A G R E E M E N T

THIS AGREEMENT is made between the **CITY AND COUNTY OF DENVER**, a municipal corporation of the State of Colorado (the "City") with offices located at 1437 Bannock Street, Denver, Colorado 80202 and **THE URBAN INSTITUTE (the Consultant)**, a nonprofit corporation, incorporated under the laws of Delaware with its business address located at 2100 M Street NW, Washington, DC 20037, jointly "the parties".

The parties agree as follows:

1. COORDINATION AND LIAISON: The Consultant shall fully coordinate all services under the Agreement with the City's Chief Financial Officer, ("CFO") or, the CFO's Designee.

2. SERVICES TO BE PERFORMED:

a. As the CFO directs, the Consultant shall diligently undertake, perform, and complete all of the services and produce all the deliverables set forth on **Exhibit A**, the Scope of Work, and **Exhibit C,** the Evaluation Design, to the City's satisfaction.

b. The Consultant is ready, willing, and able to provide the services required by this Agreement.

c. The Consultant shall faithfully perform the services in accordance with the standards of care, skill, training, diligence, and judgment provided by highly competent individuals performing services of a similar nature to those described in the Agreement and in accordance with the terms of the Agreement.

3. TERM: The Agreement will commence on September 1, 2015 and will expire on August 31, 2021(the "Term").

4. COMPENSATION AND PAYMENT:

a. Fee: The City shall pay and the Consultant shall accept as the sole compensation for services rendered and costs incurred under the Agreement the amount of Nine Hundred Thirty-Seven Thousand and Five Hundred Dollars ($937,500.00) for fees. Amounts billed may not exceed the rates and budget set forth in **Exhibit B**.

b. Reimbursable Expenses: There are no reimbursable expenses allowed under the Agreement. All of the Consultant's expenses are contained in the rates and budget in Exhibit B.

c. **Invoicing**: Consultant shall provide the City with a monthly invoice in a format and with a level of detail acceptable to the City including all supporting documentation required by the City. The City's Prompt Payment Ordinance, §§ 20-107 to 20-118, D.R.M.C., applies to invoicing and payment under this Agreement.

d. **Maximum Contract Amount**:

(1) Notwithstanding any other provision of the Agreement, the City's maximum payment obligation will not exceed Nine Hundred Thirty-Seven Thousand and Five Hundred Dollars ($937,500.00) (the "Maximum Contract Amount"). The City is not obligated to execute an Agreement or any amendments for any further services, including any services performed by Consultant beyond that specifically described in **Exhibit A**. Any services performed beyond those in Exhibit A are performed at Consultant's risk and without authorization under the Agreement unless the City authorizes an amendment to the Agreement.

(2) The City's payment obligation, whether direct or contingent, extends only to funds appropriated annually by the Denver City Council, paid into the Treasury of the City, and encumbered for the purpose of the Agreement. The City does not by this Agreement irrevocably pledge present cash reserves for payment or performance in future fiscal years. The Agreement does not and is not intended to create a multiple-fiscal year direct or indirect debt or financial obligation of the City.

5. **STATUS OF CONSULTANT**: The Consultant is an independent contractor retained to perform professional or technical services for limited periods of time. Neither the Consultant nor any of its employees are employees or officers of the City under Chapter 18 of the Denver Revised Municipal Code, or for any purpose whatsoever.

6. **TERMINATION**:

a. The City has the right to terminate the Agreement with cause upon written notice effective immediately, and without cause upon thirty(30) days prior written notice to the Consultant. However, nothing gives the Consultant the right to perform services under the Agreement beyond the time when its services become unsatisfactory to the CFO.

b. Notwithstanding the preceding paragraph, the City may terminate the Agreement if the Consultant or any of its officers or employees are convicted, plead *nolo contendere*, enter into a formal agreement in which they admit guilt, enter a plea of guilty or otherwise admit culpability to criminal offenses of bribery, kick backs, collusive bidding, bid-

rigging, antitrust, fraud, undue influence, theft, racketeering, extortion or any offense of a similar nature in connection with Consultant's business. Termination for the reasons stated in this paragraph is effective upon receipt of notice.

c. Upon termination of the Agreement, with or without cause, the Consultant shall have no claim against the City by reason of, or arising out of, incidental or relating to termination, except for compensation for work duly requested and satisfactorily performed as described in the Agreement.

d. If the Agreement is terminated, with the exception of confidential information regarding any participant in the Pay For Success initiative described in Exhibit A hereto (a "Participant"), the City is entitled to and will take possession of all materials, equipment, tools and facilities it owns that are in the Consultant's possession, custody, or control by whatever method the City deems expedient. The Consultant shall deliver all documents in any form that were prepared under the Agreement and all other items, materials and documents that have been paid for by the City to the City. These documents and materials are the property of the City. The Consultant shall mark all copies of work product that are incomplete at the time of termination "DRAFT-INCOMPLETE".

e. In the event that Consultant's role as the independent evaluator is terminated, and a new independent evaluator is selected by the City, new data sharing agreements must be negotiated between the new independent evaluator and each of the agencies from which confidential information regarding any Participant was collected before Consultant can turn over any confidential data to the new independent evaluator. Upon demonstration of signed data sharing agreements, Consultant will provide all Participant data to the new independent evaluator.

7. **EXAMINATION OF RECORDS**: Any authorized agent of the City, including the City Auditor or his or her representative, has the right to access and the right to examine any pertinent books, documents, papers and records of the Consultant, involving transactions related to the Agreement until the latter of three (3) years after the final payment under the Agreement or expiration of the applicable statute of limitations.

8. **WHEN RIGHTS AND REMEDIES NOT WAIVED**: In no event will any payment or other action by the City constitute or be construed to be a waiver by the City of any breach of covenant or default that may then exist on the part of the Consultant. No payment, other action, or inaction by the City when any breach or default exists will impair or prejudice

any right or remedy available to it with respect to any breach or default. No assent, expressed or implied, to any breach of any term of the Agreement constitutes a waiver of any other breach.

9. INSURANCE:

a. General Conditions: Consultant agrees to secure, at or before the time of execution of this Agreement, the following insurance covering all operations, goods or services provided pursuant to this Agreement. Consultant shall keep the required insurance coverage in force at all times during the term of the Agreement, or any extension thereof, during any warranty period, and for three (3) years after termination of the Agreement. The required insurance shall be underwritten by an insurer licensed or authorized to do business in Colorado and rated by A.M. Best Company as "A-"VIII or better. Each policy shall contain a valid provision or endorsement requiring notification to the City in the event any of the above-described policies be canceled or non-renewed before the expiration date thereof. Such written notice shall be sent to the parties identified in the Notices section of this Agreement and shall reference the City contract number listed on the signature page of this Agreement. Said notice shall be sent thirty (30) days prior to such cancellation or non-renewal unless due to non-payment of premiums for which notice shall be sent ten (10) days prior. If such written notice is unavailable from the insurer, Consultant shall provide written notice of cancellation, non-renewal and any reduction in coverage to the parties identified in the Notices section by certified mail, return receipt requested within three (3) business days of such notice by its insurer(s) and referencing the City's contract number. If any policy is in excess of a deductible or self-insured retention, the City must be notified by the Consultant. Consultant shall be responsible for the payment of any deductible or self-insured retention. The insurance coverages specified in this Agreement are the minimum requirements, and these requirements do not lessen or limit the liability of the Consultant. The Consultant shall maintain, at its own expense, any additional kinds or amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Agreement.

b. Proof of Insurance: Consultant shall provide a copy of this Agreement to its insurance agent or broker. Consultant may not commence services or work relating to the Agreement prior to placement of coverages required under this Agreement. Consultant certifies that the certificate of insurance attached as **Exhibit D**, preferably an ACORD certificate, complies with all insurance requirements of this Agreement. The City requests that the City's

contract number be referenced on the Certificate. The City's acceptance of a certificate of insurance or other proof of insurance that does not comply with all insurance requirements set forth in this Agreement shall not act as a waiver of Consultant's breach of this Agreement or of any of the City's rights or remedies under this Agreement. The City's Risk Management Office may require additional proof of insurance, including but not limited to policies and endorsements.

c. **Additional Insureds**: For Commercial General Liability, Auto Liability and Professional Liability, Consultant and subcontractor's insurer(s) shall include the City and County of Denver, its elected and appointed officials, employees and volunteers as additional insured.

d. **Waiver of Subrogation**: For all coverages required under this Agreement, Consultant's insurer shall waive subrogation rights against the City.

e. **Subcontractors and Subconsultants**: All subcontractors and subconsultants (including independent contractors, suppliers or other entities providing goods or services required by this Agreement) shall be subject to all of the requirements herein and shall procure and maintain the same coverages required of the Consultant. Consultant shall include all such subcontractors as additional insured under its policies (with the exception of Workers' Compensation) or shall ensure that all such subcontractors and subconsultants maintain the required coverages. Consultant agrees to provide proof of insurance for all such subcontractors and subconsultants upon request by the City.

f. **Workers' Compensation/Employer's Liability Insurance**: Consultant shall maintain the coverage as required by statute for each work location and shall maintain Employer's Liability insurance with limits of $100,000 per occurrence for each bodily injury claim, $100,000 per occurrence for each bodily injury caused by disease claim, and $500,000 aggregate for all bodily injuries caused by disease claims. Consultant expressly represents to the City, as a material representation upon which the City is relying in entering into this Agreement, that none of the Consultant's officers or employees who may be eligible under any statute or law to reject Workers' Compensation Insurance shall effect such rejection during any part of the term of this Agreement, and that any such rejections previously effected, have been revoked as of the date Consultant executes this Agreement.

g. **Commercial General Liability**: Consultant shall maintain a Commercial General Liability insurance policy with limits of $1,000,000 for each occurrence, $1,000,000 for each personal and advertising injury claim, $2,000,000 products and completed operations aggregate, and $2,000,000 policy aggregate.

h. **Business Automobile Liability**: Consultant shall maintain Business Automobile Liability with limits of $1,000,000 combined single limit applicable to all owned, hired and non-owned vehicles used in performing services under this Agreement.

i. **Professional Liability (Errors & Omissions)**: Consultant shall maintain limits of $1,000,000 per claim and $1,000,000 policy aggregate limit. Policy shall include a severability of interest or separation of insured provision (no insured vs. insured exclusion) and a provision that coverage is primary and non-contributory with any other coverage or self-insurance maintained by the City.

j. **Additional Provisions**:

(i) For Commercial General Liability, the policy must provide the following:

(a) That this Agreement is an Insured Contract under the policy;

(b) Defense costs are outside the limits of liability;

(c) A severability of interests, separation of insureds provision (no insured vs. insured exclusion); and

(d) A provision that coverage is primary and non-contributory with other coverage or self-insurance maintained by the City.

(ii) For claims-made coverage:

(a) The retroactive date must be on or before the contract date or the first date when any goods or services were provided to the City, whichever is earlier.

(b) Consultant shall advise the City in the event any general aggregate or other aggregate limits are reduced below the required per occurrence limits. At their own expense, and where such general aggregate or other aggregate limits have been reduced below the required per occurrence limit, the Consultant will procure such per occurrence limits and furnish a new certificate of insurance showing such coverage is in force.

10. DEFENSE AND INDEMNIFICATION

a. Consultant agrees to defend, indemnify, reimburse and hold harmless City, its appointed and elected officials, agents and employees for, from and against all liabilities, claims, judgments, suits or demands for damages to persons or property arising out of, resulting from, or relating to the work performed under this Agreement ("Claims"), unless such Claims have been specifically determined by the trier of fact to be the sole negligence or willful misconduct of the City. This indemnity shall be interpreted in the broadest possible manner to indemnify City for any acts or omissions of Consultant or its subcontractors either passive or active, irrespective of fault, including City's concurrent negligence whether active or passive, except for the sole negligence or willful misconduct of City.

b. Consultant's duty to defend and indemnify City shall arise at the time written notice of the Claim is first provided to City regardless of whether Claimant has filed suit on the Claim. Consultant's duty to defend and indemnify City shall arise even if City is the only party sued by claimant and/or claimant alleges that City's negligence or willful misconduct was the sole cause of claimant's damages.

c. Consultant shall defend any and all Claims which may be brought or threatened against City and shall pay on behalf of City any expenses incurred by reason of such Claims including, but not limited to, court costs and attorney fees incurred in defending and investigating such Claims or seeking to enforce this indemnity obligation. Such payments on behalf of City will be in addition to any other legal remedies available to City and will not be the City's exclusive remedy.

d. Insurance coverage requirements specified in this Agreement in no way lessen or limit the liability of the Consultant under the terms of this indemnification obligation. The Consultant is responsible to obtain, at its own expense, any additional insurance that it deems necessary for the City's protection.

e. This defense and indemnification obligation shall survive the expiration or termination of this Agreement.

11. <u>TAXES, CHARGES AND PENALTIES</u>: The City is not liable for the payment of taxes, late charges or penalties of any nature, except for any additional amounts that the City may be required to pay under the City's prompt payment ordinance D.R.M.C. § 20-107, *et seq*. The Consultant shall promptly pay when due, all taxes, bills, debts and obligations it incurs

performing the services under the Agreement and shall not allow any lien, mortgage, judgment or execution to be filed against City property.

12. ASSIGNMENT; SUBCONTRACTING: The Consultant shall not voluntarily or involuntarily assign any of its rights or obligations, or subcontract performance obligations, under this Agreement without obtaining the CFO's prior written consent. Any assignment or subcontracting without such consent will be ineffective and void, and will be cause for termination of this Agreement by the City. The CFO has sole and absolute discretion whether to consent to any assignment or subcontracting, or to terminate the Agreement because of unauthorized assignment or subcontracting. In the event of any subcontracting or unauthorized assignment: (i) the Consultant shall remain responsible to the City; and (ii) no contractual relationship shall be created between the City and any sub-consultant, subcontractor or assign.

13. INUREMENT: The rights and obligations of the parties to the Agreement inure to the benefit of and shall be binding upon the parties and their respective successors and assigns, provided assignments are consented to in accordance with the terms of the Agreement.

14. NO THIRD PARTY BENEFICIARY: Enforcement of the terms of the Agreement and all rights of action relating to enforcement are strictly reserved to the parties. Nothing contained in the Agreement gives or allows any claim or right of action to any third person or entity. Any person or entity other than the City or the Consultant receiving services or benefits pursuant to the Agreement is an incidental beneficiary only.

15. NO AUTHORITY TO BIND CITY TO CONTRACTS: The Consultant lacks any authority to bind the City on any contractual matters. Final approval of all contractual matters that purport to obligate the City must be executed by the City in accordance with the City's Charter and the Denver Revised Municipal Code.

16. SEVERABILITY: Except for the provisions of the Agreement requiring appropriation of funds and limiting the total amount payable by the City, if a court of competent jurisdiction finds any provision of the Agreement or any portion of it to be invalid, illegal, or unenforceable, the validity of the remaining portions or provisions will not be affected, if the intent of the parties can be fulfilled.

17. CONFLICT OF INTEREST:

a. No employee of the City shall have any personal or beneficial interest in the services or property described in the Agreement. The Consultant shall not hire, or contract

for services with, any employee or officer of the City that would be in violation of the City's Code of Ethics, D.R.M.C. §2-51, et seq. or the Charter §§ 1.2.8, 1.2.9, and 1.2.12.

b. The Consultant shall not engage in any transaction, activity or conduct that would result in a conflict of interest under the Agreement. The Consultant represents that it has disclosed any and all current or potential conflicts of interest. A conflict of interest shall include transactions, activities or conduct that would affect the judgment, actions or work of the Consultant by placing the Consultant's own interests, or the interests of any party with whom the Consultant has a contractual arrangement, in conflict with those of the City. The City, in its sole discretion, will determine the existence of a conflict of interest and may terminate the Agreement if it determines a conflict exists, after it has given the Consultant written notice describing the conflict.

18. **NOTICES**: All notices required by the terms of the Agreement must be hand delivered, sent by overnight courier service, mailed by certified mail, return receipt requested, or mailed via United States mail, postage prepaid, if to Consultant at the address first above written, and if to the City at:

CFO or Designee
201 West Colfax Avenue
Denver, Colorado 80202

With a copy of any such notice to:

Denver City Attorney's Office
1437 Bannock St., Room 353
Denver, Colorado 80202

Notices hand delivered or sent by overnight courier are effective upon delivery. Notices sent by certified mail are effective upon receipt. Notices sent by mail are effective upon deposit with the U.S. Postal Service. The parties may designate substitute addresses where or persons to whom notices are to be mailed or delivered. However, these substitutions will not become effective until actual receipt of written notification.

Notices for the Consultant shall be sent as follows:

Contractual: Lorraine C. Washington, Senior Contracts Administrator, Office of Grants, Contracts, Purchasing and Pricing, The Urban Institute, 2100 M Street, NW, Washington, D.C. 20037. Phone: (202) 261-5713, Fax: (202) 728-0231 and email: LWashington@urban.org.

Financial Matters: Walker Grossell, Accounting Manager, Accounting, The Urban Institute, 2100 M Street, NW, Washington, DC 20037. Phone: (202) 261-5815, Email: WGrossell@urban.org.

19. NO EMPLOYMENT OF ILLEGAL ALIENS TO PERFORM WORK UNDER THE AGREEMENT:

a. This Agreement is subject to Division 5 of Article IV of Chapter 20 of the Denver Revised Municipal Code, and any amendments (the "Certification Ordinance").

b. The Consultant certifies that:

(1) At the time of its execution of this Agreement, it does not knowingly employ or contract with an illegal alien who will perform work under this Agreement.

(2) It will participate in the E-Verify Program, as defined in § 8-17.5-101(3.7), C.R.S., to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement.

c. The Consultant also agrees and represents that:

(1) It shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.

(2) It shall not enter into a contract with a subconsultant or subcontractor that fails to certify to the Consultant that it shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.

(3) It has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement, through participation in either the E-Verify Program.

(4) It is prohibited from using either the E-Verify Program procedures to undertake pre-employment screening of job applicants while performing its obligations under the Agreement, and it is required to comply with any and all federal requirements related to use of the E-Verify Program including, by way of example, all program requirements related to employee notification and preservation of employee rights.

(5) If it obtains actual knowledge that a subconsultant or subcontractor performing work under the Agreement knowingly employs or contracts with an illegal alien, it will notify such subconsultant or subcontractor and the City within three (3) days. The Consultant shall also terminate such subconsultant or subcontractor if within three (3) days after such notice the subconsultant or subcontractor does not stop employing or contracting with the illegal alien, unless during such three-day period the subconsultant or subcontractor provides information to establish that the subconsultant or subcontractor has not knowingly employed or contracted with an illegal alien.

(6) It will comply with any reasonable request made in the course of an investigation by the Colorado Department of Labor and Employment under authority of § 8-17.5-102(5), C.R.S., or the City Auditor, under authority of D.R.M.C. 20-90.3.

d. The Consultant is liable for any violations as provided in the Certification Ordinance. If Consultant violates any provision of this section or the Certification Ordinance, the City may terminate this Agreement for a breach of the Agreement. If the Agreement is so terminated, the Consultant shall be liable for actual and consequential damages to the City. Any such termination of a contract due to a violation of this section or the Certification Ordinance may also, at the discretion of the City, constitute grounds for disqualifying Consultant from submitting bids or proposals for future contracts with the City.

20. DISPUTES: All disputes between the City and Consultant arising out of or regarding the Agreement will be resolved by administrative hearing pursuant to the procedure established by D.R.M.C. § 56-106(b)-(f). For the purposes of that administrative procedure, the City official rendering a final determination shall be the CFO as defined in this Agreement.

21. GOVERNING LAW; VENUE: The Agreement will be construed and enforced in accordance with applicable federal law, the laws of the State of Colorado, and the Charter, Revised Municipal Code, ordinances, regulations and Executive Orders of the City and County of Denver, which are expressly incorporated into the Agreement. Unless otherwise specified, any reference to statutes, laws, regulations, charter or code provisions, ordinances, executive orders, or related memoranda, includes amendments or supplements to same. Venue for any legal action relating to the Agreement will be in the District Court of the State of Colorado, Second Judicial District (Denver District Court).

22. NO DISCRIMINATION IN EMPLOYMENT: In connection with the performance of work under the Agreement, the Consultant may not refuse to hire, discharge, promote or demote, or discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, gender variance, marital status, or physical or mental disability. The Consultant shall insert the foregoing provision in all subcontracts.

23. COMPLIANCE WITH ALL LAWS: Consultant shall perform or cause to be performed all services in full compliance with all applicable laws, rules, regulations and codes of the United States, the State of Colorado; and with the Charter, ordinances, rules, regulations and Executive Orders of the City and County of Denver.

24. LEGAL AUTHORITY: Consultant represents and warrants that it possesses the legal authority, pursuant to any proper, appropriate and official motion, resolution or action passed or taken, to enter into the Agreement. Each person signing and executing the Agreement on behalf of Consultant represents and warrants that he has been fully authorized by Consultant to execute the Agreement on behalf of Consultant and to validly and legally bind Consultant to all the terms, performances and provisions of the Agreement. The City shall have the right, in its sole discretion, to either temporarily suspend or permanently terminate the Agreement if there is a dispute as to the legal authority of either Consultant or the person signing the Agreement to enter into the Agreement.

25. NO CONSTRUCTION AGAINST DRAFTING PARTY: The parties and their respective counsel have had the opportunity to review the Agreement, and the Agreement will not be construed against any party merely because any provisions of the Agreement were prepared by a particular party.

26. ORDER OF PRECEDENCE: In the event of any conflicts between the language of the Agreement and the exhibits, the language of the Agreement controls.

27. INTELLECTUAL PROPERTY RIGHTS: The City and Consultant intend that all property rights to any and all materials, text, logos, documents, booklets, manuals, references, guides, brochures, advertisements, URLs, domain names, music, sketches, web pages, plans, drawings, prints, photographs, specifications, software, , products, ideas, inventions, and any other work or recorded information created by the Consultant and paid for by the City pursuant to this Agreement, in preliminary or final form and on any media whatsoever (collectively,

"Materials"), shall belong to the City. The Consultant shall disclose all such items to the City unless the CFO directs otherwise in writing. To the extent permitted by the U.S. Copyright Act, 17 USC § 101, *et seq*., the Materials are a "work made for hire" and all ownership of copyright in the Materials shall vest in the City at the time the Materials are created. To the extent that the Materials are not a "work made for hire," the Consultant (by this Agreement) sells, assigns and transfers all right, title and interest in and to the Materials to the City, including the right to secure copyright, patent, trademark, and other intellectual property rights throughout the world and to have and to hold such rights in perpetuity.

a. Data Ownership: Consultant will have full ownership of all data Consultant collects under this agreement. Consultant is bound by IRB-approved standards of confidentiality and will not be able to turn over raw data to the City, SPV, investors, or any other stakeholders. In the event any of these entities requests an audit of the data to verify the outcomes reported by Consultant, the requesting entity may select and fully pay for a qualified independent researcher to travel to the Consultant's work site and conduct an audit of the data needed to verify the outcomes tied to the success payments. The qualified independent research must sign the confidentiality pledge signed by all on the Consultant's research team and operate under the same IRB standards of confidentiality as the Consultant's research team. The qualified independent researcher would only have access to the data outlined in the table below for the purposes of verifying the outcomes tied to the success payments:

Data Source	**Measures**
MHCD/CCH Program Data	- **Unique research ID** - Random assignment date - Client housing screen outcome and date - Client agreement to housing and date - Voucher application outcome and date - Voucher issuance date - Voucher denial date - Voucher denial reason - Lease-up date - Voucher loss reason and date

Denver Sheriff	- **Unique Research ID** - Jail Entry Date - Jail Exit Date - Facility

In the event the Consultant's role as the independent evaluator is terminated, and a new independent evaluator is selected, new data sharing agreements must be negotiated between the new independent evaluator, the City, and each of the agencies from which data was collected before Consultant can turn over any data to the new independent evaluator. During this time, the Consultant shall maintain all data in a secure manner and shall provide all reasonable accommodations to the City and the new independent evaluator. It will be incumbent on the new independent evaluator to ensure any necessary confidentiality and data security protocols are in place such that new data sharing agreements can be signed with the City and each administrative data agency that allow Consultant to turn over any data already collected to the new independent evaluator.

28. SURVIVAL OF CERTAIN PROVISIONS: The terms of the Agreement and any exhibits and attachments that by reasonable implication contemplate continued performance, rights, or compliance beyond expiration or termination of the Agreement survive the Agreement and will continue to be enforceable. Without limiting the generality of this provision, the Consultant's obligations to provide insurance and to indemnify the City will survive for a period equal to any and all relevant statutes of limitation, plus the time necessary to fully resolve any claims, matters, or actions begun within that period.

29. ADVERTISING AND PUBLIC DISCLOSURE: The Consultant shall not include any reference to the Agreement or to services performed pursuant to the Agreement in any of the Consultant's advertising or public relations materials without first obtaining the written approval of the CFO. Any oral presentation or written materials related to services performed under the Agreement will be limited to services that have been accepted by the City. The Consultant shall notify the CFO in advance of the date and time of any presentation. Nothing in this provision precludes the transmittal of any information to City officials.

30. CONFIDENTIAL INFORMATION:

a. City Information: Consultant acknowledges and accepts that, in performance of all work under the terms of this Agreement, Consultant may have access to Proprietary Data or confidential information that may be owned or controlled by the City, and that the disclosure of such Proprietary Data or information may be damaging to the City or third parties. Consultant agrees that all Proprietary Data, confidential information or any other data or information provided or otherwise disclosed by the City to Consultant shall be held in confidence and used only in the performance of its obligations under this Agreement. Consultant shall exercise the same standard of care to protect such Proprietary Data and information as a reasonably prudent consultant would to protect its own proprietary or confidential data. "Proprietary Data" shall mean any materials or information which may be designated or marked "Proprietary" or "Confidential", or which would not be documents subject to disclosure pursuant to the Colorado Open Records Act or City ordinance, and provided or made available to Consultant by the City. Such Proprietary Data may be in hardcopy, printed, digital or electronic format.

31. DATA SHARING AGREEMENT WITH THE "CITY"

a. City of Denver Responsibilities:

(1) The Denver Police Department (DPD) will:

A. Create a list of eligible individuals according to the eligibility requirements outlined in the Research Design and send a de-identified list with PINs to the Urban Institute.

B. Update the eligibility list every 6 months in March and September

C. Provide daily reports to the Consultant of all individuals from the eligibility list who have a police contact or arrest and are flagged as transient

D. Provide annual client-level data outlined in the table below by sending de-identified data with the unique research ID (PIN) attached, to the Consultant.

Administrative Data from DPD	
Outcome	**Measures**
Arrests	- Unique Research ID (PIN provided to DPD) - Demographics (e.g. gender, race/ethnicity, date of birth) - Contact Date - Contact Reason

	- Arrest Date - Arrest Reason - Indicator of Transient Arrest - Indicator of Custodial Arrest

E. Data extracts will be provided every twelve (12) months until the final year of the study. Any extracts beyond that will be made through modification of this agreement.

F. Data will be provided via SFTP with password protection. This is the ONLY acceptable method of providing data. The following methods are UNACCEPTABLE: Plain text email, USPS with unencrypted CD-ROM, UNSECURE FTP, and all other methods that are not mentioned above.

(2) The Denver Sheriff's Department (DSD) will:

A. Provide access to client-level data outlined in the table below by sending de-identified data with the unique research ID (PIN) attached, to the Consultant.

Administrative Data from DSD	
Outcome	**Measures**
Jail Days	- Unique Research ID (PIN provided to DSD) - Charges - Jail Entry Date - Jail Exit Date - Facility - Exit Reason (if available)

B. Data extracts will be provided every six (6) months starting in late 2017, according to the schedule in the table below, for a total of 8 reports. Any extracts beyond that will be made through modification of this agreement.

Report #	**Jail Data Pulled from SIB Start Date through**	**List of Individuals sent to DSD for Data Pull**	**Report Delivered from DSD to UI**	**Report Delivered from UI to City and SIB partners**
1	6/30/17	7/15/17	8/1/17	9/15/17
2	12/31/17	1/15/18	2/1/18	3/15/18

3	6/30/18	7/15/18	8/1/18	9/15/18
4	12/31/18	1/15/19	2/1/19	3/15/19
5	6/30/19	7/15/19	8/1/19	9/15/19
6	12/31/19	1/15/20	2/1/20	3/15/20
7	6/30/20	7/15/20	8/1/20	9/15/20
8	12/31/20	1/15/21	2/1/21	5/15/21

C. Data will be provided via SFTP with password protection. This is the ONLY acceptable method of providing data. The following methods are UNACCEPTABLE: Plain text email, USPS with unencrypted CD-ROM, UNSECURE FTP, and all other methods that are not mentioned above.

b. **Consultant Responsibilities:** The Consultant shall use a number of safeguards to guide the use of these data, including:

(1) Protect the data by keeping the data stored on a secure server that requires an encrypted password and is only accessible to the research team.

(2) Consultant will not release any part of the original extracted data files provided by DPD/DSD to any third party without the express written permission of the DPD/DSD.

(3) Study results will be released in aggregate, summary, or statistical forms that will not allow for identification of any study participant.

(4) Consultant will ensure that each UI staff person with access to the data signs a staff confidentiality form (Exhibit E) and adheres to the on-site data collection and data storage protocol (Exhibit F).

(5) Consultant will limit the use of these data for the above referenced research study. Use beyond this study will require written permission of DPD/DSD.

(6) Consultant will destroy all data by the later of December 2022, or two years after all the reports and research papers involving this project are published.

(7) Consultant will not use the data in any way that would violate the Health Insurance Portability and Accountability Act of 1996 ("HIPPA").

32. CITY EXECUTION OF AGREEMENT: The Agreement will not be effective or binding on the City until it has been fully executed by all required signatories of the City and County of Denver, and if required by Charter, approved by the City Council.

33. AGREEMENT AS COMPLETE INTEGRATION-AMENDMENTS: The Agreement is the complete integration of all understandings between the parties as to the subject matter of the Agreement. No prior, contemporaneous or subsequent addition, deletion, or other modification has any force or effect, unless embodied in the Agreement in writing. No oral representation by any officer or employee of the City at variance with the terms of the Agreement or any written amendment to the Agreement will have any force or effect or bind the City.

34. USE, POSSESSION OR SALE OF ALCOHOL OR DRUGS: Consultant shall cooperate and comply with the provisions of Executive Order 94 and its Attachment A concerning the use, possession or sale of alcohol or drugs. Violation of these provisions or refusal to cooperate with implementation of the policy can result in contract personnel being barred from City facilities and from participating in City operations.

35. ELECTRONIC SIGNATURES AND ELECTRONIC RECORDS: Consultant consents to the use of electronic signatures by the City. The Agreement, and any other documents requiring a signature under the Agreement, may be signed electronically by the City in the manner specified by the City. The Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

Contract Control Number:

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at Denver, Colorado as of

SEAL

CITY AND COUNTY OF DENVER

ATTEST:

By_____

_____

APPROVED AS TO FORM:

REGISTERED AND COUNTERSIGNED:

By_____

By_____

By_____

Contract Control Number: FINAN-201523940-00

Contractor Name: URBAN INSTITUTE

By: SEE FOLLOWING PAGE FOR SIGNATURE

Name: _____
(please print)

Title: _____
(please print)

ATTEST: [if required]

By: _____

Name: _____
(please print)

Title: _____
(please print)

Contract Control Number: FINAN-201523940-00

Contractor Name: URBAN INSTITUTE

By: _____

Name: Marcus L. Stevenson, Director
Office of Grants, Contracts, Purchasing and Pricing
(please print)

Title: _____
(please print)

ATTEST: [if required]

By: _____

Name: Lorraine C. Washington
Senior Contracts Administrator
(please print)

Title: _____
(please print)

EXHIBIT A: Urban Institute Scope of Work

The Urban Institute agrees to the following scope of work and specifics included in **Exhibit C** the **Evaluation Design**.

I. Task 1: Referral and Randomization—Management & Coordination

a. Based upon the eligibility criteria established in the Research Design and in accordance the Social Impact Bond Contract between the City and SPV (the "Social Impact Bond Contract) in coordination with the City of Denver ("City")—including the Denver Police Department, the Denver PFS, LLC (i.e, Social Impact Bond Special Purpose Vehicle ("SPV")), and Colorado Coalition for the Homeless ("CCH") and the Mental Health Center of Denver ("MHCD), the Urban Institute ("Urban") will:

   i. Establish a list of eligible participants for the Social Impact Bond initiative;
   ii. Lead and coordinate a randomization process needed to identify the proper number of individuals needed to fulfill the Research Design;
   iii. Lead and coordinate a referral and hand-off process for those individuals identified as the group receiving treatment;
   iv. Facilitate a housing screen that will screen out individuals who are not considered homeless according to the Research Design;
   v. Support a Release of Information process for those participants receiving treatment; and
   vi. Lead and coordinate ongoing updates to the PFS eligibility list and randomize individuals in accordance with Service Provider needs.

b. As a part of this task, Urban will work with all program partners to address ongoing challenges and referral and enrollment difficulties, including but not limited to:

   i. Attending operating committee meetings and governance committee meetings as outlined in the Social Impact Bond Contract;
   ii. Providing ongoing and timely support to City, SPV, and Provider staff involved with the project; and
   iii. Generating proposals for improving processes to ensure adequate referral and enrollment levels are met.

II. Task 2: Process Study—Data Collection

a. Key process-related information is necessary to manage implementation, including the housing and referral pipeline, and to make mid-course corrections to keep the initiative on track to achieve long-term outcomes. Process information will also help interpret the results of the impact evaluation based on documentation of the program model and participant engagement. To collect data and conduct the process study, Urban will:

   i. Manage an engagement dashboard;
   ii. Manage a housing enrollment pipeline;
   iii. Conduct annual site visits and key respondent interviews with service providers and other important stakeholders; and
   iv. Review program-related documents such as training manuals, standard operating procedures, or other descriptions of program components.

III. Task 3: Impact Study—Data Collection

a. In accordance with the Social Impact Bond Contract, Urban will collect and certify the validity of the data and calculations used to inform Success Payment. Specifically, Urban will:
    i. Collect and validate Service Provider data on participant exits from housing and measure days spent in housing; and
    ii. Collect and validate Denver Sheriff Department data on jail days and measure the impact of the Program on the target population's jail days.

b. In addition to the measures outlined in the Social Impact Bond Contract, Urban will collect and certify the validity of the data and calculations used to measure additional outcomes. These outcomes include, but are not limited to:
    i. Whether outcomes differ for participants housed in scatter-site versus single-site units;
    ii. Police contacts and continued criminal justice involvement;
    iii. Healthcare utilization and costs (e.g. Detox and emergency room utilization); and
    iv. Homelessness system utilization and costs.

c. In the event of an early termination of the Social Impact Bond Contract, Urban will collect and certify the validity of the data and calculations used to inform the early success payments as outlined in the Social Impact Bond Contract and Research Design. Additionally, Urban will work with the City to determine what additional reports and outcomes can be documented at the point of early termination.

d. In the event that that an insufficient enrollment difference exists as defined in the Research Design, Urban will collect and certify the validity of the data and calculations used to inform Success Payments in accordance with the Alternate Analysis Plan for Triggers Payments outlined in the Research Design.

IV. Task 4: Reporting and Dissemination

a. Urban will provide timely and comprehensive reports as outlined in the Research Design and as required under the Social Impact Bond Contract between the City and SPV to the City, SPV, Providers, and Lenders. Lenders to receive reports are those lenders that have a Lender Agreement with the SPV for the PFS project.

b. For project monitoring purposes, Urban will maintain a biweekly engagement dashboard and monthly pipeline dashboard as outlined in the Evaluation Design. Data for these dashboards will be collected at least biweekly from the Service Providers. The biweekly engagement dashboard will track individual-level data on participant engagement and enrollment in the program to be used by the service providers and Urban to manage the randomization timeline and address any implementation challenges. Data from the engagement dashboard will be aggregated into a monthly pipeline dashboard that Urban will share with the City, SPV, Providers, and Lenders.

The process for project monitoring will follow the schedule outlined in the Research Design.

c. Urban will conduct the outcome measurements on housing stability for interim payment purposes and submit outcome reports starting in quarter 7 and continuing every 12 months thereafter as indicated in the Evaluation Design through the evaluation project wind up in quarter 22. Urban will conduct the outcome measurements on jail days for final payment purposes and submit the outcome report in the evaluation project wind up in quarter 22. Outcome reports will be delivered to the City, SPV, Providers, and Lenders as outlined in the Research Design and Social Impact Bond Contract. In furtherance of this task, Urban will calculate Housing Stability Success Payments and Jail Day Reductions Success Payments and prepare the related certifications as described under the Pay for Success Contract.

d. In the event the City, SPV or Lenders dispute any of Urban's calculations and certifications described above, Urban shall attempt to cooperate in the resolution of such dispute in accordance with Section 4.2 of the Pay for Success Contract.

e. At the conclusion of the evaluation or in the event of early termination of the Social Impact Bond Contract, Urban will provide the City with an evaluation report that captures an overview of the evaluation, key findings, and outcomes—including but not limited to:
    i. Methodology used to evaluate the Social Impact Bond program;
    ii. Process study findings and recommendations; and
    iii. Impact study data (aggregate), outcomes, findings, and recommendations.

f. Upon termination of the PFS initiative, Urban will return to the City and the SPV, and provide an irrevocable license to the City and the SPV to use, all of the data, reports, analyses, work products and intellectual property provided or acquired by Urban in connection with the PFS initiative, except for confidential information regarding any program participant, in a format specified by the City and the SPV.

EXHIBIT B

BUDGET

K:\Metro\MCunning\Denver SH-SIB\Planning Phase\[09094-001 v5 revised approved.xls]Year 5
THE URBAN INSTITUTE 01/05/16
Budget Period: January 1, 2016 - December 31, 2016

Denver SH-SIB Evaluation

BUDGET ESTIMATE
Prepared for City of Denver

Object Classification	Referral and Randomization: Management and Coordination Task 1 Hours	Task 1 Dollars	Process Study: Data Collection Task 2 Hours	Task 2 Dollars	Impact Study: Data Collection Task 3 Hours	Task 3 Dollars	Reporting and Dissemination Task 4 Hours	Task 4 Dollars	Total Estimated Hours	Total Estimated Dollars
ON-SITE PERSONNEL										
Mary Cunningham	24	$1,737	40	$2,894	39	$2,822	40	$2,894	143	$10,347
Sarah Gillespie	32	1,413	80	3,534	40	1,767	40	1,767	192	8,481
Devlin Hanson	32	1,697	0	0	80	4,243	40	2,122	152	8,062
Shiva Kooragayala	36	900	0	0	81	2,025	40	1,000	157	3,925
Michael Pergamit	8	696	0	0	38	3,308	24	2,089	70	6,093
Secretarial/Administrative Support	13	285	3	58	5	117	4	88	25	548
Subtotal	145	6,728	123	6,486	283	14,282	188	9,960	739	37,456
Provision for Merit Increase*		303		292		643		448		1,686
Subtotal		7,031		6,778		14,925		10,408		39,142
Fringe Benefits		3,002		2,894		6,373		4,444		16,713
Subtotal		10,033		9,672		21,298		14,852		55,855
Indirect		5,175		4,989		10,986		7,661		28,811
Subtotal		15,208		14,661		32,284		22,513		84,666
SUBCONTRACT(S):										
The Evaluation Center (Univ. of CO at Denver)		0		20,000		0		0		20,000
Thr Burnes Institute		0		0		0		8,000		8,000
Subtotal		0		20,000		0		8,000		28,000
TRAVEL	No.		No.		No.		No.		No.	
Round-trip Airfare: WDC/ Denver, CO	2	900	2	900	0	0	0	0	4	$1,800
Trip Duration: 3 day(s)/trip 2 night(s)/trip										
Transfers @ 2 /trip	4	60	4	60	0	0	0	0	8	120
Per Diem:										
Lodging @ 2 night(s)/trip	4	800	4	800	0	0	0	0	8	1,600
Lodging Tax @		120		120		0		0		240
M&IE @ 2.50 day(s)/trip	5.00	330	5.00	330	0.00	0	0.00	0	10.00	660
Car Rental & Related @ 3 day(s)/trip	3	165	3	165	0	0	0	0	6	330
Inflation Factor on Travel*		48		48		0		0		96
Subtotal		2,423		2,423		0		0		4,846
OTHER DIRECT COSTS										
Computer Network Services		560		470		1,100		730		2,860
Books/Periodicals/Library Services		10		10		20		10		50
Reproduction @ $.095/page		12		20		14		30		76
Telephone Expenses		10		10		30		20		70
Postage/Delivery		10		10		20		10		50
Supplies and Miscellaneous		10		10		10		10		40
Subcontract Administration		0		828		0		331		1,159
Inflation Factor on ODCs (excl Sub. Admin)*		12		11		24		16		63
Subtotal		624		1,369		1,218		1,157		4,368
Total Direct and Indirect Costs		$18,255		$38,453		$33,502		$31,670		$121,880
GENERAL & ADMINISTRATIVE		3,560		3,598		6,533		4,616		18,307
Total Estimated Cost		21,815		42,051		40,035		36,286		140,187
FIXED FEE		1,527		2,944		2,802		2,540		9,813
TOTAL ESTIMATED COST PLUS FIXED FEE		$23,342		$44,995		$42,837		$38,826		$150,000

* The provision for merit increases is calculated at a rate of 4.5 percent per year, prorated, in anticipation of merit salary increases effective January 1 of each year. This is an Institute average, used for estimating purposes only. Actual rates may vary by employee. For consultants, the provision for increases is calculated at a rate of 4.5 percent per project year, beginning in the second project year. In addition, a factor of 2.0 percent per year, prorated, has been added to travel and other direct costs to allow for future inflation.

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THE URBAN INSTITUTE 01/05/16
Budget Period: January 1, 2017 - December 31, 2017

Denver SH-SIB Evaluation

BUDGET ESTIMATE
Prepared for City of Denver

Object Classification	Referral and Randomization: Management and Coordination Task 1 Hours	Task 1 Dollars	Process Study: Data Collection Task 2 Hours	Task 2 Dollars	Impact Study: Data Collection Task 3 Hours	Task 3 Dollars	Reporting and Dissemination Task 4 Hours	Task 4 Dollars	Total Estimated Hours	Total Estimated Dollars
ON-SITE PERSONNEL										
Mary Cunningham	40	$2,894	24	$1,737	24	$1,737	40	$2,894	128	$9,262
Sarah Gillespie	80	3,534	80	3,534	40	1,767	40	1,767	240	10,602
Devlin Hanson	80	4,243	0	0	85	4,508	40	2,122	205	10,873
Shiva Kooragayala	40	1,000	0	0	81	2,025	40	1,000	161	4,025
Michael Pergamit	38	3,308	0	0	38	3,308	24	2,089	100	8,705
Secretarial/Administrative Support	5	117	2	44	5	117	4	88	17	366
Subtotal	283	15,096	106	5,315	273	13,462	188	9,960	851	43,833
Provision for Merit Increase*		1,389		489		1,239		917		4,034
Subtotal		16,485		5,804		14,701		10,877		47,867
Fringe Benefits		7,039		2,478		6,277		4,644		20,438
Subtotal		23,524		8,282		20,978		15,521		68,305
Indirect		12,134		4,272		10,820		8,006		35,232
Subtotal		35,658		12,554		31,798		23,527		103,537
SUBCONTRACT(S):										
The Evaluation Center (Univ. of CO at Denver)		0		20,000		0		0		20,000
Thr Burnes Institute		0		0		0		8,000		8,000
Subtotal		0		20,000		0		8,000		28,000
TRAVEL	No.		No.		No.		No.		No.	
Round-trip Airfare: WDC/ Denver, CO	2	900	2	900	0	0	0	0	4	$1,800
Trip Duration: 3 day(s)/trip 2 night(s)/trip										
Transfers @ 2 /trip	4	60	4	60	0	0	0	0	8	120
Per Diem:										
Lodging @ 2 night(s)/trip	4	800	4	800	0	0	0	0	8	1,600
Lodging Tax @		120		120		0		0		240
M&IE @ 2.50 day(s)/trip	5.00	330	5.00	330	0.00	0	0.00	0	10.00	660
Car Rental & Related @ 3 day(s)/trip	3	165	3	165	0	0	0	0	6	330
Inflation Factor on Travel*		96		96		0		0		192
Subtotal		2,471		2,471		0		0		4,942
OTHER DIRECT COSTS										
Computer Network Services		1,100		410		1,060		730		3,300
Books/Periodicals/Library Services		20		10		20		10		60
Reproduction @ $.095/page		26		10		40		30		106
Telephone Expenses		30		10		30		20		90
Postage/Delivery		20		10		10		10		50
Supplies and Miscellaneous		10		10		10		10		40
Subcontract Administration		0		828		0		331		1,159
Inflation Factor on ODCs (excl Sub. Admin)*		49		19		47		33		148
Subtotal		1,255		1,307		1,217		1,174		4,953
Total Direct and Indirect Costs		$39,384		$36,332		$33,015		$32,701		$141,432
GENERAL & ADMINISTRATIVE		7,680		3,185		6,438		4,817		22,120
Total Estimated Cost		47,064		39,517		39,453		37,518		163,552
FIXED FEE		3,294		2,766		2,762		2,626		11,448
TOTAL ESTIMATED COST PLUS FIXED FEE		$50,358		$42,283		$42,215		$40,144		$175,000

* The provision for merit increases is calculated at a rate of 4.5 percent per year, prorated, in anticipation of merit salary increases effective January 1 of each year. This is an Institute average, used for estimating purposes only. Actual rates may vary by employee. For consultants, the provision for increases is calculated at a rate of 4.5 percent per project year, beginning in the second project year. In addition, a factor of 2.0 percent per year, prorated, has been added to travel and other direct costs to allow for future inflation.

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THE URBAN INSTITUTE 01/05/16
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Denver SH-SIB Evaluation

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ON-SITE PERSONNEL										
Mary Cunningham	40	$2,894	24	$1,737	24	$1,737	40	$2,894	128	$9,262
Sarah Gillespie	56	2,474	80	3,534	40	1,767	52	2,297	228	10,072
Devlin Hanson	56	2,970	0	0	82	4,349	40	2,122	178	9,441
Shiva Kooragayala	40	1,000	0	0	84	2,100	40	1,000	164	4,100
Michael Pergamit	38	3,308	0	0	38	3,308	24	2,089	100	8,705
Secretarial/Administrative Support	5	102	2	44	5	117	4	88	16	351
Subtotal	235	12,748	106	5,315	273	13,378	200	10,490	814	41,931
Provision for Merit Increase*		1,800		750		1,889		1,481		5,920
Subtotal		14,548		6,065		15,267		11,971		47,851
Fringe Benefits		6,212		2,590		6,519		5,112		20,433
Subtotal		20,760		8,655		21,786		17,083		68,284
Indirect		10,708		4,464		11,237		8,811		35,220
Subtotal		31,468		13,119		33,023		25,894		103,504
SUBCONTRACT(S):										
The Evaluation Center (Univ. of CO at Denver)		0		20,000		0		0		20,000
Thr Burnes Institute		0		0		0		8,000		8,000
Subtotal		0		20,000		0		8,000		28,000
TRAVEL	No.		No.		No.		No.		No.	
Round-trip Airfare: WDC/ Denver, CO	2	900	2	900	0	0	0	0	4	$1,800
Trip Duration: 3 day(s)/trip 2 night(s)/trip										
Transfers @ 2 /trip	4	60	4	60	0	0	0	0	8	120
Per Diem:										
Lodging @ 2 night(s)/trip	4	800	4	800	0	0	0	0	8	1,600
Lodging Tax @		120		120		0		0		240
M&IE @ 2.50 day(s)/trip	5.00	330	5.00	330	0.00	0	0.00	0	10.00	660
Car Rental & Related @ 3 day(s)/trip	3	165	3	165	0	0	0	0	6	330
Inflation Factor on Travel*		145		145		0		0		290
Subtotal		2,520		2,520		0		0		5,040
OTHER DIRECT COSTS										
Computer Network Services		910		410		1,060		770		3,150
Books/Periodicals/Library Services		20		10		20		20		70
Reproduction @ $.095/page		40		20		24		30		114
Telephone Expenses		30		10		30		20		90
Postage/Delivery		10		10		20		10		50
Supplies and Miscellaneous		10		10		10		10		40
Subcontract Administration		0		828		0		331		1,159
Inflation Factor on ODCs (excl Sub. Admin)*		62		29		71		53		215
Subtotal		1,082		1,327		1,235		1,244		4,888
Total Direct and Indirect Costs		$35,070		$36,966		$34,258		$35,138		$141,432
GENERAL & ADMINISTRATIVE		6,839		3,308		6,680		5,292		22,119
Total Estimated Cost		41,909		40,274		40,938		40,430		163,551
FIXED FEE		2,934		2,819		2,866		2,830		11,449
TOTAL ESTIMATED COST PLUS FIXED FEE		$44,843		$43,093		$43,804		$43,260		$175,000

* The provision for merit increases is calculated at a rate of 4.5 percent per year, prorated, in anticipation of merit salary increases effective January 1 of each year. This is an Institute average, used for estimating purposes only. Actual rates may vary by employee. For consultants, the provision for increases is calculated at a rate of 4.5 percent per project year, beginning in the second project year. In addition, a factor of 2.0 percent per year, prorated, has been added to travel and other direct costs to allow for future inflation.

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ON-SITE PERSONNEL										
Mary Cunningham	40	$2,894	24	$1,737	24	$1,737	40	$2,894	128	$9,262
Sarah Gillespie	40	1,767	80	3,534	40	1,767	43	1,899	203	8,967
Devlin Hanson	40	2,122	0	0	86	4,561	40	2,122	166	8,805
Shiva Kooragayala	40	1,000	0	0	82	2,050	40	1,000	162	4,050
Michael Pergamit	38	3,308	0	0	38	3,308	24	2,089	100	8,705
Secretarial/Administrative Support	4	88	2	44	5	117	4	88	15	337
Subtotal	202	11,179	106	5,315	275	13,540	191	10,092	774	40,126
Provision for Merit Increase*		2,152		1,023		2,607		1,943		7,725
Subtotal		13,331		6,338		16,147		12,035		47,851
Fringe Benefits		5,692		2,706		6,895		5,139		20,432
Subtotal		19,023		9,044		23,042		17,174		68,283
Indirect		9,812		4,665		11,885		8,858		35,220
Subtotal		28,835		13,709		34,927		26,032		103,503
SUBCONTRACT(S):										
The Evaluation Center (Univ. of CO at Denver)		0		20,000		0		0		20,000
Thr Burnes Institute		0		0		0		8,000		8,000
Subtotal		0		20,000		0		8,000		28,000
TRAVEL	No.		No.		No.		No.		No.	
Round-trip Airfare: WDC/ Denver, CO	2	900	2	900	0	0	0	0	4	$1,800
Trip Duration: 3 day(s)/trip 2 night(s)/trip										
Transfers @ 2 /trip	4	60	4	60	0	0	0	0	8	120
Per Diem:										
Lodging @ 2 night(s)/trip	4	800	4	800	0	0	0	0	8	1,600
Lodging Tax @		120		120		0		0		240
M&IE @ 2.50 day(s)/trip	5.00	330	5.00	330	0.00	0	0.00	0	10.00	660
Car Rental & Related @ 3 day(s)/trip	3	165	3	165	0	0	0	0	6	330
Inflation Factor on Travel*		196		196		0		0		392
Subtotal		2,571		2,571		0		0		5,142
OTHER DIRECT COSTS										
Computer Network Services		780		410		1,070		740		3,000
Books/Periodicals/Library Services		20		10		20		20		70
Reproduction @ $.095/page		13		20		40		30		103
Telephone Expenses		30		10		30		20		90
Postage/Delivery		10		10		20		10		50
Supplies and Miscellaneous		10		10		10		10		40
Subcontract Administration		0		828		0		331		1,159
Inflation Factor on ODCs (excl Sub. Admin)*		71		39		98		68		276
Subtotal		934		1,337		1,288		1,229		4,788
Total Direct and Indirect Costs		$32,340		$37,617		$36,215		$35,261		$141,433
GENERAL & ADMINISTRATIVE		6,306		3,435		7,062		5,316		22,119
Total Estimated Cost		38,646		41,052		43,277		40,577		163,552
FIXED FEE		2,705		2,874		3,029		2,840		11,448
TOTAL ESTIMATED COST PLUS FIXED FEE		$41,351		$43,926		$46,306		$43,417		$175,000

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THE URBAN INSTITUTE 01/05/16
Budget Period: January 1, 2020 - December 31, 2020

Denver SH-SIB Evaluation

BUDGET ESTIMATE
Prepared for City of Denver

Object Classification	Referral and Randomization: Management and Coordination Task 1 Hours	Task 1 Dollars	Process Study: Data Collection Task 2 Hours	Task 2 Dollars	Impact Study: Data Collection Task 3 Hours	Task 3 Dollars	Reporting and Dissemination Task 4 Hours	Task 4 Dollars	Total Estimated Hours	Total Estimated Dollars
ON-SITE PERSONNEL										
Mary Cunningham	40	$2,894	16	$1,158	24	$1,737	24	$1,737	104	$7,526
Sarah Gillespie	40	1,767	80	3,534	40	1,767	40	1,767	200	8,835
Devlin Hanson	40	2,122	0	0	88	4,668	40	2,122	168	8,912
Shiva Kooragayala	40	1,000	0	0	80	2,000	40	1,000	160	4,000
Michael Pergamit	38	3,308	0	0	39	3,395	24	2,089	101	8,792
Secretarial/Administrative Support	4	88	2	44	5	117	3	73	15	322
Subtotal	202	11,179	98	4,736	276	13,684	171	8,788	748	38,387
Provision for Merit Increase*		2,752		1,166		3,369		2,163		9,450
Subtotal		13,931		5,902		17,053		10,951		47,837
Fringe Benefits		5,949		2,520		7,282		4,676		20,427
Subtotal		19,880		8,422		24,335		15,627		68,264
Indirect		10,254		4,344		12,552		8,060		35,210
Subtotal		30,134		12,766		36,887		23,687		103,474
SUBCONTRACT(S):										
The Evaluation Center (Univ. of CO at Denver)		0		20,000		0		0		20,000
Thr Burnes Institute		0		0		0		8,000		8,000
Subtotal		0		20,000		0		8,000		28,000
TRAVEL	No.		No.		No.		No.		No.	
Round-trip Airfare: WDC/ Denver, CO	2	900	2	900	0	0	0	0	4	$1,800
Trip Duration: 3 day(s)/trip 2 night(s)/trip										
Transfers @ 2 /trip	4	60	4	60	0	0	0	0	8	120
Per Diem:										
Lodging @ 2 night(s)/trip	4	800	4	800	0	0	0	0	8	1,600
Lodging Tax @		120		120		0		0		240
M&IE @ 2.50 day(s)/trip	5.00	330	5.00	330	0.00	0	0.00	0	10.00	660
Car Rental & Related @ 3 day(s)/trip	3	165	3	165	0	0	0	0	6	330
Inflation Factor on Travel*		247		247		0		0		494
Subtotal		2,622		2,622		0		0		5,244
OTHER DIRECT COSTS										
Computer Network Services		780		380		1,070		660		2,890
Books/Periodicals/Library Services		20		10		20		10		60
Reproduction @ $.095/page		15		20		15		30		80
Telephone Expenses		30		10		30		20		90
Postage/Delivery		10		10		20		10		50
Supplies and Miscellaneous		10		10		20		10		50
Subcontract Administration		0		828		0		331		1,159
Inflation Factor on ODCs (excl Sub. Admin)*		90		46		122		77		335
Subtotal		955		1,314		1,297		1,148		4,714
Total Direct and Indirect Costs		$33,711		$36,702		$38,184		$32,835		$141,432
GENERAL & ADMINISTRATIVE		6,574		3,257		7,446		4,843		22,120
Total Estimated Cost		40,285		39,959		45,630		37,678		163,552
FIXED FEE		2,820		2,797		3,194		2,637		11,448
TOTAL ESTIMATED COST PLUS FIXED FEE		$43,105		$42,756		$48,824		$40,315		$175,000

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THE URBAN INSTITUTE 01/05/16
Budget Period: January 1, 2021 - June 30, 2021

Denver SH-SIB Evaluation

BUDGET ESTIMATE
Prepared for City of Denver

Object Classification	Impact Study: Data Collection Task 3 Hours	Impact Study: Data Collection Task 3 Dollars	Reporting and Dissemination Task 4 Hours	Reporting and Dissemination Task 4 Dollars	Total Estimated Hours	Total Estimated Dollars
ON-SITE PERSONNEL						
Mary Cunningham	0	$0	58	$4,197	58	$4,197
Sarah Gillespie	0	0	80	3,534	80	3,534
Devlin Hanson	42	2,228	80	4,243	122	6,471
Shiva Kooragayala	58	1,450	80	2,000	138	3,450
Michael Pergamit	0	0	54	4,700	54	4,700
Secretarial/Administrative Support	2	44	7	161	9	205
Subtotal	102	3,722	359	18,835	461	22,557
Provision for Merit Increase*		1,125		5,693		6,818
Subtotal		4,847		24,528		29,375
Fringe Benefits		2,070		10,473		12,543
Subtotal		6,917		35,001		41,918
Indirect		3,568		18,054		21,622
Subtotal		10,485		53,055		63,540
TRAVEL	No.		No.		No.	
Round-trip Airfare: WDC/ Denver, CO	0	0	2	900	2	$900
Trip Duration: 3 day(s)/trip 2 night(s)/trip						
Transfers @ 2 /trip	0	0	4	60	4	60
Per Diem:						
Lodging @ 2 night(s)/trip	0	0	4	800	4	800
Lodging Tax @		0		120		120
M&IE @ 2.50 day(s)/trip	0.00	0	5.00	330	5.00	330
Car Rental & Related @ 3 day(s)/trip	0	0	3	165	3	165
Inflation Factor on Travel*		0		300		300
Subtotal		0		2,675		2,675
OTHER DIRECT COSTS						
Computer Network Services		390		1,390		1,780
Books/Periodicals/Library Services		10		30		40
Reproduction @ $.095/page		10		38		48
Telephone Expenses		10		50		60
Postage/Delivery		0		20		20
Supplies and Miscellaneous		0		20		20
Inflation Factor on ODCs (excl Sub. Admin)*		53		195		248
Subtotal		473		1,743		2,216
Total Direct and Indirect Costs		$10,958		$57,473		$68,431
GENERAL & ADMINISTRATIVE		2,137		11,207		13,344
Total Estimated Cost		13,095		68,680		81,775
FIXED FEE		917		4,808		5,725
TOTAL ESTIMATED COST PLUS FIXED FEE		$14,012		$73,488		$87,500

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THE URBAN INSTITUTE
Budget Period: January 1, 2016 - June 30, 2021

01/05/16

Denver SH-SIB Evaluation

BUDGET ESTIMATE (Summary)
Prepared for City of Denver

Object Classification	Referral and Randomization: Management and Coordination Task 1 Hours	Task 1 Dollars	Process Study: Data Collection Task 2 Hours	Task 2 Dollars	Impact Study: Data Collection Task 3 Hours	Task 3 Dollars	Reporting and Dissemination Task 4 Hours	Task 4 Dollars	Total Estimated Hours	Total Estimated Dollars
ON-SITE PERSONNEL										
Mary Cunningham	184	$13,313	128	$9,263	135	$9,770	242	$17,510	689	$49,856
Sarah Gillespie	248	10,955	400	17,670	200	8,835	295	13,031	1,143	50,491
Devlin Hanson	248	13,220	0	0	463	24,557	280	14,853	991	52,630
Shiva Kooragayala	196	4,900	0	0	466	11,650	280	7,000	942	23,550
Michael Pergamit	160	13,928	0	0	191	16,627	174	15,145	525	45,700
Secretarial/Administrative Support	31	680	11	234	29	629	27	586	97	2,129
Subtotal	1,067	56,930	539	27,167	1,484	72,068	1,298	68,125	4,387	224,356
Provision for Merit Increase*		8,396		3,720		10,872		12,645		35,633
Subtotal		65,326		30,887		82,940		80,770		259,989
Fringe Benefits		27,894		13,188		35,416		34,488		110,986
Subtotal		93,220		44,075		118,356		115,258		370,975
Indirect		48,083		22,734		61,048		59,450		191,315
Subtotal		141,303		66,809		179,404		174,708		562,290
SUBCONTRACT(S):										
The Evaluation Center (Univ. of CO at Denver)		0		100,000		0		0		100,000
Thr Burnes Institute		0		0		0		40,000		40,000
Subtotal		0		100,000		0		40,000		140,000
TRAVEL	No.		No.		No.		No.		No.	
Round-trip Airfare: WDC/ Denver, CO	10	4,500	10	4,500	0	0	2	900	22	$9,900
Trip Duration: 3 day(s)/trip 2 night(s)/trip	0	0	0	0	0	0	0	0		
Transfers @ 2 /trip	20	300	20	300	0	0	4	60	44	660
Per Diem:										
Lodging @ 2 night(s)/trip	20	4,000	20	4,000	0	0	4	800	44	8,800
Lodging Tax @		600		600		0		120		1,320
M&IE @ 2.50 day(s)/trip	25.00	1,650	25.00	1,650	0.00	0	5.00	330	55.00	3,630
Car Rental & Related @ 3 day(s)/trip	15	825	15	825	0	0	3	165	33	1,815
Inflation Factor on Travel*		732		732		0		300		1,764
Subtotal		12,607		12,607		0		2,675		27,889
OTHER DIRECT COSTS										
Computer Network Services		4,130		2,080		5,750		5,020		16,980
Books/Periodicals/Library Services		90		50		110		100		350
Reproduction @ $.095/page		106		90		143		188		527
Telephone Expenses		130		50		160		150		490
Postage/Delivery		60		50		90		70		270
Supplies and Miscellaneous		50		50		60		70		230
Subcontract Administration		0		4,140		0		1,655		5,795
Inflation Factor on ODCs (excl Sub. Admin)*		284		144		415		442		1,285
Subtotal		4,850		6,654		6,728		7,695		25,927
Total Direct and Indirect Costs		$158,760		$186,070		$186,132		$225,078		$756,040
GENERAL & ADMINISTRATIVE		30,959		16,783		36,296		36,091		120,129
Total Estimated Cost		189,719		202,853		222,428		261,169		876,169
FIXED FEE		13,280		14,200		15,570		18,281		61,331
TOTAL ESTIMATED COST PLUS FIXED FEE		$202,999		$217,053		$237,998		$279,450		$937,500

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EVALUATION DESIGN/RESEARCH DESIGN

Denver Supportive Housing Social Impact Bond Initiative

Mary Cunningham
Sarah Gillespie
Mike Pergamit
Devlin Hanson
Shiva Kooragayala

January 2016

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Background and Context

The Denver Supportive Housing Social Impact Bond (SH-SIB) Initiative will provide supportive housing for individuals who are frequent users of both criminal justice and emergency medical services in the city of Denver, Colorado. In addition to experiencing homelessness and struggling with substance use and mental health problems, the target population commits frequent low-level offenses such as public nuisance violations, alcohol and drug use, panhandling, and trespassing. As a result, this population is frequently arrested and cycles in and out of jail, detox, and emergency services, effectively increasing costs across systems. Often without follow-up services upon release from jail, this population returns to the same risks and falls into a recurring cycle of negative outcomes. This cycle continuously results in high costs across city agencies and service providers.

The SH-SIB initiative will provide supportive housing to interrupt the status quo. Supportive Housing is an evidence-based intervention that provides housing plus intensive case management and connects clients with community services, including primary healthcare.[1, 2] Past research indicates that the provision of housing and services jointly increases housing stability, improves mental and physical health, and decreases the number of low-level offenses which lead to several desired outcomes for the city, namely decreases in the number of arrests, detox visits, and usage of emergency medical services.[3, 4] Overwhelming evidence shows that supportive housing is effective for chronically homeless adults who are frequent and costly users of public systems, and that the cost of the program can be offset by its benefits.[5,6] The City of Denver has identified "front-end users" that drive up the cost of public services, highlighted some of the gaps in service delivery for this population, and has identified an evidence-based solution, namely supportive housing, to fill those gaps.

---

[1] Corporation for Supportive Housing. (2015) "Evidence and Research." Accessed on January 13, 2016 at http://www.csh.org/supportive-housing-facts/evidence/

[2] National Alliance to End Homelessness. (2007) "Supportive Housing is Cost Effective." Accessed on January 13, 2016 at http://www.endhomelessness.org/page/-/files/1200_file_Supportivehousingsaves.pdf

[3] Aidala, Angela A.; McAllister, William; Yomogida, Maiko; Shubert, Virginia. (2014) "Frequent Users Service Enhancement 'FUSE' Initiative: New York City FUSE II Evaluation Report."

[4] Larimer, Mary E.; Malone, Daniel K.; Garner, Michelle D; et al. (2009) "Health Care and Public Service Use and Costs Before and After Provision of Housing for Chronically Homeless Persons with Severe Alcohol Problems." *JAMA*. 301(13): 1349-1357.

[5] Culhane, Dennis P.; Metraux, Stephen; Hadley, Trevor. (2002) "Public Service Reductions Associated with Placement of Homeless Persons with Severe Mental Illness in Supportive Housing." *Housing Policy Debate*. 13(1)

[6] Perlman, Jennifer; Parvensky, John. (2006) "Denver Housing First Collaborative: Cost Benefit Analysis and Program Outcomes Report." Accessed on January 13, 2016 at http://denversroadhome.org/files/FinalDHFCCostStudy_1.pdf

The Denver Supportive Housing Social Impact Bond Initiative offers opportunities to understand how to efficiently target supportive housing to "front-end users," to measure impacts, and to weigh the costs and benefits of the program. The Denver SH-SIB will be one of the first supportive housing programs funded through a social impact bond (SIB) financing mechanism. The program's structure, the investors the program attracts, the key performance measures for payments structures and thresholds, and the associated development of data tracking mechanisms through numerous systems will all contribute knowledge to the field and could lead to an expansion of supportive housing through this financing mechanism.

The supportive housing social impact bond initiative includes the following core partners:

Table 1. Initiative Partners for SIB Implementation

Role	Partner	Responsibilities
Local Government	City of Denver	Re-pay investors if performance benchmarks are met
PFS (Pay for Success) Lenders	To Be Determined	Provide capital to fund services, receive principal and interest when performance benchmarks are met
Intermediary	Denver PFS, LLC (jointly owned by CSH and Enterprise)	Manage service providers and facilitate PFS lender agreements and payments from City to PFS lenders
Supportive Housing Providers	Colorado Coalition for the Homeless Mental Health Center of Denver	Provide housing through new tax credit construction and existing vouchers, provide supportive housing services
Evaluation	Urban Institute with local partners, The Evaluation Center at the University of Colorado Denver and Burnes Institute	Establish research design, verify performance benchmarks are met, measure other outcomes of interest

Program Structure

Target Population

The target population of interest to the City is front-end frequent users that drive up public service costs and cycle in and out of jail, detox, and emergency medical services. Eligibility criteria must target a group of individuals that is large enough to fill the available housing units and establish a control group,

while also representing high levels of systems use. The team has used arrest data to operationalize eligibility criteria for the SIB.

Based on arrest data from 2012-2014, targeting individuals who have at least 8 arrests over three years and identified as transient (having no address or providing the address of a shelter) at the time of arrest would result in a sample size of approximately 1,456 individuals. We have run data matches on this target population to understand their level of system use during the same time period for homelessness, jail stays, and detox and other health services, as outlined in table 2 below.

Table 2. System Use Among Target Population with 8+ Arrests over 3 years	
HMIS Shelter Stays	
At least 1 stay in HMIS over 3 yrs	62%
2+ recorded stays over 3 yrs	33%
Jail Days	
First year after eligibility	77 jail days
Second year after eligibility	45 jail days
Detox	
Per year after eligibility	3-8 detox visits

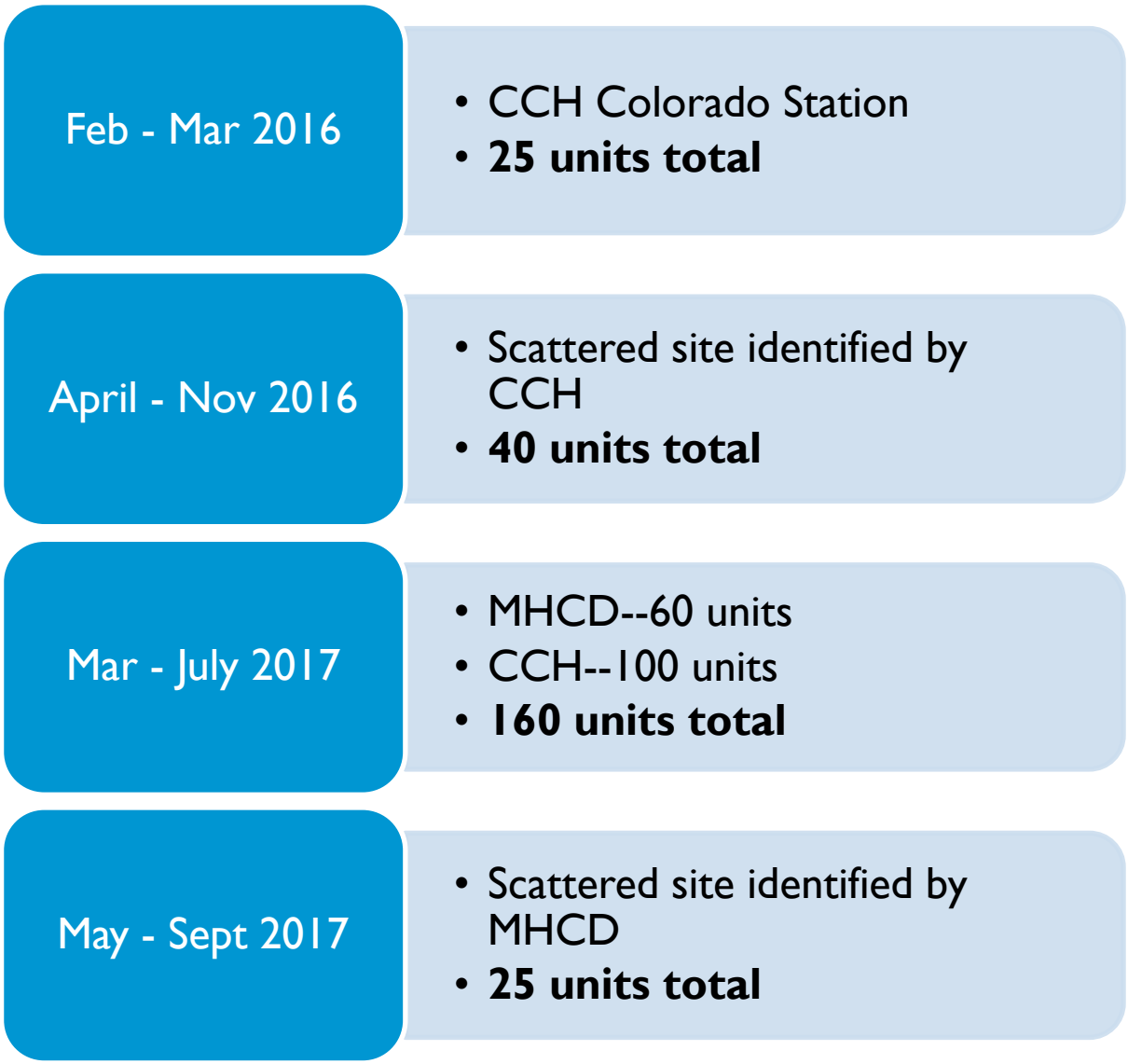
The data match to the homeless management information system (HMIS) shows that 899 out of the 1,456 individuals had at least 1 shelter stay recorded in the HMIS over 3 years, and about a third had 2 or more recorded stays. While we know this population also likely experiences types of homelessness not captured in HMIS data, these data confirm that our targeting criteria will indeed reach a homeless population. Similarly, data from a random sample of the target population show that individuals spent, on average, 77 days in jail in the year following their eligibility and an average of 45 days in jail in the second year following their eligibility. The target population also utilizes detox services at an average of 3-8 detox visits per year over the 4 years following their eligibility (a range is used due to an incomplete data match for this system).

Housing Type

To meet the goal of providing 250 individuals with supportive housing units, housing will be provided through a combination of single-site homes in two new buildings built with low-income housing tax credits and also scatter-site units which are existing units of rental housing in the community that will be paired with a housing subsidy and services in order to be converted to supportive housing. The subsidies will come from the Colorado Division of Housing, the Denver Housing Authority, flexible subsidy dollars

from the SIB transaction, and the Denver Continuum of Care. Housing is expected to become available according to the following timeline:

Figure 1. Housing Flow Timeline



Program Services

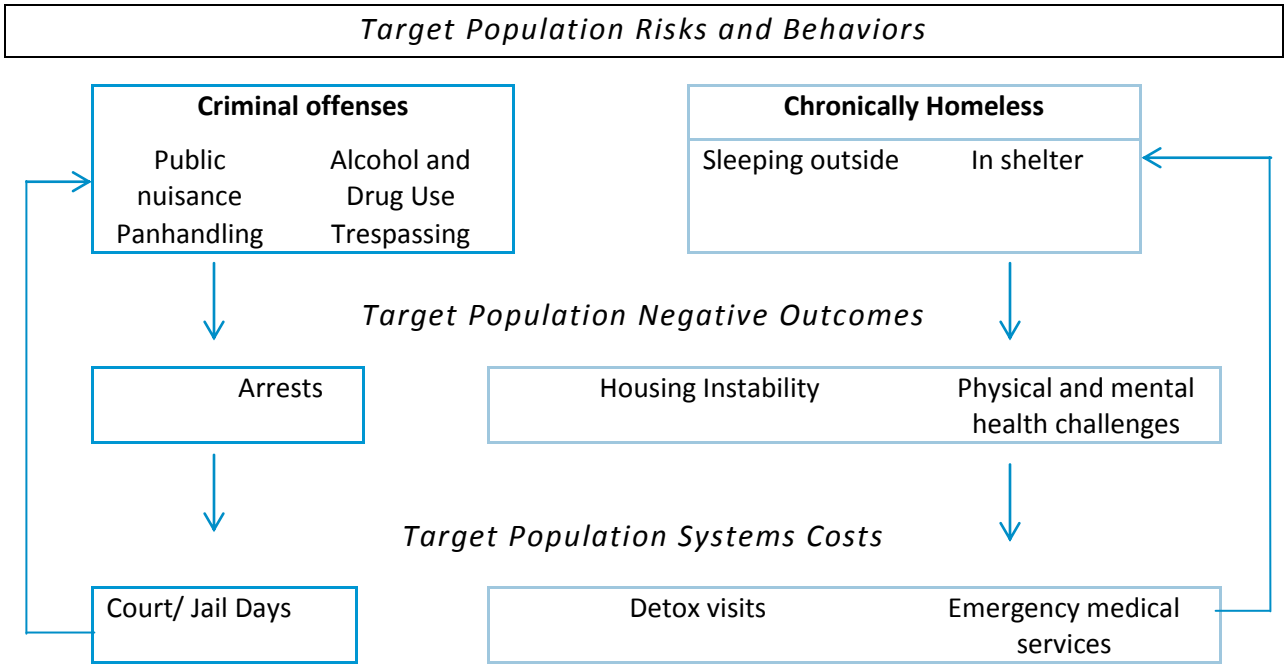
Supportive services will be provided by CCH and MHCD. Both organization use modified models based on an Assertive Community Treatment (ACT) model for supportive services, which is a highly integrated and intensive approach for community mental health service delivery. Other programs have demonstrated that the ACT model can be implemented with variations with great success. The initiative

and partners will work to define the adaptation of ACT used for the SH-SIB initiative. In addition to case management, the target population will be enrolled in Medicaid through the support of Colorado Access, the current managed care network in Colorado.

Usual Care

Without follow-up services upon exit from the multiple systems in which they are regularly involved, front-end users return to the same risks and behaviors and experience a recurring cycle of negative outcomes and high systems costs. Figure 2 depicts the cycle of usual care for this population.

Figure 2. Status quo: Cycle of target population outcomes and costs



Overview of Evaluation

Theory of Change

The SH-SIB program provides supportive housing to break the cycle of jail, detox, and emergency medical services experienced by many front-end users. Supportive housing will integrate the services of multiple systems to provide care that results in increased housing stability and improved physical and mental health as well as fewer arrests. Along with supportive services, the intervention will provide a housing unit that is safe, sustainable, functional, and suitable for tenant stability. Importantly,

Supportive Housing adopts “housing first” as an operative tenet and is not a sobriety model. The theory of change behind Supportive Housing is that once individuals in the target population are housed, they are not living on the streets, openly drinking in public spaces, panhandling, trespassing, or engaging in other similar sorts of nuisances or crimes. Instead, they have a place to live and sleep. They may, however, continue with substance use, though research shows modest reductions in substance use over time (Collins 2011).

As depicted in the Theory of Change in Figure 3, the intermediate outcomes of this intervention include increased housing stability, reductions in homelessness, drug and alcohol use, public nuisances, and improvements in mental and physical health. These intermediate outcomes will result in several intended program outcomes, including decreases in arrests, jail days, detox visits, and in the use of emergency medical services. These ultimate outcomes are of particular interest to investors and the City.

Figure 3. Theory of how supportive housing leads to reduction in front end user costs

Goal: To reduce jail days, detox visits, and use of emergency medical services.

Target Population. Chronically homeless, frequent users of jail, detox, and emergency medical services

Providers.

Mental Health Center of Denver (MHCD)

Colorado Coalition for the Homeless (CCH)

Entry Points.

Police Contact

Non-Custodial Arrest

Custodial Arrest

Supportive Housing seeks to integrate the services of multiple systems to provide care that results in increases in housing stability and physical and mental health and decreases in arrests.

Intervention – Supportive Housing	***Intermediate Outcomes***	***Long-Term Outcomes***
Housing Subsidy Provide assistance paying rent in a housing unit that is safe, sustainable, functional, and conducive to tenant stability	*Increase Housing Stability* Reduce homelessness; Provide a safe, healthy, stable housing unit	*Decrease Arrests* *Decrease Jail Days*
Case Management Services Develop case plan; Facilitate access to benefits; Provide referrals; Coordinate care	*Decrease public nuisance* Decrease alcohol and drug use; Decrease trespassing; Decrease panhandling;	*Decrease Detox Visits* *Decrease Use of Emergency Medical Services*
Health Care Services Enrollment in Medicaid; Mental and physical health care	*Improve Health* Mental health; Physical health	

Research Questions

Two sets of research questions drive the evaluation of the Denver SH-SIB which will be answered through two primary components of the evaluation including a process study and outcomes and impact study:

1) How is the program implemented? How are eligible individuals located and engaged? How do participants take up housing and services? Does it align with the CSH Dimensions of Quality Supportive Housing? Is there fidelity to the service model? How does this look different from usual care? What types of systems change and services integration were achieved? What are the key facilitators and challenges?
2) Do housed participants retain housing? Does supportive housing increase housing stability and decrease the utilization of high cost public services (e.g., jails, courts, detox, homeless shelters, hospitals)? Do outcomes differ for participants housed in scatter-site housing versus single-site housing? Were performance goals met so that investors should be paid?

Major Components of the Evaluation

- **Process Study:** Key process-related information is necessary to manage implementation, including the housing and referral pipeline, and to make mid-course corrections to keep the initiative on track to achieve long-term outcomes. Process information will also help us interpret the results of the impact evaluation based on documentation of the program model and participant engagement. To collect information about these different domains, we will manage an engagement dashboard as well as a housing enrollment pipeline. We will conduct annual site visits and key informant interviews with service providers and other important stakeholders. We will also review program-related documents such as training manuals, standard operating procedures, or other descriptions of program components.
- **Outcomes and Impact Study:** To validate the data used to inform the interim investor payments based on housing retention among housed participants, we will track participant exits from housing and measure days spent in housing. We will also validate the data used to inform final investor payments based on the impact that supportive housing has on the target population's jail days, as well as explore impacts on a broader set of outcomes defined below and whether outcomes differ for participants housed in scatter-site versus single-site units. As described below, we will use a randomized controlled trial (RCT) as part of the research design. Eligible individuals will be randomly assigned to one of two groups—one that receives supportive housing as part of the initiative or one that receives "usual care" services. We will measure

differences in key system outcomes between the groups (i.e., use of services) using administrative data from the primary systems of interest.

Table 3: Primary Evaluation Components		
Evaluation Component	**Research Questions**	**Data Sources**
Process Study	How is the program implemented? How are eligible individuals located and engaged? How do participants take up housing and services? Does it align to the CSH Dimensions of Quality? Is there fidelity to the service model? How does this look different from usual care? What types of systems change and services integration were achieved? What are the key facilitators and challenges?	Engagement dashboard, housing enrollment pipeline, annual site visits and key informant interviews, review of program-related documents
Outcomes and Impact Study	Do housed participants retain housing? Does supportive housing increase housing stability and decrease the utilization of high cost public services (e.g., jails, courts, detox, homeless shelters, hospitals)? Do outcomes differ for participants housed in scatter-site housing versus single-site housing? Were performance goals met so that investors should be paid?	Program housing retention data, administrative data from systems of interest

RCT Design

Randomized Controlled Trial (RCT) is widely considered to be the gold standard in measuring the effectiveness of a policy or intervention. RCTs are useful for establishing the counterfactual, or what would have occurred in the absence of the intervention. In the case of this initiative, the RCT design will be able to compare the trajectories of front-end users who receive priority placement in supportive housing and those who receive usual care (see figure 2). The target population for the SH-SIB Initiative includes many more people who are in need of and are eligible for the intervention than there are housing slots. Thus, the limited housing slots will be allocated by lottery, which is a fair way to allocate the scarce housing resources and also enables random assignment. The evaluation will track outcomes for both groups and attribute any differences to the supportive housing intervention. The selected eligibility criteria will allow for a sample of at least 500 participants, including 250 in treatment group and 250 in the control group. As outlined in table 9 on page 30, this sample size allows the evaluation to

detect effects of at least 25 percent, which the literature suggests is reasonable to expect for reduced jail time[7]. For example, if the control group experiences an average of 50 days in jail, we can determine effects of the program if the treatment group experiences 25% fewer days, or an average of 37.5 days in jail.

Referral and Randomization Strategy

Based on the eligibility criteria, the Denver Police Department (DPD) will identify eligible individuals through a data pull and create a de-duplicated, de-identified eligibility list for the initiative, assigning a unique research ID to each individual on the eligibility list. When program enrollment begins, individuals will be identified from the eligibility list as they enter a designated intake point. Intake points include police contact and arrest, both custodial and ticket arrests. Denver Police Department (DPD) will serve as a coordinated intake point and will electronically maintain the SIB eligibility list (including periodic updates) and match the eligibility list with daily arrest/contact lists to identify SIB eligible individuals. DPD will then send a de-identified list of "matched" SIB eligible individuals to the Urban Institute who will ensure eligible individuals are only randomly assigned once and will stratify equally between arrest and police contact intakes. Urban will generate a de-identified list of individuals assigned to the treatment group and send to the referral coordinator at CPCC. The CPCC referral coordinator will link the unique research IDs back to the individual identifiers (i.e. names and as much information as is available from the intake points to support locating and outreach) on the master eligibility list, and send those individuals' information to the service provider(s) with available housing slots, and, as available, co-responder staff within the Denver Police Department who will assist in locating eligible individuals and connecting to service providers. In times when both CCH and MHCD have available housing slots, the two service providers will work together to assign individuals to a service provider based on any existing client relationships. Outreach workers will attempt to locate each referred individuals within 24 hours of referral to minimize location challenges. When outreach workers locate individuals in the treatment group, they will first facilitate a Release of Information and then can immediately begin program engagement, working together with other service providers and co-responders to engage the individual. Service providers will engage participants in the treatment group for a minimum of three months before stepping down engagement and requesting a new referral. After being located, individuals must also pass the SIB housing screen (Attachment E) to confirm homelessness and continue engagement toward housing placement. While the SIB housing screen will only screen *out* any

[7] Aidala, et al. FUSE II Evaluation Report (see footnote 3)

individuals who are not considered homeless according to the SIB screening requirements, it will also screen for chronic homelessness (Attachment F) which will help determine the most appropriate housing subsidy for the individual. Urban, working with DPD, will update the list to ensure individuals are only randomized once, will manage any updates as the list is refreshed or expanded, and will coordinate with service providers to turn randomization "on" and "off" as necessary. This process is depicted in Figure 4 below.

Randomization Stratification

Because eligible individuals can be randomly assigned from what we consider three different intake points—police contact, non-custodial arrest, and custodial arrest—it is important that the treatment and control groups are equivalent in terms of the number of individuals randomized from each intake point. To ensure this type of equivalency, we will use randomization stratification. Each day, each eligible individual from all three intake points will be given a number generated by a random number generator from a uniform distribution using Stata software. The sample will be stratified across the three entry types, i.e. the number of treatment individuals in each entry type will equal the number of control individuals in the same entry type.

The treatment and control groups will be created based on their random number and the number of individuals in that entry type to be matched. The treatment group will be composed of the individuals with the lowest random numbers that day, up to the number of open slots, conditional upon having at least one possible match within that individual's entry type. The control group will be identified as the next lowest random numbers in the entry type group. Consider the following example:

Suppose there are two open slots on a given day. We want to randomize two individuals into treatment and two into control. We will take the two individuals with the lowest random number values; in this example, that would be PIN 3 and PIN 4. However, there is no comparable control for PIN 3, so PIN 3 cannot be a treatment case. We would then pick the next lowest random number which is PIN 1; there is another observation in that entry type that can be a control so PIN 1 would be a treatment case. We then pick the controls as the next lowest random numbers within each entry type; PIN 2 for custodial arrests is the match for PIN 1 and PIN 5 is the match for PIN 4 in the contact group. No other cases are randomly assigned and unassigned individuals will be eligible for a new random assignment if they come back in through one of the entry points on another day.

Exhibit 1. Example of Random Assignment

PIN	Random Number	Group	Assignment
1	138	Custodial Arrest	Treatment
2	476	Custodial Arrest	Control
3	102	Non-Custodial Arrest	None
4	122	Contact	Treatment
5	180	Contact	Control
6	367	Contact	None
7	757	Contact	None

SIB Housing Screen

The SIB housing screen that will be completed for each individual randomized to the treatment group is based on the strict HUD definition of homelessness as outlined in the federal HEARTH Act which includes the following categories: core definition (in shelter, on the street, exiting an institution and previously homeless), fleeing domestic violence, persistent housing instability, and imminently losing primary nighttime residence.

The referral strategy will begin with using the screen to screen out any individuals who do not meet the strict HUD definition of homelessness. Individuals who are screened out will not be eligible for supportive housing at that time but will remain in the treatment group and can be re-screened should their situations change in ways that would make them eligible for supportive housing. The screen also includes additional questions that will help us understand if participants who are screened out would be eligible under a slightly modified definition of homelessness.

If the evaluation is at risk of screening out too many participants from the treatment group, therefore creating an equivalency problem between the treatment and control group, and those individuals would be eligible under a modified definition of homelessness, then we will modify the housing screen moving forward and the service providers could continue engaging any treatment individuals who would be eligible under the modified definition. This strategy still allows the evaluation to provide a clear description of the homelessness characteristics of the full treatment group.

The service providers will be trained on how to use the housing screen and Urban will closely monitor the screening process.

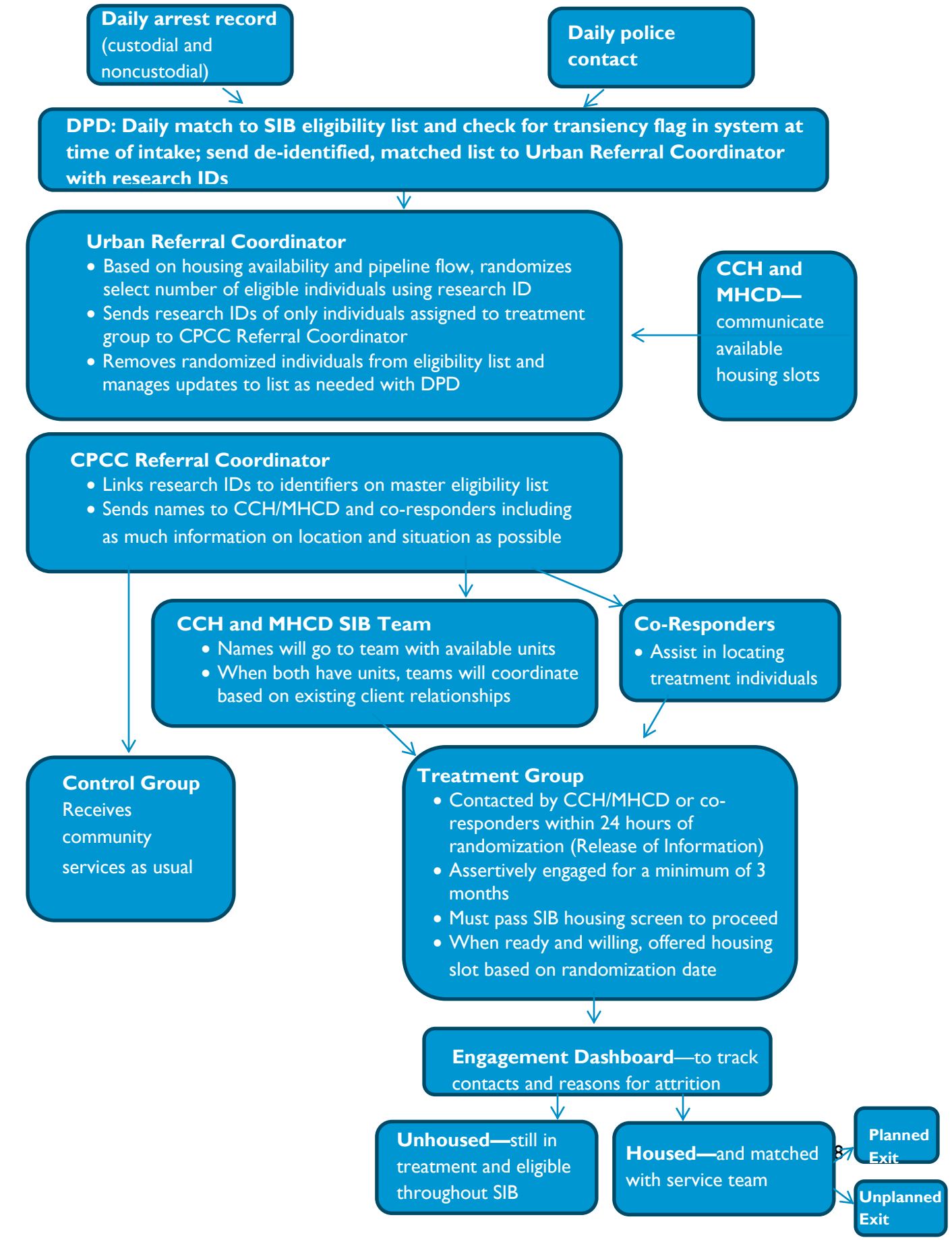
Minimum Treatment Randomization Timeline

The Minimum Treatment Randomization Timeline shown in table 4 below ensures that a sufficient number of individuals are randomized to the treatment group to meet available housing slots. Urban will ensure that individuals are randomized at least one month before housing slots become available to allow for engagement before lease-up. Should the lease-up schedule be amended at any time, Urban can also quickly amend the randomization timeline.

Table 4. Minimum Treatment Randomization Timeline

Month	Total Monthly Projected Placements	Cumulative Projected Placements	Minimum Monthly Treatment Assignments	Minimum Cumulative Treatment Assignments
Nov-15	0	0	0	0
Dec-15	0	0	0	0
Jan-16	0	0	10	10
Feb-16	10	10	15	25
Mar-16	15	25	10	35
Apr-16	10	35	9	44
May-16	9	44	4	48
Jun-16	4	48	4	52
Jul-16	4	52	4	56
Aug-16	4	56	3	59
Sep-16	3	59	3	62
Oct-16	3	62	3	65
Nov-16	3	65	20	85
Dec-16	0	65	20	105
Jan-17	0	65	20	125
Feb-17	0	65	20	145
Mar-17	20	85	20	165
Apr-17	20	105	25	190
May-17	45	150	25	215
Jun-17	45	195	25	240
Jul-17	45	240	10	250
Aug-17	5	245	0	250
Sep-17	5	250	0	250

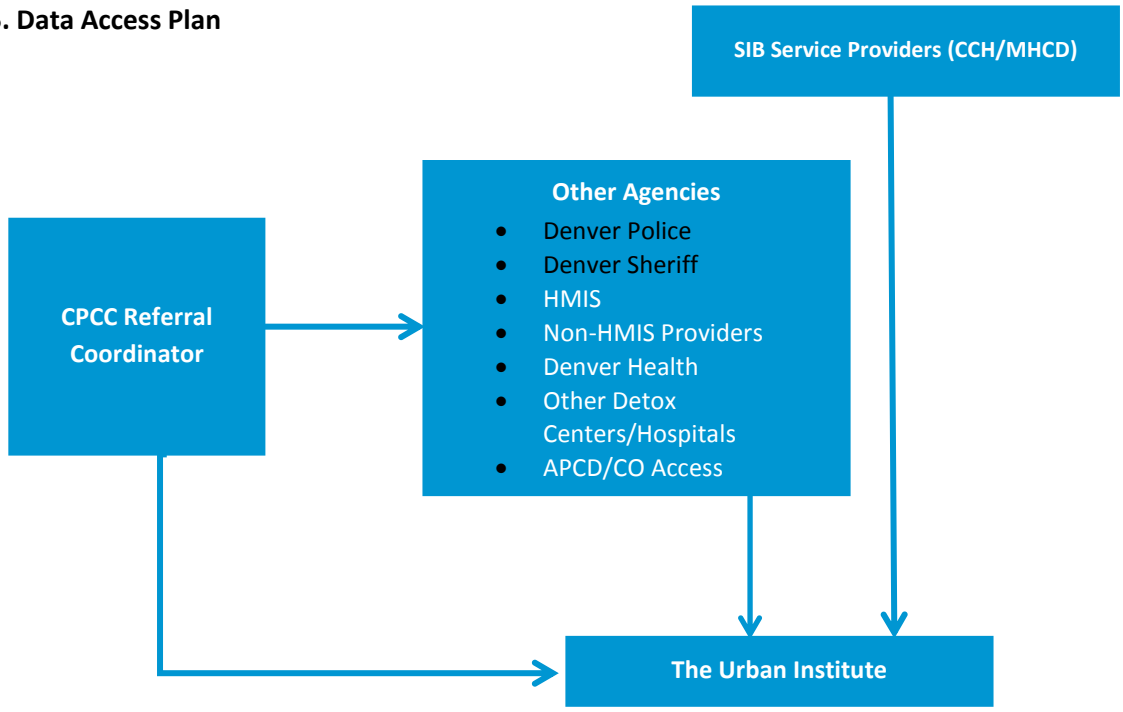
Figure 4. Referral and Randomization Flowchart



Data Sharing and Consent

Urban will collect only de-identified administrative data that is linked by the Urban Institute through a project specific ID that one central agency will share with other administrative data agencies. To make this work, the Denver Crime Prevention and Control Commission (CPCC) will assign a staff person who will fulfill the role of the CPCC Referral Coordinator. The CPCC referral coordinator will have access to the master eligibility list which will include personal identifiers as well as a project specific ID for each individual in the treatment or control group (while Urban will only have the de-identified eligibility list). The CPCC referral coordinator will share the personal identifiers and the project specific ID of the individuals in the study with each of the other agencies from which the Urban Institute will collect administrative data, based on data sharing agreements with each of those agencies. The other agencies will pull the requested data for each individual in the study using the personal identifiers, attach the unique research identifier to their data sets, and strip the personal identifiers from the dataset. Each of the agencies will send their data including the project specific ID directly to the Urban Institute. This will allow the Urban Institute to generate a single de-identified data set with data from each of the agencies. Under this plan, the Urban Institute will never have access to any personal identifiers for any of the participants in the study. This method of data collection and data sharing ensures that no single agency or entity has access to more than one data set with identifiers. Furthermore, the Urban Institute will be in control of the linking process and ensure its quality. The data access plan is depicted in Figure 5.

Figure 5. Data Access Plan



Evaluation Components

Process Study

Key process-related information is necessary to manage implementation, including the housing and referral pipeline, and to make mid-course corrections to keep the initiative on track to achieve long-term outcomes. Process information will also help us interpret the results of the impact evaluation based on documentation of the program model and participant engagement. To collect information about these different domains, we will manage an engagement dashboard as well as a housing enrollment pipeline. We will conduct annual site visits and key informant interviews with service providers and other important stakeholders. We will also review all program-related documents such as training manuals, standard operating procedures, or other descriptions of program components.

Research Questions

- How are eligible individuals located and engaged?
- How often and quickly do participants take up housing and services? What prevents take up?
- How is the program implemented? Does it align with CSH's Dimensions of Quality?
- Is there fidelity to the initiative's service model?
- Does the provision of supportive services look different for participants in a single site vs. scattered site housing placement?
- How does the intervention look different from usual care?
- What types of systems change and services integration were achieved?
- What are the key facilitators and challenges to successful program implementation?

Data Collection, Sources, and Analysis Methods

We will conduct the process study over the course of the evaluation, collecting and analyzing data at regular intervals. Early data collection will especially inform research design and evaluability. When enrollment begins, the process study will inform the initiative's understanding of program flow, in other words, how many eligible individuals flow through the initiative's intake points on any given day, week, or month. The process study will also collect data on how service providers are able to locate and engage individuals in the treatment group. Because the target population is historically known to be a treatment resistant population, many other similar studies have experienced challenges engaging eligible individuals which results in low take-up rates within the treatment group. To understand how service providers locate and engage individuals, and how those individuals take up (or don't take up) the

housing and services offered through the intervention, the process study will use tools such as an engagement dashboard and referral pipeline. These tools will be maintained in real-time to inform both the research design and program model.

Answering research questions regarding program implementation and challenges will help identify important mid-course corrections. Unpacking the different program components is also critical to describing the entirety of the demonstration and interpreting the results obtained by the impact study.

To help guide the identification and analysis of program components, structures, and processes, we will assess the key components of the initiative and how they compare to CSH's Dimensions of Quality Supportive Housing[8], which assess whether supportive housing projects are tenant-centered, accessible, coordinated, integrated, and sustainable (CSH 2014). The key components we will examine include:

- **Participants**. Partners, roles, service contributions, levels of staff involved (from front line to leadership), types and modes of interaction, and changes over time.
- **Program Goals**. For individuals and for agencies, and changes over time.
- **Referral and Intake Process.** How individuals get to the program, how intake decisions are made, what tools are used, how the information collected by assessment tools is used, and changes over time.
- **Program Components and Requirements.** For individuals, including program duration and intensity, program features, rules, restrictions, how program components compare to 'usual care' services, and how they change over time.
- **Data and Client Tracking Systems**. How service providers assess individuals over time, the nature and frequency of assessments and data monitoring by program, how data are used to influence program performance, and changes over time.
- **Housing Subsidy Type and Duration**. Housing type, subsidy type (Section 8, Shelter+Care, local rent subsidy program, other), direct to permanent housing or some interim situations, rehousing if participants lose housing, and changes over time.

[8] Corporation for Supportive Housing (2014) "Dimensions of Quality Supportive Housing" Accessed on January 13, 2016 at http://www.csh.org/wp-content/uploads/2013/07/CSH_Dimensions_of_Quality_Supportive_Housing_guidebook.pdf

- **Supportive Services**. What types of services are offered, how the services are staffed and run, how providers design and implement services and how they differ from "usual care", how supportive services change over time for individuals.

In addition to describing these key program components and how they align with the Dimensions of Quality Supportive Housing, we will collect information on the larger environment in which the program operates. The supportive housing SIB initiative will operate within the criminal justice and other public systems that will have shifting processes for responding to the target population. We will also document the local housing market which can create both opportunities and challenges for the program. Provider capacity may also differ—some providers may be establishing new program models, while others are launching enhanced versions of existing activities; thus, each provider will have different capacities and experience. We will examine how all of these factors affect program design and implementation.

Because systems change is critical to the success of this program and serving the target population, we will document the strength of the partnerships within the SIB and the level of services integration they achieve. We will document changes in the numbers and types of agencies involved; levels of staff involvement within the various agencies; and the flow of information, clients, and money. We will look at specific structures developed for the project at the line worker, manager, and agency director levels, to establish procedures, unblock bottlenecks and develop strategies to eliminate them in the future, and deal with challenges to project implementation as they arise. Ideally we would also be able to look at the relationship of increasing success at services integration and participant outcomes, hypothesizing that greater integration leads to better participant outcomes.

Finally, we will document what constitutes "usual care" in the Denver community as the program is implemented over time. In doing so, we will rely on the same components as we do in describing the program model, including their absences (e.g., housing subsidies and certain types of supportive services). Understanding the counterfactual—what housing and services individuals in the target populations are likely to receive in the absence of the program—is critical to interpreting the results of the evaluation.

We anticipate using the following qualitative data collection mechanisms:

- ***Document Review***. We will request program policy manuals, training tools, and other relevant documents generated by the service providers about their activities.

- ***Observation.*** We will observe select program components and partner coordination; for example, management meetings and program meetings.
- ***In-person staff interviews and provider/partner focus groups***. We will conduct annual in-person interviews with program staff and other appropriate staff respondents.
- ***Phone interviews and conference calls.*** We will conduct regular calls for program and evaluation updates and coordination among all partners.

The semi-structured interview and observation protocols we use during site visits to conduct interviews and focus groups with key informants and stakeholders will include discussion topics and questions that reflect key research areas, as will the tools used for extracting information from program documents. We will use a qualitative analysis software package, such as NVivo, to organize and categorize key themes and issues. Results will be presented qualitatively and also converted into a few key quantitative measures to be included in the impact analysis. We will develop an effective way to share timely findings from the process study.

Outcomes and Impact Study

The outcomes and impact study will validate both the interim and final payment triggers for the SIB project and contribute to the broader field of supportive housing for frequent user populations. Our outcomes and impact study will have two components: an analysis for the purpose of validating outcomes tied to payments made to investors and a broader impact analysis. For the purposes of the payment triggers, we will measure housing retention, days in housing, and the impact of the program on jail days. For the payment trigger outcomes, we will use a straightforward method of analysis for estimating the outcomes for the sake of clarity and transparency. We will base the broader outcome analysis on a more technical analysis method, producing estimates of the impacts on a host of outcomes including homelessness, arrests, detox visits, Medicaid utilization, and the use of emergency medical services.

Below we describe the measures, data, and analysis methods that will be used for each of these components of the outcomes and impact study. We include a provision for calculating payment outcomes should the program be terminated early as well as an alternative analysis method, should there be inadequate take-up of housing or too many violations of the control condition (i.e. controls obtain housing specifically through the SIB program).

Research Questions

- Do housed participants retain housing?
- Were performance goals met so that investors should be paid?
- Does supportive housing increase housing stability and decrease the utilization of high cost public services (e.g., jails, courts, detox, homeless shelters, hospitals)?
- Do outcomes differ for participants housed in scatter-site housing versus single-site housing?

Measures, Data Collection, Sources, and Analysis Methods

We first describe the data and methodology to be used to estimate the payment triggers of housing retention, days in housing, and jail days. We then describe the data and estimation technique and data to be used for the broader outcome evaluation.

Payment Triggers

The primary payment triggers will be based on measures of housing stability and reductions in jail days. Housing retention and days in housing among the housed treatment group will be used as an interim payment trigger since housing retention is a strong predictor of longer-term outcomes of interest. The final payment trigger for the SIB will be the impact on jail stays, measured by the difference in average jail days between the treatment and control groups.

Housing Stability

Housing stability will be tracked through program and administrative data and will be measured only for the individuals in the treatment group who enter program housing. The threshold, payment points, and other information on how housing stability will be measured are outlined in table 5.

Table 5. Measurement of Housing Stability and Payment Points

Threshold	Payment Points	Limitations
▪ Individual must maintain a lease for one-year from lease-up date before eligible for payments, as defined in the Contract. ▪ The client has a lease, sublease or occupancy agreement in their name, as defined in the Contract.	▪ After threshold met, City payments made annually starting on 10/30/2017 based upon days in housing before and after threshold according to payment schedule, as defined in the Contract	▪ Days spent in jail since lease-up date will be subtracted from days eligible for payments, as defined in the Contract.

Exits	
Unplanned: If a client meets the condition below prior to achieving the one year threshold, success payments will not be made for that client: ▪ Loss of voucher/lease for any reason other than those specified under planned exit reasons (voucher loss can occur after 90 days away from unit (e.g. incarceration, returns to homelessness) or after eviction)	*Planned:* If a client meets any of the conditions below prior to or after achieving the one year threshold, success payments will be made for the total number of days that the client was stably housed prior to exit at the per diem rate: ▪ Death ▪ Exit to other permanent stable housing where the client is named on a lease, sublease or occupancy agreement OR has a letter stating that they are allowed to reside with the leaseholder or owner in the unit on a permanent basis ▪ Tenant entered long-term residential treatment or other level of care (e.g. assisted living) that exceeds 90 days in order to address a physical or behavioral health issue ▪ Tenant was incarcerated for actions solely occurring prior to SIB randomization

The data sources and measures that will be used to calculate housing stability are outlined in table 6. Program data from MHCD and CCH will be collected approximately biweekly through the Engagement Dashboard as specified in the Urban Institute-Mental Health Center of Denver Data Sharing Agreement and Urban Institute-Colorado Coalition for the Homeless Data Sharing Agreement. Data from Denver Sheriff will be collected at least every six months as specified in the Denver Sheriff Department Data Sharing Agreement within the independent evaluator's contract. Data will be linked by unique research ID to calculate housing stability outcomes.

Table 6. Data Sources and Measure for Calculating Housing Stability

Data Source	Measures
MHCD/CCH Program Data	- **Unique research ID** - Lease-up date - Housing exit date - Housing exit reason
Denver Sheriff Department	- **Unique Research ID** - Jail Entry Date - Jail Exit Date - Facility

Jail Day Reductions

Final payment will be based on the program's impact on reducing jail days. Jail day reductions will be measured as the average difference of jail days between the treatment and control groups, over a

period of three years from randomization date, and estimated using a treatment-on-the treated (TOT) approach, as described in the analysis plan below. The payment for jail day outcomes will be made at the end of the evaluation period.

Estimation Method

To understand the calculation of the Treatment-on-the-Treated (TOT), we first explain how treatment impacts are estimated Intent-to-treat (ITT). The ITT estimate is defined as the difference between the average outcomes for those referred to the SH-SIB (the Treatment Group) and those not referred to the SH-SIB (the Control Group), adjusting for pre-randomization covariates.

All eligible individuals randomized to the treatment population will be counted in the treatment population, regardless of whether they actually engage with the service provider, pass the SIB housing screen, or obtain housing. All eligible individuals randomized to the control population will be counted in the control population, even if they enroll with the service provider or obtain housing.

Calculation: The ITT estimate is measured as the average individual outcomes for the treatment population less the average individual outcomes for the control population. We control for pre-randomization covariates using a regression framework. Specifically the ITT estimate, π_Y, would be measured using the regression equation below:

$$Y_i = \alpha + \beta^T T_i + \sum_{n=1}^{N} \beta^n X_i^n + \varepsilon_i$$

Y_i is the number of jail days for each individual, *i*, that was randomly assigned. T_i is an indicator equal to 1 for individuals who were assigned to the treatment group and 0 for individuals assigned to the control group. β^T is the parameter of the ITT effect on the outcome (Y_i) the number of population members assigned to the treatment population and control population, respectively. X^n is a vector of pre-randomization covariates and β^n is the vector of coefficients on the covariate, X^n. ε is the regression error term. The inclusion of the pre-randomization covariates is intended to improve the precision of the estimates. The initial proposed list of covariates to control for in the model is:

$X_i^1 \ldots X_i^{Nn}$: Race, Gender, Age, Number of Prior Custodial Arrests (8/1/2012-7/31/2015), Number of Prior Transient Arrests (8/1/2012-7/31/2015), Number of Prior Non-Custodial Arrests (8/1/2012-7/31/2015), and Entry Type (Contact, Non-Custodial Arrest, Custodial Arrest)

The exact covariates will be finalized after reviewing the historical data for data quality and completeness. In addition, the sample will be evaluated for equivalence between the treatment and control groups on observable pre-randomization variables. Although random assignment is intended to create two equivalent groups, small samples can result in some differences between the groups by chance. Variables that show differences between the two groups at p=.05, that is, with at least 95 percent confidence they are different, will be included as covariates in the regressions. The Urban Institute will provide the final regression specification no later than 6/1/2018, approximately 6 months after the latest date at which the evaluation could be fully enrolled.

The TOT estimate will be calculated using an "instrumental variable" estimate (IV).[9] The IV estimate is a "per-person served" estimate, among those who comply with referral assignment that accounts for the fact that some people referred to SH-SIB may not enroll and some people in the control group may end up receiving services from the SH-SIB. For example, imagine that all study participants can be divided into three types of individuals: 1) those who will always enroll in SH-SIB regardless of whether they are referred to it or not; 2) those who will never enroll in SH-SIB even if they are referred to it; and 3) those who comply with whatever referral assignment they are given, whether it is to enroll in SH-SIB or to remain in the control group. The IV estimate represents the effect of SH-SIB enrollment on study outcomes among this third group, the compliers. In the special circumstance where decisions to comply or not are independent of the study outcomes, the IV estimate also represents the average treatment effect.

Calculation: The IV estimate scales up the ITT estimate by the difference between the treatment and control groups' fractions enrolled in SH-SIB. Conceptually, the Urban Institute will estimate the effect of referring an individual to SH-SIB on enrollment in SH-SIB in exactly the same manner as calculating the ITT above, except that the dependent variable in the model will be enrollment:

$$P_i = \alpha + \delta^T T_i + \sum_{n=1}^{N} \delta^n X_i^n + \varepsilon_i$$

P_i is 1 if individual, *i*, actually enrolled in the program regardless of whether they were in the treatment or control group. Enrollment will be defined as the participant having an initial housing lease-up date in SIB housing. T_i is an indicator equal to 1 for individuals who were assigned to the treatment group and 0 for individuals assigned to the control group. δ^T is the parameter of the effect of getting

[9] Angrist, Joshua D., Guido Imbens, and Donald B. Rubins (1996): "Identification of Causal Effects Using Instrumental Variables." *Journal of the American Statistical Association* 91, 444-72.

randomly assigned into treatment on actual enrollment (P_i). X^n is a vector of pre-randomization covariates and β^n is the vector of coefficients on the covariates, X^n. ε is the regression error term. The IV estimate is the ratio of the two estimates:

TOT estimate = $\frac{\beta^T}{\delta^T}$

In practice, the two equations will be estimated simultaneously using a two-stage least squares (2SLS) estimation procedure. In the first stage, the dependent variable (enrolling in the program, i.e. leasing-up) is regressed on the exogenous covariates plus the instrument (randomization into treatment). In the second stage, fitted values from the first-stage regression are plugged directly into the structural equation in place of the endogenous regressor (enrolling in the program). We will include the same covariates as used in the ITT regression.

Since the payment schedule specifies the payment amount in "per person served" units, the IV estimate will be the basis for the performance-based outcome payments as it represents the per-participant served difference in mean jail days between the treatment and control group, among those who comply with referral assignments.

Determining individuals included in jail day reduction analyses

All individuals who have been randomly assigned to the treatment or control group for at least 3 years prior to the last day of the observation period will be included for the ITT estimate of jail days. For the TOT estimate we will define the treatment group as all individuals who had an initial lease-up date in SIB housing at least 3 years prior to the last day of the observation period. If an individual has been in the defined treatment group for longer than 3 years, we will look at the first 3 years they were in the treatment group as defined for the analyses. Therefore, any individuals enrolled after January 1, 2018 will not be included in the final verification of jail day outcomes.

However, referrals will continue past this point (if and when housing slots are open), since individuals enrolled in the treatment group after that point are still potentially eligible to generate housing stability payments. Based on the housing stability threshold for payment of one year after initial lease-up, any individuals enrolled after January 1, 2020 will not be eligible to generate housing stability payments. At this point, the City will determine whether the referral process should continue (if and when housing slots are open), even though any individuals enrolled after 1/1/20 will not be included in the evaluation outcomes.

The data sources and measures that will be used to calculate reduction in jail days are outlined in table 7. Jail days will be collected from the Denver Sheriff at least every six months as specified in the Urban Institute-Denver Sheriff Department Data Sharing Agreement.

Table 7. Data Sources and Measure for Calculating Reduction in Jail Days

Data Source	Measures
Denver Sheriff Department	- **Unique Research ID** - Jail Entry Date - Jail Exit Date - Facility

Jail Day Reductions Early Analysis Check Point

Although jail day reduction outcomes for payment purposes will not be analyzed until the final wind-up period in 2021, UI will provide an early analysis of jail day reduction outcomes at an interim "check point" during the SIB project period.

An early analysis of jail day reduction outcomes will require a minimum sample of 150 randomized individuals, which we assume will be 75 individuals in treatment and 75 in the control group. Further, we will conduct our early analysis after this first group of 75 individuals assigned to the treatment group has been assigned for at least two years, as the evidence from other similar studies have measured jail impacts over at least two years. If the current projected housing timeline is maintained, the SIB will have at least 75 individuals assigned to the treatment group by March 2017, and so two years later, the conditions for the early analysis check point would be met in March 2019, about three years into the study. If the housing timeline is adjusted, we will conduct the early analysis on jail day reduction outcomes whenever the conditions for the check point are met, and will share the early analysis with the City, PFS Lenders and SPV within 6 months of the project meeting the conditions for the check point.

For this early analysis we will caution that, with this relatively small sample size, we will not be looking for any specific effect size or statistical significance at this check point, but rather evidence that there is a difference between the treatment and control groups as expected.

Early Outcomes Termination Process

If the agreement is terminated early, the outcome measurements for payment purposes, if appropriate as specified in the SIB contract, will be calculated in the following ways:

Housing Stability: Outcomes will be measured for all participants meeting the payment requirement prior to the early termination quarter as outlined in the research design and Contract.

Jail Days:

If (i) this Contract is terminated prior to the end of the Project Term due to a Termination Event, ii) at least seventy-five (75) Participants were included as part of the Treatment Group for a period of at least one (1) year, and (iii) at least seventy-five (75) Eligible Referrals were included as part of the Control Group for a period of at least one (1) year, then jail day reduction outcomes will be measured for these individuals' first years following random assignment and analysis will be conducted as described in the research design to determine both an ITT and TOT estimate of the difference in jail days for one year. In this scenario, individuals who have been randomly assigned for less than one year will not be included in the analysis.

If the minimum sample size as described above for a Termination Event is reached and the individuals in the minimum sample have been randomly assigned for at least two years prior to the date of early termination, then jail day reduction outcomes will be measured for these individuals' first two years following random assignment and analysis will be conducted as described in the research design to determine both an ITT and TOT estimate of the difference in jail days for two years. In this scenario, individuals who have been randomly assigned for less than two years will not be included in the analysis.

If the minimum sample size as described above for a Termination Event is reached and the individuals in the minimum sample have been randomly assigned for at least three years prior to the date of early termination, then jail day reduction outcomes will be measured for these individuals' first three years following random assignment and analysis will be conducted as described in the research design to determine both an ITT and TOT estimate of the difference in jail days for three years. In this scenario, individuals who have been randomly assigned for less than three years will not be included in the analysis.

Alternate Analysis Plan for the Trigger Payments

An alternative analysis plan for trigger payments will apply if the difference between the percentage of treatment population members that enroll less the percentage of the control population members that enroll with the service provider is greater than or equal to 0.3. Should the enrollment difference be less than 0.3, then an insufficient enrollment difference will occur. In the event of an insufficient enrollment difference, UI will utilize an alternative approach that replaces the control population with a historical

comparison group using a matching procedure, propensity score matching, to determine the alternative reduction in jail days outcome.

Propensity Score Approach: The propensity score approach will create a comparison group that is as similar as possible to those enrolled in the program in their distribution of observable characteristics. The comparison sample will be pulled from administrative data and meet the targeting criteria for our eligible sample at the time they are pulled. The propensity score is the estimated probability that an individual randomized into treatment is enrolled into the program based on individual characteristics. In the analysis procedure, the individual will be weighted as a function of their propensity score. UI will estimate the propensity score using the treatment sample via the following logistic regression:

$$E_i = g(\alpha + \sum_{k=0}^{K} \beta_k \, X_{ik})$$

where E_i is a binary indicator for whether individual *i* is enrolled in the program; α is the overall intercept; X_{ik} is the kth covariate for the individual *i*, with associated coefficient β_k and g() is the logistic function. The covariates to be used will be defined by UI as a part of finalizing this methodology. The propensity scores will be checked for balance and overlap. If the propensity scores generate extreme weights, these weights will be trimmed.

UI will estimate the weights using the following methodology. The weight for each individual enrolled in the program will be 1. The weight for each individual, *j*, in the comparison samples will be:

$$W_j = \frac{1 - \widehat{PS}_J}{\widehat{PS}_j}$$

where $\widehat{PS}_i$ is the estimated propensity score for each individual *i*.

The propensity score weighted effect will be estimated as:

$$ITT_{PS} = \hat{\Upsilon}_E - \hat{\Upsilon}_{CS}$$

where $\hat{\Upsilon}_E$ and $\hat{\Upsilon}_{CS}$ are estimate by applying the weights to the observed outcomes, Y:

$$\hat{\Upsilon}_E = \frac{\sum_{j=1}^{N_E} Y_i^E}{N^E}$$

$$\hat{\Upsilon}_{CS} = \frac{\sum_{j=1}^{N_{CS}} Y_j^{CS} W_j^{CS}}{\sum_{j=1}^{N_{CS}} W_j^{CS}}$$

N_E and N_{CS} are the number of individuals enrolled in the program and the comparison group, respectively; Y_i^E is the outcome (number of days in jail) for each individual, *i*, enrolled in the program and Y_j^{CS} is the outcome (number of days in jail) for each individual, *j*, enrolled in the comparison group; W_j^{CS} is the weight for each individual in the comparison group.

Broader Impact Study

The broader impact study will go beyond the measures used for payment triggers. Annual administrative data (detailed in the Data Access Plan above) will be used to measure the impact of the intervention on jail stays, homelessness, arrests, use of detox and other health services, and Medicaid utilization. These measures directly relate to the intermediate outcomes and final outcomes outlined in the Theory of Change. The broader study will also examine whether outcomes differ for participated housed in scatter-site versus single-site housing. Table 8 outlines the data sources and measures of interest for each outcome by study component. De-identified individual-level data will be linked by a unique research ID to facilitate analysis while maintaining confidentiality.

Table 8. Data Sources and Measures for Other Impacts

	Outcome	**Data Source**	**Measure**
Process Study	Housing Stability	MHCD/CCH Program Data	**Unique research ID** Random assignment date Client location and date Number of client contacts and dates Client housing screen outcome and date Client agreement to housing and date Voucher application outcome and date Housing orientation and date Voucher issuance date Voucher denial date Voucher denial reason Lease-up date Voucher loss reason and date Rent HAP Services Utilization (date, type, dosage, duration)
Outcomes and Impact Study	Jail Days	Denver Sheriff	**Unique Research ID** Charges Jail Entry Date Jail Exit Date Facility Exit Reason
	Homelessness	Denver HMIS Non-HMIS homeless service providers (Rescue Mission, St.	**Unique Research ID** Shelter Entry Date Shelter Exit Date Shelter Type

		Francis)	Living situation prior to homelessness Destination Services Received
	Arrests	Denver Police	**Unique Research ID** Demographics Contact Date Contact Reason Arrest Date Arrest Reason Indicator of Transient Arrest Indicator of Custodial Arrest
	Detox Visits	Denver Health (Denver Cares) HCPF/APCD Databases	**Unique Research ID** Detox Entry Date Detox Exit Date Detox Admission Reason Detox Exit Destination Services Administered
	Use of Emergency Medical Services	Denver Health HCPF/APCD Databases	**Unique Research ID** Emergency Room Entry Date Emergency Room Exit Date Emergency Room Admission Reason Emergency Room Services Administered Emergency Room Exit Status
	Medicaid Utilization	HCPF/APCD Databases	**Unique Research ID** Medicaid Enrollment Claim Data for Services: Date of Visit, Type of Visit

Analysis Methods for Broader Impact Study

Similar to the trigger payments estimation, the broader impact study will use both ITT and TOT methods to estimate the impacts of the program. For the ITT estimate, we will calculate both the straightforward difference in means described above and use a regression-based method that controls for measured characteristics, in order to control for sampling variation which can lead to differences in the characteristics of members in each group, particularly in smaller samples.

We will use an instrumental variables (IV) approach to calculate the TOT for the broader impact study.[10] In this approach, as described previously for jail day reduction estimates, randomization into the treatment group is used as an instrument for actual treatment to remove some of the bias caused by selection into take-up. We will include the same covariates as used in the ITT regression. We will evaluate this model using multiple different definitions of treatment including lease-up, engaged in services and leased up for 6 months, engaged in services and leased up for 12 months.

[10] Angrist, Joshua D., Guido Imbens, and Donald B. Rubins (1996): "Identification of Causal Effects Using Instrumental Variables." *Journal of the American Statistical Association* 91, 444-72.

In Table 9, we show minimum detectable effect sizes for possible outcomes of a binomial variable with 80 percent power in a two-tail test at the traditional .05 significance level. The effect size puts differences in outcomes in percentage terms. From the earlier equations, the percent difference ITT estimate will be calculated as $\frac{\pi_Y}{Y^C}$. As can be seen, the current design can be expected to allow us to detect effect sizes of 25 percent at the .05 significance level, which the literature suggests is reasonable to expect for reduced jail time. Should program take-up be an issue, as we expect it may be, the effect size needed among the treated group in program housing will increase, since we assume the effect for those in the treatment group who don't take up housing will be zero. The effect sizes listed for the TOT in the last column of table 9 come from a Bloom[11] adjustment to the ITT estimate, a conservative approximation of the IV estimates of the TOT, as described earlier. The estimates in table 9 are conservative for both the ITT and TOT as they do not reflect regression-based estimates. Regressions in the ITT and in the IV equation should improve the precision of our estimates, allowing us to identify smaller effects.

Table 9. Minimum Detectable Effect Sizes

Control Group	Treatment Group	Number Treated	Take Up	Effect Size for ITT	Effect Size for Treated (TOT)
250	250	250	100%	0.25	0.25
333	333	250	75%	0.22	0.29
417	417	250	60%	0.19	0.32
500	500	250	50%	0.18	0.36
581	581	250	43%	0.16	0.37
676	676	250	37%	0.15	0.41

Housing Type Analysis

In addition to conducting an impact analysis on the broader outcomes, we will explore how outcomes differ by housing type (scatter-site or single-site). Since the evaluation will not randomly assign individuals within the treatment group to one of the two types of housing, the results of this comparison will not be causal. Without randomization, certain types of individual may be more likely to end up in one housing type than the other. We will not be able to determine whether the difference in the

[11] Bloom, Howard S. (1984) "Accounting for No-shows in Experimental Evaluation Designs." *Evaluation Review* 8, 225-246.

outcomes across the two types of housing reflects differential effects by housing type or reflects differences in the individuals placed in each type. We will, however, be able to control for some of the observable differences in types of individuals placed in each housing type. We believe these observable differences will be driven largely by consumer preference, eligibility for the housing type, and the timing of randomization and housing availability. We will use regression analysis to estimate the difference in outcomes between the two types of housing, controlling for these factors as much as possible. To conduct this analysis, we will collect information in the service provider engagement dashboard on whether participants exercise choice in housing type, are placed in a housing type based on individual characteristics that affect housing type eligibility, such as chronic homelessness or sex offender status, and the type of housing available at each participant's time of randomization. This analysis will be conducted during the final wind-up period and reported along with final outcomes.

Data Security and Ownership

Data Security

Data will be provided via Secure File Transfer Protocol (SFTP) with password protection. This is the ONLY acceptable method of providing data. The following methods are UNACCEPTABLE: Plain text email, USPS with unencrypted CD-ROM, UNSECURE File Transfer Protocol (FTP), and all other methods that are not mentioned above.

UI Staff will use PGP software to encrypt the administrative data file and password-protect the hard drive. If we need to make backup copies of restricted data files, we will encrypt the files before the backup takes place. All restricted data and extracts will be encrypted. All backups of data onto CDs/DVDs will be stored in a locked file cabinet in the researcher's office. Only research staff who has signed confidentiality pledges will be allowed to access the data.

We will treat all data derived from restricted data in the same manner as the original restricted data. Data derived from restricted data include, but are not limited to, subsets of cases or variables from the original restricted data; numerical or other transformations of one or more variables from the original restricted data; and new variables constructed from the original data.

Data Ownership

Urban will have full ownership of all data we collect for this study. We are bound by IRB-approved standards of confidentiality and will not be able to turn over raw data to the City of Denver, SPV, investors, or any other stakeholders. In the event any of these entities requests an audit of the data to verify the outcomes reported by Urban, the requesting entity may select and fully pay for a qualified independent researcher to travel to Urban and conduct an audit of the data needed to verify the outcomes tied to the SIB payment triggers. The qualified independent researcher must sign the confidentiality pledge signed by all on the research team and would operate under the same IRB standards of confidentiality as the research team. The qualified independent researcher would only have access to the data outlined in table 11 below for the purposes of verifying the outcomes tied to the SIB payment triggers:

Table 11. Data for Outcome Verification for SIB Payment Triggers

Data Source	Measures
MHCD/CCH Program Data	- **Unique research ID** - Random assignment date - Client housing screen outcome and date - Client agreement to housing and date - Voucher application outcome and date - Voucher issuance date - Voucher denial date - Voucher denial reason - Lease-up date - Voucher loss reason and date
Denver Sheriff	- **Unique Research ID** - Jail Entry Date - Jail Exit Date - Facility

In the event that Urban's role as the independent evaluator is terminated, and a new independent evaluator is selected, new data sharing agreements must be negotiated between the new independent evaluator and each of the agencies from which data was collected before Urban can turn over any data to the new independent evaluator. It will be incumbent on the new independent evaluator to ensure any necessary confidentiality and data security protocols are in place such that new data sharing agreements can be signed with each administrative data agency that allow Urban to turn over any data already collected to the new independent evaluator.

Reporting & Findings

Final reports and findings will be presented in aggregate form only. No data will be presented in such a way that individuals could be identified. Frequencies and cross-tabulations will be sufficiently aggregated to protect individuals from identification through unique combinations of sensitive information and geographic identifiers. We may impose other restrictions based on our assessment of the data.

Destruction of Data

All data maintained online in the randomization tool database will be cleared within a month of completing random assignment. All data will be destroyed by June 2022, or two years after the final project windup. The Urban Institute will use PGP data encryption software to permanently destroy all datasets in a way that renders them unreadable.

Project Monitoring and Outcomes Reports

Project Monitoring

For project monitoring purposes, UI will maintain a biweekly engagement dashboard (Attachment A) and monthly pipeline dashboard (Attachment B). Data for these dashboards will be collected at least biweekly from CCH and MHCD as specified in Data Sharing Agreements with each service provider. The biweekly engagement dashboard will track individual-level data on participant engagement and enrollment in the program to be used by the service providers and Urban Institute to manage the randomization timeline and address any implementation challenges. Data from the engagement dashboard will be aggregated into a monthly pipeline dashboard that UI will share with the City and SPV. The process for project monitoring will follow the schedule outlined in table 12 below.

Table 12. Project Monitoring Reports

Report Name	Frequency and Distribution	Description	Source
Engagement Dashboard	Biweekly—data dashboard due to UI on 15th and 30th of each month	Individual-level data of client engagement and enrollment	CCH, MHCD
Pipeline Dashboard	Monthly—data dashboard due to the City on 15th of each month	Aggregate number of referrals, assignments, housing outcomes	UI

Outcome Reports

UI will submit outcome reports on housing stability starting in quarter 7 and continuing every 6 months (although payments will only be made annually) thereafter as indicated in the table below through the evaluation project wind up in quarter 22. UI will conduct the outcome measurements on jail days for final payment purposes in the evaluation project wind up in quarter 22. Outcome reports (Attachment C) will be delivered to the City and SPV by the 15th of the last month of the quarter, as outlined in table 13 below.

NOTE: *Urban's ability to produce the report on time is dependent upon receiving proper information from providers and the Sheriff's Department. To the extent there are delays, Urban may request reasonable extensions. Payment dates will be adjusted accordingly.*

Table 13. Outcome Reports

Project and Payment Quarter	Outcome Report Delivered	Quarter Ending	Period of Project Under Evaluation, Housing Stability	Housing Stability Outcomes Observed Through	Period of Project Under Evaluation, Jail Days	Jail Days Outcomes Observed Through
7	9/15/17	9/30/17	Q1-6	6/30/17		
9	3/15/18	3/31/18	Q1-8	12/31/17		
11	9/15/18	9/30/18	Q1-10	6/30/18		
13	3/15/19	3/31/19	Q1-12	12/31/18	Q1-12*	12/31/18*
15	9/15/19	9/30/19	Q1-14	6/30/19		
17	3/15/20	3/31/20	Q1-16	12/31/19		
19	9/15/20	9/30/20	Q1-18	6/30/20		
22	5/15/21	6/30/21	Q1-20	12/31/20	Q1-20	12/31/20

*This report will be an initial analysis of jail day outcomes for an early cohort of participants and will not be used for payment purposes. These are approximate dates for the report, but analysis will only be conducted when conditions for the check point are met, as described on pages 26-27.

Attachment A. Biweekly Engagement Dashboard

ID	RA Date	Located	Date First Located	Number of Contacts	Date of Last Contact	Date of Last Attempt to Engage
Unique research identifier	*Random assignment date*	*Client was located (Y/N)?*	*Date first contact with CCH/MHCD*	*Number of contacts with the client prior to agreement to housing*	*Date of last contact prior to agreement to housing*	*Date of last attempt to contact prior to agreement to housing*

Passed Housing Screen	Date of Housing Screen	Agreed to Housing	Date Agreed to Housing	Packet Approved	Date of Packet Approval	Case Manager
Client passed SIB eligibility housing screen (Y-Chronic, Y-SIB definition, No)?	*Date client passed housing screen*	*Agreed to housing (Y/N)?*	*Date client agreed to housing*	*Voucher application approved (Y/N)?*	*Date of voucher application approval*	*Name of case manager*

Housing Orientation	Date of Orientation	Housing Lease Up	Housing Subsidy Source	Date of Lease Up	Housing Type Assignment	Housing Type Reason
Housing orientation completed (Y/N)?	*Date housing orientation completed*	*Housing lease up outcome: Yes, No-Still Looking, No-Voucher Expire, No-Lost Voucher, No-Other?*	*Housing subsidy source: SIB subsidy, CoC voucher, DHA voucher, CDOH voucher*	*Date of housing lease up*	*Single-site or scatter-site?*	*Is there any specific reason the individual was placed in the housing type (choice, sex offender status, other eligibility issue, etc.?)*

Clinical Intake	Date of Intake	Planned Housing Exit	Date of Planned Housing Exit	Unplanned Housing Exit	Date of Unplanned Housing Exit

Clinical intake completed (Y/N)?	*Date clinical intake completed*	*Exited housing for: other permanent housing, residential treatment, prior offense incarceration, death? Leave blank if no exit.*	*Date of planned housing exit*	*Exited housing for: voluntary voucher loss, lease violation voucher loss, other voucher loss? Leave blank if no exit.*	*Date of unplanned housing exit*

Attachment B. Monthly Pipeline Dashboard

	Total	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16
Referrals								
Total on Eligibility List								
Eligible Individuals Identified								
Arrest								
Police Contact								
Jail								
Eligible Individuals Randomized								
Control								
Treatment								
# Not Found								
# Found								
Failed Housing Screen								
Passed Housing Screen								
Agreed to Housing								
Refused Program								
Found Ineligible for Voucher								
Housing								
# Available Slots								
# Issued Voucher								
# Not Leased Up								
Still Looking for Housing								
Voucher Expired								
Lost Voucher								
Other								
# Leased Up								
# Exited Housing								
Planned Exit Event								
Other Permanent Housing								
Residential Treatment/Other Care								
Prior Offense Incarceration								
Death								

Unplanned Exit Event *Lost Voucher- Voluntary* *Lost Voucher- Lease Violation* *Lost Voucher- Incarceration* *Lost Voucher- Other*		

Attachment C. Quarterly Housing Stability Outcomes Report

	Period under evaluation: Q1-7 (outcomes observed through 9/30/17)							Period under evaluation: Q1-9 (outcomes observed through 3/31/18)							Period under evaluation: Q1-11 (outcomes observed through 9/30/18)						
		Housing Type		Race					Housing Type		Race					Housing Type		Race			
	All	Scattered Site	Single Site	B	W	H	O	All	Scattered Site	Single Site	B	W	H	O	All	Scattered Site	Single Site	B	W	H	O
Number of participants meeting payment requirement																					
Number of participants maintaining voucher for 365 days																					
Number of participants with planned exit event																					
Total days in housing for participants meeting payment requirement																					
Total days in jail for participants meeting payment requirements																					
Total adjusted days in housing for participants meeting payment requirement																					

Total new adjusted days in housing for participants meeting payment requirement

Attachment D. Early Analysis Check Point and Final Wind Up Jail Days Outcomes Report

	Period under evaluation: Project Quarters 1-20 (outcomes observed through 12/31/20)						
		Housing Type		Race			
	All	Scattered Site	Single Site	Black	White	Hisp.	Other
Number of participants assigned to treatment group for at least 3 years (2 years for early analysis check point)							
Total days in jail							
Average days in jail							
Number of participants assigned to control group for at least 3 years (2							

years for early analysis check point)
Total days in jail
Average days in jail
Difference in total jail days
Difference in average jail days

Attachment E. SIB Housing Screen

Client SIB ID:

Date of Screen:

Instructions: Start with Question 1 and follow the instructions. If you reach a question where the answer is identified as **ELIGIBLE**, circle the eligible answer. The participant is eligible and the screen is complete.

If you reach a question where the answer is identified as **NOT ELIGIBLE**, circle the not eligible question. The participant is not eligible. **Continue** asking the next question and follow the instructions until you reach another question where the answer is ELIGIBLE or NOT ELIGBLE. Circle this answer- the screen is complete.

If the individual meets the HUD definition of chronically homeless, also complete the **Chronic Homelessness Qualification Checklist.**

1. Where are you currently living?

- ☐ Apartment/House/Room where the individual has a lease, occupancy agreement, or own -- **GO TO QUESTION 2**
- ☐ With Friend/Family -- **GO TO QUESTION 3**
- ☐ Motel/Hotel – **GO TO QUESTION 3**
- ☐ Hospital, Rehabilitation Center, Drug Treatment Center, Jail, Other Temporary Institution – **GO TO QUESTION 8**
- ☐ Transitional housing – **ELIGIBLE (CORE DEFINITION)**
- ☐ Emergency Shelter --**ELIGIBLE (CORE DEFINITION)**
- ☐ Anywhere outside (e.g., street, vehicle, abandoned building) – **ELIGIBLE (CORE DEFINITION)**

2. Are you trying to leave a domestic violence situation?

- ☐ No -- **NOT ELIGIBLE**
- ☐ Yes -- **GO TO QUESTION 4 (FLEEING DOMESTIC VIOLENCE)**

3. Will you be able to stay here or somewhere else for the next 2 weeks?

- ☐ No -- **GO TO QUESTION 4**
- ☐ Yes -- **GO TO QUESTION 5**

4. Do you know where you will stay when you leave your current situation?

- ☐ No -- **ELIGIBLE (IMMINENTLY LOSING PRIMARY NIGHTIME RESIDENCE)**
- ☐ Yes -- **GO TO QUESTION 5**

5. Are you 24 years of age or younger or a family with children and/or youth?

- ☐ No -- **NOT ELIGIBLE**
- ☐ Yes -- **GO TO QUESTION 6**

6. Have you had your own lease, occupancy agreement, or owned a home in the last 2 months?

- ☐ No -- **GO TO QUESTION 7**
- ☐ Yes -- **NOT ELIGIBLE**

7. How many times have you moved in the last 2 months?

- ☐ Less than two times -- **NOT ELIGIBLE**
- ☐ Two or more times -- **ELIGIBLE (PERSISTENT HOUSING INSTABILITY)**

8. How long have you been in the hospital/rehabilitation center/drug treatment center/jail/other temporary institution? (Note: if individual in multiple institutional settings in a row, add total time)

- ☐ 3 Months or Less -- **GO TO QUESTION 9**
- ☐ More than 3 Months -- **NOT ELIGIBLE**

9. Where were you staying right before you went to the hospital/rehabilitation center/drug treatment center/jail/other temporary institution? (Note: if individual in multiple institutional settings in a row, determine situation prior to first institutional setting)

- ☐ Apartment/House/Room where the individual has a lease, occupancy agreement, or owned -- **NOT ELIGIBLE**
- ☐ With Friend/Family -- **NOT ELIGIBLE**
- ☐ Motel/Hotel – **NOT ELIGIBLE**
- ☐ Transitional housing – **NOT ELIGIBLE**
- ☐ Emergency Shelter --**ELIGIBLE (CORE DEFINITION)**
- ☐ Anywhere outside (e.g., street, vehicle, abandoned building) – **ELIGIBLE (CORE DEFINITION)**

****Complete Questions 10-13 for any individual who answered Question 9, even if not eligible****

10. Will you be able to stay there or somewhere else for the next 2 weeks?

- ☐ No -- **GO TO QUESTION 11**
- ☐ Yes -- **GO TO QUESTION 12**

11. Do you know where you will stay when you leave your current situation?

- ☐ No -- **ELIGIBLE (IMMINENTLY LOSING PRIMARY NIGHTIME RESIDENCE)**
- ☐ Yes -- **GO TO QUESTION 12**

12. Have you had your own lease, occupancy agreement, or owned a home in the last 2 months?

- ☐ No -- **GO TO QUESTION 13**
- ☐ Yes -- **NOT ELIGIBLE**

13. How many times have you moved in the last 2 months?

- ☐ Less than two times -- **NOT ELIGIBLE**
- ☐ Two or more times -- **ELIGIBLE (PERSISTENT HOUSING INSTABILITY)**

Attachment F. Chronic Homelessness Screen

Client Name: _____

HUD defines a Chronically Homeless person as: an unaccompanied homeless person (a single homeless person who is alone and is not part of a homeless family and not accompanied by children).

Part I. Disabling Condition (*Check appropriate box(es)):*

- ❑ A diagnosable substance abuse disorder
- ❑ A serious mental illness
- ❑ A developmental disability
- ❑ A chronic physical illness or disability, including the co-occurrence of two or more of these conditions.

Acceptable forms for documenting a person's disability status are as follows and must be completed by a knowledgeable professional: *(One of the following must be obtained)*

- ❑ Med-9
- ❑ SSDI/SSI/TPQY Statement (within 45 Days of paperwork submitted)
- ❑ Signed Disability Verification Form
- ❑ Signed Letter (on Letterhead) from social service agency confirming disability
- ❑ Hospital Record stating disability or mental health diagnosis

Part II. Literally Homeless Status (*Check ONE):*

- _____ is living in a place not meant for human habitation, such as cars, parks, sidewalks, abandoned buildings (on the street).
  VERIFICATION: Statement of situation and signature of current service provider.

- _____ is staying at an emergency shelter for homeless persons or safe haven.
  VERIFICATION: Statement of situation and signature of shelter staff.

- _____ is in rapid re-housing or supportive housing for homeless persons who was originally chronically homeless and came from the streets or emergency shelters; and/or in any of the above places but is spending a short time (up to 90 consecutive days) in a hospital or other institution.
  VERIFICATION: Statement of situation and signature of rapid re-housing/ supportive housing staff.

- _____ is exiting an institution where they resided for 90 days or less AND were residing in emergency shelter or place not meant for human habitation immediately before entering institution.

- _____ is an individual fleeing or attempting to flee domestic violence, dating violence, sexual assault, stalking, or other dangerous or life threatening conditions related to violence, who have no identified subsequent residence; AND lack the resources and support networks needed to obtain other permanent housing.

Part III. *Chronically Homeless Status (Check ONE):*

❑ **The individual has been continuously homeless for a year or more.**

❑ **The individual has had <u>four</u> (4) episodes of homelessness in the last <u>three</u> (3) years that total at least 12 months (3 months self-report; 9 months 3rd Party Verification)**

Part II or III is supported by Third Party Certification, which includes dates and locations of homelessness, from one or more of the following: *Check ALL that apply.* This third party or narrative verification should include dates and locations of episodes of homelessness. Verification Levels should be attempted in order from 1 through 4. Narrative should include date(s) attempted for third party verification and date(s) completed as appropriate.

First Level of Verification

- ❑ Signed Third Party letter (s) on agency letterhead from a shelter worker, homeless service provider, outreach worker, other healthcare or human service provider attesting to homelessness. Print outs from HMIS database documenting episode(s) of homelessness can be used with written narrative explaining such.

Second Level of Verification

- ❑ Signed written documentation on agency letterhead by Intake Worker of phone/in person/email conversations with a shelter worker, homeless service provider, outreach worker, other healthcare or human service provider attesting to homelessness. Print outs from HMIS database documenting episode(s) of homelessness can be used with written narrative explaining such.

Third Level of Verification

- ❑ Signed written documentation on agency letterhead by Intake Worker of their observations of the client's housing history attesting to homelessness. Housing history should include length of stay at each place during the past 4 years if possible. Print outs from HMIS database documenting episode(s) of homelessness can be used with written narrative explaining such.

Fourth Level of Verification

- ❑ Signed & notarized written documentation by client of their homelessness status along with a housing history showing episode(s) of homelessness during the past 4 years.

Staff Name: _____ Staff Title: _____

Organization: _____

Signature: _____ Date: _____

Instructions: This Homelessness History Summary provides a suggested timeline to be used by individuals who receive funds for programs targeted to chronically homeless persons. It may be used to analyze whether or not the chronology of a homeless person's history meets the time frame for the definition of chronic homelessness.

Client Name:

Time Period	Whereabouts	Documented?

EXHIBIT D

CERTIFICATE OF INSURANCE

Client#: 20081 URBAINS

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 1/19/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER The CIMA Companies, Inc. (CIM) 2750 Killarney Dr, Suite 202 Woodbridge, VA 22192-4124 703 739-9300	CONTACT NAME: PHONE (A/C, No, Ext): 703 739-9300 FAX (A/C, No): 7037390761 E-MAIL ADDRESS: PRODUCER CUSTOMER ID #:
INSURED The Urban Institute 2100 M Street, NW Washington, DC 20037	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : Hartford Fire Insurance Company — 19682 INSURER B : Hartford Casualty Insurance Com — 29424 INSURER C : Hartford Underwriters Insurance — 30104 INSURER D : Continental Casualty Company — 20443 INSURER E : — INSURER F : —

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	**GENERAL LIABILITY** X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC			42UUNAW7788	01/01/2016	01/01/2017	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG 	$1,000,000 $1,000,000 $10,000 $1,000,000 $3,000,000 $3,000,000 $
A	**AUTOMOBILE LIABILITY** ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS			42UUNAW7788	01/01/2016	01/01/2017	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) 	$ 1,000,000 $ $ $ $
B	**UMBRELLA LIAB** OCCUR **EXCESS LIAB** CLAIMS-MADE DEDUCTIBLE X RETENTION $ 10000			42XHUNA0533	01/01/2016	01/01/2017	EACH OCCURRENCE AGGREGATE 	$12,000,000 $12,000,000 $
C	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		42WBRJ7174	01/01/2016	01/01/2017	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $500,000 $500,000 $500,000
D	**Professional**			596415754	01/01/2016	01/01/2017	$2,000,000/$2,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Contract No.:FINAN-201523940-00

Contract No.:FINAN-201626034

(See Attached Descriptions)

CERTIFICATE HOLDER

Department of Finance City and
County of Denver
201 W. Colfax Avenue Dept. 1010
Denver, CO 80202

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Laurie S. Calanni

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DESCRIPTIONS (Continued from Page 1)

As required by written contract, the City and County of Denver, its elected and appointed officials, employees, and volunteers are included as additional insured as respects Commercial General Liability and Business Auto.