

## BOOK EXCERPT

### SOME COSTS OF HOMELESSNESS

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JUST AS THE SIZE of the United States' homeless population is difficult to calculate, assessing the economic and non-economic costs of homelessness is a complex arithmetic. The direct economic costs include federal, state, and local government expenditures for housing, social services, public works, police and jails, food, and medical care. These government outlays are supplemented by private-sector expenditures by churches and other charitable institutions. In addition to money paid out, forgone economic opportunities enter into the costs of homelessness. Cities whose downtown streets are inhabited by homeless people, for example, forfeit sales tax and other revenue when homelessness leads to a decline in tourism or falling sales at local businesses.

The noneconomic costs of homelessness are both personal and social. Among communities, these include a degradation of the quality of life in public spaces where the homeless congregate. Among the newly homeless, the fiber of everyday life is entirely disrupted; dignity, choice, and ties to family and neighborhoods are lost. Those who remain homeless for long periods suffer a deterioration in mental and physical health, difficulties in finding and retaining employment, and a gradual alienation from everyday society. This chapter first looks at some of these costs, using

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San Francisco as an example. It concludes with a discussion of the cost of building housing for the homeless.

By far the largest share of costs for dealing with the homeless is borne by towns, cities, and counties. While other cities have a greater number of homeless, San Francisco, which is both a city and county, has the largest population of homeless people per capita of any city in the United States. Most of the federal government's allocation for homelessness goes directly to cities, and the overall federal contribution is small: \$1.1 billion in fiscal 2002 (in contrast, the defense budget was approximately \$350 billion). New York City spent \$300 million on its shelter program in 2002, and this sum constitutes only a portion of the city's expenditures on the homeless. In 2001 San Francisco, a city one-tenth the size of New York, spent over \$200 million on the homeless. This sum does not include the \$100 million spent to acquire existing dwellings or to build new permanent affordable housing, or the \$100 million general obligation bond passed by voters in 1996 to create new affordable housing.<sup>1</sup> Half the \$200 million was spent on direct services to the homeless, including funds used to operate shelters, drug and alcohol rehabilitation programs, outreach, and other social programs, as well as a general assistance payout of up to \$395 per individual per month. The other half went to city agencies that respond to the consequences of homelessness, including the police department, hospital emergency rooms, and sidewalk-cleaning units. By the city's count, San Francisco had a population of 7,100 homeless in October 2001; by simple division, then, the city spent \$2,300 per homeless person per month. That sounds quite generous, equivalent to a month's rent for a very nice two-bedroom apartment in the city or a thirty-night stay in an inexpensive hotel (or, double occupancy, at a good hotel). When local reporters and politicians did the math, they were outraged at the sums. But simple division fails to take the pattern of expenditures into account. When a homeless person is admitted to a hospital, the cost is approximately \$450 a night, or \$3,150 a

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1. Patrick Hoge, "Squalor in the Streets," *San Francisco Chronicle*, November 4, 2001, and U.S. Conference of Mayors, "San Francisco: Creating Affordable Housing Opportunities in America's Most Expensive Housing Market," *U.S. Mayor Newspaper*, February 12, 2001, <http://www.usmayors.org>.

week. Thus while the sickest of the homeless received thousands of dollars of needed medical care, other homeless people received less than \$400 a month in assistance. A good portion of the money that the city spends “on the homeless,” moreover, goes to cleaning up after street-dwellers, not to finding them a place to live.

The cost of keeping someone in a residence is far less than the cost of returning him or her to one. Once a person becomes homeless, the “homeless system” is activated, and with it the cost of services, shelter, and emergency assistance. The cost of an affordable, subsidized dwelling in New York is \$700 per month, or \$23 per day; the cost of accommodating a family in a shelter is \$100 per day.<sup>2</sup> By the mid-1990s, the national average cost of a bed in an emergency shelter was over \$8,000 per year, more than the payout of federal housing subsidies under Section 8 of the Federal Housing Act, administered by the Department of Housing and Urban Development (HUD), which subsidizes the difference between market rents and what qualifying low-income families can afford to pay.<sup>3</sup>

### I. DEALING WITH DIRT

In a survey conducted during the summer of 2002, San Franciscans ranked homelessness as their city’s most pressing problem—above crime, housing costs, and unemployment.<sup>4</sup> The San Francisco Convention and Visitor’s Bureau mounted a \$50,000 billboard campaign imploring officials to clean up the streets, arguing that mean, dirty streets threatened tourism and convention business;<sup>5</sup> in response, the city’s board of supervisors passed a law banning public urination and defecation. The gesture, though understandable, ignores the simple facts of life: What facilities are people living on the street supposed to use? What economic or en-

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2. Patrick Markee, *Rental Assistance for Working Homeless New Yorkers: A Cost-Effective Way to Reduce Shelter Capacity and Save Taxpayer Dollars* (New York: Coalition for the Homeless, 2001).

3. Office of Policy Development Research, *Evaluation of the Emergency Shelter Grants Program, 1: Findings* (Washington, D.C.: U.S. Department of Housing and Urban Development, 1994).

4. Ilene Lechuk, “Anger over Homeless Boosts Newsom,” *San Francisco Chronicle*, August 6, 2002.

5. Donald A. Fox, “How Do You Spell Relief?” *San Francisco Chronicle*, July 26, 2002.

forcement interest is served in fining a person who is destitute? Is it the best use of police officers' time to have them ticketing homeless people for public urination? Having to use the street is humiliating, and using the street as a public toilet is sometimes a statement of despair, anger, and defiance. As one homeless man put it: "After all the hassles I go through out on the street, you gonna tell me I can't do the most basic things a man has to do—where I want and when I want?"<sup>6</sup>

Several years ago, recognizing that tourists and residents also needed public facilities, the city purchased and installed some twenty sophisticated coin-operated, self-cleaning public bathrooms. Twenty-five cents buys twenty minutes in one of these \$200,000 French-designed devices. The toilets have been effective in certain areas of the city, but some are used by addicts and prostitutes; others malfunction and sit idle, awaiting repair. As a result, many neighborhoods have barred the city from installing them. One local minister suggested that the city hire homeless people to monitor activity and summon police when necessary (perhaps by analogy with bathroom attendants, which are common in Europe and not limited to fancy hotels or restaurants); the proposal was ignored.

To clean street defecation, San Francisco acquired seventeen heavy-duty sidewalk-scouring devices, known as Green Machines, at a cost of about \$25,000 each. The Green Machines can clean only horizontal surfaces, however, and some defiant homeless people have responded by positioning themselves so that their waste is smeared on storefront windows; the machines cannot keep up with the mess. A few storeowners have granted the homeless permission to sleep in their stores' entryways in exchange for serving as nighttime "guards." The guards are given a bucket to use as a chamber pot, and they clean their buckets every morning. But most storeowners use gates to close off their storefronts. Downtown streets that were once a lively mixture of display windows and elegant entryways have become a continuous line of metal at night.

In addition to purchasing the Green Machines, San Francisco spent over \$650,000 in 2001 to deal with almost a thousand

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6. Kevin Fagan, "Urinetown: Not the Musical," *San Francisco Chronicle*, October 21, 2001.

shopping carts left unattended in public places.<sup>7</sup> Contaminated needles pose the greatest threat to the city workers assigned to this task, but under the blankets and clothes they also find feces, rats, and lice. For the general public, the carts are noisy eyesores and health hazards; for the stores that own the carts, the loss of their use and the cost of reclaiming and decontaminating them are an added expense. For the homeless, however, shopping carts serve as closets, dresser drawers, linen closets, and cupboards, as well as purses, briefcases, or backpacks. The carts are convenient, available, and mobile spaces for the short-term and long-term storage of clothing, bedding, utensils, photographs, and memora-bilia—indeed, everything that they own, unless they have left items with friends or are among the few who band together to rent a storage locker. Because homeless people have so little, they are fiercely protective of what they do have. In recognition of that fact, city workers carefully remove and inventory the items when they confiscate the carts; the items are stored for ninety days, during which their owners may reclaim their property. This system was instituted after some homeless people accused city workers of stealing their belongings. Local attorneys, working pro bono, filed suit on behalf of the complainants. One homeless man accepted a \$2,950 settlement for the loss of two Persian rugs and a laptop computer that he claimed had been in his cart when it was seized.<sup>8</sup> For the city, settling the case was less expensive than going to court, and the new inventory system is less expensive than settling a spate of lawsuits. But the \$650,000 per year that the city spends on confiscating carts and processing their contents do nothing to reduce the number of homeless in the city. That same \$650,000 could cover the cost of building ten units of transitional housing.

The carts are but one instance in which the needs of homeless people—here, the need to transport and protect their meager belongings—conflict with the desires of the general public, which expects clean, unobstructed sidewalks. Putting aside the fact that the carts are stolen, both sides have legitimate claims. What might seem a simple issue—getting the carts off the streets—has complex public health, political, and legal implications.

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7. Patrick Hoge, "Carted Away," *San Francisco Chronicle*, October 21, 2001.

8. *Ibid.*

*II. LOSS OF USE*

Public spaces—streets, sidewalks, plazas, and squares—are intended to be used by all. But in many cities residents have in effect ceded portions of various public spaces to the homeless. Non-homeless people do not enter these spaces unless they must, and then they walk through them at a quick clip. Rousting homeless people from public spaces during the day is problematic; since the homeless have nowhere to go, rousting them simply puts them somewhere else. New York City mayor Rudolph Giuliani was credited with cleaning up Manhattan in the 1990s, and indeed, there were far fewer homeless to be seen on the upscale shopping streets and near the corporate headquarters; they were sent to the outer boroughs, where most of the new shelters were built.

Nonetheless, all citizens have a right to be in a public space during its hours of operation as long as they adhere to certain basic norms of behavior, even if their presence makes others uncomfortable. The conflict between the desires of the general public and those of the homeless has become particularly pointed in some public libraries.

Among the most ingenious features of San Francisco's urban design are the alleys that run between major streets. Intended as service roads, they also provide light and ventilation for offices and stores that extend from the main street to the alley. In many of these alleys, groups of homeless reside among the dumpsters and parked cars; some use the alleys for sleeping, others treat them as bathrooms. The stench is sometimes so overpowering that people in the adjacent buildings never open the windows that face the alley. For some, this loss of use has an additional cost: deprived of natural ventilation, they use more air conditioning.

Union Square, situated in the heart of San Francisco's upscale shopping district, reopened in 2002 after a \$25 million redesign. The square needed an upgrade, but one of the principal factors in the selection of the new design was to make the space less attractive for homeless people and to make their presence easier to monitor. The old Union Square had hedges and benches that were not visible from the street; forty years ago, the square was a haven for men living in nearby residential hotels, who

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would spend much of the day sitting on the benches, reading (Figure 1). By the 1980s, however, these men were replaced by the homeless, who would lie unseen among the hedges. Shoppers walked along the perimeter of the square, rather than through the plaza, to avoid the homeless. The new, open design (Figure 2) is more inviting for shoppers and tourists; it is very deliberately not a welcoming place for the homeless. Although the redesign of Union Square, like the redesign of other public areas, such as Bryant Park in New York City, reclaims a highly visible public space, merely dispersing the homeless does nothing to solve their problems.

What price are we willing to pay to make the homeless less visible? Are we willing to pay the costs for stricter enforcement of vagrancy laws? And if we are, are we then willing to build more jails for the scofflaws? If we spend less on critical care for the homeless, could we devote more resources and provide more attention to others with medical needs? Or would the money that we are tempted to spend on removing vagrants from our view be better spent providing them with transitional and permanent housing?



**FIGURE 1** Union Square in San Francisco in the 1960s. Men living in nearby residential hotels often spent their days sitting in the square.



**FIGURE 2** Union Square today. The redesign opens up the space, making sitting areas clearly visible from surrounding streets.

### *III. HOW SHOULD WE SPEND MONEY ON HOMELESSNESS?*

Most would agree that the money being spent on remedying the impact of the homeless on the urban environment does little to reduce homelessness. If we could set aside some of that money, how might it be better spent? Simply building housing does not address the situation of low-income individuals who need job services, nor of those who are ill and need mental health and medical services, nor of single mothers with young children who need child care. Social services will continue to be a necessary component of assisting the homeless, but the homeless, by definition, need a place to live.

The most cost-effective means of combating homelessness is to prevent the loss of a home. Offering low-interest loans or housing subsidies and curtailing evictions are less expensive than building new facilities. Yet creating new housing for those who become homeless is also part of the solution. The continuum of care, of which services are a vital element, also comprises shelters, supportive housing (perhaps in single room occupancy hotels



[SROs]), and other types of independent permanent housing. In each instance, thoughtful architecture is a necessary component of the solution: if the places we build do not meet the needs of the residents and those who work with them, and if the facilities and those who occupy them are rejected by their communities, the expenditures will have been wasted.

#### A. What Does Housing Cost?

Construction constitutes a smaller portion of the overall cost of a building than one might think: land purchase, financing, and “soft” costs are higher than bricks and sticks. Here’s a simple example. Jo buys a piece of land for \$100,000 and intends to build a two-thousand-square-foot, three-bedroom house on it. She hires an architect (a good thing to do) and a contractor. The overall cost for the contractor is \$150 per square foot, or \$300,000. Of that, approximately 15 percent, or \$45,000, represents the contractor’s overhead, so the construction component is around \$255,000. The architect, engineer, building permit, and other nonconstruction costs add at least another 20 percent of the \$300,000 (that is, \$60,000) to the total. The overall cost of Jo’s house will be a little over \$460,000. She will likely finance as much as 75 to 80 percent of that amount. Payments on a thirty-year mortgage will cost her about \$2,000 per month for 360 months. At the end of that time she owns her home (which presumably is worth much more than it cost), but she will have paid nearly \$720,000 on the mortgage; she thus likely paid \$500,000 more than the cost of the actual construction (\$255,000), which is only around 30 percent of the total.

The overall costs unrelated to construction increase as the size and scope of the project increase. The soft costs of new shelters like those discussed in the previous chapter will be several million dollars; these include costs not usually associated with building a house, such as an environmental impact report, public hearings, and special building inspections by the health department and the department of social welfare.

#### B. Reducing Costs

Many have posited that moving much of the work from the site and into a factory would reduce the cost of building housing. Certainly reducing the extent of on-site construction and stan-

standardizing the product give builders more control over material and labor costs, and work can continue regardless of the weather. The quality of manufactured housing (known colloquially as mobile homes) has improved over time, and the industry continues to provide single-family housing at a cost far lower than that of housing constructed on-site. Nonetheless, there are limits on the economies obtainable through manufactured housing.

Manufactured homes, because of their structure and the materials used in their manufacture, are generally limited to a single story, so a large expanse of land is required in order to place an economically feasible number of units on a site; few such sites are available within or near cities that are close to jobs, transportation, and social services. One could create a factory-produced module that achieves higher density, but doing so would obviate the cost-efficiency of housing manufactured within a factory. Such a module requires either a separate independent structure onto which dwelling-sized modules can be placed (Figure 3) or stronger walls to support additional modules (Figure 4). It also requires variation in the overall product in order to take necessary advantage of diverse site configurations and contexts.



**FIGURE 3** Mobile homes are less expensive than construction housing, but their single story limits their use to low-density areas. A few have attempted to overcome this inherent limitation, as in this 1960s demonstration (SkyeRise Terrace by the Frey Building Company), by placing the units onto a concrete support structure.



**FIGURE 4** Each module of Habitat in Montreal supports several others. The structure needed to support these modules makes the Habitat model more costly than other forms of manufactured housing.

Factory-produced low-cost housing has not been widely adopted in the United States, yet many continue to proffer this as a solution for the homeless. San Francisco builder Jim Reid has created a small, fully equipped dwelling (Figures 5 and 6) modeled on the emergency cottages set up in San Francisco's parks after the 1906 earthquake (Figure 7). Reid sees his 300-square-foot mini-houses as an option for housing the homeless, but their costs (estimated by Reid at \$50,000 per unit, including land purchase and infrastructure) approach those of higher-density conventional buildings; Reid himself acknowledges that

only a few should be set up in one place.<sup>9</sup> Dennis Davey has designed similarly small-scale houses (called “Hom4Me”) that take their inspiration from mountain cabins rather than from the Victorian cottages of Reid’s design. With a floor area of 225 square feet, Davey’s cabins are constructed of prefabricated panels and can be assembled in three days at a unit cost of \$13,000.<sup>10</sup> These low-rise, low-density houses are a useful option where space is available, but they are not a feasible solution in cities, where the cost of land is generally high, and the low density does little to satisfy the housing need.



**FIGURE 5** Jim Reid’s small self-contained houses are modeled on cottages built as temporary accommodation for those left homeless by the 1906 San Francisco earthquake.

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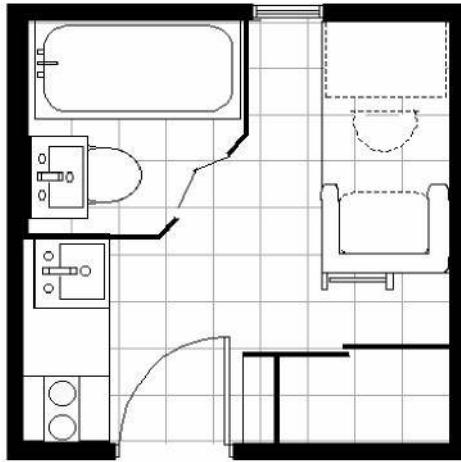
9. Phillip Matier and Andrew Ross, “S.F. Activist Opens Tiny Door to Homeless,” *San Francisco Chronicle*, September 25, 2002.

10. Kenneth R. Tremblay Jr., “Innovative Housing Solutions for Homelessness,” *International Journal for Housing Science* 25, no. 1 (2001): 59–65.

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**FIGURE 6** Plan of one of Jim Reid's houses, proposed as permanent accommodation for the homeless in San Francisco.



**FIGURE 7** Earthquake cottages in San Francisco, ca. 1906. Hundreds of these small dwellings housed those who lost homes in the San Francisco earthquake and fire. Some were later moved to other sites and remain in use today.

Acknowledging the limitations of manufacturing entire dwellings, some builders manufacture elements of buildings in factories, for subsequent assembly on-site. At the Bishop Francis A. Quinn Cottages in Sacramento (designed by the late Brent Smith for Mercy Housing), each resident has a narrow, one-bedroom cottage that was partially constructed off-site and assembled on permanent foundations. A cottage of 375 square feet costs approximately \$60,000—as much as a unit built entirely on-site. Because each is a separate dwelling and no walls are shared, and because a site can accommodate only a small number of units, this method of housing construction results in little cost savings. Furthermore, the dwellings are too small to serve other functions, so this modest complex of sixty single-story units includes a separate community building (where classes, group meals, and social service are provided), thereby increasing development costs.<sup>11</sup>

Walls that must accommodate manufactured windows, doors, electrical outlets, or finishes require skilled installers, and each piece must be designed for a specific position in the building. The less variation, the lower the cost, but the specificity of the program, site, and size often militates against repetition. Regulatory and political constraints also make factory production problematic. If major components are manufactured, perhaps in another jurisdiction, who is responsible for their inspection? A project required to use union workers, as many government-funded buildings are, would presuppose a unionized factory. These issues also limit the economic advantages of the product.

Finally, one of the most important obstacles to factory production is the nature of the homebuilding industry in the United States. Large builders focus primarily on high-end, single-family developments, but the industry is in fact composed largely of small independent contractors, each minimally capitalized. These builders rely on a floating labor force and on subcontractors to perform specific tasks, such as mechanical and electrical work. Contracting is primarily a construction management enterprise. Most contractors have few regular employees, and they generally do not own the heavy equipment required to lift and install

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11. Telephone interview with Chris Glauzel of Mercy Housing, July 3, 2003.

room-sized modules; rather, they work with small building components such as wood studs and beams, lightweight premanufactured trusses, or bricks, which can be handled by a few people and less-expensive equipment.

The factory system presupposes a repetitive product and a large, guaranteed market. The product must therefore appeal to a wide variety of buyers, be acceptable in many communities, transportable over long distances (at a reasonable cost) to reach its market, and be adaptable to different site conditions. These characteristics hold true for cars and refrigerators but not for housing, and particularly not the kind of housing that the homeless need. Shifting construction to factories would reduce costs by only a modest amount, and the savings would be limited to the enclosing structure, which constitutes less than a third of construction costs. Factory production might reduce these costs by 10 percent. In Jo's house, with its "hard" construction cost of \$255,000, that would amount to \$7,600, or a little more than 1 percent of the \$720,000 overall cost of the project.

The character of the construction industry is reflected in its products and equipment: power nail-guns, manufactured windows, bathtubs with integral wall panels that do not require tiling, and sheets of material such as plywood that are easily acquired and handled by a few workers; such products can even be found at the increasing number of consumer-oriented do-it-yourself outlets. In spite of its decentralized nature, the building industry is highly integrated. Lumber, nails, and other building components are standardized and universally accessible. Each component is small, not merely so that it can be handled easily but also to permit flexibility in assembly. All types and configurations of building are possible within this system, so that local building codes and regional preferences can be accommodated.

Still, there are ways to reduce the cost of buildings even within this seemingly infinite choice of components. Repetition saves money; if we design buildings that use a recurrent structural span—the space from wall to wall—then each spanning member can be cut to the same length, saving time and materials and reducing the risk of construction error. Contractors love this consistency, and they reflect this preference in their prices. Similarly, if we build a multi-unit building with identical kitch-

ens and bathrooms throughout, then the cost of cabinets, appliances, plumbing, and electrical work will be reduced. If this is a multistory building, and each of these units stacks directly above the other, there is even more efficiency.<sup>12</sup>

If we construct several identical buildings, better still. Materials, appliances, doors, windows, and precut lumber can be stockpiled. This is how the rapidly growing extended-stay hotel industry works. Its buildings are essentially SROs with individual units, each with a kitchen and bathroom. Their owners or financiers find sites that can accommodate the plan of each basic building, requiring few design variations. As a result, a studio unit costs approximately \$43,000 to build, one-third less than a comparable unit in a site-specific urban SRO.<sup>13</sup>

This approach to construction, however, does not lend itself to building housing for the homeless. First, it would take a nationally organized effort to ensure that these economies are realized. The needs of diverse populations in cities throughout the United States would have to be satisfied by a single prototype building, but homeless populations are not identical, and such a centralized, organized, and capitalized effort is not feasible to the same extent that it is for the hotel industry. Housing for the homeless, moreover, must meet local needs and regulations; it depends heavily on local funding and operates within the context of local programs; and it must be accepted by the community. Although guidelines can ensure that what gets built meets programmatic needs, the buildings themselves are nonetheless unique to their sites.

Universities have discovered this reality. University housing, directed largely toward a constituency of unmarried students without dependents, comprises a limited number of forms similar to the types of housing we might build for the homeless: dormitories with shared bathroom and dining facilities, suites, or SROs. Dormitories are to some extent similar to transitional shelters or boardinghouses, suites resemble apartments with on-site program spaces, and SROs are essentially the same as

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12. Sam Davis, "Why Affordable Housing Isn't," in *The Architecture of Affordable Housing* (Berkeley and Los Angeles: University of California Press, 1996), 63–81.

13. Telephone interview with Mark Gallen, West Regional Director for Construction for StayAmerica, August 8, 2002.



the supportive housing model. But the per-bed cost of university housing construction is very expensive—often twice the cost of comparable models for the homeless. At the University of California, Berkeley, for example, building a new dormitory cost nearly \$80,000 per bed, while a new transitional housing project in nearby Marin County with many similar features cost \$40,000 per bed.<sup>14</sup> The difference between the materials (and type of construction) conventionally used for dormitories and transitional housing—respectively, concrete frame and wood—accounts for only 3 percent of the difference in their costs. Nearly 10 percent of the university’s higher cost is the result of the institution’s oversight apparatus—more bureaucracy—and self-imposed requirements; the latter include adherence to the university’s urban design and planning guidelines, which reflect both community pressure and institutional expectations. Another major difference is the overall building efficiency—the ratio between usable (assignable) space and the overall (gross) built space. University buildings, such as Berkeley’s dormitory, typically occupy a limited space, which obligates these institutions to construct tall buildings. Taller buildings need additional space for stairways, elevators, hallways, and a heavier frame to support this added weight, all of which reduce efficiency. The actual living space in Berkeley’s new dormitory constitutes only 62 percent of the building. Although the pattern of dormitories on urban university campuses is not unique, the buildings themselves, defined by their setting, are.

Other forms of institutional housing, however, are more cost-efficient. Minimum-security prisons can be built at a low cost per bed—the state of Oregon built several such facilities during the 1990s for as little as \$22,000 per bed<sup>15</sup>—and they have several structural features in common with emergency shelters: large sleeping wards, classrooms, exercise spaces, and dining

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14. “Summary of Financial Feasibility Analysis,” Berkeley, University of California, Office of the President—Committee on Grounds and Buildings and the Committee on Finance, prepared for the University of California Housing Colloquium, University of California, San Diego, March 22, 1998.

15. Telephone interview with Randy Geer, construction administrator for the Oregon Department of Corrections, July 27, 2002. Minimum-security prisons have many collective programmatic features similar to those of homeless shelters, including sleeping wards, large dining facilities, and classrooms. The state of Oregon constructed several such facilities in the 1990s.

halls. But minimum-security prisons are built on large tracts of flat land, and they usually comprise a single floor with few hallways; most are based on a replicable prototype. The buildings are stand-alone and do not need community approval, as would a housing project for the homeless within an urban neighborhood.

In the absence of feasible models for reducing the costs of building housing for the homeless, another approach is to reduce the quality of the materials. Compromising on the quality of the materials used in construction, however, offers few cost savings. The main difference between expensive housing and modest housing is in the quality (and cost) of finishes—cabinets, windows, lighting, countertops, and floors. The principal structural elements—walls, roofs, and foundations—are uniform, and construction techniques and building codes apply equally to supportive housing for the homeless and a luxury condominium. Furthermore, if we consider the long-term cost of housing, including maintenance and repair, there is little to be gained by trying to do it with low-quality materials.

### C. Housing Type and Cost

Some types of housing are inherently more expensive than others on a square-foot basis. The larger the dwelling, the lower the unit cost. If we are creating supportive housing for homeless single adults and the program calls for individual studio units, then each will have a small kitchen and a bathroom—the most expensive elements in a dwelling. A building comprising a hundred units will require a hundred kitchens and bathrooms: each unit might have a floor space of only 500 square feet, but the cost of these expensive components must be accounted for in this small area, driving up the overall cost. On the other hand, building a hundred two-bedroom apartments of 800 square feet each still requires the same hundred kitchens and bathrooms. The square-foot cost of the studios will be higher than the two-bedroom apartments, although the net cost will be lower since the building is smaller.

Why is this an issue? Building costs are often calculated in dollars per square foot. This measure is a convenient means of establishing an overall budget before construction begins, since it establishes a unit cost for a program that defines how much space

is needed. Sometimes building costs are expressed as a cost per bed, in order to relate construction costs to the number of people served. In the example above, the cost per bed of studio units will also be higher than that of two-bedroom apartments. The assumption is that the studio will house one person while the apartment will house three or four (one or two adults and two children).

Developers of housing for the homeless (as well as the facilities' neighbors) often prefer to limit the number of residents and the size of the building. A smaller project is easier to manage, better adapted to delivering social services, and perceived to have less impact on the community. But the smaller the project, the higher the unit cost, whatever the measure. Staging construction—getting the equipment and laborers on the site—creates a considerable initial expense, but the relative initial cost decreases with a larger building. The first square foot of construction is much more expensive than the last. If the overall building project is small, economies of scale cannot be realized. Small may be beautiful, but it is also costly.

Given these measures, individual studios for homeless adults are costlier than most other types of housing, whereas the costs of housing for homeless families will be comparable to conventional apartments. Supportive housing with services onsite incurs additional costs for the nonhousing space. Budget constraints thus often result in buildings that place the homeless in collective living situations in which elements such as kitchens, bathrooms, and even bedrooms are shared. In most instances, moreover, this form of housing is not well suited to the population it is intended to serve.

Housing for the homeless has one other economic obstacle. Sites for such use are usually not prime land (otherwise a developer would have snatched them up long before), and they often come burdened with features that increase costs. The best sites on which to build economically are rectangular and flat, with good soil that has no traces of toxic chemicals (the cleanup of which imposes substantial costs on the owner or operator). In an ideal world, neighbors accept building on the land, and the site is unencumbered by other regulatory obstacles such as historic designation. But such an ideal group of circumstances is rare, and rarer still when building affordable housing or housing for the home-

less. More often, affordable sites are burdened with major technical or political problems. Even if a site is available at no cost (perhaps donated or underwritten through a redevelopment agency), considerable expenses will likely be incurred in developing it for use. Those who build the housing have little flexibility: the facilities must be situated where there are homeless, where there are services that homeless need, and where the zoning regulations allow the facilities to be built.

#### D. So What Should We Do?

First, we have to accept that there is no such thing as affordable housing. Building is building, and a wood stud costs the same whether placed in a luxury condominium or in housing for the homeless. The building codes are identical, as are the methods of construction. Of course, a market-rate dwelling is likely to be larger, but floor area is a minor issue in overall cost. The quality of the finishes will be better as well in a market-rate dwelling, but we still need high-quality construction if housing for the homeless is to be sustainable and acceptable in communities.

In fact, subsidized housing is often more expensive to produce than market-rate housing. The reasons why this is so include the physical configuration of sites typically available for subsidized housing, the need to use high-quality construction to ensure that the housing will fit into communities and not deteriorate, and the generally modest size of most subsidized housing projects. This does not mean that we should ignore ways to keep costs down. The challenge is to build as efficiently as possible while meeting the programmatic intent: to provide dignified places in which to live.

##### *1. Variety within Uniformity*

Some uniformity is necessary to keep costs down. There is little benefit, for example, in building an SRO with fifty unique units. The building may comprise two or three different unit types, perhaps reflecting different occupant profiles (single adults, families, or disabled occupants). The site configuration may preclude replication of a single unit throughout the building: an L-shaped site, for example, would result in an inside-corner unit that is by necessity different in configuration from those along the

length of the L. But even with three unit types, there is little reason to make each bathroom and kitchen unique.

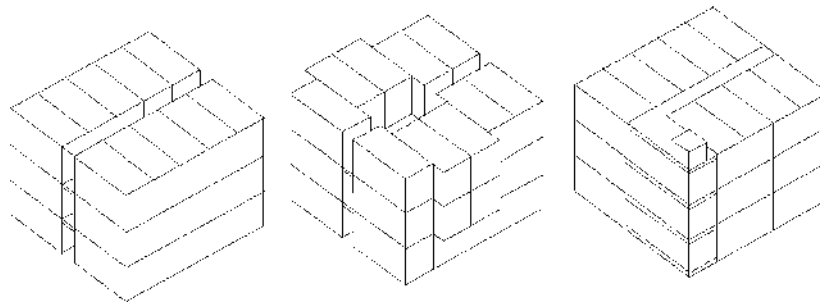
A simple building can be architecturally interesting. Units placed on the corners can be slightly modified to take advantage of the opportunity for another window. Minor variations in the plan enliven the exterior, providing visual diversity while creating special spaces within. The bay window is an obvious example. A bay protruding from the facade of the building is an extension of the human activity within—a recognition of the individual unit within a larger complex (Figure 8). From the interior, the bay can be a source of additional daylight, an extension to a room, or a reading or eating nook.



**FIGURE 8** Bay windows are a relatively inexpensive means of enlivening facades and bringing light into dwellings.

Varying the disposition of the units within a basic plan can provide visual interest, both at the building's exterior and in the interior usable space, at minimal cost (Figure 9). Removing a single unit at the end of a corridor of aligned units brings light into the corridor and creates a common space that is usable by

all the occupants. This common space might be differentiated from the dwellings by a distinct window, indicating that there are large and small, public and private spaces within. In a multistory building, this stack of common rooms can become a separate architectural form, placed at a prominent corner that signals the entry to the building. Simply shifting some dwellings outward so that they project from the building's facade creates a larger area along the corridor and enlivens an otherwise uniform plane. The interior space might be a vestibule at the entry to several units, facilitating chance meetings and a sense of community.



**FIGURE 9** Variety is possible even in repetitive units. The simple double-loaded corridor building (left) is relieved both inside and out by a slightly projecting unit (center). Placing public rooms on the corner (right) creates a distinctive entry for the building and provides a common space for each floor's residents.

These design strategies cost more than a simple box, but they maintain the essential repetition of the units and the overall structure, while yielding significant architectural gains.

## *2. Creative Use of What You Already Have*

All buildings have walls, roofs, windows, and doors, and architects make hundreds of choices for each element. A wall has color, texture, and thickness, and it may be punctuated with doors and windows. A window has a size and shape, as well as a frame (sometimes differentiated by color), a method of opening (sliding, double-hung, or casement), and a specific placement in the wall. The cumulative effect of these decisions is what gives a building

its architectural character. Affordable-housing architects are particularly adept at using the basic elements of a building to create distinctive forms. Varying the color of a window's frame, in conjunction with diverse window placements, can create a larger pattern, giving the building an elegance that belies its modest budget and use. Treating various lengths of a building differently can make large buildings seem as if they comprise a set of smaller structures.

Elements attached to the building can also be creatively manipulated (Figure 10). Rain must be directed away from buildings by gutters and downspouts, but these elements can be decorative as well as functional. So too can window awnings, which reduce energy costs while brightening the facade. Courtyards often have walls and trellises that define the building's territory and improve security, while creating shade and shadows that bring elements of the building into relief during the course of the day. Roofs as well provide opportunities for innovative design. Even simple flat roofs can be varied by raising some areas above others or by using cornices. Sloping roofs can be hipped or gabled, and they can have overhangs, dormers, and intersecting shapes.



**FIGURE 10** Roof overhangs, color variations, diverse windows, awnings, and vine-colored trellises add diversity to a simple structure at little additional cost.

None of these elements are mere decoration. Each has a function and must be included in the building, but the incremental cost of using these elements effectively and creatively is negligible and the benefits great. Making housing special is the value that architects add. A building that residents can be proud of and enjoy living in, and that the community welcomes, does not have to be more expensive than the alternative.

### *3. Spending Where It Counts*

Another strategy to achieve the best architecture at the lowest cost is to increase the budget for a few selected elements. To make this expenditure feasible, the other parts of the building are designed as efficiently as possible, perhaps by limiting the number of bays, or the variations on the facades. Architects often use this approach in designing shelters and transitional housing. The main functional elements of the building—sleeping areas, bathrooms, dining halls—are straightforward, but some special place, such as the chapel, is given architectural prominence. These components do not necessarily have to be buildings. Courtyards, for example, while adding to a project's cost, can serve several important functions in housing for the homeless, such as providing protected play areas for children or a community garden. The exterior walls of a building are expensive elements, since they require windows, waterproofing, a finished interior surface, insulation, and electrical wiring. A simple box encloses the greatest amount of interior space with the least amount of exterior wall, and it contains the least amount of foundation and roof for the area enclosed. A hole in that box increases the extent of the building's exterior wall, the length of its foundation, and the amount of roof. When the elements have programmatic importance, however—as a courtyard can in providing a secure common area—the added costs may be a worthy investment.

### *4. Big, But Not Too Big*

Determining the size of a facility, be it a shelter, a supportive housing SRO, or apartments, requires planners to balance the need to accommodate as large a population as possible, while ensuring each individual's access to services, within economic and



social constraints. On the one hand, a facility that can accommodate a larger number of people reduces the number of homeless. The more services provided by the facility, the more efficient its operation. Larger buildings, as we have seen, create economies of scale. On the other hand, most service providers and nonprofit developers do not have access to the level of funding that is required for large projects. Although the square-foot or per-bed costs decrease as the building area increases, larger buildings cost more, and that cost may exceed available funds.

Furthermore, communities tend to oppose the construction of very large facilities; smaller buildings that fit discreetly into communities raise fewer objections. Most who develop and operate these projects, moreover, prefer smaller facilities, which are more easily managed and often better suited to their residents. A sense of community and personal contact are more easily achieved in a fifty-unit building than in a two-hundred-unit building.

Above a certain point, larger multistory buildings require a more costly infrastructure and additional fire protection systems, as well as more elevators and additional support spaces, than do small buildings. A wood-framed structure is limited to four floors (building the ground floor in concrete raises the total to five). Costs rise considerably, however, when buildings are not framed in wood, and fewer qualified contractors are available to build these projects, making the bidding less competitive. On the other hand, building too small is not cost-effective. A small project will require the same amount of effort by the architect and the developer as a large one. Small projects will be more expensive on a per-bed basis.

The goal, then, is to balance housing as many people as possible with political and economic viability. The number of units will depend on the site, the local politics, the capacity of the service provider or developer, and the availability of funding. Most supportive housing projects comprise approximately fifty units. Shelter operators prefer to limit capacity to forty beds, but they acknowledge that this is not efficient.

### *5. Lower the Soft Costs*

In 2002, I sent a homeless housing project that I had designed out to contractors for bids. Much of the project was publicly

funded. As a consequence, contractors, in addition to offering formal bids for the project, were required to complete several forms attesting to their ability to meet the city's goals for participation by minority- and women-owned businesses in the construction. In addition, the low bidder, which by law we were compelled to accept, was required to prepare regular statements certifying that those who worked on the project in particular jobs were being paid the prevailing wage for those tasks.

These requirements, common in many cities, have worthy objectives, but their effect is to increase a project's cost. First, many contractors who had worked with me on other similar projects without such rules declined to bid on this project: they simply lacked the financial or office staff to manage the paperwork. One contractor had provided preliminary cost estimates indicating an amount far below the lowest bid, but found the prospect of compliance paperwork too onerous and declined to submit a formal bid. When the financial bids were opened, the lowest bidder's price was 10 percent less than the others; he had met the goals for city minority participation, was willing to undertake the paperwork requirements, but had filled out some of the forms incorrectly. We were compelled as a consequence to reject his bid. Ultimately the project costs exceeded the winning bid by 10 percent, a difference that had to be raised privately.

The project delivery system, which includes the selection of the architects and the contractors, is more cumbersome for publicly funded construction projects than for projects that are privately funded. The requirement that contractors must pay the prevailing wage, equivalent to union wages, can add as much as 15 percent to the construction component—a difference that far exceeds cost savings effected by strategies to reduce the cost of building. The competitive bidding of projects, a seemingly logical way to reduce costs, often has the opposite effect. The lowest bidder, although fully licensed, may not be the one best suited to the project, often resulting in errors and delays. In privately funded projects, a contractor may be selected early in the process, perhaps at the same time as the architect, and then the construction price negotiated. The contractor selection is based on several measures, including the ability to manage cost. This system allows the contractor and architect to work collaboratively during

design, choosing the best methods and most suitable materials for the construction. Some contractors or suppliers may be willing to lower their prices because they are sympathetic to the goals of the project, but only if they are not required to submit a competitive bid and manage the city-required human resources documentation, both of which are time-consuming.

City bureaucracies can affect cost in the selection of an architect. A service provider may wish to retain architects with whom they have had a good working relationship from a previous project. Their knowledge of the client and program might expedite the design and ultimately its costs. The provider alone does not make the selection: the city funding department will also be involved. The favored architects are but one firm among several considered, and their selection is not guaranteed. Bureaucracies are rarely flexible, nor do they often allow for the exercise of reasonable judgment. They are not able to adjust rules to mediate between equally worthy social and political objectives—the assurance of a union wage and participation of women and minorities in construction projects—against the social objective of helping the homeless.

All housing construction entails administrative costs. These include the developer's management costs, building permits and inspection fees, and architect and engineering fees. Some organizations or institutions, such as universities, have very high soft costs. Nonprofit and market-rate housing developers alike incur costs associated with obtaining entitlements and funding. Like the building itself, larger developers are advantaged by economies of scale, since they have more project managers and administrative support for construction. On the other hand, they must continuously build—and build large—to justify this overhead. The smaller the organization and the less reliant it is on public funding, the lower its administrative costs. But smaller nonprofit developers and service providers can manage only modest projects—and only a few at a time. Nonprofit organizations such as the Corporation for Supportive Housing and the Local Initiative Support Corporation provide assistance to those developing housing for the homeless, thereby shouldering some of the burden. Some community-minded financial institutions, such as Union Bank of

California, provide grants to assist nascent nonprofit developers through their community development projects.<sup>16</sup>

Donors want some assurances that the money they give to charity will go to those in need and not to supporting the inefficiencies of the soft costs that accompany the public money, even if it is only a small portion of the overall funding. The same holds true for building housing for the homeless. The goal is to use most of the funds for the actual construction. A project that is wholly privately funded, with fewer restrictions and lower overheads, is more efficient than publicly funded housing, but the private sector alone cannot meet the demand. Some government funding, perhaps diverted from environmental cleanup costs, will be necessary if we are to build enough housing for the current population, recognizing that with it come the expenses of regulation and management.

#### *IV. THE SERVICE-HOUSING COST RELATIONSHIP*

A study recently undertaken by the University of Pennsylvania sought to determine whether placing homeless individuals with severe mental illnesses in supportive housing reduced the cost of services. The study compared the relative costs of mental health services for housed and homeless individuals, factoring in the cost of housing. It concluded:

homeless people placed in supportive housing experience marked reductions in shelter use, hospitalizations (regardless of type), length of stay per hospitalization, and time incarcerated. Prior to placement in housing, homeless people with severe mental illness used an average of \$40,449 per person per year in such services (in 1999 dollars). Placement in housing through the New York/New York program (NY/NY) was associated with a reduction in service use of \$16,282 per housing unit per year, adjusting for concurrent changes in the controls' service use patterns. Unit costs per year for the supportive housing are estimated at \$17,277, which would result in a modest cost of \$995 per unit per year over the first two years of placement. Overall, the NY/NY initiative, which included some licensed community

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16. Interview with Robert McNeely, Vice President, Union Bank of California, June 26, 2002.

mental health residences as well, resulted in a net cost of \$1,908 per unit per year, or \$6.9 million.<sup>17</sup>

The authors are careful to point out factors that might have skewed the results, such as the possibility that the test group used mental health services more extensively in preparation for moving to permanent housing than it otherwise would have, but they maintain that the study's conclusions still hold: the group in supportive housing required fewer mental health services. One reason advanced for this result is that the resolution of their housing crisis enabled these individuals to cope with other issues, reducing both the need for and the duration of inpatient hospital care. (The study did not address whether other types of services typically used by the homeless, such as emergency food programs, might also be reduced by accommodation in supportive housing.) But it is likely that the costs of homelessness discussed at the beginning of this chapter, such as public works expenditures for dealing with shopping carts and street cleaning, court costs, and police-related expenses for crime victims, would be similarly reduced. On the subject of other benefits, the researchers suggest:

Residents of supported housing are more likely to secure voluntary or paid employment . . . and to experience an improved quality of life. Investments in supported housing have also been shown to be associated with improved neighborhood quality and property values. Last, the social value of reduced homelessness, and of providing greater social protection for the disabled, while not possible to translate into economic terms, constitutes an important if less tangible benefit to society.

Taken together, these unmeasured costs of homelessness and benefits of the housing intervention would have increased its already significant net benefit (and potential cost savings) were all such costs and benefits included in this study.<sup>18</sup>

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17. D.P. Culhane, S. Metraux, and T.R. Hadley, "Public Service Reductions Associated with the Placement of Homeless People with Severe Mental Illness in Supportive Housing," *Housing Policy Debate* 1, no. 13 (2002): 107–63.

18. *Ibid.*

The findings of follow-up studies supported these conclusions. Individuals in supportive housing used Veterans Administration services and were incarcerated less frequently than the homeless.

The Corporation for Supportive Housing has compared the relative costs of supportive housing and various forms of institutionalization. The cost of a psychiatric bed in state hospitals in New York City, Chicago, and San Francisco ranges from \$290 to \$383 per night, whereas the cost of supportive housing in these locations averages approximately \$30 per night. A night in a San Francisco hospital psychiatric ward costs \$ 570. A night in the city jail in any of these cities is two to three times that of supportive housing.<sup>19</sup>

These studies confirm what most would say is obvious: permanent housing for the homeless is cost-effective. So why are we less willing to pay for housing for the homeless when so many of us want the homeless off the street and when housing the homeless at public expense can actually save money? It is due in part to our moral ambivalence about public housing and particularly about publicly funded housing for the homeless. Public housing has a bad image. In the mid-twentieth century, the federal government built thousands of low-income units, but its cost-control mechanisms guaranteed that the housing constructed under its auspices would provide little more than shelter. The resulting large blocks of anonymous housing became decrepit and dangerous, engendering a widespread and persistent conviction that this was not a worthwhile expenditure.

Many feel that the homeless are not worthy of financial support, an attitude that dates back to the early days of shelters. The homeless are seen not as victims of circumstances, or as people with health problems, but rather as a class of individuals responsible for their own plight. In some cities there is such a dire need for affordable housing that even getting on the waiting lists obligates individuals and families to go through the homeless system. New York City has a bureaucracy that investigates those claiming to be homeless in order to ensure that they qualify for housing assistance. This perpetuates a view of the homeless as ne'er-do-wells trying to benefit from whatever society is doling out.

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19. Corporation for Supportive Housing, <http://www.csh.org/ny.html>.

We need a shift in perception and strategy. This shift will be difficult, and it will take time—time to develop the programs, time to get people into them, time to let the programs work, and time to build the appropriate housing. It will also be difficult to redirect the effort and political will to apply public funds to this housing. We still need the police, emergency services, and jails, each of which spends resources on the homeless. It is unlikely that their budgets will be redirected toward building for the homeless: convincing any agency that its appropriations should be reduced because new homeless housing will decrease its workload is a hard sell.<sup>20</sup>

In order to shift strategies, we must first accept that the vast majority of homeless do not want to be homeless; many of the homeless do not have the capacity to extricate themselves from homelessness without assistance. Even if some are scamming the system, it is a small percentage—hardly enough to indict all the others and deny them assistance. Second, we need to acknowledge that we already spend public money on housing when we view the occupants as deserving, as is the case for students in public universities, or because doing so protects our quality of life, as in the case for prisoners.<sup>21</sup> Third, we need to change our approach away from spending large amounts of money in order to cover up homelessness and its effects—trying to make it invisible—and instead redirect our efforts toward solutions that will deal with the causes. This means building housing and support facilities.

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20. Culhane, Metraux, and Hadley, “Public Service Reductions.”

21. Student housing is subsidized through land costs (zero, since the land is already owned by the institution), and need-based scholarships most often cover room and board. Colleges and universities also benefit from state or federal underwriting of bonds to fund construction.

## ILLUSTRATION CREDITS

Figure 1	Photograph: Sam Davis
Figure 2	The Philips + Fotheringham Partnership
Figure 3	Photograph: Elmer W.J. Frey
Figure 4	Architect: Moshe Safdie Photograph: Sam Davis
Figure 5	Photograph: Jim Reid
Figure 6	Redrawn from <a href="http://HabitatfortheHomeless.com">HabitatfortheHomeless.com</a> Jim Reid, designer
Figure 7	Courtesy of the Bancroft Library, University of California, Berkeley
Figure 8	Architect: Herman & Coliver Photograph: Sam Davis
Figure 9	Sam Davis
Figure 10	Davis & Joyce Architects