Denver Supportive Housing Social Impact Bond Initiative: Housing Stability Outcomes

Report to the Governance Committee

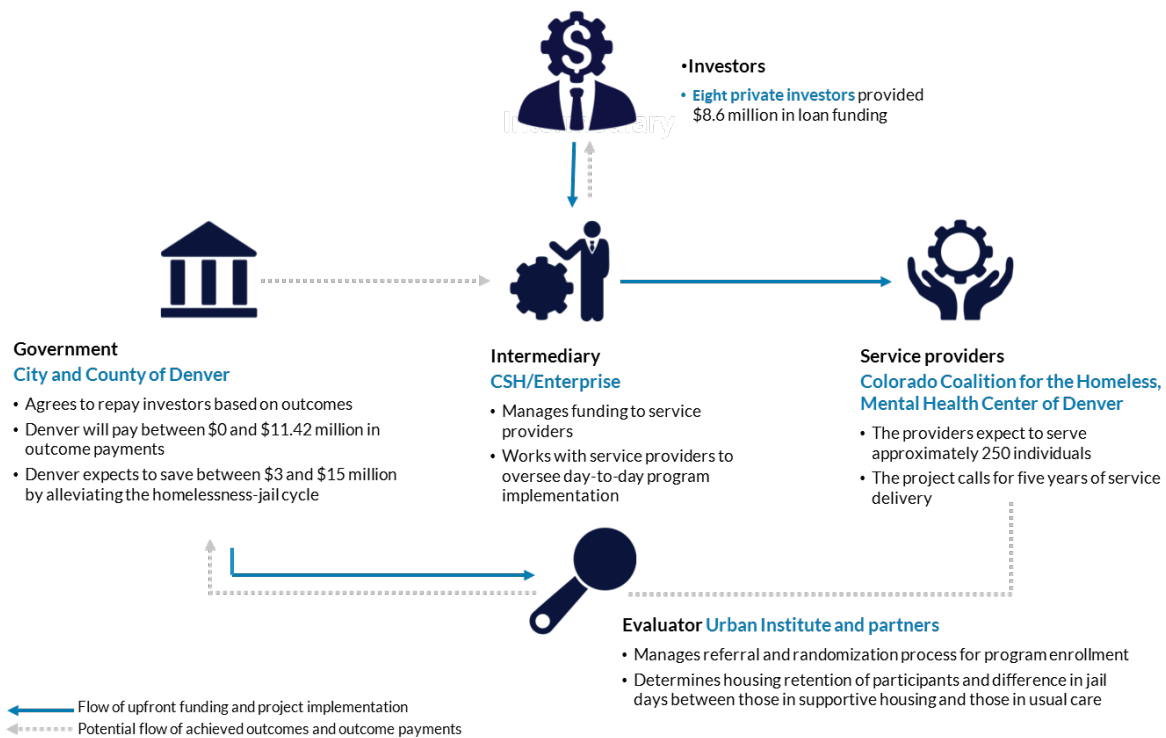*Sarah Gillespie, Devlin Hanson, Mary Cunningham, Michael Pergamit*
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In February 2016, the city of Denver and eight private investors closed on the city's first social impact bond (SIB), an $8.6 million investment to fund a supportive housing program for 250 of the city's most frequent users of the criminal justice system. The city will make outcome payments over five years based on the initiative's goals of housing stability and decreased jail days. This report details the first assessment of housing stability payment outcomes.

People who experience chronic homelessness often cycle in and out of jail, which affects their well-being and comes at an enormous cost to taxpayers. Most of these individuals face other challenges, such as persistent mental illness and substance use. Denver's Crime Prevention and Control Commission calculated that a cohort of 250 people in this target population spent an average of 56 nights in jail each year and interacted with other systems, such as detox and emergency care, costing the city $7.3 million a year.[1] The supportive housing program aims to stabilize people caught in a homelessness-jail cycle through housing and intensive services, leading to increased housing stability and decreased jail stays.

To launch the supportive housing program, the City and County developed an agreement with Denver PFS LLC, an entity established by the Corporation for Supportive Housing and Enterprise Community Partners, to execute the SIB. Eight lenders provided private investment for the SIB,[2] and the project leveraged additional funding through local and state housing resources and Medicaid reimbursement. In the first year, Colorado Coalition for the Homeless provided supportive housing services. Mental Health Center of Denver joined in providing supportive housing services in the second year. The Crime Prevention and Control Commission provided staff for the program referral process, and the Denver Police Department provided administrative data for the evaluation. The Urban Institute is conducting a five-year randomized controlled trial evaluation and implementation study in

collaboration with partners from the Evaluation Center at the University of Colorado Denver and the Burnes Center on Poverty and Homelessness at the University of Denver. Figure 1 shows the basic structure of the SIB project. Starting with this brief, housing stability outcomes will be reported annually, with a final report on the impact of supportive housing on jail stays in early 2021. If the program meets outcome benchmarks as specified in the SIB contract, the city will make success payments to the investors.

Denver Supportive Housing Social Impact Bond Initiative Framework

•**Investors**
• **Eight private investors** provided $8.6 million in loan funding

Government
City and County of Denver
• Agrees to repay investors based on outcomes
• Denver will pay between $0 and $11.42 million in outcome payments
• Denver expects to save between $3 and $15 million by alleviating the homelessness-jail cycle

Intermediary
CSH/Enterprise
• Manages funding to service providers
• Works with service providers to oversee day-to-day program implementation

Service providers
Colorado Coalition for the Homeless, Mental Health Center of Denver
• The providers expect to serve approximately 250 individuals
• The project calls for five years of service delivery

Evaluator Urban Institute and partners
• Manages referral and randomization process for program enrollment
• Determines housing retention of participants and difference in jail days between those in supportive housing and those in usual care

⟵ Flow of upfront funding and project implementation
⟵···· Potential flow of achieved outcomes and outcome payments

Source: Adapted from GAO-15-646 and the Urban Institute Pay for Success Initiative.

Housing Stability Success Payments

As specified in the Denver SIB contract[3], housing stability outcomes are based on a measure of total adjusted days in housing. This measure included participants who remained in housing for at least 365 days without any episodes away from housing for greater than 90 days or who had a planned exit from housing at any point (further defined in the Housing Retention and Exits section). The contract designated the first six months of the project as a pilot period. That time was not included in the total adjusted days in housing for the first payment, but it does count for determining if the participant achieved at least one year in housing. Days participants spent in jail were also subtracted from the total days in housing. The remaining total adjusted days in housing were multiplied by $15.12/day, as

specified in the SIB contract, to calculate the first success payment from the city (figure 2). Housing stability outcomes will be measured every two quarters for the next three and a half years and may change as more participants are engaged in the program.

In accordance with the contract, housing stability outcomes were observed for the first six quarters of the project, from January 1, 2016 through June 30, 2017, for participants in supportive housing who met the payment requirements. Overall, 39 participants met the payment requirement, 33 of whom maintained their voucher for a full year and six of whom passed away and are considered planned exits per contract terms. Together these participants spent 15,543 days in housing. After deductions for days within the pilot period (2,871 days) and participant days in jail (215 days), the project achieved 12,457 total adjusted days in housing (table 1). This outcome calls for a payment of just over $188,000 from the city of Denver. To provide context for this outcome, we examined several factors that affected the project's housing stability success payment including progress toward leasing targets, housing retention and exits, jail stays, and progress toward housing stability goals.

FIGURE 2

Summary of Housing Stability Payment Calculation

Participants meeting payment requirement

(Number of participants maintaining voucher for 365 days + number of participants with planned exit)

 # Days in housing   MINUS   **# Days in pilot period**   MINUS   **# Days in jail**

= Total adjusted days in housing

X $15.12/day

= Total housing stability payment for participants meeting payment requirement

Note: Calculation of the housing stability success payment is detailed in Article 4, Section 4.02 of the Denver SIB Contract dated February 2016.

TABLE 1

Housing Stability Outcomes

Quarters 1–6, January 1, 2016 to June 30, 2017

	Count
Number of participants meeting payment requirement	39
Number of participants maintaining voucher for 365 days	33
Number of participants with planned exit event	6
A. Total days in housing for participants meeting payment requirements	15,543
B. Minus total days in housing during the pilot period (1/1/2016–6/30/2016)	(2,871)
C. Minus total days in jail during the payment period (7/1/2016–6/30/2017)	(215)
D. Total adjusted days in housing for participants meeting payment requirement (D=A-B-C)	12,457
Total payment for participants meeting payment requirement ($15.12/Day)	$188,349.84

Progress toward Lease-Up Targets

The SIB contract outlined a leasing plan that detailed how many individuals would be leased up in permanent supportive housing each month. This leasing plan informed the financial model and expected housing stability payments. Because of construction delays, the Colorado Coalition for the Homeless leasing plan was reforecasted in October 2016 and the Mental Health Center of Denver leasing plan was reforecasted in January 2017. Table 2 shows the original and reforecasted leasing plans from January to June 2016, the lease-up period for those individuals who could meet the payment requirements for the first housing stability payment outcomes. Per the original targets, the project had 77 percent of planned participants in housing by the end of June 2016, and, per the reforecasted targets, the project exceeded the leasing by 103 percent by June 2016 (table 2).

TABLE 2

Progress toward Cumulative Leasing Targets

	Actual participant lease-ups (cumulative)	Original leasing plan (cumulative)	Progress toward original leasing targets	Reforecasted leasing plan (cumulative)	Progress toward reforecasted leasing targets
January 2016	2	0		0	
February 2016	4	10	40%	4	100%
March 2016	11	25	44%	11	100%
April 2016	26	35	74%	25	104%
May 2016	34	44	77%	33	103%
June 2016	37	48	77%	36	103%

Sources: Actual participant lease ups come from the Colorado Coalition for the Homeless program data from November 2015 to July 2016. The original leasing plan come from the Denver SIB Contract, Exhibit G, dated February 2016. The reforecasted leasing plan come from an e-mail to the Denver SIB Governance Committee dated October 26, 2016.

Housing Retention and Exits

Most participants who leased up in the first six months of the project successfully retained their housing. By June 30, 2017, the end of the observation period for the first housing stability payment outcomes, 33 participants had been stably housed for one year or more, spending an average of 444 days, or about 15 months.

Some participants exited housing, which were categorized as planned or unplanned. This categorization recognized that some exits may be intentional and positive, such as a move to other permanent housing. Deaths were also categorized as planned exits so as not to penalize provider performance given the vulnerability of some participants. Unplanned exits included jail stays of more than 90 days or any other interruption that caused the participant to be out of housing for more than 90 days. Unplanned exits are tracked to measure project performance, but these participants can reengage with the program in the future.

By June 30, 2017, six participants had a planned exit, all of which were categorized as planned exits because of participant deaths. These participants spent an average of 147 days, or about 4 months, and a median of 79 days, or about two and a half months, in housing before their planned exit (table 3). Of those participants who leased up in the first six months of the project, one participant experienced an unplanned exit during the first year in housing due to a jail stay of 129 days and so does not meet the housing stability payment requirement for this period of observation. However, this participant returned to housing after jail and may meet the payment requirement in the future.

TABLE 3

Days in Housing among Participants Meeting Housing Stability Payment Requirements

	All eligible	Stably housed for 365 days	Planned exits
Sample	39	33	6
Mean days in housing	399	444	147
Median days in housing	437	444	79

Sources: Days in housing and exit data come from the Colorado Coalition for the Homeless program data from January 1, 2016 to July 1, 2017 and include housing days during the pilot.
Notes: Days in housing is calculated as the number of days participants were in housing as of July 1, 2017. Jail stays have not been deducted from the days in housing calculation. "Stably housed for 365 days" includes the first nine pilot individuals and any treatment individuals who maintained their housing for one year without a more than 90 day exit. "Planned exits" includes any individual who was housed before July 1, 2017 and who had a planned exit. Planned exits meet housing stability payment requirements and include death, exit to other permanent housing, long-term residential treatment, or incarceration for actions solely occurring before referral.

Jail Stays

Following the contract, days in jail while participants were in housing were subtracted from housing stability days for the purposes of the payment outcome. Of the 39 participants who met the housing

stability payment requirements, 64 percent had not been in jail during their time in housing (table 4). Most participants who had any jail stays during their time in housing had only one stay with an average of 22 days in jail and a median of 12 days in jail. These participants had been in housing for an average of 100 days, or about three months, before their first jail stay.

The average number of jail days overall among those eligible for payment is 8 days. In our evaluation and research design for the SIB[4], data from a random sample of individuals meeting the targeting criteria showed that individuals spent, on average, 77 days in jail in the year after they met eligibility requirements. This target population differs from those currently in the program, as it includes individuals without recent police contact and does not account for who might have actually entered housing within the target population. However, it provides valuable context for the relatively few number of jail days seen in the first year after housing.

In future reports when samples sizes are large enough to draw conclusions, housing retention and jail stays will be cross-tabulated by race subgroups as specified in the evaluation design.

TABLE 4

Jail Stays among Participants Meeting Housing Stability Payment Requirements

	All Eligible		Maintained Voucher for 365 days		Planned Exits	
	N	Share/ mean	N	Share/ mean	N	Share/ mean
Total Sample	39		33		6	
Mean days in jail		8		9		3
Number of jail stays						
0 stays	25	64%	20	61%	5	83%
1 stay	8	21%	7	21%	1	17%
2 stays	1	3%	1	3%	0	0%
3 stays	4	10%	4	12%	0	0%
4+ stays	1	3%	1	3%	0	0%
Among those with any jail stays	14		13		1	
Mean days in jail		22		22		16
Median days in jail		12		10		16
Mean days in housing before first jail stay		100		95		167

Source: Jail data come from the Denver Sherriff's Department and do not include days spent in prisons or any jails outside of Denver.
Notes: Jail stays are calculated as the number of times participants were booked into jail while in housing before July 1, 2017. Days in jail is calculated as the total number of days an individual spent in jail while in housing before July 1, 2017. Jail data cover January 1, 2016 to July 1, 2017. This table includes jail stays and days in jail that occurred during the pilot period but after participant lease up.

Progress toward Housing Stability Goals

One way to understand progress toward the project's housing stability goals is to look at how actual adjusted days in housing compare to possible days in housing based on the original and reforecasted leasing plans, assuming the project met all leasing targets, all participants remained housed, and participants spent no days in jail. These are not housing stability rates but a benchmark against the possible days in housing (table 7). After deductions for the pilot period and days in jail, the project achieved 12,457 total adjusted days in housing. This represents 71 percent of the number of days possible based on the original leasing plan, with the difference primarily representing construction delays, which led to leasing delays. The project achieved 95 percent of days possible based on the reforecasted leasing plan. This suggests the project stayed on track with the reforecasted leasing plan and largely kept participants housed and out of jail during the first observation period for housing stability outcomes.

Another way to understand progress toward housing stability goals is to assess how actual *success payments* made for this period compare to the projected *success payments* based on the SIB's financial model. The SIB's financial model was developed by project partners at the beginning of the project and included base case assumptions about how many participants would remain housed and how many days participants would be in jail. Compared to the SIB financial model, housing stability lenders are receiving over 90 percent of the projected success payments for this period, again with the difference primarily representing construction delays, which led to leasing delays.

The first housing stability outcomes offer promising evidence the program is beginning to meet its housing stability goals. If the program continues to meet its revised leasing targets, investors may recoup the initial difference in repayment.

TABLE 5

Possible Days in Housing Achieved

Quarters 1–6

	Possible adjusted days in housing	Actual adjusted days in housing	Share of possible days in housing achieved
Original leasing plan	17,520	12,457	71%
Reforecasted leasing plan	13,140	12,457	95%

Notes: Possible adjusted days in housing are calculated the same way as actual days in housing. It does not include days in the pilot period. It assumes original or reforecasted leasing targets were met, participants leased up on the last day of the month for which they were targeted, and spent zero days in jail.

Appendix A: Methods

The housing stability calculations use Denver Sheriff's Department data on jail stays and Colorado Coalition for the Homeless data on lease ups and housing exits. The Denver Sheriff's Department data include the booking start and end dates for all jail stays from January 1, 2009 to July 1, 2017 on all individuals randomized into treatment by July 1, 2017 as well as the nine bonus names. The Colorado Coalition for the Homeless data included information on the dates of lease up and dates of housing exits from November 1, 2015 to July 1, 2017. Individuals are determined to have met the payment requirement if they have either been housed for 365 or more days without an absence from housing for more than 90 days or if they have leased up and had a planned exit. For those meeting the payment requirement, days in housing are calculated as the last day in housing or June 30, 2017 (whichever comes first) minus the date of lease up or January 1, 2016 (whichever comes last). The days in housing during the pilot period are calculated as the last day of housing or June 30, 2016 (whichever comes first) minus the date of lease up or January 1, 2016 (whichever comes last). Days in jail during the payment period are calculated as the booking end date, their housing exit date, or June 30, 2017 (whichever comes first) minus the booking start date, their lease up date, or June 30, 2016 (whichever comes last). Jail days were only included if they took place during the time the participant was housed after the pilot period from July 1, 2016 to June 30, 2017. One day was added to each of these measures, days in housing, days in housing during the pilot period and days in jail, so that that both the first day and last day were counted. Each of these measures, days in housing, days in housing during the pilot period and days in jail, were calculated at the individual level and then summed for the all participants meeting the payment requirement. Total adjusted days in housing were then calculated by taking the total days in housing and subtracting the total days in housing during the pilot period and the total time in jail.

Notes

1. For the Denver SIB fact sheet, see "Mayor Hancock Announces Social Impact Bonds to Serve First 25 Participants at North Colorado Station," City and County of Denver, news release, February 16, 2016, https://www.denvergov.org/content/denvergov/en/mayors-office/newsroom/2016/mayor-hancock-announces-social-impact-bonds-to-serve-first-25-pa.html.

2. The Denver SIB lenders include the Denver Foundation, the Piton Foundation, the Ben and Lucy Ana Walton Fund of the Walton Family Foundation, the Laura and John Arnold Foundation, Living Cities Blended Catalyst Fund LLC, Nonprofit Finance Fund, the Colorado Health Foundation, and the Northern Trust Company.

3. For more information on the Denver SIB contract, see "Denver Social Impact Bond Program", http://pfs.urban.org/pfs-project-fact-sheets/content/denver-social-impact-bond-program

4. For baseline data and the evaluation and research design, see Cunningham et al. (2016).

References

Cunningham, Mary, Michael Pergamit, Sarah Gillespie, Devlin Hanson, and Shiva Kooragayala. 2016. "Denver Supportive Housing Social Impact Bond Initiative: Evaluation and Research Design." Washington DC: Urban Institute.

About the Authors

Sarah Gillespie is a senior research associate in the Metropolitan Housing and Communities Policy Center at the Urban Institute, where her research focuses on homelessness. She is project director for the Denver Supportive Housing Social Impact Bond Initiative and the national evaluation of the Department of Housing and Urban Development–Department of Justice Pay for Success Permanent Supportive Housing Demonstration.

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