

Using Pay for Success to improve outcomes for the persistently homeless in Sacramento

Feasibility study, analysis, and roadmap

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About this report

This report is the result of a study commissioned jointly by the City of Sacramento, Supervisor Patrick Kennedy of Sacramento County, and Sutter Health. It is an attempt to better understand a key segment of the homeless population in Sacramento—those who are high utilizers of the County and City’s services—and assess the value of scaling up intensive supports for that population.

About Social Finance

Social Finance is a 501(c)(3) nonprofit organization dedicated to mobilizing capital to drive social progress. We believe that everyone deserves the opportunity to thrive, and that social impact financing can play a catalytic role in creating these opportunities. We design and manage public-private partnerships that tackle complex social challenges, such as achievement gaps, health disparities, and prisoner recidivism.

Core to our work is the development of Pay for Success financing, also referred to as Social Impact Bonds. An innovative funding model, Pay for Success helps to measurably improve the lives of people in need by driving resources toward better, more effective programs.

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Executive summary

There is a large and growing movement in Sacramento to reduce homelessness. And yet, doing so is remarkably difficult. In part, this is due to the multifaceted nature of the challenge. Those living on the streets are there for both individual reasons and for impersonal, macroeconomic reasons: because they can't find work and can't afford rent; because the housing market is tight and getting tighter, driving up prices; because they have uncontrolled substance use disorders or other acute behavioral health challenges; because they're fleeing from domestic violence; because they are not eligible for housing programs.

Homelessness is an individual tragedy, but it is also costly to communities. Some costs, like shelters and housing programs, are reasonably well understood. Others are more opaque, like the expenses to the criminal justice and healthcare systems. These costs accrue to the County, its cities, the State, the Federal government, local businesses, and the homeless themselves.

The wide dispersion of these costs makes prevention and remediation complicated. More than other community challenges, homelessness reaches across government agencies, networks of nonprofits, clinics, and hospitals, and their arbitrary divides.

This report attempts to better understand these costs in Sacramento. To do so, the Social Finance team—with invaluable support from partners in County and City agencies, and with the close partnership of Sacramento Steps Forward—integrated data on program utilization from Sacramento's system of care for the homeless, the County's behavioral health services and jail system, and the City's public ambulances and Police IMPACT team. We found that costs were concentrated in a relatively small group of individuals. The top 250 highest-utilizing “persistently homeless”¹ individuals cost the City and County over \$11M in 2016 alone, or over \$45,000 per person.² And these figures are conservative; they do not represent the full breadth of County and City services, and they are focused on local (versus State or Federal) expenses.³

These findings echo research conducted elsewhere in California. Los Angeles County, a pioneer in targeting services toward high-volume service utilizers, found that the top 5% “most expensive” individuals averaged over \$50,000 per year to the County, nearly eight times more than other homeless individuals.⁴ In Santa Clara County, a 2015 report identified 2,800 persistently homeless individuals that cost the County ~\$83,000 each per year.⁵ While each study (and others like them nationwide) includes

¹ Throughout this report, we use the term “persistently homeless” to describe a population of individuals that have long-term challenges with homelessness, are frequent utilizers of the County and City's services, and are highly vulnerable. This population overlaps with but is more expansive than HUD's definition for “chronically homeless,” which entails a documented disability and continuous homelessness for a year (or homelessness four or more times totaling at least 12 months over the past 3 years).

² See report for more detail on methodology of these estimates. Cost estimates derived separately for each system, using various program costing methods. Baseline costs also include two relatively small “non-specific” costs—that is, those not identified at the individual level, but rather averaged across the population. Approximately \$4,000 are derived from the average per-person homeless impacts to various City and County general programs, such as Parks and Recreation or the District Attorney's office; another ~\$3,800 is derived from victimization costs, capturing the cost to society of various criminal acts, including both “tangible” costs (e.g., direct economic losses, property damage) and “intangible” costs (e.g., productivity loss, quality of life).

³ This analysis does not include certain local costs (e.g., correctional health, policing and patrol, probation, child welfare, and others), benefits that accrue to the State and Federal governments or to private stakeholders (e.g., emergency medicine, state prisons, and others), or many social benefits for individuals and the wider community (e.g., the economic impact of homelessness, both to local businesses and to homeless individuals themselves).

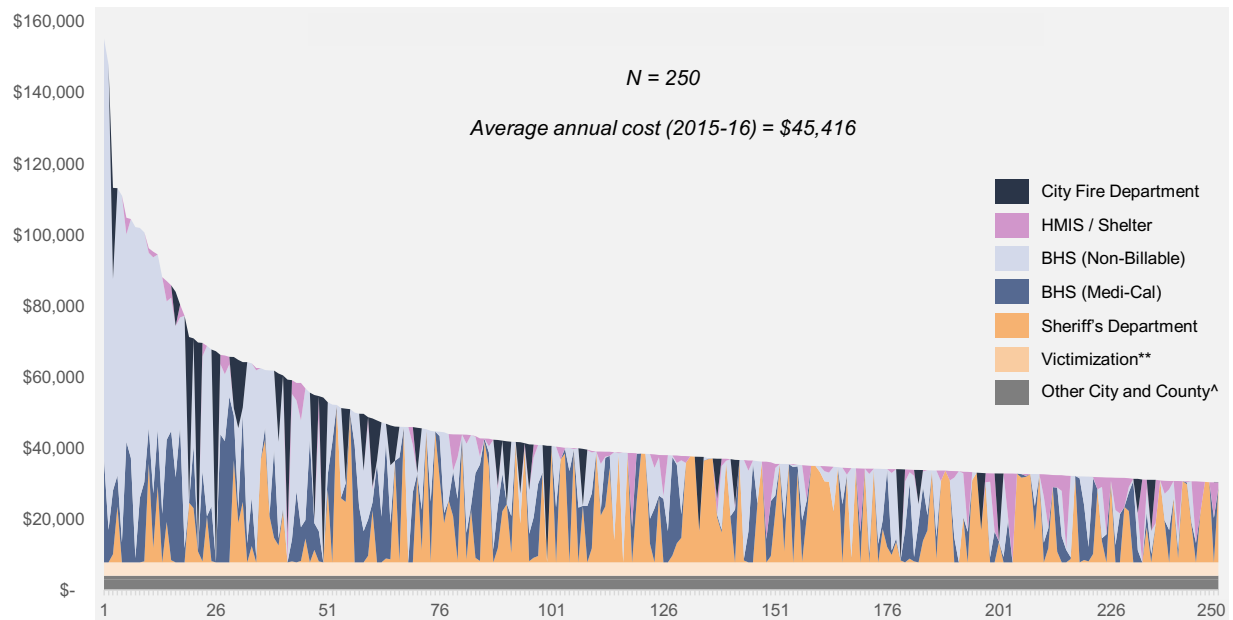
⁴ See, for example, Dr. Fei Wu and Dr. Max Stevens, “The Services Homeless Single Adults Use and their Associated Costs: An Examination of Utilization Patterns and Expenditures in Los Angeles County over One Fiscal Year,” Los Angeles Chief Executive Office Service Integration Branch, Research and Evaluation Services Unit, 2016.

⁵ Daniel Flaming et al., “Home Not Found: The Cost of Homelessness in Silicon Valley,” Economic Roundtable, 2015.

somewhat different target populations and data sources,⁶ each point to significant concentrations of emergency resources being spent on a narrow population of persistently homeless individuals.

In Sacramento, as elsewhere, those highest-utilizing individuals were costly to local systems, and often touched multiple systems in a given year.

Figure 1. Average annual cost to Sacramento County and City public systems across top 250 individuals (2015-16)^{7,8}



Individuals ranked by total average annual cost of service utilization

This concentration of cost within such a limited population suggests that even highly intensive, and expensive, interventions may ultimately create benefits—both economic and social—for the County and

⁶ The examples cited define “high utilizers” somewhat differently both in terms of population definitions (e.g., whether the population is defined as “chronically homeless”) and services included within “utilization.” In terms of costs, both LA and Santa Clara include some degree of physical health costs as well, as reflected in the costs of their public hospitals and health systems, whereas these estimates do not. We do, like LA, reflect some degree of non-County spend in the cost concentration analysis (see footnote below), particularly with regards to shelter costs and billable behavioral health costs, but remove these during the cost-benefit analysis.

⁷ Average annual cost calculated by averaging individual costs across analyzed systems in 2015 and 2016. Note, per above, that cost estimates are not exhaustive. Notable omissions include physical healthcare (deprioritized in part due to limited expected County/City budget impact), correctional health costs (which we were not able to access during this analysis), and any reflection of impact on economic development. While costs are primarily locally focused, some (such as billable BHS costs) may be reflective of other jurisdictional budgets; in the cost-benefit analysis, these costs are removed. “PSH-fit” estimated by reviewing 2015-2016 HMIS records, excluding individuals with any days spent in permanent supportive housing over the past 12 months, as well as those lacking (non-PSH) HMIS interactions in last 12 months, and focusing on those with longer and more-acute needs exhibited by a chronically homeless flag in HMIS and/or a recorded VI-SPDAT score >14 and/or a history of homelessness greater than one year.

⁸ Graphic inset notes: (**) Victimization estimates intended to calculate the cost to society of various criminal acts, both “tangible” costs (e.g., direct economic losses, property damage) and “intangible” costs (e.g., productivity loss, quality of life). Total victimization costs based on list of primary charges for top 250 highest utilizing persistently homeless individuals in 2015-16; for the sake of clarity (to smooth otherwise highly variable data), they have been averaged among this population, rather than applied to the relatively limited set of specific individuals to whom these victimization costs can be attributed. (Note that many charges, including most drug- and alcohol-related charges, do not incur a direct victimization cost.) Average victimization cost based on estimates from McCollister et al., “The Cost of Crime to Society: New Crime-Specific Estimates for Policy and Program Evaluation,” *Drug Alcohol Depend*, 2010; 108(1-2): 98–109. (^) Assumes that high-utilizing homeless populations generate at least average costs to other County and City agencies. Includes non-specific core County costs (such as DHA – Admin, DHA – Aid Payments, Code Enforcement, Regional Parks, District Attorney) and City costs (Police IMPACT team, Parks and Recreation, City Manager) averaged across 2016 point-in-time count population. Key sources: Sacramento Steps Forward, Sacramento Sheriff’s Department, Sacramento Behavioral Health Services, Sacramento City and County Cost of Homelessness Estimates, McCollister et al.

the City if they are effective. Tertiary prevention strategies⁹ can help to avoid expensive emergency costs, while improving outcomes for the most vulnerable homeless individuals.

To better assess that proposition in Sacramento, Social Finance reviewed a wide set of interventions appropriate for this population, and the evidence associated with each. In the course of our review, we prioritized interventions with strong evidence of effectiveness, and with codified program models that could be replicated with fidelity to that evidence. We highlight in this report one highly evidenced, intensive intervention, Permanent Supportive Housing with Assertive Community Treatment. Through multiple randomized and observational studies, and across decades of research, these interventions have demonstrated consistent impact on housing stability, behavioral health, hospitalizations, and criminal justice outcomes for homeless individuals.¹⁰

Permanent Supportive Housing, as the name suggests, is composed of both permanent, affordable housing and wraparound supportive services. Housing often leverages both existing units and new development and draws together a variety of funding streams, including federal housing subsidies. Supportive services typically include intensive, often on-site, case management, along with clinical care, substance use counseling, behavioral health treatment, assistance in securing and retaining employment, and more. Permanent Supportive Housing programs typically offer choices of decent, safe, and affordable housing; bring together integrated teams of care providers; and use a “housing first” approach that avoids preconditions, such as sobriety or mandatory participation in services. Assertive Community Treatment is a team-based model of providing supportive services, often bringing together social workers, skilled nurses, substance use counselors, and coaches. It uses low ratios of caregivers to participants, and typically involves significant in-home treatment, and a “whatever-it-takes” approach to avoid escalating everyday challenges into crisis situations.

Permanent Supportive Housing models have demonstrated significant evidence of impact. In a 2007 randomized controlled trial of over 400 adults in Chicago, those in the intervention group exhibited lower need for residential substance use treatment, emergency room visits, and prison days over 18 months.¹¹ A meta-analysis the same year uncovered six randomized trials suggesting that ACT demonstrated large effects in reduced homelessness and psychiatric symptoms.¹² Observational studies have found greater effects still: a study of Permanent Supportive Housing for 100 chronically homeless individuals in Denver, for example, resulted in a 76% reduction in jail days.¹³ Dozens of studies have demonstrated the impact of Permanent Supportive Housing on housing stability and a variety of other participant outcomes.¹⁴ Other exciting models have recently been launched: in Los Angeles, for example, the Department of Health Services has developed a program that brings together Permanent Supportive Housing, intensive case management, and a flexible housing coordination system in a program called Housing for Health. In the three years since launch, it is on track to provide housing for ~2,500 individuals.¹⁵

⁹ Primary prevention strategies which prevent homelessness in the first place, or secondary prevention strategies which rapidly reconnect families and individuals to housing before they become high utilizers, have significant promise as well. However, for the proposed target population—the persistently homeless who are most costly to Sacramento—a focus on reducing the impact of chronic, complex challenges is likely the right first step toward self-sufficiency.

¹⁰ See “Intervention and target population assessment” section for additional detail on the evidence underlying this intervention.

¹¹ Anirban Basu et al., “[Comparative Cost Analysis of Housing and Case Management Program for Chronically Ill Homeless Adults Compared to Usual Care](#),” *Health Serv Res.* 2012 Feb: 523–543.

¹² Dr. Craig Coldwell et al., “[The Effectiveness of Assertive Community Treatment for Homeless Populations With Severe Mental Illness: A Meta-Analysis](#),” *The American Journal of Psychiatry*, Volume 164, Issue 3, March 2007: 393–399.

¹³ Reference accessed from The Corporation for Supportive Housing, “[Pay for Success Feasibility Report: ECHO Austin/Travis County](#),” 2016.

¹⁴ For a comprehensive summary of relevant literature, see Substance Abuse and Mental Health Services Administration, “[Permanent Supportive Housing: The Evidence](#),” US Department of Health and Human Services, 2010.

¹⁵ LA County Housing for Health, “[Flexible Supportive Housing Pool](#).”

Sacramento has been active in scaling these kinds of models. A number of Permanent Supportive Housing programs, such as the Department of Veterans Affairs' VASH program or the County's Shelter Plus Care, are in place, as are intensive case management programs, such as Sacramento's Full Service Partnerships. And new initiatives are underway to increase access to such programs. Yet, they are not targeted specifically toward the highest-cost persistently homeless individuals.

Based on our review of the evidence supporting Permanent Supportive Housing models matched with intensive case management (in particular, Assertive Community Treatment), we modeled the potential value of scaling this program to reach 250 of Sacramento's highest-utilizing homeless individuals. The results of that analysis are broadly encouraging: a reasonable estimate of the program's impact suggests that it is likely to reduce reliance on shelters, inpatient psychiatric hospital care, jail bookings, days incarcerated, ambulance rides, and rates of crime and victimization. On average, we expect that the total value of these improvements to the City and County is over \$13,000 per person per year, while their expected incremental local cost is likely ~\$11,000.^{16,17}

Figure 21. Estimated impact of permanent supportive housing with intensive case management on key County / City costs

	Baseline Cost ¹⁸	Expected change	Estimated benefit
Shelter system	\$2,130	70% decrease in shelter days	\$1,490
Criminal justice	\$11,160	43% decrease in incarcerated days / bookings	\$4,800
Victimization costs	\$3,760	43% reduction in victimization costs	\$1,620
Behavioral health	\$21,370	25% reduction in psychiatric hospital days	\$3,770
EMS transports	\$2,940	25% reduction in EMS transports	\$740
Additional expected City and County costs	\$4,060	20% reduction in additional costs	\$830
Total	\$45,420		\$13,250
		Expected delivery cost	\$11,000
		Net benefit	\$2,250

¹⁶ The expected benefit calculation of this analysis works from the baseline costs collected in the methodology described above, and applies an effect size extracted from the intervention literature. The expected impact assumptions, and therefore the expected benefit shown below, represent mid-range estimates from the literature; as outlined in the Appendix, a range of effect sizes have been found for each of the outcomes detailed. In this calculation, effect sizes are applied only to outcomes that the literature suggests Permanent Supportive Housing can impact. Thus, not all baseline costs will be impacted. For example, the majority of the County's behavioral health costs are not emergency services, but rather outpatient supports; we see no compelling evidence that these costs will go down. Indeed, due to the nature of the intervention, the total costs spend on outpatient services will increase, driven by new resources with will come with scaling services for permanent housing. On the other hand, many inpatient services will see a decrease, as more persistently homeless individuals are moved into stable housing and given access to intensive supports.

¹⁷ See "Delivery cost estimation" section for more detail on assumptions and sensitivity. We estimate the total cost of delivery to be ~\$17,000-23,000 per year. Delivery costs estimated from Sacramento stakeholder and service provider interviews, and: LA County's Flexible Housing Subsidy Pool, which estimates that the total rental subsidy and rental administrative fee for clients is ~\$12,600 per year, and total cost of high-acuity care (at 20:1 ratios) is ~\$5,400 per year. Abt Associates, "Flexible Housing Subsidy Pool Brief: Evaluation of the Conrad N. Hilton Foundation Chronic Homelessness Initiative," 2017. Researchers at Columbia estimated that in New York City, the total cost of affordable housing, rental subsidy, and services was ~\$23,200. Dr. Angela Aidala et al., "Frequent Users Service Enhancement - 'Fuse' Initiative: New York City Fuse II Evaluation Report," Columbia University Mailman School of Public Health, 2014. On the higher end of the spectrum, researchers at CSH estimate that, in Austin Texas, the cost of an intensive permanent supportive housing program is ~\$28,550, unadjusted for rental subsidies or Medicaid reimbursement. The Corporation for Supportive Housing, "Pay for Success Feasibility Report: ECHO Austin/Travis County," 2016. Sacramento's Fair Market Rent (2017) is ~\$8,650 for an efficiency unit, and \$9,850 for a 1 bedroom. County estimates suggest that such a program would require ~\$5,400 per year in services support, and \$8,180 per person in property related services and housing subsidies. Sacramento County Board of Supervisors, "County of Sacramento Initiatives To Reduce Homelessness," 21 March 2017. In our analysis, we assumed that a 250-person intervention would have access to 150 HCVs; that housing in Sacramento could require a modest "top-up" and a housing services coordinator in order to secure rental in a tight market; that some individuals—particularly individuals who would not be otherwise eligible for permanent supportive housing, such as those who have spent significant time in jail or prison, or those without documented disabilities—will require the full cost of housing; and that ~50% of supportive services will be billable to Medi-Cal. Medi-Cal billing rates come from experiences of national permanent housing thought leaders, including those implementing Pay for Success projects around the country. Note that these costs do not include a specific allocation for administration, technology services, or other startup costs.

¹⁸ Average annual costs to relevant systems by persistently homeless individuals across calendar years 2015-16.

This finding comes with crucial caveats. First, baseline costs from which this figure is derived are not comprehensive: they do not include, for example, correctional health costs, which would accrue to the County; the costs from other cities within Sacramento; or major State and Federal costs, most importantly the expense of physical healthcare. It follows, then, that the estimated benefit of intervention is similarly understated. Second, the actual benefits of such a program could be significantly higher or lower than the midpoint derived from prior studies. Quality of implementation, local demographics, and economic context all influence the effect actually achieved. Finally, estimates vary depending on the characterizes of the individuals served: while the above assumes a joint City-County view of costs and targeting, separate jurisdictional programs could pursue their own programs and approaches to targeting individuals, and doing so will change the overall cost-benefit equation. We present a breakdown of these estimates and sensitivities later in the report.¹⁹

The cost of scaling up such a program is significant. While our research suggests that intensive treatment services typically range from ~\$7,000 – 10,000, and permanent housing and placement typically costs ~\$10,000 – 12,000 per year, many of these costs are supported in part through State and Federal programs, including Medi-Cal and Housing Choice Vouchers (HCVs). In a reasonable scenario, in which approximately half of case management service costs are reimbursed by Medi-Cal and 150 HCVs are used, we estimate that the model would cost local government ~\$11,000 per person—15% less than the ~\$13,000 in expected value generated through the program.

The primary cost-benefit analysis described above was developed around a joint targeting approach, in which the City and County jointly establish the list of high-utilizers, and engage in a coordinated outreach and enrollment. Such an approach would focus on the highest-cost utilizers across the widest distributions of cost—finding where the concentrations are greatest, and would therefore produce the strongest cost-benefit. However, if Sacramento County and the City of Sacramento pursue separate targeting approaches, we believe each likewise has the potential to create significant value to its respective jurisdiction.

The economics of targeting individuals using County-only costs look broadly similar to the joint methodology, because County-level costs are key drivers of the total local costs of homelessness. The average annual cost for a high-utilizer from the County-only perspective was ~\$42,000 over calendar years 2015-2016 (versus ~\$45,000 for a joint targeting approach). The County would also continue to benefit from the majority of the intervention's impact (with the exception that it would benefit less from shelter reductions than in the joint approach, because the City funds part of Sacramento's shelters, and would not benefit from City ambulance use reductions). The County's proposed Flexible Supportive Rehousing Program, similar in many ways to the Housing for Health program outlined above, and leveraging a similar targeting approach to that described here, is well positioned to capture these benefits. On the whole, we estimate the net cost-benefit for the County to be slightly less than break-even—noting again that these estimates do not include the potential benefits to correctional health, other County agencies, or other jurisdictions—while producing significantly better outcomes for the persistently homeless.²⁰

¹⁹ See, "Return on investment approach" section for additional details, jurisdictional estimates, and sensitivities.

²⁰ We estimated total costs of the model to be ~\$11,000 per person as described above. Benefits to the County are based on medium-level effect sizes from the literature, and spread across impacts to the jail system (bookings and bed days), behavioral health system (psychiatric inpatient days), shelter system (emergency shelter days), and additional costs (victimization and miscellaneous). Total benefits of this program accruing to the County estimated at ~\$10,000. Assumes County receives 20% of total emergency shelter benefit, 50% of total victimization benefit, and 75% of miscellaneous benefits.

A City-centered targeting approach would significantly change the project economics and targeting, focusing on individuals who are frequent users of City Fire’s ambulances and/or frequently use the shelter system. On average, this population costs the City ~\$19,000 per year. Much of the local benefit of a program oriented toward this population would accrue to the Federal and State government (via Medi-Cal and reductions in incarceration to prison) and to the County (via reductions in behavioral health and jail costs). The estimated benefit to the City, then, of scaling a program like the one we describe would offset about \$0.30 for every dollar spent.²¹ Such a program could create better outcomes for the persistently homeless, but those benefits would not nearly offset program costs.

The overlay of Whole Person Care changes this dynamic. While focused on high utilizers of *medical* services, the City’s recently proposed program intends to scale a program of Permanent Supportive Housing and intensive case management. As currently envisioned, Whole Person Care leverages a ~2.5 : 1 match from local health plans, and a 1 : 1 Medi-Cal match against the combined local funding. To the extent that medical-oriented targeting can reach frequent ambulance riders and help to reduce shelter use (in addition to its core focus on emergency department utilization), the City should be able to lower the net costs of persistent homelessness at a reasonable price, while improving outcomes.

Ultimately, then, our research suggests that investing in permanent housing and intensive support services can improve outcomes for the persistently homeless without adding significant net cost to the City or County. This conclusion reflects the examples set by other cities and counties around the country in targeting high-utilizing homeless populations with intensive supports.

Program quality is at the heart of a successful program expansion. A suite of novel contracting strategies are enabling a growing cadre of forward-thinking public leaders to ensure quality—by paying only for measured outcomes, rather than for services. Pay for Success, a form of performance-based contracting in which up to 100% of payments are made based on measured outcomes, is among the most advanced of these tools. Rather than pay for programs up-front, the jurisdiction pays only if programs are found to be successful at improving outcomes for the persistently homeless over time.

We believe that Permanent Supportive Housing with intensive supports (such as Assertive Community Treatment) has sufficient evidence of impact to lend itself to advanced performance-based contracting. The need within the County and City is both large enough to justify structuring such a contract and concentrated enough to warrant intensive intervention. Relevant, accessible data exist to identify high-utilizing individuals. Finally, we have identified a set of relevant metrics—housing stability, in conjunction with behavioral health, criminal justice, and/or medical outcomes—that are relevant to local stakeholders, linked to the intervention’s evidence, and measurable over a reasonable timeframe.

With that in mind, Social Finance recommends that both the City and County pursue performance-based funding options. These options vary in their structures.

²¹ We estimated total costs of the model to be ~\$11,000 per person as described above. Benefits to the City are based on medium-range effect sizes from the literature, and spread across impacts to the shelter system (emergency shelter days), City Fire Department (EMS transports) and additional costs (victimization and miscellaneous). Total benefits of this program are ~\$11,000 per person based on reductions to the aforementioned services against baseline utilization for high utilizers of City systems. Even without accounting for distribution of benefit accrual, this figure is noticeably lower than the benefits accrued by high utilizers to County systems, and lower still than those to high utilizers of County and City systems jointly. We estimate that ~\$3,300 of these total benefits will accrue to the City, as shelter (assumed City received 20% of total emergency shelter benefit), victimization (assumed City received 50% of total victimization benefit) and miscellaneous benefits (assumed City received 25% of misc. benefits) are shared with other jurisdictions (e.g. County, State, Federal).

Our feasibility analysis suggests that Pay for Success may be a good option for either jurisdiction, or for a joint program. Either jurisdiction could follow the models of Santa Clara, Denver, and others in developing a Social Impact Bond, in which private funders provide the working capital for program scale-up, and the County or City repays those funders only to the extent that positive outcomes—defined in advance, and measured by a third party—are achieved. Doing so focuses all parties on outcomes: if the intended results aren't achieved, the government doesn't pay. For the City, this could involve asking private funders and investors to finance the City-funded portion of Whole Person Care—some \$2.3 million per year over 4 years, of ~\$9.2 million total—and only repaying those funds, with a modest return, if the intervention is successful at achieving predefined housing and utilization outcomes. Likewise, for the County, this could involve private investment covering some portion of the jurisdiction's ~\$3.4 million annual ongoing expenses for the proposed Flexible Supportive Rehousing Program, similarly repaid by the County on a performance basis.

Other kinds of performance-based contracts can likewise incentivize better results. Carefully designed outcomes-based contracts with small degrees of incentives—often incorporating both small penalties for underperformance and bonuses for success—can help to improve performance.²² However, appropriate caution and thoughtful design are essential in developing any outcomes-based contract. Most providers, lacking a third-party investor, cannot afford to take on too much financial risk, so rates of contingent payment should be carefully moderated.²³ At the same time, thoughtful outcomes definition and measurement are crucial to avoiding unintended perverse incentives or outsized external influences in measuring performance.²⁴

Our research and experience suggest that achieving successful outcomes for the persistently homeless requires more than just funding. It also requires:

- Consistent engagement and input from providers, philanthropy, civic leaders, government, and community members;
- Clear project goals, with metrics and measurement plans aligned against them;
- Supportive data systems leveraging continuous cross-program data integration, accessibility tailored to relevant stakeholder, and a user-friendly interface;
- A staged implementation plan, allowing for project ramp-up, testing, and rapid adaptation;
- Careful service provider due diligence, procurement focused on scaling the highest-quality organizations, and shared ownership of / commitment to project goals;
- Ongoing active performance management, distilling insights from live project data and using them to troubleshoot challenges, improve service provider performance, and help those who are able to “move on” from supportive housing; and
- Consistent oversight and commitment from senior administrators and elected officials.

A number of initiatives are underway—across the City and County, in partnership with the Continuum of Care, with health plans and health systems and other nonprofits—to engage the persistently homeless and connect them to permanent housing. Partnerships are essential to their success. Particularly as the

²² See, for example, The Beeck Center, “[Funding for Results: How Governments Can Pay for Outcomes](#),” November 2015; and, Emma Thompson, “[Outcome-based contracting for human services](#),” Evidence Base, issue 1: 2016.

²³ See, for example, Steven G. Klein, “[Using Performance-Based Funding to Incentivize Change](#),” RTI International, January 2015.

²⁴ For an excellent overview of potential challenges associated with performance-based contracts, see Patrick Lester, “[The Promise and Peril of an ‘Outcomes Mindset’](#),” *Stanford Social Innovation Review*, January 2016.

City and County develop new programs focused on using Permanent Supportive Housing to stabilize high-utilizing persistently homeless individuals, policymakers should be proactive in communicating eligibility, coordinating outreach, and sharing learnings across these and other programs. Doing otherwise increases the risk of overlapping City and County programs competing for available units, identifying and enrolling the same homeless individuals, and confusing both service recipients and providers of housing and support services.

Sacramento is privileged to have a community dedicated to preventing homelessness, public officials committed to using data to target resources toward those who need them most, and providers keenly focused on scaling up well-evidenced interventions. This study ultimately supports the City and County's proposed efforts to expand programming for high utilizers. In quantifying the historical costs of this population, and by estimating the potential value of new investment, it suggests that Sacramento's commitment will pay dividends—not only in avoided suffering, but in systemic improvements in effectiveness. It also offers options for how to finance and manage new programs. We recommend that County and City strongly consider implementing thoughtfully designed outcomes-based contracts around housing stability, in order to incentivize quality and promote provider flexibility and innovation. Such contracts may either be paid fully on performance, in the form of Pay for Success contracts, or be developed with smaller amounts of shared risk and reward. We further recommend that these programs should take advantage of their data—data they are planning to use both for targeting and outcomes tracking—to develop active, statistically infused performance management processes, regularly bringing together administrators and providers to analyze performance data, troubleshoot challenges, and improve programs. Finally, we recommend continued collaboration, mutual support, and active knowledge sharing between various Permanent Supporting Housing programs as they grow to reach more of the highest-utilizing persistently homeless individuals and families in Sacramento.

Context

On any given night in Sacramento, over 3,600 individuals experience homelessness.²⁵ Over half are unsheltered, and roughly one third are chronically homeless—meaning that he or she has a disabling condition and has been continuously homeless for a year, or has been homeless four or more times totaling at least 12 months over the past 3 years.²⁶ Many suffer from co-morbidities including substance use, physical and psychiatric disabilities, and chronic health conditions. Homeless individuals in Sacramento have a mortality rate four times higher than the general population.²⁷

In addition to the painful human and social costs of homelessness, the fiscal costs of homelessness are immense. Recent high-level cost estimates suggest that the City of Sacramento spends more than \$13.6 million per year from its operational budget on direct costs related to homelessness: \$6.6 million on services and support for those experiencing homelessness and \$7.0 million on mitigating community impacts of homelessness, with the largest portions of funding flowing through the Fire and Police Departments, and smaller portions flowing through a dozen other city agencies.²⁸ (Note that, since this analysis, these figures have increased through new commitments to funding homelessness service programs.) The County, for its part, spends an estimated \$46 million in direct costs via mental health, outreach, and other non-housing support; shelters and housing; mitigating homeless impacts; and more. Some \$20M more in estimated indirect costs to the community and taxpayers.²⁹ (Note that this does not include federal Continuum of Care funding channeled through Sacramento Steps Forward, or funding from Emergency Solutions Grants or CDBG administered by SHRA.)

Of course, homelessness is not a challenge unique to Sacramento. According to HUD's 2016 Annual Homelessness Assessment Report (AHAR), a disproportionate 22% of the nation's homeless population reside in California—a state home to only 12% of the general population.³⁰ California has the highest rate of unsheltered homeless individuals, and cities such as Los Angeles, San Diego, and San Francisco continue to top HUD's list of those with the largest homeless populations.

Homelessness is a multifaceted challenge, driven by complex, intertwined, and longstanding systemic obstacles. These include poverty and inequality; behavioral health, and the systems of care designed to treat it; substance use disorder and care; domestic violence; employment and wages; transportation access; the housing market and availability of affordable housing; local and federal policies governing service eligibility; and others.

Sacramento's County and City governments have made significant strides in understanding the challenge of homelessness and determining the most effective paths forward in providing services and stable, affordable housing to those in need. Ongoing improvements have been driven by the City's Homeless Services Coordinator and the County's Director of Homeless Initiatives to create greater supply of emergency shelters and stronger pathways out of homelessness—increasing short-term rent assistance

²⁵ Dr. Arturo Baiocchi et al., "[Homelessness in Sacramento County: Results from the 2017 Point-in-Time Count](#)," California State University, Sacramento Institute for Social Research - Division of Social Work-College of Health & Human Services, July 2017.

²⁶ Department of Housing and Urban Development, "Homeless Emergency Assistance and Rapid Transition to Housing: Defining 'Chronically Homeless,'" Federal Register Vol. 80, No. 233, 24 CFR Parts 91 and 578: 4 December 2015.

²⁷ Sacramento Regional Coalition to End Homelessness, "[Sacramento County 2016 Homeless Deaths](#)," December 2016.

²⁸ City of Sacramento, "[Cost of Homelessness to the City of Sacramento](#)," October 2015.

²⁹ Cindy Cavanaugh and Emily Halcon, "[Combating Homelessness in Sacramento County: A Collaborative Effort](#)," presentation to the California State Association of Counties and League of California Cities, 23 September 2016.

³⁰ The US Department of Housing and Urban Development, Office of Community Planning and Development, "[The 2016 Annual Homeless Assessment Report \(AHAR\) to Congress](#)," November 2016.

and case management, improving referrals to supportive services, strengthening coordination of care across agencies, and more. Deep commitment from senior leaders at the Board of Supervisors and the City Council are precipitating change and laying the foundation for stronger and more extensive supports for the homeless.

Purpose and methodology of this study

Today, government agencies and philanthropic funders are often forced to make difficult funding decisions without the benefit of a clear understanding of which programs are most effective, or the ability to hold providers accountable to delivering high-quality outcomes for their beneficiaries.

New funding mechanisms are challenging the status quo. The purpose of this study is to assess the feasibility of using Pay for Success—either as a funding mechanism in its own right, or the components of the model—to improve supports for high utilizers of homeless services, the criminal justice system, and emergency health services.

What is Pay for Success?

Pay for Success (PFS) offers governments a new way to fund social programs without risking taxpayer dollars if the programs fail to deliver results. Pay for Success projects are public-private partnerships that fund social services through performance-based contracts. Instead of paying for services, governments define the outcomes they are trying to improve—and how those outcomes will be measured—and only pay if they're achieved. Private funders provide long-term, up-front working capital to nonprofits; the government repays the upfront investment only to the extent that programs achieve pre-determined goals for helping improve people's lives.

More than ever, governments need to make better use of limited funds to improve the lives of people in need. Pay for Success drives resources toward programs that work—delivering greater community impact and improved accountability.

While Pay for Success can be a useful mechanism for financing social services, many of the tools used to build Pay for Success projects can be helpful more broadly in designing public initiatives. PFS feasibility analyses can be used as a diagnostic to identify challenges for governments, individuals, and communities; to conduct research and analysis on the history and trends of those challenges in the population; and to estimate the cost-benefit of potential evidence-based solutions. (In other contexts, they can also be used to help build capacity.³¹)

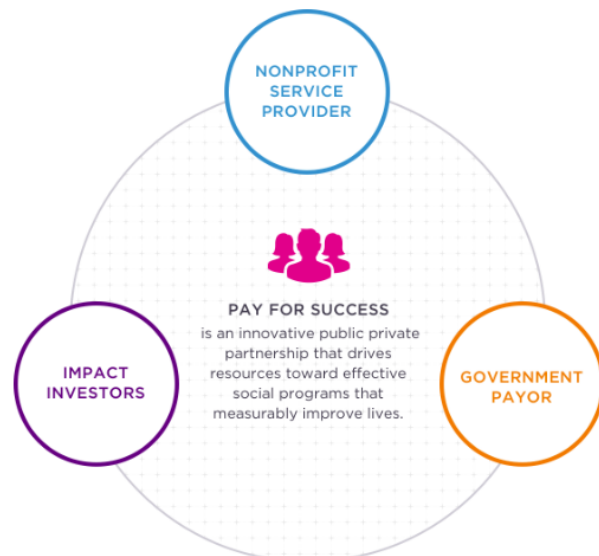


Figure 2. Pay for Success diagram.

³¹ See, e.g., Segal et al., "New Tools to Amplify Impact: A Pay for Success Guide to Building Nonprofit Capacity," Social Finance and the WK Kellogg Foundation, 2016.

Study methodology

Our work in Sacramento draws on Social Finance’s Pay for Success feasibility assessment framework. We (i) interviewed local stakeholders to define key challenges faced in the community; (ii) synthesized national evidence on successful interventions to address homelessness; (iii) identified appropriate outcome metrics around which to build performance-based contracts for the persistently homeless; (iv) built a cross-matched record of historical County and City administrative data to refine our understanding of the current costs of those persistently homeless individuals; (v) conducted a cost-benefit analysis of one potential high-value program; and (vi) assessed options for ongoing payor and private funder engagement.

This work spanned six months, beginning in late fall 2016. Through the course of this project, we spoke with local elected leaders from the City and County, representatives from a wide variety of local public agencies, nonprofits running many of Sacramento’s homelessness services and housing programs, and national issue-area experts focused on homelessness, housing policy, government effectiveness, and data access and integration. A full list of these interviews can be found in the Appendix.

In parallel, we conducted a broad scan of academic studies on homelessness interventions. We reviewed dozens of published studies on homelessness to determine the strength of evidence underlying various interventions, and how closely these interventions aligned with the County and City’s priority target population and outcomes.

Working closely with the lead homelessness agency in Sacramento, Sacramento Steps Forward, and with City and County agencies, we developed a process to build an integrated, de-identified, historical database of service utilization for Sacramento’s homeless population. This allowed us to understand the concentration of individuals experiencing persistent homelessness who may also be engaging with the criminal justice, emergency transport, and behavioral health systems. (As detailed below, this process was conducted with the utmost care in protecting individual information, by data sharing governed by strict usage restrictions, and personally identifiable information compartmentalized from service use data; all data were transferred via encrypted USB flash drives, hand-delivered between project partners, or through secure encrypted email file transfers.)

This report brings those components together, along with options and recommendations on next steps.

Feasibility assessment

This study views the challenges of homelessness in Sacramento through a Pay for Success lens. It does so, in part, because Pay for Success may be a useful financing solution for scaling up high-quality interventions. Such an approach puts a high premium on intervention evidence, on the interplay between program costs and benefits, and on the risks and success conditions needed for effective measurement and performance management.

In order to appropriately frame these challenges, we began by speaking with providers on the ground to better understand the issues faced by those experiencing homelessness in Sacramento.

Challenge assessment

In the course of interviews with over 60 stakeholders (see Appendix for full list), we heard a number of consistent themes about the challenges of homelessness in the City and County.

The housing market is tight. Service providers and local experts alike highlighted the challenges associated with extremely low vacancy rates, matched with rising demand for services. “Every month,” said one provider, “it seems harder and harder to find affordable units.” Limited housing means more homelessness: providers point to a lack of affordable housing driving higher case worker-to-client ratios, limiting the individualized attention and case management they’re able to offer, and in some cases affecting their ability to adhere to service model fidelity guidelines.

Adequate funding to support quality implementation is a challenge. Providers suggested that sustainable funding for high-quality service provision is a key issue. “The biggest problem is people who need more care,” said one provider. “[We need] houses where people could have more support.” More comprehensive, customized wraparound supports are seen as a critical and often lacking feature of the system.

Complexity of need further challenges systems of care. Stakeholders in government and those on the ground both highlighted the importance of appreciating the complexity and variation in needs of the homeless population. Co-morbidities such as substance use, mental health challenges, and chronic health issues have created a population requiring very different levels and kinds of care. “There isn’t a one-size-fits-all approach,” stressed one agency official.

Strong support for Housing First model. Nevertheless, there was broad agreement among providers, public-sector officials, and national thought leaders that low-barrier housing options—matched with intensive support services—were the right path forward. Most agreed that, “until you get [clients] into a safe place, it’s really hard to address their needs.” Other options were sometimes described as “stop-gap” measures, especially for those who are most vulnerable.

Focus on the frequent utilizers. Throughout our conversations, we heard a consistent theme: that a small subset of the homeless population drove a majority of the overall systems use. “The ‘frequent fliers’ use huge amounts of emergency services,” said one local leader. Interviewees cautioned that, for many of these ‘high utilizers,’ long-term behavioral and physical health challenges would continue to drive significant costs. Nevertheless, nearly all agreed that more intensive intervention could prevent some of the most expensive emergency services.

Housing stability cited as key outcome. Interviewees widely agreed that success could be defined, first and foremost, by maintaining housing stability for vulnerable populations. “We’re looking at: are they able to maintain their housing, is number one,” said one provider. Housing stability is cited as the industry standard for defining success; it is a metric widely collected and evaluated, allowing providers to benchmark against past performance and against progress in other communities.

These interviews broadly reflected challenges that other jurisdictions have faced. Broader economic forces are at work: new unit development in Sacramento slowed to a trickle during the half-decade after the Great Recession, even as average rents have increased by nearly 50%.³² In parallel, a growing scientific consensus and an expanding corpus of results have further confirmed the effectiveness of Permanent Supportive Housing (PSH) models.

³² Richard Chang, “[They stopped building apartments; now Sacramento-area rents have spiked.](#)” 30 October 2016.

Learning from other jurisdictions

In parallel with our local stakeholder interviews, we spoke with other jurisdictions that had pursued PSH approaches.

In recent years, a number of jurisdictions have focused significant resources on targeting a small group of high-utilizing homeless individuals. We highlight here four areas that have pursued similar paths toward improving outcomes for the persistently homeless:

- **Santa Clara.** Launched in August 2015, Project Welcome Home provides Permanent Supportive Housing and Assertive Community Treatment to 150-200 chronically homeless individuals who are high users of County emergency rooms, acute mental health facilities, and jails. Abode Services, a nonprofit agency in the San Francisco Bay Area, provides supportive housing services in partnership with the County's Office of Supportive Housing and Behavioral Health Services. Project Welcome Home will draw on \$6.9M in private capital raised via Pay for Success financing over 6 years, as well as \$7.7M in Medicaid-reimbursable mental health services and \$4M in County-subsidized housing units and vouchers. The project's target impact is for more than 80% of participants to achieve 12 months of continuous stable tenancy. The County will repay up-front private investors when project participants achieve specific tenancy milestones (3-month, 6-month, 9-month and 12-month).³³
- **Denver.** Launched in February 2016, the Denver Pay for Success project provides Permanent Supportive Housing and Assertive Community Treatment to 250 chronically homeless individuals who frequently interact with the police, jail, detox, and emergency care systems. The cost to taxpayers of providing these safety-net services to 250 homeless individuals is roughly \$7M per year, from an average 14,000 days in jail, 2,200 visits to detox, 1,500 arrests and 500 emergency room visits. The Colorado Coalition for the Homeless and Mental Health Center of Denver will provide supportive housing services, in partnership with the City and County of Denver, with the goal of reducing expensive encounters and helping individuals lead more stable and productive lives. The project will draw on 210 new units and 40 existing units throughout the city, leveraging \$8.7M in private capital raised via Pay for Success financing, and an additional \$15M in Federal resources over five years of service delivery. The City will repay up-front investors up to \$11.42M based on achievement of outcomes from the project's randomized controlled trial measuring reductions in jail bed days and improved housing stability.³⁴
- **Salt Lake.** Launched in December 2016, the Salt Lake County Pay for Success Homes Not Jail project provides a range of housing assistance and support services, including rental assistance and intensive case management services, to 315 persistently homeless individuals who have spent between 90 and 364 days over the previous year in emergency shelter or on the streets. The Road Home, a local nonprofit, will provide the supportive housing services, in partnership with the County of Salt Lake, over six years. At target impact levels, the program will generate 1,500 more stable housing months—defined as months without jail or shelter—and 250 graduations to permanent housing. At this impact level, the County will make \$5.55M in success payments to repay up-front investors.³⁵
- **Los Angeles.** Launched in 2013, the Los Angeles Housing for Health program provides Permanent Supportive Housing and intensive case management to Department of Human Services patients with complex physical and behavioral health conditions (e.g., mental health issues, HIV/AIDS,

³³ Third Sector Capital Partners, "Project Welcome Home Fact Sheet," 2015.

³⁴ Corporation for Supportive Housing, "Fact Sheet: Denver Social Impact Bond program to address homelessness," 2016.

³⁵ Third Sector Capital Partners, "Fact Sheet: Salt Lake County Pay For Success Initiative,"

substance use disorder, and other chronic conditions). The initiative includes a housing rental subsidy program called the Flexible Housing Subsidy Pool (FHSP), managed by housing intermediary called Brilliant Corners. The LA County Board of Supervisors approved \$14M toward the FHSP over four years, matched with \$4M from the Hilton Foundation over two years. This funding is expected to provide stable housing for at least 2,400 individuals, in addition to intensive case management supportive services.³⁶

Intervention assessment

Building Pay for Success projects and other successful performance-based contracts requires a deep understanding of the size and reliability of a given intervention's effect. Drawing from the constellation of formal evaluations and programmatic outcomes, we must estimate how much a program is likely to impact its beneficiaries—and what the odds are that it won't.

Such an exercise is only as good as the underlying data. Evidence of program effectiveness varies widely. Often, we look first toward well-conducted randomized controlled trials, relying on their ability to largely avoid systemic biases that can influence non-controlled studies, and the information they can provide on both effect sizes and confidence intervals around those effects. We also search for quasi-experimental studies that compare program effects against reasonable counterfactuals. Finally, we will supplement these points of evidence with other observational studies, such as pre/post reports, which compare intervention groups against their own historical outcomes.

We look not just for strong evidence of effectiveness, but the ability of future programs to replicate those effects reliably. One indication of reliability is a clear program model. A well-codified intervention, replicated with fidelity, is more likely to replicate the impact of an evaluated program than a loose model in which the intervention may translate differently in different contexts.

Our initial scan of interventions targeted toward homeless individuals returned a number of potential approaches with promising evidence.³⁷ The below illustration highlights five potential intervention approaches, and examples of the evidence supporting each.

³⁶ LA County Housing for Health, "[Flexible Supportive Housing Pool](#)."

³⁷ See Appendix for detailed literature review of broader housing and treatment interventions for homeless populations.

Interviews with County and City stakeholders suggested that local need is both broad and deep. Current services are not enough to fully serve the chronically homeless and those at risk of homelessness. According to the 2017 point-in-time count, approximately 3,665 individuals in Sacramento are homeless on any given night, and 31% of these individuals are considered to be chronically homeless.³⁸ In addition to those meeting the formal standard of chronicity, a significant number of individuals and families have faced persistent homelessness, but may be ineligible for PSH because they do not meet the HUD definitions of chronic homelessness.

The strongest of these interventions fall under the umbrella of Permanent Supportive Housing (PSH). In dozens of studies across the country over the last 15 years, the PSH model has been subject to evaluation through rigorous randomized controlled trials and quasi-experimental studies, and has demonstrated promising effects.³⁹ There are numerous variations of the PSH model. However, key elements include affordable,⁴⁰ safe housing; linkages to wraparound services targeting mental illness, substance use disorder, physical health, and employment readiness; a “housing first” philosophy that does not require sobriety or participation in services as a condition of tenancy; no limits on length of tenancy, so long as lease terms and conditions are met; and coordination with local community partners that help individuals continue to address their challenges and promote housing stability.

⁴⁰ Participants are expected to contribute no more than 30% of their income toward housing costs.

In three of the four jurisdictions that have launched Pay for Success projects focused on homelessness—Massachusetts, Santa Clara County, and Denver—PSH has been selected to serve beneficiaries.

The variations in Permanent Supportive Housing, however, make it a somewhat challenging model to predict. As such, we reviewed specific, codified versions of PSH. Among the strongest of these interventions was the combination of permanent housing with Assertive Community Treatment (ACT). Permanent Supportive Housing with Assertive Community Treatment (PSH+ACT) has been researched through several randomized controlled trials and quasi-experimental evaluations. In five randomized studies, days homeless decreased by 30%-65%, and psychiatric symptoms by 7%-45%, versus the control group.⁴¹ It has primarily been targeted toward homeless individuals with severe mental illness, substance use disorder, or other psychiatric and physical disabilities, although a number of jurisdictions have begun to adapt the model toward other highly vulnerable populations.

Figure 4. Representative evaluations of a Permanent Supportive Housing and Assertive Community Treatment (ACT) for homeless individuals with mental illness.

Study details	Target population	Outcomes measured	Effect sizes (comparison to control group)
RCT; 1997; Lehman et al.	152 homeless persons with severe and persistent mental illness	<ul style="list-style-type: none"> Days homeless Days hospitalized 	<ul style="list-style-type: none"> Reduction in days homeless by 31% ($p < .05$) Reduction in days hospitalized by 41% ($p > .10$)
RCT; 1992; Morse et al.	165 homeless persons with mental illness	<ul style="list-style-type: none"> Psychiatric symptoms 	<ul style="list-style-type: none"> Reduction in days homeless by 42% ($p < .05$) Reduction in psychiatric symptoms by 37% ($p > .05$)
RCT; 1997; Morse et al.	178 homeless persons or at-risk of homeless with mental illness		<ul style="list-style-type: none"> Reduction in days homeless by 62% ($p < .05$) Reduction in psychiatric symptoms by 7% ($p > .05$)
RCT; 1996; Korr and Joseph	114 homeless persons with mental illness		<ul style="list-style-type: none"> Reduction in clients not in active housing by 43% ($p < .05$)
RCT; 2000; Shern et al.	168 homeless persons with severe mental illness		<ul style="list-style-type: none"> Reduction in time spent on streets by 65% ($p < .05$) Reduction in psychiatric symptoms by 45% ($p > .05$)
Quasi-Exp. Study; 1999; Journal of Comm. Psych.	139 homeless persons with psychiatric disabilities	<ul style="list-style-type: none"> Housing stability 	<ul style="list-style-type: none"> Housing retention of 84.2% over 3 years compared to 59.6% of comparison program ($N=2,864$) over 2 years
Quasi-Exp. Study; 2007; Stefancic et al.	260 individuals with severe mental illness and chronic shelter use	<ul style="list-style-type: none"> Housing status and retention Cost per client 	<ul style="list-style-type: none"> 84% housing retention over 2 years across the Housing First + ACT programs
Pre-Post comparison; 2016; University of South Florida	90 chronically homeless individuals with moderate to severe mental illness and substance use disorder	<ul style="list-style-type: none"> Housing stability 	<ul style="list-style-type: none"> Reduction in homelessness from 88.6% at baseline to 30% at 6 months ($p < .001$)

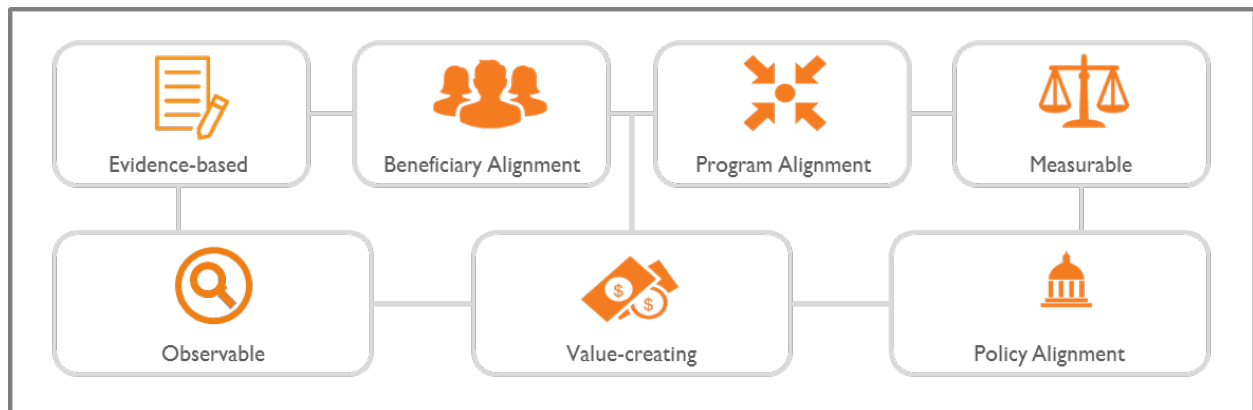
Outcome selection and expected effect

Performance-based contracts rely heavily on choosing the right outcomes.⁴² To assess appropriate outcomes to prioritize in a Pay for Success project, Social Finance considers the following key criteria:

⁴¹ Dr. Craig Coldwell et al., “The Effectiveness of Assertive Community Treatment for Homeless Populations With Severe Mental Illness: A Meta-Analysis,” *Am J Psychiatry* 2007; 164:393–399.

⁴² According to one researcher, “the evidence that does exist suggests that, given sufficient flexibility to do so, providers of services will deliver on the outcome metrics their contracts pay for.” For a nuanced take on the effectiveness of performance-based contracts, see E. Tomkinson, “Outcome-based contracting for human services,” *Evidence Base*, 2016: 1-16.

Figure 5. Framework for assessing and selecting outcomes in a Pay for Success project.




































- **Evidence base.** Has the outcome been achieved by interventions in this space, as measured by reliable evaluative research?
- **Beneficiary alignment.** Does the outcome indicate meaningful improvement in the lives of individuals?
- **Program alignment.** Does the outcome align with the intervention and/or service provider's theory of change?
- **Measurable.** Can the outcome be regularly assessed based on reliable and accessible data?
- **Observable.** Can the outcome be detected and measured within a reasonable timeframe?
- **Value creation.** Does the outcome generate important social and/or fiscal benefits?
- **Policy alignment.** Does the outcome align with the County and City's policy priorities?

We examine the strength of the evidence quality underlying each outcome; whether the outcome has been evaluated among a similar target population / geography; the magnitude of the effect across relevant evaluations; and the degree to which the outcome generates fiscal and/or community value to relevant payors.

Permanent Supportive Housing has demonstrated positive impacts on housing outcomes, particularly housing stability. There is also promising evidence suggesting PSH can positively impact health, emergency behavioral health, and criminal justice outcomes.

Figure 6. Permanent Supportive Housing has demonstrated impact across housing, health, and criminal justice outcomes.

Outcome type	Key metric	Evidence quality	Evidence relevance	Effect size	Link to value
 Housing Outcomes	Fewer nights at homeless shelter				
	Reduced proportion of time homeless				
 Health Outcomes	Reduction in ER visits				
	Reductions in hospitalizations and days				
	Reduction in psychiatric hospital days				
 Criminal Justice Outcomes	Reduction in re-convictions / re-offenses				
	Reduction in nights in jail				

 Weaker evidence base
  Stronger evidence base

Impact on housing stability has been a constant among the studies we reviewed. A selection of these studies also demonstrate positive behavioral health outcomes (i.e., psychiatric symptoms or psychiatric inpatient bed days).⁴³ There is also reasonably strong support among general PSH experiments and matched control studies for a moderate impact on days spent in prison.⁴⁴

Housing-focused Pay for Success programs that have launched services in other jurisdictions have focused on a similar suite of outcomes. Each of these projects—in Massachusetts, Santa Clara County, Denver, and Salt Lake—has been designed with the intention of driving government resources toward creating measurable and sustainable impact for homeless individuals via Permanent Supportive Housing.⁴⁵ Each uses housing stability (measured by months of continuous, stable tenancy) as the primary outcome to measure project success. Denver additionally measures a reduction in jail bed days as a secondary outcome; Santa Clara measures criminal justice and healthcare outcomes in a companion study, but does not link those outcomes to payment.⁴⁶

Estimating the effect of a Permanent Supportive Housing intervention with intensive case management services in Sacramento is both art and science. In the below table, we describe the range of effects observed in high-quality studies for each outcome, and the strength and nature of evidence underlying each. In our cost-benefit modeling, we tested sensitivity against these ranges, and used a midpoint of these observed effects as our base case.

⁴³ Dr. Debra Rog, “Permanent Supportive Housing: Assessing the Evidence,” *Psychiatric Services*, Volume 65, Issue 3, March 2014, pp. 287-294.

⁴⁴ See tables in Appendix.

⁴⁵ In 2014, Massachusetts State launched a project to serve up to 800 chronically homeless individuals with a Permanent Supportive Housing (PSH) intervention for 5 years, raising \$3.5M from private investors. In 2015, Santa Clara County launched a similar project to serve 150-200 chronically homeless individuals with PSH and Assertive Community Treatment (ACT) for 6 years, raising \$6.8M in private capital. In February 2016, Denver followed suit and is currently delivering a PSH intervention to 250 chronically homeless individuals for 5 years, raising \$8.7M to do so. And more recently in December 2016, Salt Lake City launched a \$5.7M PFS project to serve persistently homeless individuals with a Rapid Re-Housing approach for 6 years.

⁴⁶ The Urban Institute, “[Denver Social Impact Bond Program](#)”; and, UCSF Clinical Trials, “[Pay For Success: Permanent Supportive Housing for the Chronically Homeless](#).”

Figure 5. Summary of Permanent Supportive Housing outcomes.⁴⁷

Outcome Type	Strength of Evidence Base	Outcome Effect Size Ranges
Housing	<ul style="list-style-type: none"> Strong evidence base 7 RCTs demonstrating positive outcomes 	<ul style="list-style-type: none"> ~70-86% reduction in shelter days ~25-50% reduction in days homeless
Health	<ul style="list-style-type: none"> Moderate evidence base 2 RCTs and several matched comparison studies 	<ul style="list-style-type: none"> ~33% reduction in ER visits ~23% reduction in hospital days ~12-55% reduction in psychiatric hospital days
Criminal Justice	<ul style="list-style-type: none"> Moderate evidence base 2 RCTs and several matched comparison studies 	<ul style="list-style-type: none"> ~43% reduction in reconvictions ~40-56% reduction in prison days

Based on our conversations with Sacramento City and County officials, and our review of intervention evidence and other jurisdictions' efforts, we would recommend that housing stability function as the primary outcome for any performance-based contract, serving as the key proxy for other expected impacts. As supplemental outcomes, we would recommend smaller portions of payment link to reduced jail bookings and/or days and reduced psychiatric inpatient usage.

Data integration process

Those experiencing homelessness often touch many different social services. It can be challenging to broadly understand the needs and utilization of clients across the system, and to identify those with particularly great needs.

To better understand this dynamic, Social Finance, following the lead of other communities around the country, worked to integrate de-identified service utilization data from across key agencies in Sacramento: the shelter and rehousing system; City police IMPACT team; County behavioral health; the County Sheriff's department; and City Fire's emergency transportation system. As described below, this process required significant care to protect individual privacy, while building the rationale for improved services for vulnerable populations.

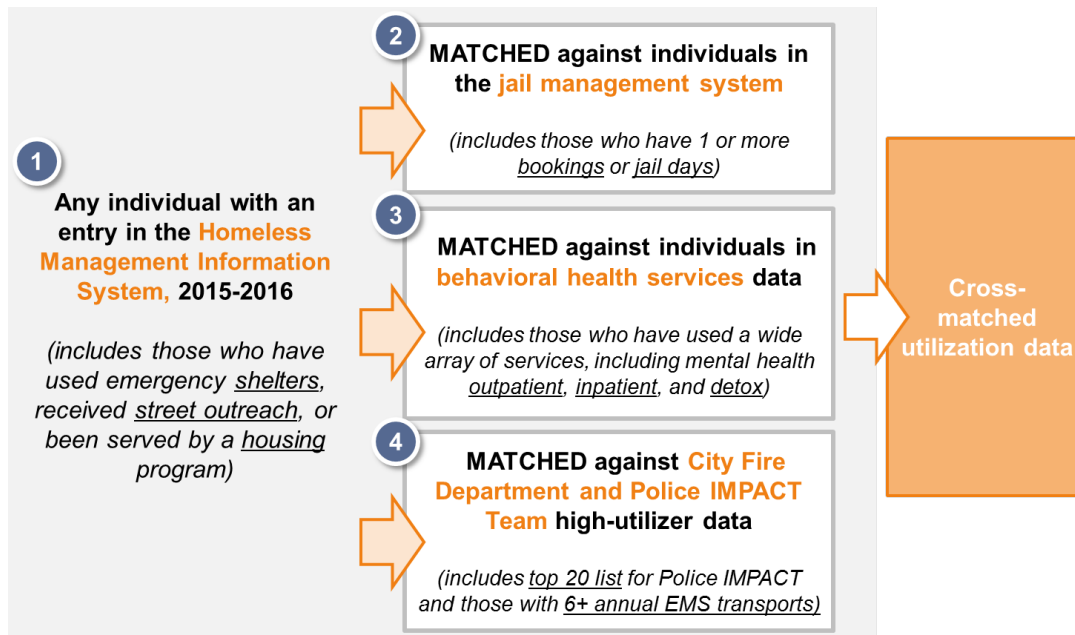
The base of our dataset included all unique records of individuals with an entry in the Continuum of Care's (CoC) Homeless Management Information System (HMIS) over calendar years 2015 and 2016. These data include individuals touching emergency shelters, receiving outreach in the street, or currently enrolled in some type of housing program. Personally identifiable information and HMIS IDs were separated from service data, and shared securely with partners at the Sacramento County Sheriff's Department (SCSD) and Behavioral Health Services (BHS). In parallel, unique HMIS records that included HMIS IDs but *not* personally identifiable information were shared with Social Finance. Contacts at SCSD and BHS matched the HMIS list against service information in their respective systems, and produced a list of matched individuals, identified by only their HMIS ID, along with their respective system utilization data. Jail data included all bookings and jail bed days for matched individuals from 2012-2016, as well as an estimated average cost per booking and per bed day; Behavioral Health data included inpatient, outpatient and detox units and costs for matched individuals by month, from 2012-2016. After removing all personally identifiable information, these lists of HMIS IDs and associated service and cost data were securely shared

⁴⁷ Note: Full detail of outcomes and evidence strength detailed in Appendix.

back with Social Finance. We were able to combine them to create a de-identified picture of service utilization in the County.

Lastly, the City Fire Department and Police IMPACT team each produced a list of highest-utilizing individuals. For the City Police IMPACT team, this included the 20 individuals requiring the largest portion of IMPACT team time on average over the past six months. For City Fire, this data set included all individuals with six or more EMS transports in calendar year 2016. Both data sets were shared with Sacramento Steps Forward, who was able to produce a match against HMIS records. A list of matched HMIS IDs and service data were shared with Social Finance, and combined with County data. The figure below details the data sets that were integrated to create the full matched dataset.

Figure 8. Summary of data integration process.

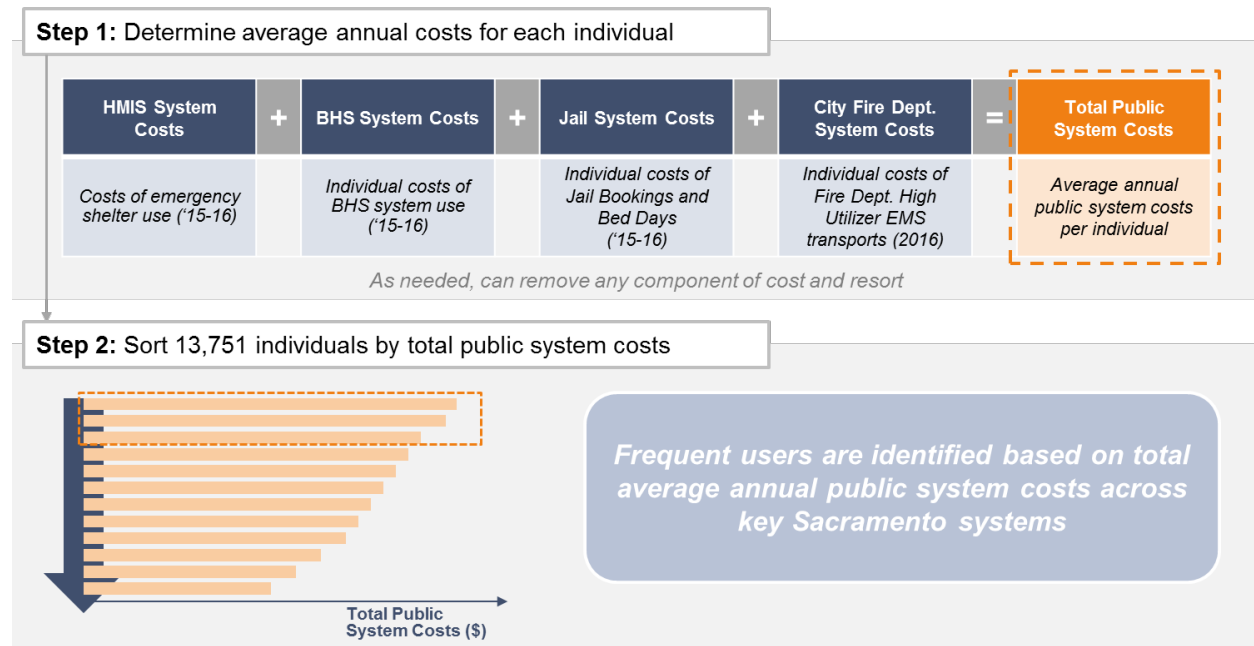


Through this data matching process, we were able to identify the scale and overlap of system utilization for individuals touching the HMIS system, as well as other systems.

- **HMIS:** 13,751 unique individuals, including all individuals with an HMIS record between January 1, 2015 and December 31, 2016. Records cover emergency shelters, street outreach, and housing programs.
- **Sacramento County Sheriff's Department:** 3,168 unique individuals with an HMIS record in the last 2 years that also have 1 or more jail bookings or jail days.
- **Sacramento County Behavioral Health Services:** 4,137 unique individuals with an HMIS record in the last 2 years that also have utilized BHS services (including mental health outpatient, inpatient, and detox services).
- **Sacramento City Fire Department:** 134 unique individuals with an HMIS record in the last 2 years that also incurred 6+ EMS transports in 2016.
- **Sacramento City Police IMPACT Team:** 13 unique individuals with an HMIS record in the last 2 years that were also on the "top 20" Police IMPACT list.

Our de-identified, integrated database captured program utilization from calendar years 2015-2016. In order to understand cost concentrations, we then applied our best understanding of unit costs to each activity record.⁴⁸ We were then able to develop a retrospective list with approximate costs to County and City systems during the period under analysis.

Figure 9. Process for retrospective cost analysis. (Note that Police IMPACT data are not included in the diagram as none of the 13 matches were identified in the “Top 250” analysis.)



We could then sort this list in various ways. As a starting point, we sorted by *average annual combined cost to Sacramento County and City*. (We can likewise sort by cost to only the City or only the County, or by frequency of use rather than cost, or by system overlap rather than cost.)

While the purpose of our research was not to identify specific individuals to receive future services, we wanted to be sure that our retrospective analysis was based on a sample population reflective of individuals that could actually be served by an intensive homelessness intervention. For this reason, we included several threshold criteria intended to ensure that our sample target population was reflective of those who would be served by such a program.

With that in mind, we added three filters to the data:

⁴⁸ For the HMIS system costs, we relied on research conducted by Focus Strategies in September 2015 suggesting a *per diem* shelter cost of approximately \$67.59. This was multiplied by each individual's emergency shelter days across each year to determine the cost of emergency shelter for each individual per year. For BHS system costs, we relied on cost estimates of various services calculated by BHS, differentiating between more and less expensive services and between those costs there were billable to Medi-Cal and those that were not. These cost estimates were applied and summed across each individual to arrive at cost per individual per year. For the jail system, we relied on the Sheriff's Department's 2016/17 FY estimates of a cost per booking (\$543.67) and a cost per custody day (\$126.06). These were multiplied by each individual's total bookings and total days in custody incurred in each year to arrive at estimates of cost per individual per year to jail. For the City Fire Department, we received a count of the number of EMS transports taken in 2016 by individuals deemed 'high-utilizers' (those with 6+ EMS rides), and estimated by SFD to be ~\$1,600 per ride. The number of rides was multiplied by this cost to determine an average annual cost to City Fire Department. There was limited overlap between the Police IMPACT team and top overall systems utilizers, suggesting that many of these individuals may be service resistant; given minimal impact, these costs were not included in the final analysis as direct costs, but costs to the Police Department more broadly were included as a component of additional miscellaneous costs.

- **Do not include those already in permanent housing programs.** We wanted to be sure that those in our analysis were not currently receiving Permanent Supportive Housing, so we excluded individuals with any days spent in PSH programs over the past 12 months.
- **Focus on those still in need.** In an attempt to focus our analysis on those who are likely still homeless, we only included individuals with at least one (non-PSH-related) interaction with the HMIS system in last 12 months.
- **Focus on those with persistent and/or acute needs.** To home in on those who have the greatest needs, we ensured that all individuals included in our target analysis exhibited *at least one* of the following: (a) were flagged in HMIS as chronically homeless, and/or (b) had a VI-SPDAT score >14,⁴⁹ and/or (c) had a long history of homelessness (as defined by earliest homeless date before 1/1/16 and/or >0 days of street outreach before 1/1/16).

The resulting sorted list, then, represents the highest-cost individuals to City and County systems that are likely an appropriate fit for an intensive Permanent Supportive Housing intervention. Average annual service utilization for these 250 individuals is detailed in the table below.

Figure 10. Average annual public system utilization for 250 highest utilizers of City and County services.

Average Annual Utilization for Top 250 High Utilizers	
Shelters	<i>32 emergency shelter days</i>
County Jails	<i>2 bookings</i> <i>80 jail bed days</i>
Behavioral Health Services	<i>1,507 mental health outpatient minutes</i> <i>17 psychiatric hospital inpatient days</i>
City Fire Department	<i>1.8 EMS transports</i>

Baseline cost analysis

The data matching process detailed above provided the foundation for our baseline annual cost estimates. First, we matched each activity record against a per-unit cost, provided by partners at City and County agencies. In addition to these costs, we also included a small portion of indirect costs of homelessness borne by the County and City based on prior cost analysis work both entities had completed. These additional costs were applied as an average incremental cost to all individuals in our sample, under the assumption that high-utilizing homeless populations generate at least average costs to other systems (such as, for example, Parks & Recreation or the District Attorney). Finally, we included an estimate of the average victimization costs across the sample, intended to calculate the cost to society of various criminal acts, including both “tangible” costs (e.g., direct economic losses, property damage) and “intangible” costs (e.g., productivity loss, quality of life).⁵⁰ Total victimization costs were based on a list of primary charges for the top 250 population in 2015-16; for the sake of clarity (to smooth otherwise spiky data), we averaged these costs among the population, rather than applying them to the relatively limited set of specific individuals to whom these victimization costs can be attributed. (Most charges, including most drug- and alcohol-related charges, do not incur a direct victimization cost.)

The below table summarizes how average baseline service utilization translated to average annual baseline costs for the identified high-utilizer population.

⁴⁹ The VI-SPDAT—the Vulnerability Index - Service Prioritization Decision Assistance Tool—is a centralized intake assessment tool used by many communities nationwide. It includes both medical and social risk factors in assigning a single scores to homeless individuals. A score of 14 is generally indicative of vulnerability meeting the requirements of Permanent Supportive Housing.

⁵⁰ Average victimization cost based on estimates from McCollister et al., “The Cost of Crime to Society,” 2010.

Figure 61. Average annual baseline utilization and costs for City and County services.

Average Annual Baseline Utilization and Costs for Top 250 High Utilizers ⁵¹		
	Average Annual Baseline Utilization (2015-16)	Average Annual Baseline Cost (2015-16)
Shelter system	32 emergency shelter days	\$2,130
County jail	2 bookings 80 jail bed days	\$11,160
Victimization costs		\$3,760
Behavioral health services	1,507 mental health outpatient minutes 17 psychiatric hospital inpatient days	\$21,370
City Fire	1.8 EMS transports	\$2,940
Additional non-specific City and County costs		\$4,060
		\$45,420
<i>Additional costs not captured: Correctional health, physical health, economic impact, and others</i>		

The 250 highest-utilizing homeless individuals cost the County and City over \$45,000 per year. These costs, as expected, were diffuse across multiple systems. At the same time, they are not comprehensive: they are missing correctional health costs; any estimation of the economic impact of homelessness, either for local businesses, or for homeless individuals themselves; and they do not important non-local costs, such as physical healthcare. Healthcare costs for the homeless population broadly accrue to managed care plans (in the short term) and the State and Federal governments (over the longer term). These costs can be enormous: various studies have suggested that they range from \$10,000 – \$80,000 per year.⁵²

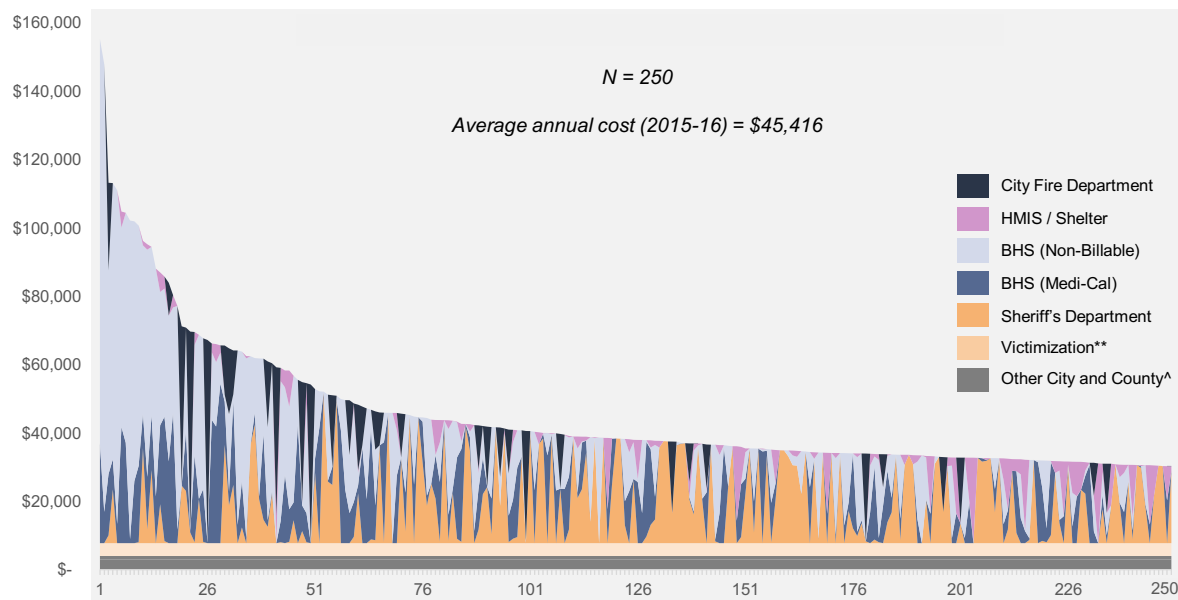
As important as the summary figures are, they obscure the nuance in the data themselves. Each individual has his or her own story.

What we find, when breaking out County and City costs on an individual basis, is a patchwork of cost drivers. The chart below illustrates actual average individual-level cost drivers for the 250 highest-cost utilizers in Sacramento. The most-expensive individuals were those that required extensive inpatient psychiatric stays; increasingly, as we looked beyond the 25-50 most-expensive individuals, a greater proportion of costs were driven by jail bookings and incarceration; toward the end of the selected sample, an increasingly large degree of cost is driven by shelter use.

⁵¹ As noted previously, baseline costs—while primarily oriented toward the City and County—include some Federal, State, and private expenses as well. Most notably, a significant portion of shelter funding comes from private sources, and a portion of behavioral health funding is billable to Medi-Cal. In the cost-benefit analysis below, expected benefits are derived from County and City costs only.

⁵² We identified five studies involving similar populations of persistently homeless high-utilizing individuals, often with severe mental illness, involving Permanent Supportive Housing. Homeless individuals' physical health costs range from approximately \$10,000 to \$80,000 per year, inclusive of non-psychiatric hospital stays, emergency room visits, and ambulance rides. Studies include: CSH-NYC FUSE II (Aidala et al., 2014), Univ. of Washington / Northwestern Univ. (Basu et al., 2012), Urban Ministry Center Moore House (Thomas et al., 2015), Rhode Island Housing First (Hirsch et al., 2008), and University of Pennsylvania (Culhane et al., 2002).

Figure 12. Average annual cost to Sacramento County and City public systems across top 250 individuals (2015-16).^{53,54}



Individuals ranked by total average annual cost of service utilization

This chart tells us something well known: that the costs of homelessness are large, and highly concentrated. Yet, it also suggests another possibility, one that is both widely accepted and still surprising: that the costs of remediating the challenges of homelessness might offset, or even outweigh, the costs of permanent housing and intensive support.

In order to test that theory in more detail, we built out a more-detailed cost-benefit analysis, as described in the following sections.

Benefit estimation

The expected benefit calculation of this analysis works from the baseline costs outlined above, and applies an effect size extracted from the intervention literature. In this calculation, effect sizes are applied only to outcomes that the literature suggests Permanent Supportive Housing can impact. Thus, not all baseline costs will be affected. For example, the majority of the County's behavioral health costs are not

⁵³ Average annual cost calculated by averaging individual costs across analyzed systems in 2015 and 2016. Note, per above, that cost estimates are not exhaustive. Notable omissions include physical healthcare (deprioritized in part due to limited expected County/City budget impact), correctional health costs (which we were not able to access during this analysis), and any reflection of impact on economic development. While costs are primarily locally focused, some (such as billable BHS costs) may be reflective of other jurisdictional budgets; in the cost-benefit analysis, these costs are removed. (Note that "billable" BHS costs may be reimbursed by Medi-Cal.) "PSH-fit" estimated by reviewing 2015-2016 HMIS records, excluding individuals with any days spent in permanent supportive housing over the past 12 months, as well as those lacking (non-PSH) HMIS interactions in last 12 months, and focusing on those with longer and more-acute needs exhibited by a chronically homeless flag in HMIS and/or a recorded VI-SPDAT score >14 and/or a history of homelessness greater than one year.

⁵⁴ Graphic inset notes: (**) Victimization estimates intended to calculate the cost to society of various criminal acts, both "tangible" costs (e.g., direct economic losses, property damage) and "intangible" costs (e.g., productivity loss, quality of life). Total victimization costs based on list of primary charges for top 250 highest utilizing persistently homeless individuals in 2015-16; for the sake of clarity (to smooth otherwise highly variable data), they have been averaged among this population, rather than applied to the relatively limited set of specific individuals to whom these victimization costs can be attributed. (Note that many charges, including most drug- and alcohol-related charges, do not incur a direct victimization cost.) Average victimization cost based on estimates from McCollister et al., "The Cost of Crime to Society: New Crime-Specific Estimates for Policy and Program Evaluation," *Drug Alcohol Depend*, 2010; 108(1-2): 98-109. (^) Assumes that high-utilizing homeless populations generate at least average costs to other County and City agencies. Includes non-specific core County costs (such as DHA – Admin, DHA – Aid Payments, Code Enforcement, Regional Parks, District Attorney) and City costs (Police IMPACT team, Parks and Recreation, City Manager) averaged across 2016 point-in-time count population. Key sources: Sacramento Steps Forward, Sacramento Sheriff's Department, Sacramento Behavioral Health Services, Sacramento City and County Cost of Homelessness Estimates, McCollister et al.

emergency services, but rather outpatient supports; we see little evidence that these costs will decrease. On the other hand, many of the inpatient services *will* see a decrease, as more persistently homeless individuals are moved into stable housing and given access to intensive supports.

The estimates used for the expected impact of a Permanent Supportive Housing intervention on relevant costs are based on our scan of existing evidence, as described above. As a reminder, the expected impact assumptions, and therefore the expected benefit shown below, represent mid-range estimates from the literature; as outlined in the Appendix, a range of effect sizes have been found for each of the outcomes detailed.

Scaling up Permanent Supportive Housing models with intensive case management is likely to reduce reliance on shelters, inpatient psychiatric hospital care, bookings and days incarcerated, ambulance rides, and rates of crime and victimization. On average, we expect that the total value of these improvements to the City and County is over \$13,000 per person per year.

Figure 137. Estimated impact of Permanent Supportive Housing with intensive case management on key County and City costs.

	Baseline Cost ⁵⁵	Expected change	Estimated benefit
Shelter system	\$2,130	70% decrease in shelter days	\$1,490
Criminal justice	\$11,160	43% decrease in incarcerated days / bookings	\$4,800
Victimization costs	\$3,760	43% reduction in victimization costs	\$1,620
Behavioral health	\$21,370	25% reduction in psychiatric hospital days	\$3,770
EMS transports	\$2,940	25% reduction in EMS transports	\$740
Additional non-specific City and County costs	\$4,060	20% reduction in non-specific costs	\$830
Total	\$45,420		\$13,250

Permanent Supportive Housing is likely to generate significant benefits, then, for Sacramento County and City systems when delivered to high-utilizing homeless individuals. Of course, there are significant benefits beyond those shown here: local jurisdictional benefits to systems not currently included in this analysis (e.g., correctional health, policing and patrol, probation, child welfare, and others), benefits that accrue to the State and Federal governments or to private stakeholders (e.g., emergency medicine, state prisons, and others), and other social benefits to individuals and the wider community.

Delivery cost estimation

The previous sections analyzed historical cost baseline and estimated the impact of scaling a PSH program targeted to high-utilizing homeless individuals. Against these benefits, we need to compare the costs of extending the intervention. Based on a set of historical studies and benchmarks, along with conversations with Sacramento stakeholders, we estimate the average annual cost of providing both housing and intensive supports to be ~\$15,000 - \$20,000 per individual.⁵⁶

⁵⁵ Average annual costs to relevant systems by persistently homeless individuals across calendar years 2015-16.

⁵⁶ See "Delivery cost estimation" section for more detail on assumptions and sensitivity. We estimate the total cost of delivery to be ~\$17,000-23,000 per year. Delivery costs estimated from Sacramento stakeholder and service provider interviews, and: LA County's Flexible Housing Subsidy Pool, which estimates that the total rental subsidy and rental administrative fee for clients is ~\$12,600 per year, and total cost of high-acuity care (at 20:1 ratios) is ~\$5,400 per year. Abt Associates, "Flexible Housing Subsidy Pool Brief: Evaluation of the Conrad N. Hilton Foundation Chronic Homelessness Initiative," 2017. Researchers at Columbia estimated that in New York City, the total cost of affordable housing, rental subsidy, and services was ~\$23,200. Dr. Angela Aidala et al., "Frequent Users Service Enhancement - 'Fuse' Initiative: New York City Fuse II Evaluation Report," Columbia University Mailman School of Public Health, 2014. On the higher end of the spectrum, researchers at CSH estimate that, in Austin Texas, the cost of an intensive permanent supportive housing program is ~\$28,550, unadjusted for rental subsidies or Medicaid reimbursement. The Corporation for Supportive Housing, "Pay for Success Feasibility Report: ECHO Austin/Travis County," 2016. Sacramento's Fair Market Rent (2017) is ~\$8,650 for an efficiency unit, and \$9,850 for a 1 bedroom. County estimates suggest that such a program would require ~\$5,400 per year in services support, and \$8,180 per person in property related services and housing subsidies.

But *total cost* is only part of the picture. The costs borne by local government depend on a number of other funding streams—in particular, access to Housing Choice Vouchers (HCVs), provider ability to bill Medicaid for services, and ongoing support from alternative funding streams such as Whole Person Care or No Place Like Home. The cost to a given jurisdiction, then, is sensitive to assumptions around access to other benefits.⁵⁷

For the purposes of our core analysis, we assumed:

- A 250-person intervention would have access to 150 HCVs
- Rental assistance would require a modest top-up to the housing voucher amount, as well as a housing services coordinator, in order to secure rentals in a tight market
- Some individuals—particularly those who would not be otherwise eligible for Permanent Supportive Housing, such as those who have spent significant time in jail or prison, or those without documented disabilities—will require the full rental cost of housing without a voucher
- ~50% of supportive services will be successfully billed to Medi-Cal.⁵⁸

Under those assumptions, local government would be responsible for ~\$11,000 per person served per year. (Note that these costs do not include a specific allocation for administration, technology services, or other startup costs.)

Return on investment

Based on the above, we would expect the value of expanding an intensive Permanent Supportive Housing intervention targeted toward Sacramento's highest-utilizing persistently homeless individuals to outweigh its costs. For a program targeting 250 individuals, the return on investment to the City and County is ~5%.⁵⁹ It remains important to note that this estimate excludes the value accruing via County correctional health, to a number of smaller City and County systems, and to large State and Federal programs such as physical healthcare and prisons.

This figure changes under different assumptions. For example:

- **County vs. City returns.** We have developed our core analysis around a joint targeting approach, because such an approach allows the analysis to focus efforts on the highest-cost utilizers across the widest distributions of cost. However, Sacramento County and the City of Sacramento may pursue separate methodologies and programs, each with their own targeting strategies.

Sacramento County Board of Supervisors, "County of Sacramento Initiatives To Reduce Homelessness," 21 March 201y. In our analysis, we assumed that a 250-person intervention would have access to 150 HCVs; that housing in Sacramento could require a modest "top-up" and a housing services coordinator in order to secure rental in a tight market; that some individuals—particularly individuals who would not be otherwise eligible for permanent supportive housing, such as those who have spent significant time in jail or prison, or those without documented disabilities—will require the full cost of housing; and that ~50% of supportive services will be billable to Medi-Cal. Medi-Cal billing rates come from experiences of national permanent housing thought leaders, including those implementing Pay for Success projects around the country. Note that these costs do not include a specific allocation for administration, technology services, or other startup costs.

⁵⁷ Housing Choice Vouchers are rental subsidies provided by the US Department of Housing and Urban Development, administered by local public housing agencies. Whole Person Care is a 5-year, \$1.5B program offered by the State of California as a part of its 1115 waiver with the Center for Medicare and Medicaid Services, intended to improve care coordination for high-utilizing patients. No Place Like Home is a 2016 law that dedicates \$2B in bond proceeds to develop Permanent Supportive Housing; the State's NOFA is expected in summer 2018.

⁵⁸ Like our overall PSH costs, these figures come from estimates of the implementation from a variety of PSH implementations, combined with conversations at the City and County. Medi-Cal billing rates come from experiences of national permanent housing thought leaders, including those implementing Pay for Success projects around the country.

⁵⁹ This excludes smaller costs and benefits reviewed that accrue to the State, Federal government, or private funders.

For the County, the economics of such an approach look broadly similar. Because County-level costs are key drivers of the overall costs of homelessness, the 250 highest utilizers of *County services only* largely overlap with the original pool, with only ~10% difference. The average cost of these individuals was about \$42,000 per year over calendar years 2015-2016 (versus ~\$45,000 for a joint targeting approach).

For the City, only ~1/5 of the top 250 highest utilizers of *City services only* were also members of the top 250 *County and City* target population. Most were either frequent users of the City Fire's ambulances, or else especially frequent users of shelters. On average, this population cost the City ~\$19,000 per year.

- **Narrower target population.** The core cost-benefit analysis presented above involves ~250 individuals. If we assume a narrower target population, we find a higher return on investment, as the population would be even further skewed toward high-cost individuals. Narrowing from 250 to 150 individuals, for example—and assuming the same proportion of HCVs and Medi-Cal billability—would result in an expected benefit to the City and County that is ~20% larger than the expected cost. On the flip side, of course, any administration, IT, or other fixed project management costs—not currently accounted for in this analysis—would be distributed over a smaller total project size.
- **Effect size expectations.** Our cost-benefit analysis assumes an effect that represents a midpoint from the literature. However, a stronger implementation, supported by robust performance management, may induce a stronger effect. If results reach the strongest effects seen in our review of experimental evidence, then the benefits of the program to the County and City would be ~60% larger than the expected cost of the program. On the other hand, if results conform to the lowest effects in prior studies, benefits would fall short of costs by ~30%.
- **Variations in State and Federal support.** Based on our conversations with local leaders and benchmarks from other jurisdictions, the core cost-benefit analysis assumes 150 HCVs and that ~50% of the total cost of intensive case management services would be billed to Medi-Cal. These are critical cost assumptions. If the proportion of HCVs is reduced to 100 for a project serving 250 individuals, or if Medi-Cal billability approaches 0%, the projected benefits would fall short of the costs by ~15%.

It's important to reiterate that these estimates do not include a comprehensive view of the benefits of Permanent Supportive Housing. Other City/County benefits, such as correctional health or the economic development impact of homelessness, would add to the value of the intervention by capturing more of the reductions in high-cost services; more importantly, the physical health impact—as reflected in the budgets of health plans, emergency departments, and ultimately Medi-Cal—would dramatically improve the overall cost-benefit analysis.

On the whole, these findings suggest that Permanent Supportive Housing with intensive case management, while expensive, creates benefits which largely, and perhaps even fully, offset costs. Scaling up such a service, then, will improve outcomes for the persistently homeless and while improving the efficiency of overall government spending.

Key considerations

In addition to the sensitivities outlined above, we identified a number of key considerations for the implementation of the proposed intervention.

Data accessibility and active performance management

Interventions, no matter how highly evidenced and well-codified, do not work uniformly for everyone. Humans are not laboratory beakers; people react differently to the same programs. Effects are driven not only by the program design, but also by high-quality execution, adapted and improved over time with meticulous attention to performance data.

Active performance management is an internal process of continuous organizational and programmatic improvement. It is about using live performance data—both on near-term processes and outputs, as well as longer-term outcomes—to refine ongoing service delivery. (Note that this is distinct from evaluation, which aims to determine the causal effects of a program or to answer critical questions about an organization’s program components.) Strong performance management is driven by actionable data, embraced by senior leadership, and embedded in organizational culture.

Once a project is launched, a good performance management plan will collect data which are directly related to decisions or priorities and which inform the answers to specific questions. These data often include such processes and outputs as enrollment targets, program attrition, and routine service utilization, and outcomes such as housing stability, arrests/bookings/incarceration days, and emergency health/behavioral health visits. Managers will set targets for each of these metrics in advance of program implementation, and then review updates regularly—quickly adapting to any challenges that arise in reaching proposed goals.

Ongoing and user-friendly accessibility to outcome data is crucial for project success. Other jurisdictions have developed data portals supporting their frequent-utilizer programs.⁶⁰ Perhaps the strongest of these tools was developed in Santa Clara County for “Project Welcome Home.” The County contracted with Palantir Technologies, a for-profit Silicon Valley company with substantial experience in building sensitive data infrastructure, to develop a technology system, back-end integration, triage tool, and user interface that would help to triage eligible participants and track their outcomes while protecting personally identifiable information.⁶¹

Finally, it is important to establish a culture of measurement and curiosity, ensuring that people throughout the team—both those in project oversight roles, and those in implementation roles—are involved in asking important questions, collecting data, and using this data to inform program development. Experts note that culture is one of the most important enabling features for performance measurement and management, and that success is as much about people and culture as it is about numbers.

⁶⁰ See, for example, the eight-step process created by LA County’s Research and Evaluation Services to identify high-cost homeless individuals, as described in “The Most Costly Homeless Single Adults in Los Angeles County: The Strategic Effort to Engage High-Cost Homeless Clients with More Effective Services,” Chief Executive Office, Strategic Integration Branch Research and Evaluation Services, August 2016; and data sharing and consent procedures from Mary Cunningham et al., “[Denver Supportive Housing Social Impact Bond Initiative: Evaluation and Research Design](#),” Urban Institute, March 2016.

⁶¹ See, for example, demonstration starting in minute four of “[Stabilizing Chronically Homeless Individuals with Project Welcome Home](#),” Palantir Technologies, Published on YouTube 28 June 2016.

Access to housing units

A successful Permanent Supportive Housing implementation depends on securing priority access for clients to permanent housing units or subsidies in either a single or scattered-site administration approach. Given that low housing vacancy and the lack of affordable housing units have been cited as barriers to housing in Sacramento, a scale-up—either through Pay for Success, or otherwise—should develop specific plans to leverage existing housing units or identify units in the development pipeline.

High-quality providers

Sacramento's Continuum of Care, Sacramento Steps Forward (SSF), reported in its 2016 Housing Inventory Count that 20 different local service providers contributed to a total of over 4,500 year-round beds and services for homeless individuals. These providers offer a combination of emergency shelter, transitional housing, Rapid Re-housing, and Permanent Supportive Housing services. They vary significantly in size and service scale, from smaller 6-12 bed specialty facilities to services and supports for programs with over 300 beds. For Permanent Supportive Housing, nine organizations and two voucher programs (VASH and Shelter Plus Care) provide 2,970 PSH beds, of which 1,382 are designated for chronically homeless individuals.⁶²

In speaking with select local service provider organizations,⁶³ several challenges to expansion quickly became apparent. We heard from nearly every organization that the low vacancy rate and lack of affordable housing stock in Sacramento is a serious challenge. Rising rents have priced many individuals and families out of homes that once were affordable, increasing the number of individuals and families at risk of or forced into homelessness, and decreasing options to move them back into affordable housing.

In parallel, an overwhelming demand for services has created high staffing ratios, reducing the effectiveness of some case management services. One service provider indicated that while the scope of their services offered aligned with codified models (in this case, Assertive Community Treatment), their case management ratios were not low enough to maintain fidelity to the model.

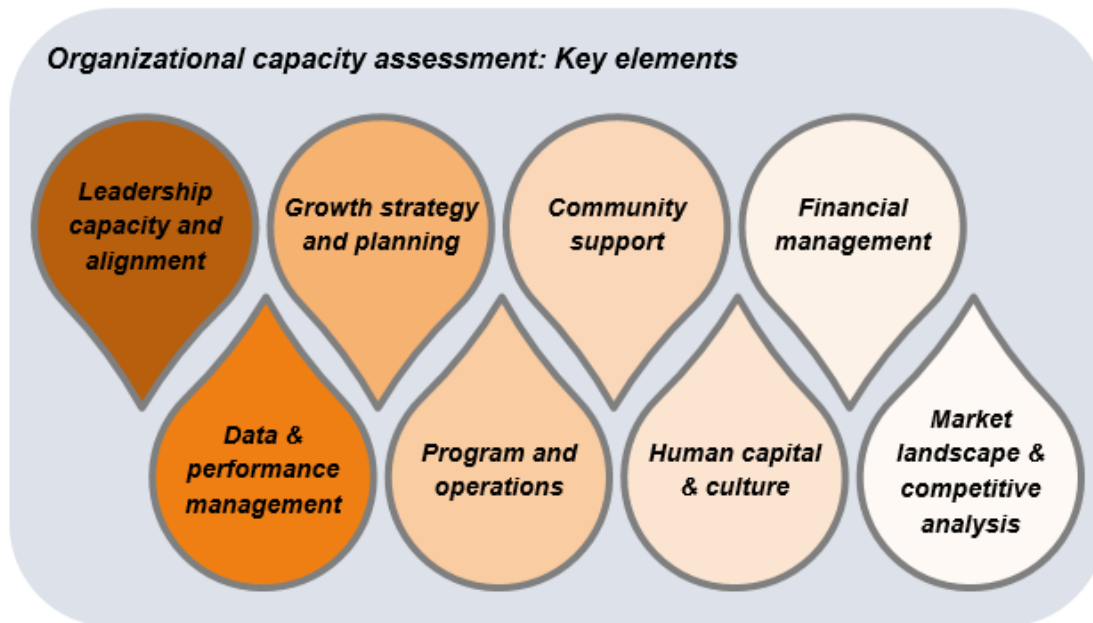
Finally, we heard that access to and funding for supportive services today is seen as insufficient. Several service providers indicated difficulty accessing County mental health, drug and alcohol treatment services for clients. Others emphasized a need for additional funding sources to support key wraparound services.

Pay for Success projects typically require nonprofits to scale up their operations significantly within a short period of time. To successfully scale while maintaining quality requires strength across many dimensions. In assessing provider readiness for Pay for Success, we break the assessment into eight categories, seeking to understand the strengths and challenges an organization faces.

⁶² US Department of Housing and Urban Development, "[HUD 2016 Continuum of Care Homeless Assistance Programs Housing Inventory Count Report](#)," 29 November 2016.

⁶³ A full table detailing the services and capacity of organizations addressing homelessness in Sacramento can be found in the Appendix. In addition, organization and contact names are available in the Interview Table in the Appendix, specifying those partners who graciously agreed to speak with us and share insight into their current programs and challenges.

Figure 14. Social Finance high-level provider due diligence framework.



Leadership capacity and alignment. What is the executive team's track record of managing growth and change? Have they demonstrated experience thinking strategically and prioritizing effectively? Is there a strong Board and alignment between Board and senior management?

Growth strategy and planning. How large is the social issue the organization is seeking to address? Does it have a credible theory of change for how to impact that issue? A realistic growth strategy? Has the organization demonstrated its ability to scale?

Community support. Does the organization have a proven ability to generate interest and recruit participants? Does it have strong connections with local leaders, relevant policy and advocacy efforts, and sector thought leaders? Well-managed external communications?

Financial management. Does the organization demonstrate financial stability, balance sheet strength, and strong external funding partnerships? Consistent and clear budgeting, and robust processes and audits?

Data and performance management. Does the organization have robust and consistent data capture and cleaning, aligned against the organization's theory of change? Are there processes in place for quality control and fidelity monitoring? Trouble shooting and adaptation?

Program and operations. Are there strong internal processes and protocols, a clearly delineated target population, careful management of operating costs, and continuous assessment of key risks?

Human capital and culture. What is the depth and breadth of organization talent? Are there clear recruiting and retention plans? Training and professional development? Do team members have clear roles? A cohesive and supportive culture?

Market landscape and competitive analysis. Does the organization understand the competitive landscape? Has it defined its advantages, and demonstrated success in expanding its share versus other, similar programs?

Provider strength is as important as intervention quality. Choosing carefully, building close partnerships with exceptional providers, and providing ongoing technical assistance and support is crucial to achieving positive outcomes.

Coordination

A number of initiatives are underway today in Sacramento to better serve the homeless. The City and County, the Continuum of Care, local health plans and health systems, and a range of nonprofits are all actively seeking to engage the persistently homeless at various point of care—and often, to connect them to permanent housing.

Current proposals suggest that that Sacramento County and the City of Sacramento will pursue new Permanent Supportive Housing interventions targeted toward persistently homeless individuals who are high utilizers of various systems. The County's Flexible Supportive Rehousing Program proposal intends to draw together housing-related services, subsidies, and intensive case management toward the homeless families and individuals who represent the highest utilizers of County services (particularly behavioral health services and incarceration to jail). The City's Whole Person Care pilot proposes to use outreach navigators in health care settings, care coordinators, intensive case management, and housing support services to improve outcomes for Medi-Cal beneficiaries with repeated incidents of avoidable emergency department use who are currently experiencing or at-risk of homelessness.

To ensure the programs' mutual success, it will be critical to coordinate eligibility, outreach, and learnings across programs. A process for sharing beneficiary eligibility and enrollment for each program will help to avoid parallel efforts to engage and house the same individual; it can also serve as a model for other local programs pursuing similar approaches. While it may prove challenging, working to form a joint data warehouse and data accessibility tool could help to facilitate this process, both from the perspective of City and County coordination, and from the perspective of providers, who would only need to learn one system for data reporting and go to one place for data access to support their performance management. In either case, regular communications between the programs should be oriented toward minimizing duplication, creating efficiencies, and sharing learnings across programs.

Providers chosen to implement each program should develop joint working groups to overcome parallel issues. Both programs expect to implement housing coordinators / property-related services managers; to maximize the programs' collective value, the City and County could consider procuring the same housing services manager, or else ensuring close coordination between separate providers (and others already in the community) in order to limit competition with one another for housing units.

Both programs, alongside others in Sacramento, hold great promise in helping the homeless achieve stability. Strengthening overlaps, connections, and shared learnings can maximize the impact of these programs as they seek to implement novel targeting strategies.

Federal policy risks

In addition to the local implementation concerns, the value of any Permanent Supportive Housing scale-up is tied to a set of federal policies governing Housing & Urban Development and Medicaid. Reductions to either program may both increase the cost of implementation, while at the same time increase the

urgency of need. Much could be written about these macro policy shifts; any Pay for Success project in this space should carefully consider such risks, and build them into project contracts.

Pay for Success investor landscape

In the event that a City, County, or joint project pursues Pay for Success financing, there are a large and diverse set of funders we believe may be interested in considering such a deal.

Pay for Success projects have attracted a variety of investors and investor types, from national financial institutions to local philanthropies. The table below summarizes the funders for the existing PFS projects in the homelessness space that focus on Permanent Supportive Housing.

Figure 15. Funders of Permanent Supportive Housing Pay for Success programs nationwide.

Project Name	Senior Funders	Junior Funders
Massachusetts Chronic Homelessness Pay for Success Initiative	<i>Santander Bank, United Way of Massachusetts Bay and Merrimack Valley, Corporation for Supportive Housing</i>	<i>None</i>
Project Welcome Home (Santa Clara, CA)	<i>The Reinvestment Fund, Corporation for Supportive Housing</i>	<i>The Sobrato Family Foundation, The California Endowment, The Health Trust, The James Irvine Foundation</i>
Housing to Health Initiative (Denver, CO)	<i>Northern Trust, Walton Family Foundation, Piton Foundation</i>	<i>Nonprofit Finance Fund, Laura and John Arnold Foundation, Walton Family Foundation, Living Cities, Colorado Health Foundation, Denver Foundation</i>

Other local foundations in California indicate significant appetite for efforts of this kind. Recently, The California Community Foundation (CCF), the Conrad N. Hilton Foundation, and the Weingart Foundation partnered to provide \$16M in loans and grants to invest in a Permanent Supportive Housing project in Los Angeles. The James Irvine Foundation previously funded the \$5M California Pay for Success Initiative. A collection of local and national funders are actively engaged in live Pay for Success deals across the state; other national Pay for Success funders are likewise engaged in homelessness explorations elsewhere. Our conversations to date have identified a number of interested philanthropic entities, community benefit investors, and high-net-worth individuals—both in California and nationally—who would be interested in further exploring a Pay for Success project focused on homelessness.

Findings and next steps

Homelessness troubles the dignity of our most vulnerable citizens and challenges the social fabric of our communities. It is also remarkably expensive. Persistently homeless individuals too often frequent Sacramento's inpatient psychiatric facilities and jails, or are transported by firefighters in ambulances to emergency departments.

New, promising programs in the County and City are poised to change that reality for many of Sacramento's highest-utilizing homeless individuals. This represents a new strategy: targeting especially

intensive, integrated support and housing services toward those who are the most expensive to treat. This kind of strategy can help to avoid future emergency services—and open those services up to others.

Sacramento should increase access to intensive permanent support housing for high-utilizing populations, which can significantly improve outcomes and largely offset costs. Social Finance’s retrospective cost analysis has shown that significant costs are concentrated in these highest-utilizers. At the same time, our literature review and expert interviews indicate a reasonably strong base of evidence suggesting that Permanent Supportive Housing and intensive case management (such as Assertive Community Treatment) can have meaningful social and fiscal impact for these most vulnerable individuals.

New programs should incorporate significant performance components into provider compensation. Sacramento’s high-utilizer programs are well suited to performance-based contracts: the proposed interventions are well supported by academic evidence; clear outcome metrics—particularly housing stability, supported by service utilization rates from jails, inpatient psychiatric care, or emergency departments—are measurable, meaningful, and linked to important local policy priorities; and a number of providers are ready to pursue shared-risk models. Contracts designed with financial incentives tied directly to performance are feasible, and can help to achieve better outcomes.

Both the County and City should consider Pay for Success contracts, which can be feasibly built around housing stability as a core metric. Pay for Success—a contract in which most or even all payment is contingent on performance—is a viable option in Sacramento. We believe that funders are willing to take on the performance risk of achieving housing stability (and, to a lesser extent, supplementary outcomes such as jail intakes / day or in-patient psychiatric visits) for ultra-high-utilizing homeless individuals treated with Permanent Supportive Housing and intensive case management. Pay for Success, then, would be a natural fit to fund the operating cost of the County’s Flexible Supportive Rehousing Pool. It is less-well-suited to fund the City’s full contribution for Whole Person Care: funders are unlikely to take on the broad outcomes and risks associated with the pilot writ large. However, assuming the City is successful in accessing and integrating relevant medical data, a Pay for Success project could be structured more narrowly—as a sub-component of the broader pilot—around high-utilizing individuals achieving stable housing and lowering emergency department visits.

Programs should avoid potential unintended consequences by defining success differently for different population segments, and by carefully defining contingencies. Building thoughtful performance-based contracts is valuable, but it’s not easy. Without careful population segmentation, they can drive providers toward easier-to-serve populations. Lacking appropriate controls, they can be plagued by gaming behavior or short-termism. Even good performance-based contracts can be dogged by external influences, unless their performance targets are built to be flexible against changing macroeconomic changes and policy shifts. Paying for performance can drive better outcomes, but only if contracts are designed to avoid perverse incentives and withstand the challenges of time and change.

City and County should invest in ensuring provider access to administrative data and support programs with careful, ongoing performance management. The right contract sets up a program for success, but continuous support and performance management is what helps to achieve it. Unlocking administrative data is crucial for targeting, and for performance evaluation, but it’s equally important for providers themselves to understand how they’re doing and make changes. Access to data for those providers, then, is an important feature across all stages of a good project: to define the problem, set goals, target beneficiaries, manage the program, and evaluate the results.

Programs should coordinate to maximize their value. Programs in the City and County should be thoughtful and proactive in communicating eligibility, coordinating outreach, and sharing learnings. Wherever possible, they should reduce duplication and maximize their joint value—reducing competition between programs for units, homeless individuals, and service providers.

*

Ultimately, this analysis supports where Sacramento’s leaders are heading: toward more, and more intensive, housing options for the most vulnerable. We recommend using an integrated approach toward utilization of public systems—as demonstrated in this work—to direct Permanent Supportive Housing and intensive case management to those who are, or are likely to be, the highest-cost utilizers of the social safety net. Our analysis suggests that doing so will largely offset the cost of the program, while significantly improving outcomes for the persistently homeless. Achieving those twin goals will be a product not only of scaling up these interventions, though; it is also about choosing the right providers, developing thoughtful performance-based contracts, and cultivating new approaches to data that build a culture of active performance management; recommendations in this report are intended to support each of these objectives. Finally, we recommend continued collaboration, mutual support, and active knowledge sharing between various Permanent Supporting Housing programs as they grow to reach more of the highest-utilizing persistently homeless individuals and families in Sacramento.

APPENDIX

Stakeholder interviews

We owe a tremendous debt of gratitude toward the individuals who supported this work through their time and insight. In particular, we gained valuable input from:

Angelique Ashby, *Sacramento City Council*
Arturo Baiocchi, *California State University, Sacramento*
David Barker, *California State University, Sacramento*
Mary Behnoud, *Department of Human Assistance*
Tracy Bennett, *Focus Strategies*
Joe Boniwell, *Housing California*
Phil Brelje, *Sacramento County Sheriff's Department, Field and Investigative Services*
Kate Bristol, *Focus Strategies*
Joan Burke, *Loaves and Fishes*
Jaycob Bytel, *City of Sacramento, Office of the Mayor*
Larry Carr, *Sacramento City Council*
Cindy Cavanaugh, *Sacramento County Director of Homeless Initiatives*
Howard Chan, *Sacramento City Manager*
Lisa Chan-Sawin, *Transform Health LLC*
Richard Dana, *Mutual Assistance Network*
Suzi Dotson, *WIND Youth*
Ann Edwards, *Department of Human Assistance*
John Foley, *Sacramento Self-Help Housing*
Greg Galliano, *City of Sacramento Police IMPACT Team*
Eric Guerra, *Sacramento City Council*
Daniel Hadley, *Sorenson Impact Center*
Emily Halcon, *City of Sacramento Homelessness Services Coordinator*
Greta Hansen, *Santa Clara County Counsel*
Steve Hansen, *Sacramento City Council*
Jeff Harris, *Sacramento City Council*
Lauren Haynes, *University of Chicago, Data Science and Public Policy*
Sherri Heller, *Department of Health and Human Services*
Keith Hodson, *California State University, Sacramento*
Kate Hutchinson, *Lutheran Social Services*
Tyler Jaeckel, *Harvard Kennedy School Government Performance Lab (Denver)*
Rick Jennings, *Sacramento City Council*
Erin Johansen, *TLCS*
Deborah Kasemeyer, *Northern Trust*
Nur Kausar, *Housing California*
Patrick Kennedy, *Sacramento County Board of Supervisors*
Kelly Kirk, *Sacramento County Sheriff's Department, Field and Investigative Services*
Paul Lake, *Sacramento Deputy County Executive*
Ryan Loofbourrow, *Sacramento Steps Forward*
Stephanie Mercier, *Corporation for Supportive Housing*
Fraser Nelson, *Salt Lake County, Data and Innovation*
Tyler Norris, *Well Being Trust*
Nancy Nielsen, *Lutheran Social Services*

Carol Roberts, *Lutheran Social Services*
Geoffrey Ross, *Sacramento Housing and Redevelopment Agency*
Al Rowlett, *Turning Point*
Lisa Sabillo, *Sacramento County Behavioral Health Services*
Anne Marie Schubert, *County District Attorney*
Jay Schenirer, *Sacramento City Council*
Lee Seale, *Sacramento County Probation*
Darrell Steinberg, *Mayor of Sacramento*
Barry Tiner, *City of Sacramento Police IMPACT Team*
Dave Torgerson, *Sacramento County Sheriff's Department, Correctional Services*
Joseph Walsh, *University of Chicago, Data Science and Public Policy*
Allen Warren, *Sacramento City Council*
Dawn Williams, *Sacramento County Behavioral Health Services*
Scott Williams, *City of Sacramento Fire Department*
Walter White, *City of Sacramento Fire Department*
Danielle Wildkress, *Corporation for Supportive Housing*
Mitch Wippern, *County of Napa Health and Human Services*
Alice Yu, *Palantir Technologies*
Uma Zykovsky, *Sacramento County Behavioral Health Services*

Evidence review

Examples of evidence-based housing and supportive housing intervention models that we reviewed include Permanent Supportive Housing with wraparound services, Transitional Housing programs, Ex-Offender Re-Entry Housing programs, Rapid Re-Housing programs, and long-term housing subsidies without wraparound services.

Many programs have demonstrated positive impact on individuals and communities in research spanning decades. Benefits include improving housing stability, employment, mental and physical health, and school attendance, and reducing substance use disorder, as well as improving public safety and stabilizing property values. In addition, studies have found that supportive housing is a cost-effective method for decreasing the use of homeless shelters, hospitals, emergency rooms and jails.

Based on guidance from our stakeholder interviews—including local providers, agency officials, and national experts—much of our research focused on Permanent Supportive Housing. These interventions are diverse, but key unifying elements include the provision of affordable, safe housing with participant contributions of no more than 30% of income, as well as linkages to wraparound services targeting mental illness, substance use disorder, physical health and employment readiness. The model has been subject to evaluation through rigorous randomized controlled trials (RCT) and quasi-experimental evaluations.⁶⁴ We focused on five RCTs whose target populations were most relevant to this project. Of these evaluations, housing stability and proportion of time homeless appear to be the most consistently positive outcomes.

Moreover, there are numerous variations of the Permanent Supportive Housing model. Codified variations that may include Permanent Supportive Housing have flourished, and a few have a strong body of evidence in their own right. Assertive Community Treatment (ACT), in particular, has been evaluated in

⁶⁴ Dr. Debra Rog et al., “Permanent Supportive Housing: Assessing the Evidence,” *Psychiatric Services*, Volume 65, Issue 3, March 2014, pp. 287-294.

several RCTs and quasi-experimental evaluations, and shown promise in addressing the needs of homeless individuals with severe mental illness. ACT is an evidence-based behavioral healthcare intervention that improves outcomes for people with severe mental health illness who are most at-risk of homelessness, psychiatric crisis and hospitalization, and involvement in the criminal justice system.⁶⁵ In five RCTs, effect sizes ranged from a reduction of days homeless by 30-65% and a reduction in psychiatric symptoms by upwards of 45% when compared to the control group.⁶⁶

In total, Social Finance relied heavily on ~20 evaluations of Permanent Supportive Housing as part of this report.

Figure 16. Published evaluations for a Permanent Supportive Housing (PSH) model.

Study details	Target population	Outcomes measured	Effect sizes (comparison to control group)
RCT; 1992; Morse et al.	165 homeless persons with mental illness	<ul style="list-style-type: none"> Days homeless Days hospitalized Psychiatric symptoms 	<ul style="list-style-type: none"> Reduction in days homeless by 42% ($p < .05$) Reduction in psychiatric symptoms by 37% ($p > .05$)
RCT; 1996; Korr and Joseph	114 homeless persons with mental illness	<ul style="list-style-type: none"> Days homeless 	<ul style="list-style-type: none"> Reduction in clients not in active housing by 43% ($p < .05$)
RCT; 1997; Morse et al.	178 homeless persons or at-risk of homeless with mental illness	<ul style="list-style-type: none"> Days homeless Days hospitalized Psychiatric symptoms 	<ul style="list-style-type: none"> Reduction in days homeless by 62% ($p < .05$) Reduction in psychiatric symptoms by 7% ($p > .05$)
RCT; 1997; Lehman et al.	152 homeless persons with severe and persistent mental illness	<ul style="list-style-type: none"> Days homeless Days hospitalized Psychiatric symptoms 	<ul style="list-style-type: none"> Reduction in days homeless by 31% ($p < .05$) Reduction in days hospitalized by 41% ($p > .10$)
RCT; 2000; Shern et al.	168 homeless persons with severe mental illness	<ul style="list-style-type: none"> Days homeless Days hospitalized Psychiatric symptoms 	<ul style="list-style-type: none"> Reduction in time spent on streets by 65% ($p < .05$) Reduction in psychiatric symptoms by 45% ($p > .05$)
RCT; 2003; Gulcur et al.	225 chronically homeless persons with psychiatric disabilities and often substance use disorder	<ul style="list-style-type: none"> Proportion of time homeless Proportion of time hospitalized (psychiatric inpatient) 	<ul style="list-style-type: none"> Reduction in proportion of time homeless ($p < .001$) Reduction in proportion of time hospitalized by 12% ($p < .01$)
RCT; 2003; Rosenheck et al.	460 homeless veterans with psychiatric and/or substance use disorder	<ul style="list-style-type: none"> Days housed Days homeless Cost of intervention 	<ul style="list-style-type: none"> Increase in days housed by 25% from standard care and 16% from case management only ($p < .001$ for both) Reduction in days homeless by 36% and 35% from control groups ($p < .005$ for both)
RCT; 2005; Greenwood et al.	197 homeless persons with mental illness (major Axis I diagnosis)	<ul style="list-style-type: none"> Proportion of time homeless Perceived choice Mastery Psychiatric symptoms 	<ul style="list-style-type: none"> Reduction in proportion of time homeless ($p < .0001$) Increase in perceived choice ($p < .0001$) No statistically significant change in mastery or psychiatric symptoms
RCT; 2005; Milby et al.	196 homeless persons with substance use disorder	<ul style="list-style-type: none"> Abstinence prevalence Days housed Days employed 	<ul style="list-style-type: none"> Increase in abstinence prevalence by 50% from no housing group ($p < .0001$) No statistically significant change in days housed or employed between groups

⁶⁵ Center for Evidence-Based Practices, "Assertive Community Treatment," Case Western Reserve University.

⁶⁶ Dr. Craig Coldwell et al., "The Effectiveness of Assertive Community Treatment for Homeless Populations With Severe Mental Illness: A Meta-Analysis," *The American Journal of Psychiatry*, Volume 164, Issue 3, March 2007: 393-399.

RCT; 2007; Kertesz et al.	138 homeless persons with substance use disorder	<ul style="list-style-type: none"> • Proportion of participants stably housed and employed over 60 days 	<ul style="list-style-type: none"> • Increase in stable housing and employment by 8% from no housing group ($p=.11$)
RCT; 2012; Basu et al.	407 homeless adults with chronic medical illnesses	<ul style="list-style-type: none"> • Days spent in shelter • Days homeless • Hospitalizations • Hospital days • ER visits • Annual cost of services • Number of arrests • Number of reconvictions • Days incarcerated (prison) • Days incarcerated (jail) 	<ul style="list-style-type: none"> • Reduction in shelter days by 0.07 ($p>.10$) • Reduction in days homeless by 62 ($p<.05$) • Reduction in hospitalizations by 0.47 • Reduction in hospital days by 2.64 ($p<.10$) • Reduction in ER visits by 1.27 ($p<.05$) • Reduction in arrests by 0.05 • Reduction in reconvictions by 0.03 ($p<.10$) • Reduction in prison days by 7.73 ($p<.10$) • Increase in jail days by 4.06
RCT; 2013; Somers et al.	297 homeless individuals with mental disorder	<ul style="list-style-type: none"> • Number of re-offenses / re-convictions 	<ul style="list-style-type: none"> • Significantly lower number of criminal justice convictions than control group (Adjusted IRR¹=0.29, $p<.01$)
Quasi-Exp. Study; 1999; Journal of Comm. Psych.	139 homeless persons with psychiatric disabilities	<ul style="list-style-type: none"> • Housing stability 	<ul style="list-style-type: none"> • Housing retention of 84.2% over 3 years compared to 59.6% of comparison program (N=2,864) over 2 years
Matched Control-Group Pre-Post Comparison; 2002; Culhane et al.*	3,365 homeless adults with mental illness and recent shelter usage	<ul style="list-style-type: none"> • Days spent in shelter • Days incarcerated (prison) • Days incarcerated (jail) 	<ul style="list-style-type: none"> • Reduction in shelter days by 86% over 2 years, compared to 6.4% decrease by control group • Reduction in prison days by 73%, compared to 5% increase by control group • Reduction in jail days by 40%, compared to 8.7% decrease in control group
Quasi-Exp. Study; 2007; Stefancic et al.	260 individuals with severe mental illness and chronic shelter use	<ul style="list-style-type: none"> • Housing status and retention • Cost per client 	<ul style="list-style-type: none"> • 84% housing retention over 2 years
Pre-Post; 2012; MA Housing & Shelter Alliance	555 formerly homeless individuals	<ul style="list-style-type: none"> • ER visits • Hospital days • Ambulance rides • Days incarcerated 	<ul style="list-style-type: none"> • Reduction in ER visits from 3.42 to 1.79 (12 mo.) • Reduction in hospital days from 5.48 to 3.84 • Reduction in ambulance rides from 1.53 to 0.83 • Reduction in days incarcerated from 8.03 to 0.72 (12 mo.)
Control-Group Pre-Post Comparison; 2013; NYC Dept of Health and Hygiene	1,695 homeless individuals including those with mental illness and sub. use disorder	<ul style="list-style-type: none"> • Average Medicaid utilization costs • Average psychiatric facility utilization costs • Average jail utilization costs per individual 	<ul style="list-style-type: none"> • Savings in Medicaid utilization costs of \$935 per individual compared to comparison group • Savings in State psychiatric facility costs of \$18,668 per individual compared to comparison • Savings in jail utilization costs of \$1,298 per individual compared to comparison group
Pre-Post; 2014; Thomas et al.	73 formerly homeless residents of supportive housing program	<ul style="list-style-type: none"> • ER visits • Hospitalizations • Hospital costs 	<ul style="list-style-type: none"> • Reduction in ER visits by 81% • Reduction in hospitalizations by 62% • Reduction in hospital charges by 68%
Control-Group Pre-Post Comparison; 2014; Aidala et al.	72 participants in NYC FUSE II program experiencing chronic homelessness and frequent usage of public services	<ul style="list-style-type: none"> • Days spent in permanent housing • Days spent in shelter • Usage of substances and hard drugs • Ambulance rides • ER visits • Hospitalization days 	<ul style="list-style-type: none"> • 86% in permanent housing compared to 42% in the comparison group ($p<.001$) • 146.7 fewer average days in shelter (reduction by 70%) compared to comparison group ($p<.001$) • Reduction in hard drug use and drug use disorder by 16.5% ($p<.001$) and 6.5% ($p<.01$) respectively

		<ul style="list-style-type: none"> • Psych. hospital days • Residential detox days • Days incarcerated 	<ul style="list-style-type: none"> • Reduction in ambulance rides by .54 ($p < .05$) • Reduction in ER visits by .08 ($p > .05$) • No significant change in hospital days • Reduction in psychiatric hospital days by 4.42 ($p < .05$) • Reduction in residential detox days by 9.83 ($p < .001$) • Reduction in days incarcerated by 40% compared to comparison group ($p < .01$)
Pre-Post comparison; 2016; University of South Florida	90 chronically homeless individuals with moderate to severe mental illness and substance use disorder	<ul style="list-style-type: none"> • Housing stability 	<ul style="list-style-type: none"> • Reduction in homelessness from 88.6% at baseline to 30% at 6 months ($p < .001$)

Supportive housing programs such as Transitional Housing and Ex-Offender Re-Entry Housing target a narrow population with specific needs. Transitional Housing is funded primarily through HUD, and offers individuals access to temporary housing with connections to employment, education, and other support services for up to 24 months. While the most recent federal study in 2010 on Transitional Housing indicated moderately positive outcomes, national policy has begun to shift emphasis and resources away from service-enriched Transitional Housing in favor of Permanent Supportive Housing.⁶⁷ In addition, more recent evaluations suggest that Transitional Housing has few advantages over usual care or other intervention models.⁶⁸ Based on these evaluations, Transitional Housing is not viewed as a strong alternative to other evidence-based interventions.

Ex-Offender Re-Entry Housing has shown moderate promise in reducing recidivism and improving housing outcomes in the ex-offender population. Ex-offenders face significant barriers to securing housing, such as a lack of funds, criminal history, and a lack of affordable housing units. Ex-Offender Re-Entry Housing programs seek to reduce recidivism and homelessness for those leaving prisons and jails during the critical period following release. Evaluations of such programs has been mixed, but two studies have shown positive outcomes: a 2013 Washington State-led Re-Entry Housing quasi-experimental evaluation of 208 ex-offenders over 3 years reported statistically significant 14% reductions in new convictions and 20% reductions in readmissions; and a 2012 Ohio State-led quasi-experimental evaluation of 244 ex-offenders reported 40% and 61% reductions in the likelihoods of being rearrested and re-incarcerated, respectively.⁶⁹

Other housing-focused interventions include Rapid Re-Housing (RRH) and long-term housing subsidies (SUB). Rapid Re-Housing offers a cost-effective short-term solution to individuals and families experiencing moderate barriers to stable housing. It is designed to move individuals and families into permanent housing as quickly as possible via short-term assistance and provisions, and most stay in the program for less than 6 months. In 2016, HUD published results of its Homelessness Prevention and Rapid Re-Housing Program evaluation, which served ~537,000 households over 3 years who were at or below the poverty line, homeless, or at risk of becoming homeless. 64% of individuals left the program within 6

⁶⁷ Department of Housing and Urban Development, "[Homeless Emergency Assistance and Transition to Housing Act](#)," 2009; Martha Burt et al., "[Life After Transitional Housing for Homeless Families Report](#)," US Department of Housing and Urban Development, Office of Policy Development and Research, 2010.

⁶⁸ Daniel Gubits et al., "[Family Options Study](#)," US Department of Housing and Urban Development, Office of Policy Development and Research, 2016.

⁶⁹ Faith E. Lutze et al., "[Homelessness and Reentry: A Multisite Outcome Evaluation of Washington State's Reentry Housing Program for High Risk Offenders](#)," *Criminal Justice and Behavior*, Vol. 41 No. 4. April 2014: 471-491; Fontaine et al., "[Supportive Housing for Returning Prisoners: Outcomes and Impacts of the Returning Home-Ohio Pilot Project](#)," The Urban Institute, August 2012.

months (compared to 80% in the usual care group), 67% of homeless individuals became stably housed upon exit, and 90% exited to permanent housing.⁷⁰ Another evaluation by Abt Associates in 2015 reviewed the HUD Rapid Re-Housing Demonstration project, which surveyed 500 participants across 23 sites, and found that 98% of participants exited the program to a stable housing situation and 90% remain housed within 12 months after exit.⁷¹

Similarly, long-term housing subsidies (SUB) are a federal program provided via HUD Section 8 Housing Choice Vouchers, which provide individuals with rental assistance vouchers (tied either to units or individuals). Long-term housing subsidies were the subject of a HUD-funded RCT comparing the impact of RRH, SUB, Transitional Housing, and usual care across ~2,200 homeless families across 12 communities over 3 years. Most families' housing stability outcomes improved significantly with long-term housing subsidies without specialized services, reporting upwards of 50% reductions in residential instability compared to usual care.⁷²

As noteworthy as the results have been for RRH and SUB, it is important to consider that both these programs are most appropriate for individuals or families for whom homelessness is primarily an issue of housing affordability. RRH and SUB is not an appropriate intervention for the chronically homeless population with severe substance use disorder and/or mental health illness.

Other service-oriented programs have demonstrated an impact on homelessness as well. Critical Time Intervention (CTI) is an intensive, time-limited case management approach seeking to prevent recurrent homelessness in people with severe mental illness leaving shelters, hospitals, or other institutions. CTI's approach is twofold: 1) strengthen an individual's long-term ties to services, family and friends and 2) to provide emotional and practical support during the transition back into the community. CTI lasts approximately 9 months and is delivered to a participant via a team of caregivers, case managers, and support networks.⁷³

CTI is supported by two RCTs and meets the Coalition for Evidence-Based Policy's "top tier" standard.^{74,75} The first RCT, conducted in the early 1990s, evaluated CTI with 96 homeless men with severe mental illness. Over an 18-month follow-up period, those assigned to CTI had one-third the number of homeless nights as the comparison group. The second RCT, conducted a decade later, tested the model with 182 homeless men and women with severe mental illness, and found a 24% reduction in homeless nights and psychiatric hospital nights. While not explicitly tied to a housing first model or placement into Permanent Supportive Housing, CTI has proven effective in homeless populations with significant need.

Funding mechanisms overview

Funding for social services today is typically released on the basis of services delivered. Shelters are paid by the numbers of beds filled; psychiatric hospitals are reimbursed for the care provided.

⁷⁰ "Homelessness Prevention and Rapid Re-Housing Program (HPRP): Year 3 & Final Program Summary," US Department of Housing and Urban Development, June 2016.

⁷¹ "Evaluation of the Rapid Re-Housing for Homeless Families Demonstration (RRHD) Program," US Department of Housing and Urban Development, Office of Policy Development and Research.

⁷² Gubits et al.

⁷³ Center for the Advancement of Critical Time Intervention, "CTI Model."

⁷⁴ Colleen Clark et al., "Case Management Models in Permanent Supported Housing Programs for People With Complex Behavioral Issues Who Are Homeless," *Journal of Dual Diagnostics*, Volume 12, Issue 12, Apr-Jun 2016: 185-92.

⁷⁵ The Coalition for Evidence-Based Policy defines Top Tier programs as those that have "shown in well-designed and implemented randomized controlled trials, preferably conducted in typical community settings, to produce sizable, sustained benefits to participants and/or society." Coalition for Evidence Based Policy, "Social Programs that Work: Critical Time Intervention."

Novel contracting mechanisms are fueled by novel funding mechanisms. We describe four such mechanisms below.

- **Outcomes-based contract:** A number of human services contracts today are paid on a “contingent” basis, meaning that they are only paid if certain standards are met. Few, however, have rates of payment that change based on performance. In an outcomes-based contract, governments define the terms of success—both the goals, and how they’ll be measured—upfront. These goals have to be tailored carefully to different target populations, so as not to incentivize providers to target those who are easiest to serve, and should have provisions in place to mitigate any major policy or macroeconomic shifts. Strong outcomes-based contracts rely on continuous access to robust data—both describing a given program’s participants, and drawing data from relevant comparisons or non-participants—in order to build active performance management systems. Finally, they should also have financial incentives built around key metrics, allowing strong performers to reinvest and expand, and asking weaker performers to reevaluate their programs.

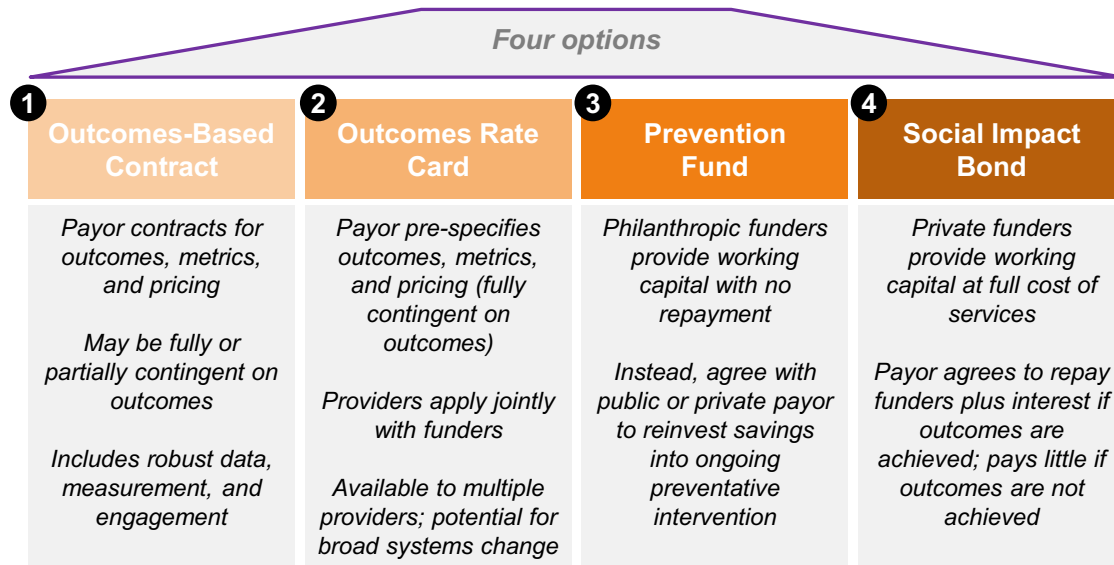
As with any contracting mechanism, outcomes-based contracts must be managed carefully. The balance sheets of most nonprofits can assume only limited financial risk; if shared risk is too great, one year of low performance may inadvertently drive programs out of business.

Similarly, nonprofits are at different levels of maturity and size. Newer and smaller nonprofits may need more runway to test and adapt their programs. Tiered outcomes-based contracts—in which larger, more mature organizations take on gradually greater levels of risk and reward, whereas others take on more conventional contracts—may be most appropriate.

- **Outcomes rate card:** An outcomes rate card is a list of outcomes that a government wants to achieve, segmented across target populations, with corresponding prices that it is willing to pay for each outcome achieved. In other words, it is a set of proactively defined outcomes-based contracts, along with the proposed payment for each outcome. Providers can apply to be a part of the outcomes rate card, and can ask third-party funders to take on part or all of the risk of achieving these outcomes.
- **Prevention fund:** Too often, philanthropists find that there is a gap between grants—which are intended to test and prove solutions—and public contracts which bring effective programs to scale. A prevention fund seeks to overcome this gap. Local or national foundations put up the working capital to scale an intervention, with the expectation—defined in contract or in a memorandum of understanding—that, if the program is evaluated and found to successfully meet pre-defined outcomes, then the government will agree to fund that program in the future. In practice, a prevention fund can look a lot like a social impact bond, but one in which investors, instead of reaping a reward for success, agree to donate any repayment back to the program.
- **Social impact bond:** Social impact bonds are the term used for “classic” Pay for Success mechanisms. These contracts are typically paid entirely on the basis of performance: governments pay little or nothing unless the intervention is successful. As noted previously, most nonprofits cannot take on this level of shared risk, so social impact bonds are usually financed in part or in whole by third-party funders. In most social impact bonds, those funders agree to pay nonprofits the true cost of services, over the course of a pre-defined contract. Social impact bonds require an additional layer of contracting—with an intermediary typically sourcing, structuring, and

facilitating the up-front investment—but allow governments to fully outsource the risk of performance. Taxpayers, then, only pay when a program works.

Figure 18. Funding options linking payment to performance.



Each mechanism can help to bring measurement and performance to the center of public contracting. However, different kinds of funding mechanisms are more suited for different local context and government priorities.