSH

The average development cost per PSH unit was \$255,000, but costs varied quite a bit among projects, as did the types of units built. Demonstration projects were intended for single adults; some Pilots and Next Steps projects contained units for families. Pilots and Next Steps projects had higher average per-unit costs than Demonstration projects, probably in part because of the presumably larger family units, but perhaps also because the projects contained fewer units over which to spread costs of acquisition and development. Excluding capitalized operating reserves to create a more typical representation of total development costs, the average unit cost was \$228,000.

At least some of the variation in per-unit costs is related to whether the project was new construction or rehab (\$325,213 vs. \$220,418), but the main driver of this difference appears to be the greater square footage of the new construction units. On a per square foot basis, average costs of new construction and rehab were virtually identical. Differences between the per-unit costs of rehab and new construction projects, therefore, are related to differences in square footage, and not the development strategy chosen. Units in rehab projects had an average square footage of 843, compared with 1,202 for new construction.

An area for future research is whether policy-makers should opt for acquisition and rehab rather than new construction, assuming existing properties can be found in the appropriate communities. Rehab projects are less expensive on average than new construction. The size of PSH units is partly a normative question for policy makers to address. Rehab projects also appear to be difficult to develop for families. All of the family units in our analysis sample involved new construction, perhaps because very few existing properties suitable for rehab into family units exist. In addition, the costs of rehab projects were highly variable, indicating some risk that costs for a particular rehabilitation project will be higher than the cost of new construction in that location.

Costs of PSH in Connecticut are quite similar to costs of similar housing developed in Massachusetts. The average in Massachusetts was \$230,000 per unit. Including operating reserves, Connecticut's units are about 10 percent more expensive, at \$255,000 per unit. Excluding these reserves, costs are slightly lower than in Massachusetts, at \$228,000. The latter is probably the more accurate comparison of true development costs between the two states.

The difference raises an interesting question, however. Using capitalized operating reserves to subsidize units makes the units more expensive up front, but reduces rental subsidies required over the life of the project. Whether the trade-off is beneficial may depend on perspective and the sources of various subsidies. If the definition of "public costs" is defined more narrowly to include only costs to the residents of the state of Connecticut, then minimizing either the use of rental subsidies or the use of development funding may be advantageous, depending on the source of funding for the subsidy. Other factors are relevant as well. If the future availability of rental subsidies is uncertain, then financing operating costs up front may reduce the risk of the project becoming financial unsustainable.

However, leasing scattered-site units from private landlords may be the least risky strategy of all from a financial perspective. Not surprisingly, the public cost of scattered-site PSH units is much lower than the cost of development units. Scattered-site units involve only rental subsidies and the cost of service contracts; development units incur these costs as well as development costs. On an annualized basis, the total cost of development units is \$28,138 per year compared with \$15,914 per scattered-site unit. Development costs are \$14,157 per unit on an annualized basis, and operating costs are \$13,981. Not counting development costs, costs for scattered-site units were higher than those for development units (\$15,914 vs. \$13,981), both because rental subsidy amounts were higher and because service contract amounts were higher.

Another question we have not been able to answer completely is the drivers of variation in costs across the projects, besides square footage. A variety of factors influence cost, not the least being that developments are spread among communities across the state. If a goal for future policymaking is cost containment, one might examine more closely particular best practices or features that may have kept cost lower among the below-average cost projects.

7.2 Benefits of PSH Development Projects

The benefits of development units may justify their additional costs, a question that was outside the scope of this study. Several factors are relevant in addressing this question, which is an area for future research. First, scattered-site units rely on private landlords, some of whom are reluctant to accept PSH tenants. To the extent that it is difficult to find units to lease, an inventory of PSH may be a valuable benefit. Second, the configuration of the units may also be a factor. Interviews with case managers and property managers indicated that on-site case management helped reduce rent loss and likewise kept tenant turnover low. This greater housing stability for PSH clients may have positive impacts such as greater employment stability and better development of social networks. It is not clear whether case management has a similar impact on tenants in scattered-site units or whether the co-location of the case managers with tenants is critical. Third, development may be necessary to serve PSH clients in a community with little rental stock that could be used for leased units. More

broadly, development may help to address affordable housing shortages that contribute to homelessness and housing instability.

7.3 Financial Sustainability of PSH Development Projects

A review of the development projects' current financial status and comparisons between projected and actual costs provide some insight into the financial sustainability of these projects. Importantly, all the properties in our analysis are currently in good financial standing. While both revenues and expenses have accelerated more rapidly than anticipated, all of the properties have remained solvent; that is, they all have sufficient cash to cover their operating expenses and debt service obligations. Continuation of project-based operating subsidies that were expected to expire has been critical to these properties' continuing financial viability.

However, some projects may become financially unsustainable in the near future. All of the Demonstration properties were financed to operate at a deficit and to draw on operating reserves over time. In some properties, operating reserves are being drained at a rate that may result in their depletion before the end of the tax credit compliance period.

This is particularly the case for projects for which operating costs increased at an unanticipated high rate. The most significant unanticipated cost increase in Demonstration projects is security costs, which in some cases is taking up close to 25 percent of the operating budget. While the initial operating budgets are not available in much detail for these projects, it appears that many of the projects did not initially project incurring significant security costs.

In addition to the near-term financial unsustainability of some projects, longer-term financial sustainability is also at risk. Without having physical needs assessments for the properties, we do not know whether replacement reserves funded by current rents have been adequate to cover the properties' capital needs without refinancing. As of the date of this analysis, it did not appear that current rental income probably would be sufficient to permit refinancing at the end of the compliance period to cover capital needs without a new allocation of LIHTC, and that additional rent subsidies that cover all the units in the properties would be required for refinancing.

Appendix A. Limitations of the Analysis

During the data collection phase a number of obstacles arose which limited the ability to answer some of the questions outlined above.

Full Development Costs

Final Cost Data. Final cost data were missing or incomplete for two projects. No final cost material was available for Colony Apartments. Further, costs for Mary Seymour Apartments were only available in a short-form that did not list costs by line item. Thus, while the final total costs for that project can be reported, costs cannot be analyzed as completely as others for which line item information was available.

Information on Operating Reserves. Supportive housing projects frequently have significant operating reserves in order to offset the risks of serving a generally low-income population and the risk that the project's revenues will not rise over time at the same pace as operating costs. Connecticut's projects are no exception. In particular, the Demonstration projects were funded with the expectation that reserves would be needed from the outset to service first mortgage debt. Thus, substantial reserves were required to pay the first mortgage. Based on documents received and conversations with CSH staff, it appears that the long-term reserves are not consistently reported in information received from CHFA and CSH. Several explanations are possible. Reserves were administered by CSH outside the ownership entity, which may be why they do not appear in cost certifications. Further, reserves for many projects were funded over time from equity payments and thus may not have been fully funded at the time of the cost certification. Nonetheless, they are costs of developing the project and should be included here.

This report reflects the best data available on the amount of the operating reserves culled from the Mortgage's Certificate of Final Costs from CHFA, LIHTC cost certifications, and auditors' reports to the extent they were available. Nonetheless, in several cases, it appears the amount of the reserves has not been fully stated, thereby understating the total cost of the project. In particular, Liberty Commons, a Demonstration project, appears to have underreported reserves. The reserve is reported at \$108,931 in the cost certification; however, this is significantly less than the other Demonstration projects. Liberty Common's funding application requested more than \$1 million for reserves, and material obtained for the operating cost study performed previously by VIVA Consulting show a reserve with a balance of more than \$1.2 million by 2003. Because of this, Liberty Commons is excluded from the analysis in the report.

Costs at Time of Application vs. Final Costs

Copies of the original applications for funding were not available for many projects, and CSH expressed concern that because many projects applied several times, some of the applications Abt/VIVA received might not be the original applications. Given the concerns about the data, the client requested that the analysis of projected cost to final costs not be performed.

Reporting on Development Sources Used

Information on project funding sources was not available for the following projects:

- Cedar Hill Apartments
- Fairfield Apartments
- Liberty Commons
- Colony Apartments
- Sound Community Services
- Groton Family
- Leeway Condominiums
- Women's Center

The report reflects all projects for which source data was available. It should be noted that total sources will not exactly match total costs.

Contributing Factors to Cost Variations

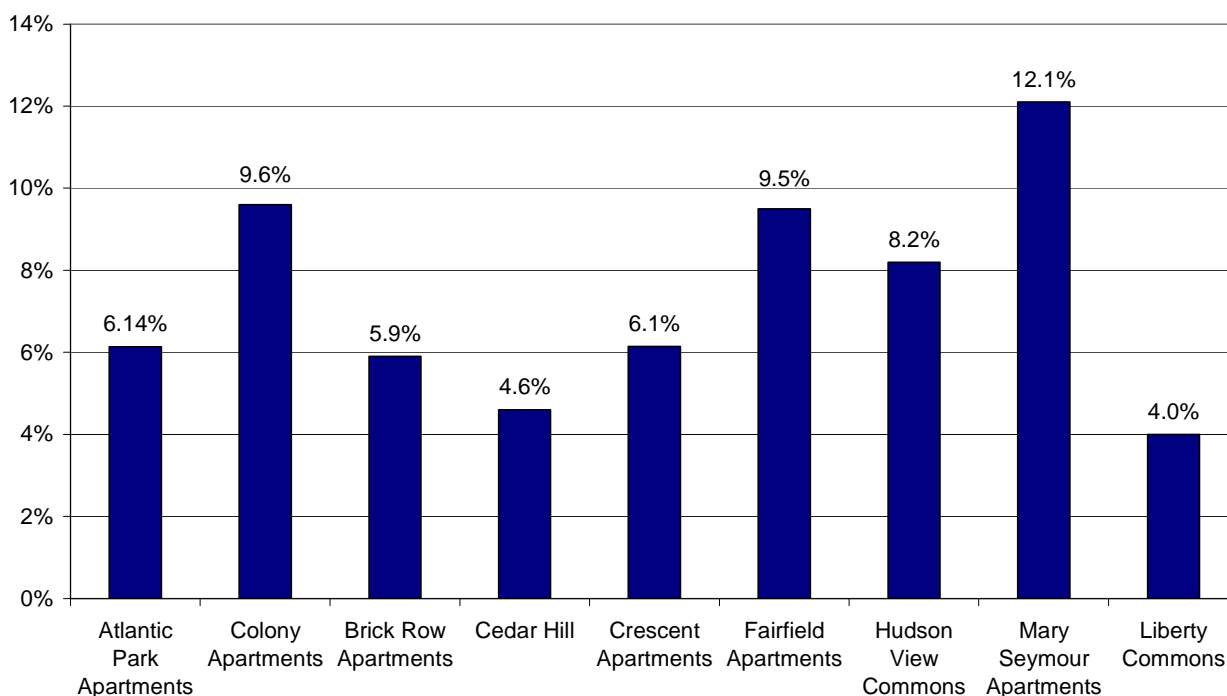
The report attempts to examine factors which may contribute to variations in cost; however, the small sample size (seven Demonstration projects and 11 Pilots/Next Steps projects for which data was received) makes firm conclusions difficult. The projects occurred in two distinct time periods: the Demonstration projects commencing in the late 1990s and Pilots/Next Steps projects some ten years later. Given the gap in time and associated changes in costs, adjustments for inflation were required in order to compare projects to each other. This was done using the Producer Price Index for residential construction.

Additionally, information was not available on one factor often posited to be a major determinant of cost variations: whether projects paid prevailing wages or not. Finally, there was little variety in project location, another factor frequently cited in cost variation. All the Demonstration projects are in urban locations and 9 of the 11 Pilots/Next Steps projects are in urban locations as defined by CHFA.

Appendix B. Demonstration Project Operating Expenses

On average, projects have seen their operating expenses (including administrative costs, management fee, maintenance, utilities, taxes and insurance) increase by 7.4 percent per year between their first year of stabilized operations and 2008. NEF's underwriting assumptions were that operating expenses would trend upward at a 4.0 percent annual rate. In fact, only one project (Liberty Commons) has met that target, while expense trending for the rest of the portfolio has varied widely. Exhibit B-1 shows the annualized rate of expense growth from each property's first year of stabilized operations through 2008.

Exhibit B-1. Annualized Operating Expense Increases



Expense trends do not seem to relate to location or sponsor. For example, St. Luke's Lifeworks is the sponsor for both Stamford's Hudson View Commons and Mary Seymour Apartments, but their expenses have trended at 8.2 percent and 12.1 percent respectively. A similar situation exists in Bridgeport: the Central Connecticut Coast YMCA sponsors Crescent Apartments and Fairfield Apartments whose expenses have trended at 6.1 percent and 9.5 percent respectively. Crescent Apartments and Fairfield Apartments also have the same management agent.

Exhibit B-2 illustrates the 2008 per-unit operating expense totals with and without security. All expenses are in 2008 dollars. Per-unit expenses are calculated as the three-year average of 2006-2008 expenses, with 2006 and 2007 amounts adjusted by the CPI to 2008 levels.

Exhibit B-2. 2008 Per-Unit Operating Expenses, With and Without Security

	Total Operating Expenditures	Total Operating Expenditures without Security
Average	10,553	8,977
Minimum	7,937	6,692
Maximum	13,166	11,891
Standard deviation	1,714	1,407
Avg Annual Rate of Change	7%	6%
Min. Rate of Change	4%	4%
Max. Rate of Change	12%	10%

Security varies more between the properties than any other operating cost. Security costs range from \$0 at Brick Row Apartments in Willimantic to \$3,576 per unit at Atlantic Park Apartments in Stamford, as shown in Exhibit B-3. Eight of the nine projects maintain a front desk presence, many 24 hours a day, seven days a week. This is typically a minimum wage or modestly paid (\$8 to \$10 per hour) position. Residents often staff the position. A desk clerk may work and live at the same or different properties.²⁰

Exhibit B-3. 2008 Per-Unit Security Costs

Property Name	Per-unit Cost for Security: 2008	Location
Atlantic Park	3,576	Stamford
Colony Apartments ²¹	1,275	Stamford
Mary Seymour	2,286	Hartford
Fairfield Apartments	2,154	Bridgeport
Crescent Apartments	2,051	Bridgeport
Hudson View	2,254	Hartford
Cedar Hill	593	New Haven
Liberty Commons	0	Middletown
Brick Row	0	Willimantic

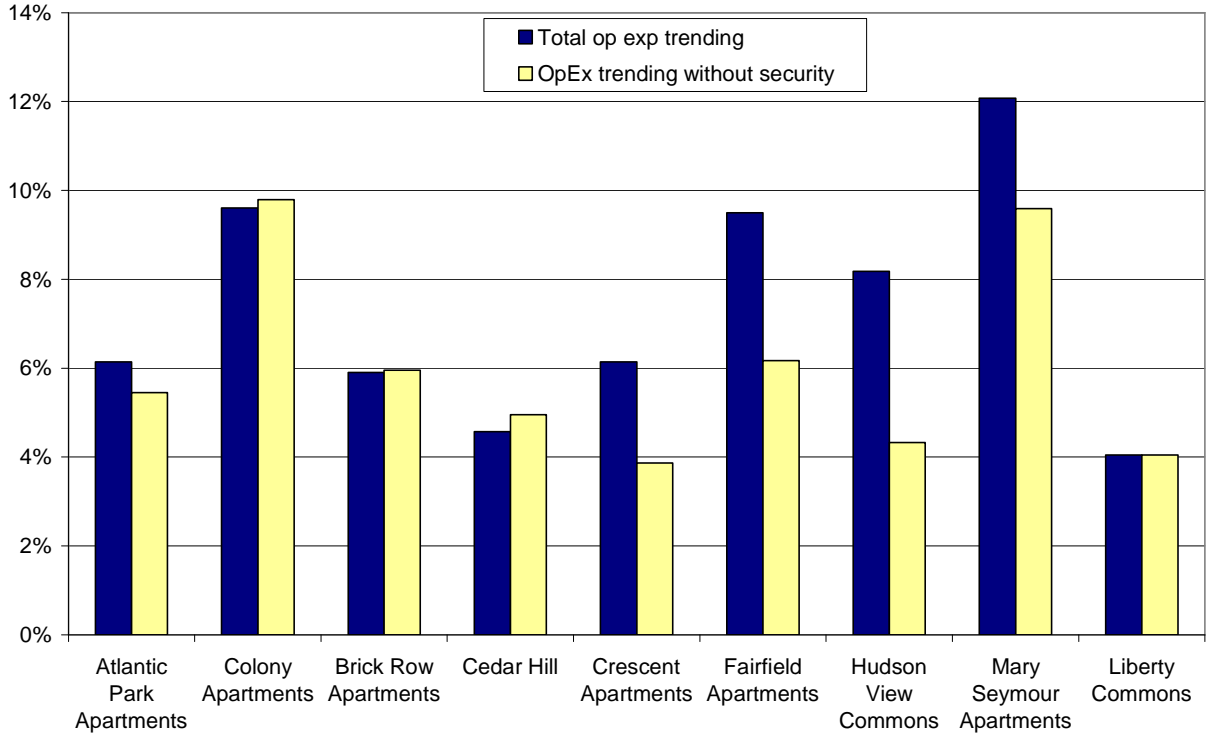
Note: Per-unit costs are a three-year average of costs between 2006 and 2008, with 2006 and 2007 dollar amounts adjusted by the CPI to 2008 levels

²⁰ One property audit, Liberty Commons, accounts for all of its maintenance and security staff expense in the same janitor and cleaning payroll line item, which results in overstating its maintenance staffing expense and understating its security staffing expense.

²¹ Security costs for Colony Apartments are almost certainly significantly understated, since in 2007 accounting for security costs appeared to have been shifted from the Security line item to the Maintenance Payroll line item, significantly driving the three-year average reported here.

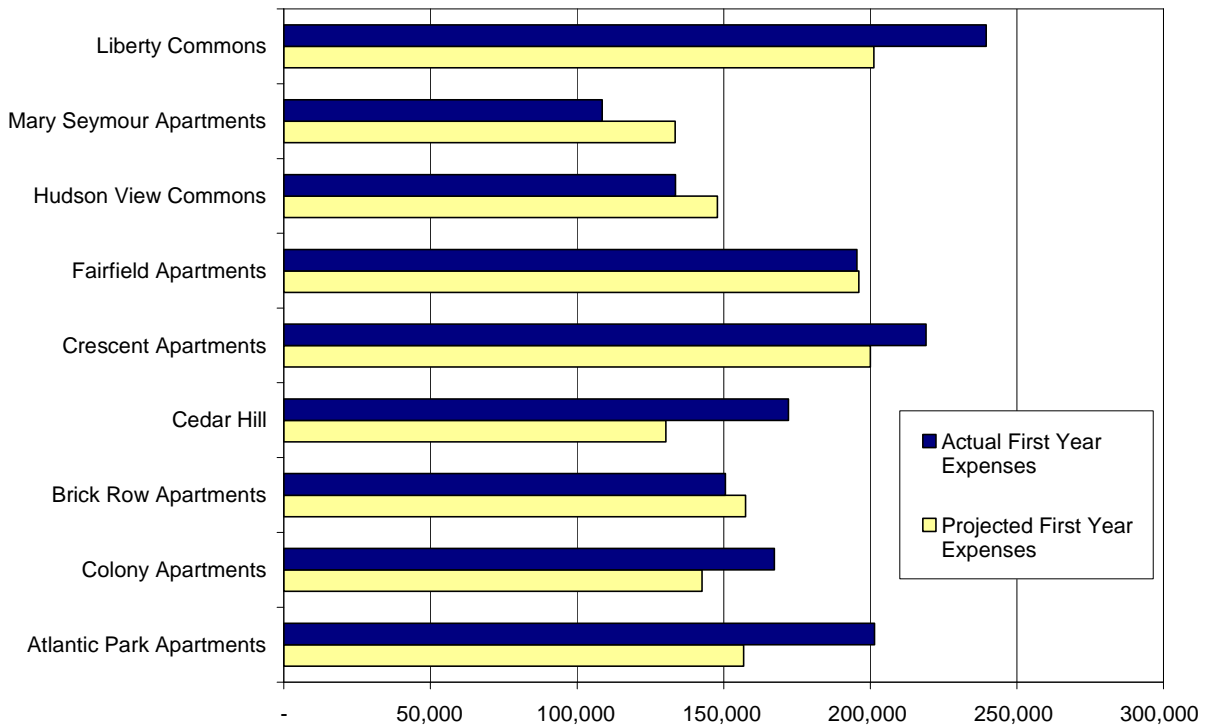
Security, 15 percent of project operating costs in the average, is in fact the expense wildcard for these properties. Initial operating projections provide only limited line-item detail; but a review of the audit history shows that security costs have fluctuated enormously from year to year within some of the projects, with some developments adding security costs only after the properties had been in operation for several years. When security costs are removed from the mix, the rate of change of operating costs is somewhat narrower (Exhibit B-4).

Exhibit B-4. Operating Expense Trending With and Without Security



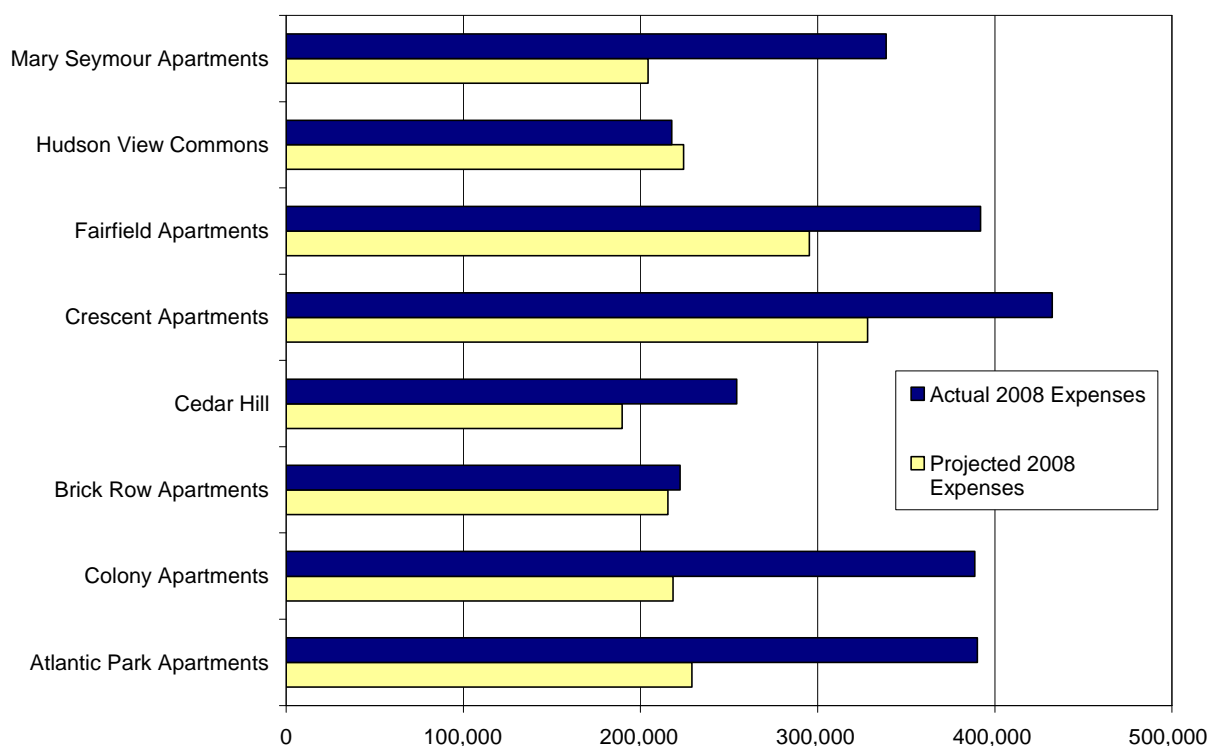
Expenses were greater than projected right from the beginning (Exhibit B-5).

Exhibit B-5. Projected Versus Actual Expenses, First Year of Stabilized Operations



Expenses averaged 108 percent of projections in the projects' first stabilized year of operations. By 2008 expenses were, on average, 139 percent of what was originally projected for that year (Exhibit B-6).

Exhibit B-6. Projected Versus Actual Expenses, 2008



Exhibits B-7 through B-10 summarize the major categories of operating expenses as well as some specific operating expenses such as management fees, audits, individual utilities, real estate taxes and insurance. They are calculated as the three-year average of 2006-2008 expenses, with 2006 and 2007 amounts adjusted by the CPI to 2008 levels.

Exhibit B-7. 2008 Per-Unit Operating Expenses: Administrative

	Admin Staff	Mgmt Fee	Audit	Total Admin
Average cost per unit per year	740	533	196	2,196
Minimum per unit per year	260	432	108	1,699
Maximum per unit per year	1,629	599	251	3,122
Standard deviation	470	68	47	473
Avg rate of change, occupancy – 2008	2%²²	3%	1%	3%
Min. rate of change, occupancy – 2008	-8%	-4%	-4%	-1%
Max. rate of change, occupancy – 2008	14%	9%	6%	10%

²² Administrative staffing rate of change calculations excludes both Hudson View and Liberty Commons, both of which included Administrative Staffing costs in their audits only sporadically.

The average rate of change for administrative costs was 2 percent, below the 4 percent trending projected. Four of the properties actually saw nominal dollar decreases in administrative staff costs over time. Management fees and audit expenses were more consistently comparable across properties.

Utility expenses were highly variable, with properties suffering rate spikes in some years (for example, electricity costs jumped, on average, 15 percent between 2007 and 2008). Overall, utility costs trended more steeply than anticipated: electricity increased at an average annualized rate of 6 percent between project occupancy and 2008 and gas costs increased at an average annualized rate of 8 percent; water and sewer came in under projections at 2 percent annualized increases. This study did not investigate utility consumption, as important a driver of operating costs as are utility rates. Average per-unit costs in 2008 dollars for the major utilities are shown in Exhibit B-8.

Exhibit B-8. 2008 Per-unit Operating Expenses: Utilities

	Electricity	Water & Sewer	Gas
Average cost per unit per year	916	176	682
Minimum per unit per year	496	66	483
Maximum per unit per year	1,132	271	866
Standard deviation	214	73	148

Maintenance payroll, like administrative payroll, has large variability, as do many of the maintenance category line items. Some property managers are inclined to hire contractors for specific needs such as snow removal, landscaping, plumbing, and electrical work, maintaining minimal staffing. Others have more staffing and fewer contract services, a choice that would reduce payroll line items but increase contract lines, so the impact of this choice on overall costs could go in either direction. Also, as noted earlier, there is variability in how auditors categorize maintenance payroll expenses. Some include security expense within a maintenance line item such as janitorial payroll; most report security payroll separately. Security is included with maintenance expenses on the audits, and thus security is incorporated in the maintenance totals presented in Exhibit B-9; the inclusion of security is the reason why the overall trending for total maintenance costs is so steep. (As noted above, a number of the properties added security costs only several years into operations.)

Exhibit B-9. 2008 Per-unit Operating Expenses: Maintenance

	Maintenance Payroll	Extermination	Total Maintenance
Average cost per unit per year	1,182	61	4,254
Minimum per unit per year	487	0	1,774
Maximum per unit per year	2,833	230	6,393
Standard deviation	942	75	1,401
Average rate of change, occupancy-2008	3%	N/A	10%
Minimum annualized rate of change	N/A	N/A	3%
Maximum annualized rate of change	N/A	N/A	205

Real estate taxes and insurance have experienced average annual rates of change higher than the 4 percent projected. Both increased, on average, at a 5 percent annualized rate. Insurance typically has a comparable cost across properties, but has a fair amount of variability among these properties, despite their similarity in size and type.

Exhibit B-10. 2008 Per-unit Operating Expenses: Taxes and Insurance

	Real Estate Taxes	Insurance
Average cost per unit per year	775	514
Minimum per unit per year	338	171
Maximum per unit per year	1,160	1,136
Standard deviation	322	271
Average rate of change, occupancy-2008	5%	5%
Minimum annualized rate of change	-8%	-10%
Maximum annualized rate of change	18%	17%