

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 organization, established under the laws of Delaware with its business address located at 500 L'Enfant Plaza SW, Washington, DC 20024, individually a “Party” and 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 Housing Officer and Executive Director of the City’s Department of Housing Stability, (“CHO”) or the CHO’s designee.

2. SERVICES TO BE PERFORMED:

a. As the CHO 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 (collectively, the “Program”).

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 July 1, 2022 and will expire on December 31, 2030 (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 Eight Hundred Twenty-Six Thousand Eight Hundred Dollars (\$826,800.00) for fees. Amounts billed may not exceed the rates and budget set forth in **Exhibit B**. Notwithstanding the foregoing or anything else contained within this Agreement, the Parties agree and acknowledge that the Federal Grant, defined below in Section 4.d.2, is in the amount of Eight Hundred Twenty-Six Thousand Eight Hundred Dollars (\$826,800.00), which represents the current maximum financial obligation

of the City hereunder as compensation for the Consultant's services rendered and costs incurred contemplated under the Agreement. The balance payable to the Consultant for the services rendered and costs incurred contemplated under this Agreement, Three Hundred Fifty-Five Thousand Nine Hundred Ninety-Two Dollars (\$355,992.00) (the "Contract Balance"), is anticipated to be provided to the Consultant via outside sources and, unless agreed to by the City in accordance with a written amendment to this Agreement, the City has no financial obligation to the Consultant for paying any portion or all of the Contract Balance.

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. Unless otherwise notified by the City in writing, the Consultant shall remit all invoices to the following email address for review and processing: hostap@denvergov.org. 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 One Million One Hundred Eighty-Two Thousand Seven Hundred Ninety-Two Dollars (\$1,182,792.00) (the "Maximum Contract Amount"). Notwithstanding the foregoing or anything else contained within this Agreement, the Parties agree and acknowledge that the Federal Grant, defined below in Section 4.d.2, is in the amount of Eight Hundred Twenty-Six Thousand Eight Hundred Dollars (\$826,800.00), which represents the current maximum financial obligation of the City hereunder; the Contract Balance is anticipated to be provided to the Consultant via outside sources and, unless agreed to by the City in accordance with a written amendment to this Agreement, the City has no financial obligation to the Consultant for paying any monies to the Consultant above the Maximum Contract Amount, including any portion or all of the Contract Balance. 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. The Parties agree and acknowledge that a portion or all of the funding for the Consultant's services contemplated under this Agreement is from a grant issued by the Federal government to the City in the amount of Eight Hundred Twenty-Six Thousand Eight Hundred Dollars (\$826,800.00) (as may be amended or restated, the "Federal Grant"); the Federal Grant is administered by the U.S. Department of the Treasury ("Treasury").

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. A termination or revocation of the Federal Grant, in whole or in part, shall provide cause for the City terminate this Agreement in accordance with this Section 6.a. Upon receipt of such notice, the Consultant shall immediately cease to perform services unless otherwise directed to continue to do so within the notice, and then only to the extent specified within the notice.

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, or accept certification of destruction of the same from Consultant for applicable items. For any documents returned, 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, copy and retain copies, at City's election in paper or electronic form, any pertinent books, documents, papers and records related to the Consultant's performance pursuant to this Agreement, provision of any goods or services to the City, and any other transactions related to this Agreement. The Consultant shall cooperate with City representatives and City representatives shall be granted access to the foregoing documents and information during reasonable business hours and until the latter of three (3) years after the final payment under the Agreement or expiration of the applicable statute of limitations. When conducting an audit of this Agreement, the City Auditor shall be subject to government auditing standards issued by the United States Government Accountability Office by the Comptroller General of the United States, including with respect to disclosure of

information acquired during the course of an audit. No examination of records and audits pursuant to this paragraph shall require the Consultant to make disclosures in violation of state or federal privacy laws. The Consultant shall at all times comply with D.R.M.C. 20-276. The Parties shall follow the record retention requirements detailed in 2 CFR 200.334 (the "Federal Records Retention Requirements") and, if and to the extent of any conflict between the Federal Record Retention Requirements and this Section 7, the terms of the Federal Records Retention Requirements shall control. In accordance with and pursuant to 2 CFR 200.337, Treasury, Inspectors General, and the U.S. Comptroller General or any of their authorized representatives must have the right of access to any documents, papers, or other records of the Consultant which are pertinent to the Federal Grant, in order to make audits, examinations, excerpts, and transcripts. The right also includes timely and reasonable access to Consultant's personnel for the purpose of interview and discussion related to such documents.

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: The 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. The Consultant shall keep the required insurance coverage in force at all times during the term of the Agreement, including any extension thereof, and during any warranty period. 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 require notification to the City in the event any of the required 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. Such notice 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,

the 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. The 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: The Consultant may not commence services or work relating to this Agreement prior to placement of coverages required under this Agreement. The Consultant certifies that the certificate of insurance attached as **Exhibit D**, preferably an ACORD form, complies with all insurance requirements of this Agreement. The City requests that the City's contract number be referenced on the certificate of insurance. 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 the 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 Excess Liability/Umbrella (if required), the 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 Workers' Compensation/Employer's Liability, General Liability and Automobile coverages required under this Agreement, Consultant's insurer shall waive subrogation rights against the City. .

e. Subcontractors and Subconsultants: The Consultant shall confirm and document that all subcontractors and subconsultants (including independent contractors, suppliers or other entities providing goods or services required by this Agreement) procure and maintain coverage as approved by the Consultant and appropriate to their respective primary business risks considering the nature and scope of services provided.

f. **Workers' Compensation/Employer's Liability Insurance:** The 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.

g. **Commercial General Liability:** The Consultant shall maintain a Commercial General Liability insurance policy with minimum limits of \$1,000,000 for each bodily injury and property damage occurrence, \$2,000,000 products and completed operations aggregate (if applicable), and \$2,000,000 policy aggregate.

h. **Automobile Liability:** The Consultant shall maintain Automobile Liability with minimum 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):** The Consultant shall maintain minimum limits of \$1,000,000 per claim and \$1,000,000 policy aggregate limit. The policy shall be kept in force, or a Tail policy placed, for three (3) years for all contracts except construction contracts for which the policy or Tail shall be kept in place for eight (8) years.

10. **DEFENSE AND INDEMNIFICATION**

a. The Consultant hereby 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. The 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. TAXES, CHARGES AND PENALTIES: 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 CHO'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 CHO 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. Notwithstanding the foregoing, the City hereby consents to the Consultant's engagement of The Evaluation Center, a Colorado non-profit (authorized to do business in the State of Colorado) to perform qualitative data collection and analysis on behalf of the Consultant in accordance with the services contemplated pursuant to this Agreement.

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 City 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:

CHO or Designee
201 West Colfax Avenue, Dept. 615
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 for the Consultant shall be sent as follows:

Contractual: Christopher Thomas, Senior Contracts Administrator, Grants and Contracts Office, The Urban Institute, 500 L'Enfant Plaza SW, Washington, DC 20024. Phone: (202) 261-5237, Fax: (202) 728-0231 and email: cthomas@urban.org.

Financial Matters: Connor Daines, Accountant I, Accounting, The Urban Institute, 500 L'Enfant Plaza SW, Washington, DC 20024. Phone: (202) 261-5799, Email: cdaines@urban.org.

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.

19. NO EMPLOYMENT OF A WORKER WITHOUT AUTHORIZATION 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 a worker without authorization who will perform work under this

Agreement, nor will it knowingly employ or contract with a worker without authorization to perform work under this Agreement in the future.

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

(3) It will 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 a worker without authorization to perform work under this Agreement.

(4) It is prohibited from using the E-Verify Program procedures to undertake pre-employment screening of job applicants while performing its obligations under this 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 this Agreement knowingly employs or contracts with a worker without authorization, 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 worker without authorization, unless during the three-day period the subconsultant or subcontractor provides information to establish that the subconsultant or subcontractor has not knowingly employed or contracted with a worker without authorization.

(6) It will comply with a 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.

c. 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 CHO 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, demote, or discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, ethnicity, citizenship, immigration status, gender, age, sexual orientation, gender identity, gender expression, marital status, source of income, military status, protective hairstyle, or 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 and 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, non-Consultant specific logos, documents, booklets, manuals, references, guides, brochures, advertisements, stand-alone URLs, domain names, music, sketches, stand-alone 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 CHO 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. The City hereby grants to the Consultant a worldwide, non-transferable, irrevocable, and royalty-free license to reproduce, publish, transmit, publicly display, distribute, adapt, and otherwise use and reuse all materials and products first produced, composed, or created in the performance of this Agreement, provided that the Consultant notify and consult with the City prior to undertaking such reproduction, publication, transmission, public display, distribution, adaptation, and use and reuse activities.

a. Data Ownership: The Consultant will have full ownership of all data Consultant collects under this Agreement. The Consultant is bound by standards of

confidentiality approved by Urban’s Institutional Review Board (“IRB”), the IRB of record for the evaluation, and will not be able to turn over raw data to the City, the special purpose vehicle created as a part of the services contemplated herein (“SPV”), the Corporation for Supportive Housing, the entity controlling the SPV (“CSH”), investors, or any other stakeholders. In the event any of these entities requests an audit of the data to verify the outcomes reported by the 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 required to verifying the outcomes tied to the success payments, as outlined in the research design (**Exhibit C**).

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. Subject to the terms of this Section 27, upon the termination of this Agreement, Consultant will return to the City and the SPV or certify destruction of the same, and provide an irrevocable license to the City, the SPV and CSH, to use all of the data, reports, analyses, work product and intellectual property that is not otherwise considered to be Materials provided or acquired by Consultant exclusively in connection with the Program,

except for confidential information related to Program participants, in a format agreed upon between Consultant, City and the SPV.

b. Treasury Intellectual Property Rights: In accordance with Section 23 of Schedule 1 of the Federal Grant, the Parties agree and acknowledge that Treasury reserves a royalty-free, nonexclusive and irrevocable license to reproduce, publish, or otherwise use the Materials, in whole or in part (including create derivative works), for Federal Government purposes, and to authorize others to do so. The Parties further agree and acknowledge that publications developed with Federal Grant funds and published as a Treasury resource will contain the following copyright notice: “The resource was developed under a federal award and may be subject to copyright. The U.S. Department of the Treasury reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish, or otherwise use the work for Federal Government purposes and to authorize others to do so. This resource may be freely distributed and used for noncommercial and educational purposes only.” For purposes of this Section 27(b), the term Materials does not include data and information covered under Section 27(a), above, entitled “Data Ownership.”

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: Except as already permitted within this Agreement, 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 CHO. 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 CHO 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
Demographics	- Unique Research ID (PIN provided by DPD)

	<ul style="list-style-type: none"> - Gender - Race - Ethnicity - Date of birth
Arrests/Offenses	<ul style="list-style-type: none"> - Unique Research ID - Arrest Number - Arrest Date - Indicator of Transient - Arrest Address - Indicator of Custodial Arrest - UCR Number - Felony/Misdemeanor - New Violation - Booking Number - Incident Number - Offense Code - Offense Date - Offense Location - Role
Contacts (Street Checks and General Occurrences)	<ul style="list-style-type: none"> - Unique Research ID - Contact Number - Contact Location - Occurrence Date - Reason - Indicator of Transient

- E.** Data extracts will be provided every six (6) 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	<ul style="list-style-type: none"> - Unique Research ID (PIN provided to DSD) - Booking Number - Jail Entry Date - Jail Exit Date - Facility

- B.** Data extracts will be provided every six (6) months starting in early 2023, according to the schedule in the table below, for a total of 14 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	12/31/2022	1/2/2023	1/30/2023	4/15/2023
2	6/30/2023	7/3/2023	7/31/2023	10/15/2023
3	12/31/2023	1/2/2024	1/30/2024	4/15/2024
4	6/30/2024	7/1/2024	7/29/2024	10/15/2024
5	12/31/2024	1/2/2025	1/30/2025	4/15/2025
6	6/30/2025	7/1/2025	7/29/2025	10/15/2025
7	12/31/2025	1/2/2026	1/30/2026	4/15/2026
8	6/30/2026	7/1/2026	7/29/2026	10/15/2026
9	12/31/2026	1/4/2027	2/1/2027	4/15/2027
10	6/30/2027	7/1/2027	7/29/2027	10/15/2027
11	12/31/2027	1/3/2028	1/31/2028	4/15/2028
12	6/30/2028	7/3/2028	7/31/2028	10/15/2028
13	12/31/2028	1/2/2029	1/30/2029	4/15/2029
14	6/30/2029	7/2/2029	7/30/2029	10/15/2029

- 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 2031, 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. FEDERAL PROVISIONS:

a. Remedies for Non-Compliance. If the Consultant does not correct an identified default within the specified timeframe, then the City may impose any or all of the following remedial actions, in addition to any and all other remedial actions authorized by law or pursuant to this Agreement:

- (1) Withhold any or all payments to the Consultant, in whole or in part, until the necessary services or corrections in performance are satisfactorily completed during the authorized period to cure default, which shall be thirty (30) days from the date of receipt of a notice of default;
- (2) Deny all requests for payment and/or demand reimbursement from the Consultant of any and all payments previously made to the Consultant for those services or deliverables that have not been satisfactorily performed and which, due to circumstances caused by or within the control of the Consultant, cannot be performed or if performed would be of no value to the Program. Denial of requests for payment and demands for reimbursement shall be reasonably related to the amount of work or deliverables lost to the City;
- (3) Deny in whole or in part any application or proposal from the Consultant for funding of the Program for a subsequent Program year regardless of source of funds;
- (4) Reduce any application or proposal from the Consultant for refunding for the Program for a subsequent Program year by any percentage or amount that is less than the total amount of compensation provided in this Agreement regardless of source of funds;
- (5) Refuse to award the Consultant, in whole or in part, all additional funds for expanded or additional services under the Program;
- (6) Deny or modify any future awards, grants, or contracts of any nature by the City regardless of funding source for the Consultant; or

- (7) Modify, suspend, remove, or terminate the services, in whole or in part. If the services, or any portion thereof, are modified, suspended, removed, or terminated, the Consultant shall cooperate with the City in efficiently transferring the services as reasonably designated by the City.

b. Compliance with the Debarment and Suspension Requirements (2 CFR Part 180 and Treasury's Regulations at 31 CFR Part 19). Contracts and subcontract awards must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR Part 180 and Treasury's regulations at 31 CFR Part 19, which implements the requirements of Executive Orders 12549 and 12689. By its signature below, the Consultant assures and certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. The Consultant shall provide immediate written notice to the CHO if it learns that its certification to enter into this Agreement was erroneous when submitted or has become erroneous by reason of changed circumstances. If the Consultant is unable to certify to any of the statements in the certification contained in this paragraph, the Consultant shall provide a written explanation to the City within thirty (30) calendar days of the date of execution of this Agreement. Furthermore, if the Consultant is unable to certify to any of the statements in the certification contained in this paragraph, the City may pursue all available remedies available to the City, including but not limited to terminating this Agreement immediately, upon written notice to the Consultant. The Consultant shall include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction" in all covered transactions associated with this Agreement. The Consultant is responsible for determining the method and frequency of its determination of compliance with Executive Orders 12549 and 12689 and their implementing regulations.

c. Compliance with Byrd Anti-Lobbying Amendment (31 U.S.C. 1352). Contractors and subcontractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352 and Treasury's implementing regulation at 31 CFR Part 21.

Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award. The Consultant certifies that, prior to the City awarding this Agreement to the Consultant, the Consultant has filed any necessary certification required hereunder, if any, and has disclosed any lobbying it participated in with non-Federal funds in connection with obtaining any Federal award. The Consultant must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Additionally, the Consultant shall comply with the lobbying restrictions as described 2 C.F.R. § 200.450.

d. Domestic Preferences in Procurement (2 CFR § 200.322). To the extent practicable and consistent with applicable law under the award, the Consultant will provide a preference for the procurement or use of goods produced and services offered in the United States as described in 2 C.F.R. § 200.322 and Executive Order 14005 Ensuring the Future is Made in All of America by All of America's Worker (January 25, 2021).

e. Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment (2 CFR § 200.216). Federal award funds may not be used to procure or obtain any covered telecommunication and video surveillance services or equipment as described in 2 C.F.R. § 200.216.

f. Additional Compliance. The Consultant is required to comply with all anti-discrimination and drug-free workplace laws, and all laws governing research involving human subjects. If the Consultant is receiving Federal funds under this Agreement the following Federal laws, as amended and by way of illustration, may apply: Equal Opportunity Employer Executive Order, the Fair Housing Act, the Housing and Urban Development Act of 196, Title VI of the Civil Rights Act of 1964, the Davis-Bacon Act, the Hatch Act, the Americans with Disabilities Act, the Deficit Reduction Act, the Federal Funding Accountability and Transparency Act of 2006, Rights to Inventions as stated in 37 C.F.R. Part 401, the Rehabilitation Act of 1973, the Housing and Community Development Act of 1974, the Age Discrimination Act, the Architectural Barriers Act, Title IX of the Civil Rights Act of 1964, the Vietnam Era Veterans' Readjustment Assistance Act of 1974, the Violence Against Women Reauthorization Act of 2013, the Solid Waste Disposal Act, the Copeland "Anti-Kickback" Act, the Fair Labor Standards Act, the Contract Work Hours and Safety Standards Act, the Clean Air and Federal Water Pollution Control Act and other applicable Environmental Protection Agency regulations, the Federal Energy Policy and Conservation Act, the Federal Office

of Management and Budget's Circulars and Uniform Guidance, and the Single Audit Act of 1984. The Consultant must establish policies and procedures for procurement that comply with 2 C.F.R. §§ 200.318, *et seq.* The Consultant must comply with the applicable procurement standards outlined in 2 C.F.R. §§ 200.317 through 2 C.F.R. 200.327 in procuring goods and services to carry out the objectives of the Federal Grant in accordance with 2 C.F.R. 200.317.

g. Mandatory Disclosures. The Consultant shall disclose, in a timely manner, in writing to the City and the Federal or state awarding agency, all violations of Federal or state criminal law involving fraud, bribery, or gratuity violations potentially affecting the applicable award. The City, the State of Colorado, or the relevant Federal agency, as applicable, may impose any penalties for noncompliance allowed under 2 C.F.R. Part 180, 2 C.F.R. § 200.338, and 31 U.S.C. 3321, which may include, without limitation, suspension or debarment.

36. 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: HOST-202262619-00
Contractor Name: THE URBAN INSTITUTE

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:

Attorney for the City and County of Denver

By:

By:

By:

Contract Control Number:
Contractor Name:

HOST-202262619-00
THE URBAN INSTITUTE

By: DocuSigned by:
Christopher Thomas
A6EC6B87539E450...

Name: Christopher Thomas
(please print)

Title: Sr. Contracts Administrator
(please print)

ATTEST: [if required]

By: _____

Name: _____
(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 Denver Housing to Health (H2H) Pay for Success Contract between the City and SPV (the “H2H Contract”) in coordination with the City of Denver (“City”)—including the Denver Police Department, the Denver PFS, LLC (i.e, H2H Special Purpose Vehicle (“SPV”)), and Colorado Coalition for the Homeless (“CCH”) and WellPower, the Urban Institute (“Urban”) will:
 - i. Establish a list of eligible participants for the H2H 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 H2H 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 H2H 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;
 - 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; and
 - iii. Collect and validate HCPF data on healthcare utilization to measure the impact of the program on Medicaid and Medicare billing.
- b. In addition to the measures outlined in the H2H 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; and
 - iii. Homelessness system utilization and costs.
- c. In the event of an early termination of the H2H Contract, Urban will collect and certify the validity of the data and calculations used to inform the early success payments as outlined in the H2H 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 H2H Contract between the City and SPV to the City, SPV, Providers, and Lenders. Urban will also provide performance reports to the City on a quarterly basis that describe project activities during the reporting period to facilitate the City's quarterly submission of those reports to Treasury. Urban shall also provide timely and comprehensive reports as described pursuant to Section 2 of Schedule 1 of the Federal Grant and 42 U.S.C. §§ 1397n-4(d) and (e) to Treasury and the Chair of the Federal Interagency Council on Social Impact Partnerships. 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 8 and continuing every 12 months thereafter as indicated in the Evaluation Design through the evaluation project wind up in quarter 30. Urban will conduct the outcome measurements on jail days for one interim and one final payment and submit the outcome report in quarter 16 and in the evaluation project wind down in quarter 30. Urban will conduct the outcome measurements on Medicaid and Medicare billings (federal outlay outcomes) for a final payment and submit the outcome report in the evaluation project wind down in quarter 30. Outcome reports will be delivered to the City, SPV, Providers, and Lenders as outlined in the Research Design and H2H Contract. In furtherance of this task, Urban will calculate Housing Stability Success Payments, Jail Day Reductions Success Payments, and Federal Outlay Outcomes 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 4.02 of the Pay for Success Contract.
- e. At the conclusion of the evaluation or in the event of early termination of the H2H 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 H2H program;
 - ii. Process study findings and recommendations; and
 - iii. Impact study data (aggregate), outcomes, findings, and recommendations.

Exhibit B

THE URBAN INSTITUTE
Budget Period:

January 1, 2022 -

December 31, 2022

05/25/22

SIPPRA - Pay for Results
Prop Development Number: 960000-1601-000-0099f
BUDGET ESTIMATE
Prepared for U.S. Department of the Treasury (TREAS)

Object Classification	General and Management Task 1		Process Study: Data Collection Task 2		Impact Study: Data Collection Task 3		Reporting and Dissemination Task 4		Total Estimated	
	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars
ON-SITE PERSONNEL										
Mary Cunningham	20	\$2,450	10	\$1,225	0	\$0	0	\$0	30	\$3,675
Sarah Gillespie	80	7,406	20	1,852	0	0	0	0	100	9,258
Devlin Hanson	60	4,279	40	2,852	0	0	0	0	100	7,131
Jennifer Kincheloe	60	3,750	40	2,500	0	0	0	0	100	6,250
Alyse Oneto	62	2,545	20	821	0	0	0	0	82	3,366
TBD Research Analyst	40	1,160	20	580	0	0	0	0	60	1,740
TBD Research Assistant	80	1,840	40	920	0	0	0	0	120	2,760
Editorial and Publication Support	8	356	4	163	0	0	0	0	12	519
Project Management Support	40	1,540	20	770	0	0	0	0	60	2,310
Subtotal	450	25,326	214	11,683	0	0	0	0	664	37,009
Provision for Merit Increase*		1,140		526		0		0		1,666
Subtotal		26,466		12,209		0		0		38,675
Fringe Benefits		11,380		5,250		0		0		16,630
Subtotal		37,846		17,459		0		0		55,305
Indirect		20,335		9,381		0		0		29,716
Subtotal		58,181		26,840		0		0		85,021
SUBCONTRACT/GRANT:										
Evaluation Center		0		0		0		0		0
Subtotal		0		0		0		0		0
TRAVEL										
Round-trip Airfare: WDC/ Denver	No. 2	2,000	No. 0	0	No. 0	0	No. 0	0	No. 2	\$2,000
Trip Duration: 2 day(s)/trp	1 night(s)/trp									
Transfers @	2 /trip	4 60	0 0	0 0	0 0	0 0	0 0	0 0	4 60	
Per Diem:										
Lodging @	1 night(s)/trip	2 398	0 0	0 0	0 0	0 0	0 0	0 0	2 398	
Lodging Tax @		60	0	0	0	0	0	0	60	
M&IE @	1.50 day(s)/trip	3.00 228	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	0.00 0	3.00 228	
Car Rental & Related @	2 day(s)/trip	4 220	0 0	0 0	0 0	0 0	0 0	0 0	4 220	
Inflation Factor on Travel*		59	0	0	0	0	0	0	59	
Subtotal		3,025	0	0	0	0	0	0	3,025	
OTHER DIRECT COSTS										
Computer Network Services		2,250	1,070	0	0	0	0	0	3,320	
Print and Online Resources		10	10	0	0	0	0	0	20	
Meeting and Office Services		290	130	0	0	0	0	0	420	
Subcontract Administration		0	0	0	0	0	0	0	0	
Inflation Factor on ODCs (excl Sub. Admin)*		51	24	0	0	0	0	0	75	
Subtotal		2,601	1,234	0	0	0	0	0	3,835	
Total Direct and Indirect Costs		\$63,807	\$28,074	\$0	\$0	\$0	\$0	\$0	\$91,881	
GENERAL & ADMINISTRATIVE		14,216	6,255	0	0	0	0	0	20,471	
FIXED FEE		5,462	2,403	0	0	0	0	0	7,865	
TOTAL ESTIMATED COST PLUS FIXED FEE		<u>\$83,485</u>	<u>\$36,732</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$120,217</u>	

* 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.

THE URBAN INSTITUTE
 Budget Period: January 1, 2023 - December 31, 2023 05/25/22

SIPPRA - Pay for Results
 BUDGET ESTIMATE
 Prepared for U.S. Department of the Treasury (TREAS)

Object Classification	General and Randomization: Management and Task 1		Process Study: Data Collection Task 2		Impact Study: Data Collection Task 3		Reporting and Dissemination Task 4		Total Estimated	
	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars
ON-SITE PERSONNEL										
Mary Cunningham	10	\$1,225	10	\$1,225	0	\$0	10	\$1,225	30	\$3,675
Sarah Gillespie	20	1,852	20	1,852	0	0	30	2,777	70	6,481
Devlin Hanson	20	1,426	40	2,852	0	0	20	1,426	80	5,704
Jennifer Kincheloe	5	313	40	2,500	0	0	10	625	55	3,438
Alyse Oneto	10	411	20	821	0	0	30	1,232	60	2,464
TBD Research Analyst	10	290	20	580	0	0	20	580	50	1,450
TBD Research Assistant	40	920	40	920	0	0	20	460	100	2,300
Editorial and Publication Support	2	98	4	163	0	0	3	127	9	388
Project Management Support	12	462	20	770	0	0	16	616	48	1,848
Subtotal	129	6,997	214	11,683	0	0	159	9,068	502	27,748
Provision for Merit Increase*		644		1,075		0		835		2,554
Subtotal		7,641		12,758		0		9,903		30,302
Fringe Benefits		3,286		5,486		0		4,258		13,030
Subtotal		10,927		18,244		0		14,161		43,332
Indirect		5,871		9,803		0		7,609		23,283
Subtotal		16,798		28,047		0		21,770		66,615
SUBCONTRACT/GRANT:										
Evaluation Center		0		0		0		0		0
Subtotal		0		0		0		0		0
TRAVEL										
Round-trip Airfare: WDC/	No.		No.		No.		No.		No.	
Denver	0	0	0	0	0	0	2	2,000	2	\$2,000
Trip Duration: 2 day(s)/trip										
Transfers @	0	0	0	0	0	0	4	60	4	60
Per Diem:										
Lodging @	0	0	0	0	0	0	2	398	2	398
Lodging Tax @		0		0		0		60		60
M&IE @	0.0	0	0.0	0	0.0	0	3.0	228	3.0	228
Car Rental & Related @	0	0	0	0	0	0	4	220	4	220
Inflation Factor on Travel*		0		0		0		120		120
Subtotal		0		0		0		3,086		3,086
OTHER DIRECT COSTS										
Computer Network Services		650		1,070		0		790		2,510
Print and Online Resources		0		10		0		10		20
Meeting and Office Services		80		140		0		110		330
Subcontract Administration		0		0		0		0		0
Inflation Factor on ODCs (excl Sub. Admin)*		29		49		0		37		115
Subtotal		759		1,269		0		947		2,975
Total Direct and Indirect Costs		\$17,557		\$29,316		\$0		\$25,803		\$72,676
GENERAL & ADMINISTRATIVE		3,912		6,532		0		5,749		16,193
FIXED FEE		1,503		2,509		0		2,209		6,221
TOTAL ESTIMATED COST PLUS FIXED FEE		\$22,972		\$38,357		\$0		\$33,761		\$95,090

* 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.

THE URBAN INSTITUTE 05/25/22
 Budget Period: January 1, 2024 - December 31, 2024
SIPPRA - Pay for Results
 BUDGET ESTIMATE
 Prepared for U.S. Department of the Treasury (TREAS)

Object Classification	General and Randomization: Management and Task 1		Process Study: Data Collection Task 2		Impact Study: Data Collection Task 3		Reporting and Dissemination Task 4		Total Estimated	
	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars
	ON-SITE PERSONNEL									
Mary Cunningham	10	\$1,225	10	\$1,225	24	\$2,940	10	\$1,225	54	\$6,615
Sarah Gillespie	20	1,852	20	1,852	40	3,703	30	2,777	110	10,184
Devlin Hanson	40	2,852	40	2,852	85	6,061	20	1,426	185	13,191
Jennifer Kincheloe	5	313	40	2,500	40	2,500	10	625	95	5,938
Alyse Oneto	10	411	20	821	40	1,642	30	1,232	100	4,106
TBD Research Analyst	10	290	20	580	20	580	20	580	70	2,030
TBD Research Assistant	40	920	40	920	60	1,380	20	460	160	3,680
Editorial and Publication Support	3	120	4	163	7	286	3	127	16	696
Project Management Support	12	462	20	770	32	1,232	16	616	80	3,080
Subtotal	150	8,445	214	11,683	348	20,324	159	9,068	870	49,520
Provision for Merit Increase*		1,192		1,649		2,869		1,280		6,990
Subtotal		9,637		13,332		23,193		10,348		56,510
Fringe Benefits		4,144		5,733		9,973		4,450		24,300
Subtotal		13,781		19,065		33,166		14,798		80,810
Indirect		7,405		10,244		17,820		7,951		43,420
Subtotal		21,186		29,309		50,986		22,749		124,230
SUBCONTRACT/GRANT:										
Evaluation Center		0		25,000		0		0		25,000
Subtotal		0		25,000		0		0		25,000
TRAVEL										
Round-trip Airfare: WDC/ Denver	No.		No.		No.		No.		No.	
Trip Duration: 2 day(s)/trip	1	0	0	0	0	0	2	2,000	2	\$2,000
Transfers @ 2 /trip	0	0	0	0	0	0	4	60	4	60
Per Diem:										
Lodging @ 1 night(s)/trip	0	0	0	0	0	0	2	398	2	398
Lodging Tax @		0		0		0		60		60
M&IE @ 1.50 day(s)/trip	0.0	0	0.0	0	0.0	0	3.0	228	3.0	228
Car Rental & Related @ 2 day(s)/trip	0	0	0	0	0	0	4	220	4	220
Inflation Factor on Travel*		0		0		0		182		182
Subtotal		0		0		0		3,148		3,148
OTHER DIRECT COSTS										
Computer Network Services		750		1,070		1,740		790		4,350
Print and Online Resources		0		10		10		10		30
Meeting and Office Services		100		140		250		110		600
Subcontract Administration		0		735		0		0		735
Inflation Factor on ODCs (excl Sub. Admin)*		52		75		122		56		305
Subtotal		902		2,030		2,122		966		6,020
Total Direct and Indirect Costs		\$22,088		\$56,339		\$53,108		\$26,863		\$158,398
GENERAL & ADMINISTRATIVE		4,921		6,982		11,832		5,985		29,720
FIXED FEE		1,891		4,432		4,546		2,299		13,168
TOTAL ESTIMATED COST PLUS FIXED FEE		<u>\$28,900</u>		<u>\$67,753</u>		<u>\$69,486</u>		<u>\$35,147</u>		<u>\$201,286</u>

* 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.

THE URBAN INSTITUTE
 Budget Period: January 1, 2025 - December 31, 2025 05/25/22

SIPPRA - Pay for Results

BUDGET ESTIMATE
 Prepared for U.S. Department of the Treasury (TREAS)

Object Classification	General and Randomization: Management and Task 1		Process Study: Data Collection Task 2		Impact Study: Data Collection Task 3		Reporting and Dissemination Task 4		Total Estimated	
	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars
	ON-SITE PERSONNEL									
Mary Cunningham	10	\$1,225	10	\$1,225	0	\$0	40	\$4,900	60	\$7,350
Sarah Gillespie	20	1,852	20	1,852	0	0	40	3,703	80	7,407
Devlin Hanson	40	2,852	40	2,852	0	0	40	2,852	120	8,556
Jennifer Kincheloe	5	313	40	2,500	0	0	40	2,500	85	5,313
Alyse Oneto	10	411	20	821	0	0	40	1,642	70	2,874
TBD Research Analyst	10	290	20	580	0	0	20	580	50	1,450
TBD Research Assistant	40	920	40	920	0	0	20	460	100	2,300
Editorial and Publication Support	3	120	4	163	0	0	6	253	13	536
Project Management Support	12	462	20	770	0	0	24	924	56	2,156
Subtotal	150	8,445	214	11,683	0	0	270	17,814	634	37,942
Provision for Merit Increase*		1,626		2,249				3,430		7,305
Subtotal		10,071		13,932		0		21,244		45,247
Fringe Benefits		4,331		5,991		0		9,135		19,457
Subtotal		14,402		19,923		0		30,379		64,704
Indirect		7,738		10,705		0		16,323		34,766
Subtotal		22,140		30,628		0		46,702		99,470
SUBCONTRACT/GRANT:										
Evaluation Center		0		0		0		0		0
Subtotal		0		0		0		0		0
TRAVEL										
Round-trip Airfare: WDC/ Denver	No.		No.		No.		No.		No.	
Trip Duration: 2 day(s)/trip	1	0	0	0	0	0	2	2,000	2	\$2,000
Transfers @ 2 /trip	0	0	0	0	0	0	4	60	4	60
Per Diem:										
Lodging @ 1 night(s)/trip	0	0	0	0	0	0	2	398	2	398
Lodging Tax @		0		0		0		60		60
M&IE @ 1.50 day(s)/trip	0.0	0	0.0	0	0.0	0	3.0	228	3.0	228
Car Rental & Related @ 2 day(s)/trip	0	0	0	0	0	0	4	220	4	220
Inflation Factor on Travel*		0		0		0		244		244
Subtotal		0		0		0		3,210		3,210
OTHER DIRECT COSTS										
Computer Network Services		750		1,070		0		1,350		3,170
Print and Online Resources		10		10		0		10		30
Meeting and Office Services		110		150		0		230		490
Subcontract Administration		0		0		0		0		0
Inflation Factor on ODCs (excl Sub. Admin)*		72		101		0		131		304
Subtotal		942		1,331		0		1,721		3,994
Total Direct and Indirect Costs		\$23,082		\$31,959		\$0		\$51,633		\$106,674
GENERAL & ADMINISTRATIVE		5,143		7,120		0		11,504		23,767
FIXED FEE		1,976		2,736		0		4,420		9,131
TOTAL ESTIMATED COST PLUS FIXED FEE		<u>\$30,201</u>		<u>\$41,815</u>		<u>\$0</u>		<u>\$67,557</u>		<u>\$139,572</u>

* 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.

THE URBAN INSTITUTE
 Budget Period: January 1, 2026 - December 31, 2026 05/25/22

SIPPRA - Pay for Results
 BUDGET ESTIMATE
 Prepared for U.S. Department of the Treasury (TREAS)

Object Classification	General and Randomization: Management and Task 1		Process Study: Data Collection Task 2		Impact Study: Data Collection Task 3		Reporting and Dissemination Task 4		Total Estimated	
	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars
	ON-SITE PERSONNEL									
Mary Cunningham	10	\$1,225	10	\$1,225	0	\$0	10	\$1,225	30	\$3,675
Sarah Gillespie	20	1,852	20	1,852	0	0	30	2,777	70	6,481
Devlin Hanson	40	2,852	40	2,852	0	0	20	1,426	100	7,130
Jennifer Kincheloe	5	313	40	2,500	0	0	10	625	55	3,438
Alyse Oneto	10	411	20	821	0	0	30	1,232	60	2,464
TBD Research Analyst	10	290	20	580	0	0	20	580	50	1,450
TBD Research Assistant	40	920	40	920	0	0	20	460	100	2,300
Editorial and Publication Support	3	120	4	163	0	0	3	127	10	410
Project Management Support	12	462	20	770	0	0	16	616	48	1,848
Subtotal	150	8,445	214	11,683	0	0	159	9,068	523	29,196
Provision for Merit Increase*		2,079		2,876				2,232		7,187
Subtotal		10,524		14,559		0		11,300		36,383
Fringe Benefits		4,525		6,260		0		4,859		15,644
Subtotal		15,049		20,819		0		16,159		52,027
Indirect		8,086		11,186		0		8,682		27,954
Subtotal		23,135		32,005		0		24,841		79,981
SUBCONTRACT/GRANT:										
Evaluation Center		0		25,000		0		0		25,000
Subtotal		0		25,000		0		0		25,000
TRAVEL										
Round-trip Airfare: WDC/ Denver	No.		No.		No.		No.		No.	
Trip Duration: 2 day(s)/trip	1	0	0	0	0	0	2	2,000	2	\$2,000
Transfers @ 2 /trip	0	0	0	0	0	0	4	60	4	60
Per Diem:										
Lodging @ 1 night(s)/trip	0	0	0	0	0	0	2	398	2	398
Lodging Tax @		0		0		0		60		60
M&IE @ 1.50 day(s)/trip	0.0	0	0.0	0	0.0	0	3.0	228	3.0	228
Car Rental & Related @ 2 day(s)/trip	0	0	0	0	0	0	4	220	4	220
Inflation Factor on Travel*		0		0		0		309		309
Subtotal		0		0		0		3,275		3,275
OTHER DIRECT COSTS										
Computer Network Services		750		1,070		0		790		2,610
Print and Online Resources		10		10		0		10		30
Meeting and Office Services		110		160		0		120		390
Subcontract Administration		0		735		0		0		735
Inflation Factor on ODCs (excl Sub. Admin)*		91		129		0		96		316
Subtotal		961		2,104		0		1,016		4,081
Total Direct and Indirect Costs		\$24,096		\$59,109		\$0		\$29,132		\$112,337
GENERAL & ADMINISTRATIVE										
		5,369		7,599		0		6,491		19,459
FIXED FEE										
		2,063		4,670		0		2,494		9,226
TOTAL ESTIMATED COST PLUS FIXED FEE		<u>\$31,528</u>		<u>\$71,378</u>		<u>\$0</u>		<u>\$38,117</u>		<u>\$141,022</u>

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THE URBAN INSTITUTE 05/25/22
 Budget Period: January 1, 2027 - December 31, 2027

SIPPRA - Pay for Results
 BUDGET ESTIMATE
 Prepared for U.S. Department of the Treasury (TREAS)

Object Classification	General and Randomization: Management and Task 1		Process Study: Data Collection Task 2		Impact Study: Data Collection Task 3		Reporting and Dissemination Task 4		Total Estimated	
	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars
	ON-SITE PERSONNEL									
Mary Cunningham	10	\$1,225	10	\$1,225	0	\$0	40	\$4,900	60	\$7,350
Sarah Gillespie	20	1,852	20	1,852	0	0	40	3,703	80	7,407
Devlin Hanson	40	2,852	40	2,852	0	0	40	2,852	120	8,556
Jennifer Kincheloe	5	313	40	2,500	0	0	40	2,500	85	5,313
Alyse Oneto	10	411	20	821	0	0	40	1,642	70	2,874
TBD Research Analyst	10	290	20	580	0	0	20	580	50	1,450
TBD Research Assistant	40	920	40	920	0	0	20	460	100	2,300
Editorial and Publication Support	3	120	4	163	0	0	6	253	13	536
Project Management Support	12	462	20	770	0	0	24	924	56	2,156
Subtotal	150	8,445	214	11,683	0	0	270	17,814	634	37,942
Provision for Merit Increase*		2,553		3,531				5,384		11,468
Subtotal		10,998		15,214		0		23,198		49,410
Fringe Benefits		4,729		6,542		0		9,975		21,246
Subtotal		15,727		21,756		0		33,173		70,656
Indirect		8,450		11,689		0		17,824		37,963
Subtotal		24,177		33,445		0		50,997		108,619
SUBCONTRACT/GRANT:										
Evaluation Center		0		0		0		0		0
Subtotal		0		0		0		0		0
TRAVEL										
Round-trip Airfare: WDC/ Denver	No.		No.		No.		No.		No.	
Trip Duration: 2 day(s)/trip	1 night(s)/trip	0	0	0	0	2	2,000	2	\$2,000	
Transfers @ 2 /trip		0	0	0	0	4	60	4	60	
Per Diem:										
Lodging @ 1 night(s)/trip		0	0	0	0	2	398	2	398	
Lodging Tax @		0	0	0	0		60		60	
M&IE @ 1.50 day(s)/trip		0.0	0	0.0	0	3.0	228	3.0	228	
Car Rental & Related @ 2 day(s)/trip		0	0	0	0	4	220	4	220	
Inflation Factor on Travel*			0		0		374		374	
Subtotal		0	0	0	0		3,340		3,340	
OTHER DIRECT COSTS										
Computer Network Services		750	1,070		0		1,350		3,170	
Print and Online Resources		10	10		0		10		30	
Meeting and Office Services		120	160		0		250		530	
Subcontract Administration		0	0		0		0		0	
Inflation Factor on ODCs (excl Sub. Admin)*		111	156		0		203		470	
Subtotal		991	1,396		0		1,813		4,200	
Total Direct and Indirect Costs		\$25,168	\$34,841		\$0		\$56,150		\$116,159	
GENERAL & ADMINISTRATIVE										
		5,607	7,763		0		12,510		25,880	
FIXED FEE										
		2,154	2,982		0		4,806		9,943	
TOTAL ESTIMATED COST PLUS FIXED FEE										
		<u>\$32,929</u>	<u>\$45,586</u>		<u>\$0</u>		<u>\$73,466</u>		<u>\$151,982</u>	

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THE URBAN INSTITUTE
 Budget Period: January 1, 2028 - December 31, 2028 05/25/22

SIPPRA - Pay for Results

BUDGET ESTIMATE
 Prepared for U.S. Department of the Treasury (TREAS)

Object Classification	General and Randomization: Management and Task 1		Process Study: Data Collection Task 2		Impact Study: Data Collection Task 3		Reporting and Dissemination Task 4		Total Estimated	
	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars
	ON-SITE PERSONNEL									
Mary Cunningham	10	\$1,225	10	\$1,225	24	\$2,940	10	\$1,225	54	\$6,615
Sarah Gillespie	20	1,852	20	1,852	40	3,703	30	2,777	110	10,184
Devlin Hanson	40	2,852	40	2,852	85	6,061	20	1,426	185	13,191
Jennifer Kincheloe	5	313	40	2,500	40	2,500	10	625	95	5,938
Alyse Oneto	10	411	20	821	40	1,642	30	1,232	100	4,106
TBD Research Analyst	10	290	20	580	20	580	20	580	70	2,030
TBD Research Assistant	40	920	40	920	60	1,380	20	460	160	3,680
Editorial and Publication Support	3	120	4	163	7	286	3	127	16	696
Project Management Support	12	462	20	770	32	1,232	16	616	80	3,080
Subtotal	150	8,445	214	11,683	348	20,324	159	9,068	870	49,520
Provision for Merit Increase*		3,047		4,216		7,334		3,272		17,869
Subtotal		11,492		15,899		27,658		12,340		67,389
Fringe Benefits		4,942		6,837		11,893		5,306		28,978
Subtotal		16,434		22,736		39,551		17,646		96,367
Indirect		8,830		12,216		21,251		9,481		51,778
Subtotal		25,264		34,952		60,802		27,127		148,145
SUBCONTRACT/GRANT:										
Evaluation Center		0		25,000		0		0		25,000
Subtotal		0		25,000		0		0		25,000
TRAVEL										
Round-trip Airfare: WDC/ Denver	No.		No.		No.		No.		No.	
Trip Duration: 2 day(s)/trip	1	0	0	0	0	0	2	2,000	2	\$2,000
Transfers @ 2 /trip	0	0	0	0	0	0	4	60	4	60
Per Diem:										
Lodging @ 1 night(s)/trip	0	0	0	0	0	0	2	398	2	398
Lodging Tax @		0		0		0		60		60
M&IE @ 1.50 day(s)/trip	0.0	0	0.0	0	0.0	0	3.0	228	3.0	228
Car Rental & Related @ 2 day(s)/trip	0	0	0	0	0	0	4	220	4	220
Inflation Factor on Travel*		0		0		0		441		441
Subtotal		0		0		0		3,407		3,407
OTHER DIRECT COSTS										
Computer Network Services		750		1,070		1,740		790		4,350
Print and Online Resources		10		10		10		10		40
Meeting and Office Services		120		170		300		130		720
Subcontract Administration		0		735		0		0		735
Inflation Factor on ODCs (excl Sub. Admin)*		131		186		305		138		760
Subtotal		1,011		2,171		2,355		1,068		6,605
Total Direct and Indirect Costs		\$26,275		\$62,123		\$63,157		\$31,602		\$183,157
GENERAL & ADMINISTRATIVE		5,854		8,271		14,071		7,041		35,237
FIXED FEE		2,249		4,928		5,406		2,705		15,288
TOTAL ESTIMATED COST PLUS FIXED FEE		<u>\$34,378</u>		<u>\$75,322</u>		<u>\$82,634</u>		<u>\$41,348</u>		<u>\$233,682</u>

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THE URBAN INSTITUTE 05/25/22
 Budget Period: January 1, 2029 - December 31, 2029

SIPPRA - Pay for Results
 BUDGET ESTIMATE
 Prepared for U.S. Department of the Treasury (TREAS)

Object Classification	General and Randomization: Management and Task 1		Process Study: Data Collection Task 2		Impact Study: Data Collection Task 3		Reporting and Dissemination Task 4		Total Estimated	
	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars
	ON-SITE PERSONNEL									
Mary Cunningham	5	\$613	0	\$0	0	\$0	40	\$4,900	45	\$5,513
Sarah Gillespie	15	1,389	0	0	0	0	40	3,703	55	5,092
Devlin Hanson	15	1,070	0	0	0	0	40	2,852	55	3,922
Jennifer Kincheloe	4	250	0	0	0	0	40	2,500	44	2,750
Alyse Oneto	5	205	0	0	0	0	40	1,642	45	1,847
TBD Research Analyst	12	348	0	0	0	0	20	580	32	928
TBD Research Assistant	20	460	0	0	0	0	20	460	40	920
Editorial and Publication Support	2	66	0	0	0	0	6	253	7	319
Project Management Support	8	308	0	0	0	0	24	924	32	1,232
Subtotal	86	4,709	0	0	0	0	270	17,814	355	22,523
Provision for Merit Increase*		1,988		0		0		7,519		9,507
Subtotal		6,697		0		0		25,333		32,030
Fringe Benefits		2,880		0		0		10,893		13,773
Subtotal		9,577		0		0		36,226		45,803
Indirect		5,146		0		0		19,464		24,610
Subtotal		14,723		0		0		55,690		70,413
SUBCONTRACT/GRANT:										
Evaluation Center		0		0		0		0		0
Subtotal		0		0		0		0		0
TRAVEL										
Round-trip Airfare: WDC/ Denver	No.		No.		No.		No.		No.	
Trip Duration: 2 day(s)/trip	1 night(s)/trip	0	0	0	0	2	2,000	2	\$2,000	
Transfers @ 2 /trip		0	0	0	0	4	60	4	60	
Per Diem:										
Lodging @ 1 night(s)/trip		0	0	0	0	2	398	2	398	
Lodging Tax @		0	0	0	0		60		60	
M&IE @ 1.50 day(s)/trip		0.0	0	0.0	0	3.0	228	3.0	228	
Car Rental & Related @ 2 day(s)/trip		0	0	0	0	4	220	4	220	
Inflation Factor on Travel*		0	0	0	0		509		509	
Subtotal		0	0	0	0		3,475		3,475	
OTHER DIRECT COSTS										
Computer Network Services		430	0	0	0		1,350		1,780	
Print and Online Resources		0	0	0	0		10		10	
Meeting and Office Services		70	0	0	0		270		340	
Subcontract Administration		0	0	0	0		0		0	
Inflation Factor on ODCs (excl Sub. Admin)*		86	0	0	0		280		366	
Subtotal		586	0	0	0		1,910		2,496	
Total Direct and Indirect Costs		\$15,309	\$0	\$0	\$0		\$61,075		\$76,384	
GENERAL & ADMINISTRATIVE										
		3,411	0	0	0		13,608		17,019	
FIXED FEE										
		1,310	0	0	0		5,228		6,538	
TOTAL ESTIMATED COST PLUS FIXED FEE		<u>\$20,030</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>		<u>\$79,911</u>		<u>\$99,941</u>	

* 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.

THE URBAN INSTITUTE
Budget Period:

January 1, 2022 -

December 31, 2029

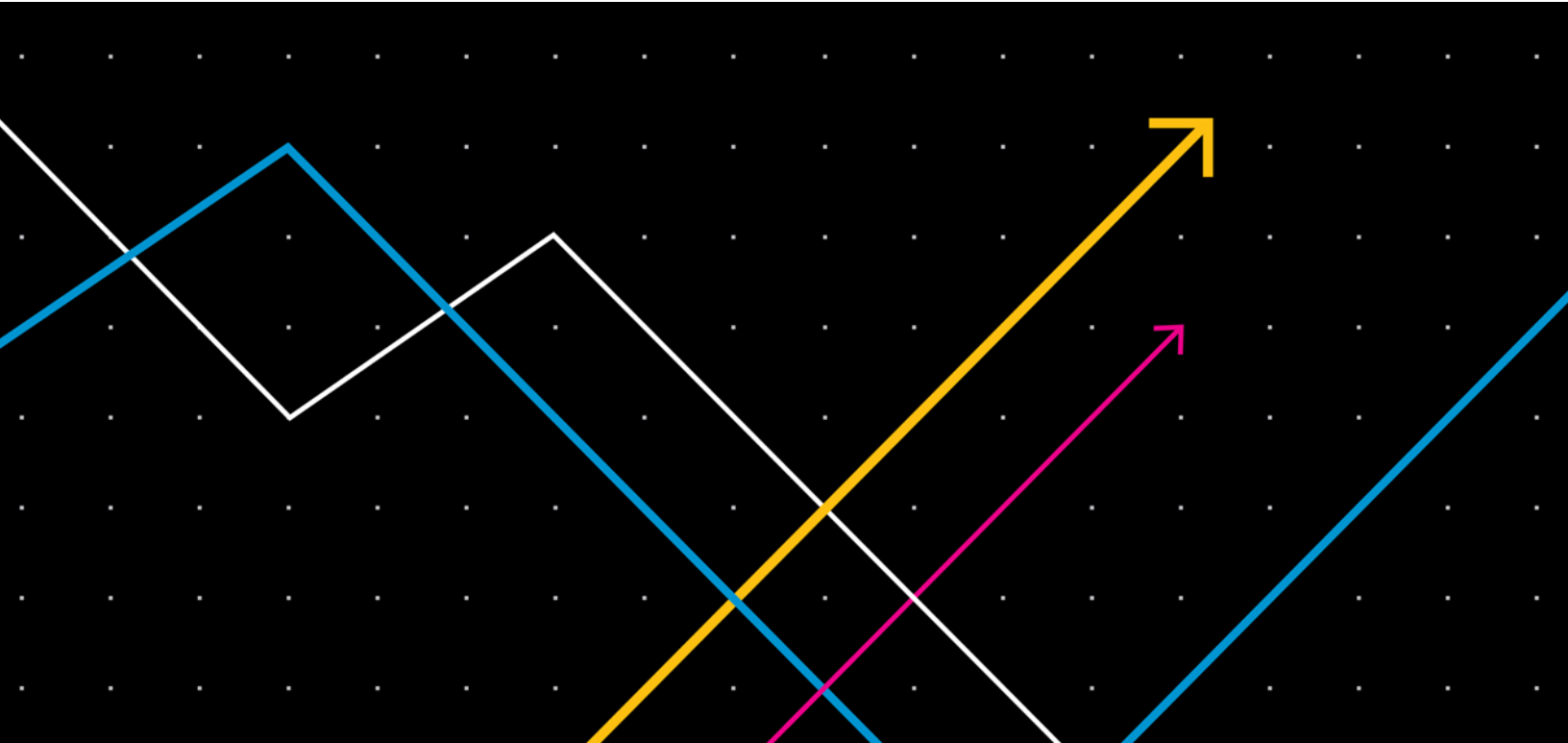
05/25/22

SIPPRA - Pay for Results

BUDGET ESTIMATE
Prepared for U.S. Department of the Treasury (TREAS)

Object Classification	Randomization: Management and Task 1		Process Study: Data Collection Task 2		Impact Study: Data Collection Task 3		Reporting and Dissemination Task 4		Total Estimated	
	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars
	ON-SITE PERSONNEL									
Mary Cunningham	85	\$10,413	70	\$8,575	48	\$5,880	160	\$19,600	363	\$44,468
Sarah Gillespie	215	19,907	140	12,964	80	7,406	240	22,217	675	62,494
Devlin Hanson	295	21,035	280	19,964	170	12,122	200	14,260	945	67,381
Jennifer Kincheloe	94	5,878	280	17,500	80	5,000	160	10,000	614	38,378
Alyse Oneto	127	5,216	140	5,747	80	3,284	240	9,854	587	24,101
TBD Research Analyst	112	3,248	140	4,060	40	1,160	140	4,060	432	12,528
TBD Research Assistant	340	7,820	280	6,440	120	2,760	140	3,220	880	20,240
Editorial and Publication Support	26	1,120	27	1,141	13	572	30	1,267	96	4,100
Project Management Support	120	4,620	140	5,390	64	2,464	136	5,236	460	17,710
Subtotal	1,414	79,257	1,497	81,781	695	40,648	1,446	89,714	5,052	291,400
Provision for Merit Increase*		14,269		16,122		10,203		23,952		64,546
Subtotal		93,526		97,903		50,851		113,666		355,946
Fringe Benefits		40,217		42,099		21,866		48,876		153,058
Subtotal		133,743		140,002		72,717		162,542		509,004
Indirect		71,861		75,224		39,071		87,334		273,490
Subtotal		205,604		215,226		111,788		249,876		782,494
SUBCONTRACT/GRANT:										
Evaluation Center		0		75,000		0		0		75,000
Subtotal		0		75,000		0		0		75,000
TRAVEL										
Round-trip Airfare: WDC/ Denver	No.		No.		No.		No.		No.	
	2	2,000	0	0	0	0	14	14,000	16	\$16,000
Trip Duration: 2 day(s)/trip			1	0	0	0	0	0		
Transfers @ 2 /trip	4	60	0	0	0	0	28	420	32	480
Per Diem:										
Lodging @ 1 night(s)/trip	2	398	0	0	0	0	14	2,786	16	3,184
Lodging Tax @		60		0		0		420		480
M&IE @ 1.50 day(s)/trip	3.0	228	0.0	0	0.0	0	21.0	1,596	24.0	1,824
Car Rental & Related @ 2 day(s)/trip	4	220	0	0	0	0	28	1,540	32	1,760
Inflation Factor on Travel*		59		0		0		2,179		2,238
Subtotal		3,025		0		0		22,941		25,966
OTHER DIRECT COSTS										
Computer Network Services		7,080		7,490		3,480		7,210		25,260
Print and Online Resources		50		70		20		70		210
Meeting and Office Services		1,000		1,050		550		1,220		3,820
Subcontract Administration		0		2,205		0		0		2,205
Inflation Factor on ODCs (excl Sub. Admin)*		623		720		427		941		2,711
Subtotal		8,753		11,535		4,477		9,441		34,206
Total Direct and Indirect Costs		\$217,382		\$301,761		\$116,265		\$282,258		\$917,666
GENERAL & ADMINISTRATIVE		48,433		50,522		25,903		62,888		187,746
FIXED FEE		18,607		24,660		9,952		24,160		77,379
TOTAL ESTIMATED COST PLUS FIXED FEE		\$284,422		\$376,943		\$152,120		\$369,306		\$1,182,791

* 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.



RESEARCH REPORT

Denver Housing to Health (H2H) Pay for Success Project

Evaluation Design

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Sarah Gillespie

Alyse D. Oneto

July 2022



ABOUT THE URBAN INSTITUTE

The nonprofit Urban Institute is a leading research organization dedicated to developing evidence-based insights that improve people's lives and strengthen communities. For 50 years, Urban has been the trusted source for rigorous analysis of complex social and economic issues; strategic advice to policymakers, philanthropists, and practitioners; and new, promising ideas that expand opportunities for all. Our work inspires effective decisions that advance fairness and enhance the well-being of people and places.

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Denver Housing to Health (H2H) Pay for Success Project

Background and Context

The Denver Housing to Health (H2H) Pay for Success project will provide supportive housing for individuals at the intersection of multiple public systems—those who are experiencing homelessness; have a record of at least eight arrests, at least three of which are marked as transient, over three years in Denver County; have a recent Denver Police Department (DPD) contact; and are at high risk for avoidable and high-cost health services paid through Medicaid, including services received at Denver Health and Hospital Authority (Denver Health).

The project is an extension of the Denver Supportive Housing Social Impact Bond Initiative (Denver SIB), a supportive housing program designed to serve a population experiencing homelessness that frequently cycles in and out of jail. In addition to improving housing stability and reducing jail stays, the evaluation of the Denver SIB found that the intervention had an impact on health service use by increasing preventive office-based care and lowering the use of high-cost services, such as emergency department visits and inpatient hospital admissions. These shifts in health service use could result in a net decrease in claims billed to Medicaid and Medicare, which are largely paid by the federal government.

Existing Evidence Base

Supportive housing comes out of the movement to end homelessness among adults with serious mental illness and drug addiction. Previous research conclusively shows that the model works to end homelessness for this population (Tsemberis, Gulcur, and Nakae 2004). The literature suggests that supportive housing will also have an impact on health service use, and that a decrease in high-cost services such as avoidable emergency department visits and inpatient hospital admissions will likely be a significant source of cost savings for multiple systems.

Findings from the Denver SIB. The Denver SIB evaluation made a large contribution to the evidence base on the effectiveness of supportive housing in reducing criminal justice involvement and health care use among a homeless population with complex needs. Through a rigorous randomized

controlled trial (RCT), the evaluation of the Denver SIB showed that supportive housing program participants spent more time than the control group in stable housing and that the program significantly reduced shelter use, police interactions, and jail stays. Denver SIB supportive housing program participants also used short-term or city-funded detoxification services less often than those in the control group. In the three years after randomization, people referred for supportive housing had four fewer visits to a short-term or city-funded detoxification facility (a 65 percent reduction) than those who received usual services in the community. The differences between the two groups' uses of emergency medical services were not statistically significant (Cunningham et al. 2021). Supportive housing helped SIB participants make fewer emergency department visits, use more office-based health care, and receive more prescription medications (Hanson and Gillespie 2021).

Emergency department visits. Several studies have found that use of emergency departments, for both avoidable and unavoidable visits, decreased with the provision of supportive housing (Martinez and Burt 2006; Mondello et al. 2007; Sadowski et al. 2009; Seligson et al. 2013). Using a pre-post research design, Martinez and Burt (2006) found a 16 percent reduction in the number of residents with an emergency department visit and a 56 percent reduction in the total number of emergency department visits after the first year of supportive housing. Sadowski and colleagues (2009) found a 24 percent difference between the treatment and control groups in the number of emergency department visits in an RCT. However, other researchers found no reductions in emergency department visits for individuals in supportive housing in their pre-post and retrospective cohort studies (Aidala et al. 2014; Kessel et al. 2006).

Substance abuse and mental health. Evidence on the impact of supportive housing on substance abuse and mental health services is promising. Aidala and colleagues (2014) found that supportive housing participants spent half as many days hospitalized for psychiatric reasons compared with a comparison group. Similarly, matched comparison and pre-post studies all found reductions in psychiatric hospitalizations for individuals who moved into supportive housing (Culhane, Metraux, and Hadley 2002; King County 2013; Mondello et al. 2007; Seligson et al. 2013). Some of these studies included a mental health diagnosis as a criterion for eligibility. The literature on alcohol and drug treatment is more mixed, though very limited. Aidala and colleagues (2014) found no effect on detoxification facility days, nor did Larimer and colleagues (2009) in their quasi-experimental study. However, Aidala and colleagues (2014) found a large decrease in residential alcohol and drug treatment days, with the intervention group avoiding residential treatment completely.

Cost of care. Several studies found significant reductions in the cost of care for participants in supportive housing (Aidala et al. 2014; Culhane, Metraux, and Hadley 2002; Flaming et al. 2013;

Larimer et al. 2009; Martinez and Burt 2006). Culhane, Metraux, and Hadley (2002) found an average of 32 percent reduction of inpatient Medicaid claims along with an increase in outpatient Medicaid claims. Cost savings were driven by decreased use of the most expensive health care services, in particular hospital visits and inpatient psychiatric services. The National Academies of Sciences' Committee on an Evaluation of Permanent Supportive Housing Programs for Homeless Individuals found evidence that supportive housing could decrease emergency department use and hospital stays when provided to individuals who were high users of these services before being housed (National Academies 2018).

Taken together, the existing literature suggests that stable housing may make health concerns known and increase the use of certain types of health care services, perhaps at an earlier or less severe stage than would be the case absent housing. It also suggests that supportive housing may help manage health concerns in a way that limits the types of health crises that lead to services such as psychiatric hospitalizations and in-patient alcohol and drug treatment. This shift from crisis care to effective care management suggests decreased severity or burden of illness and increased well-being, as well as more effective use of health care services and resources.

Target Population and Program Structure

The target population for the H2H project includes individuals who are experiencing homelessness and have a record of at least eight arrests, at least three of which are marked as transient, over three years in Denver County; had a police contact in the last year; and are at high risk for avoidable and high-cost health services paid through Medicaid, including services received at Denver Health. There are over 1,300 individuals who meet the criminal justice criteria. We apply a medical criterion of two or more emergency department visits in the year prior with Denver Health, resulting in an eligible population of over 250 individuals. An additional 50 individuals meet this criterion every six months.

The previous Denver SIB project provides a good approximation for what the population for this study will look like. Of the 724 individuals in the original SIB, most were men (85 percent) and the median age was 44 years. Forty-seven percent of the people in the study were white, 34 percent were Black, 13 percent were Latinx, and 6 percent were Native American. Individuals in the study had high rates of arrest, with an average of four arrests per person in the year before randomization. They also had high rates of engagement with the homelessness services system in Denver. In the year before randomization, nearly 70 percent of the study group had at least one shelter stay, and the combined group's average number of days in a shelter was 158. In addition to experiencing chronic, or long-term, homelessness, these individuals had an average of 2.5 separate stays in jail and spent an average of 68

total days in jail in the year prior to enrollment in the SIB evaluation (Cunningham et al. 2021). Among those who had any Medicaid use as members of Colorado Access or Denver Health (Medicaid insurers in the Denver metro area), almost 67 percent had been diagnosed with a substance use disorder, and over half of these diagnoses were for alcohol use disorder. Thirty-seven percent of this group of Colorado Access or Denver Health members had a mental health diagnosis, the most common of which were schizophrenia, anxiety, and depression (in order of prevalence) (Hanson and Gillespie 2021).

The H2H project plans to provide supportive housing to 125 of these high-need individuals through the Colorado Coalition for the Homeless (CCH) and WellPower (formerly the Mental Health Center of Denver). Supportive housing is an evidence-based model that uses a Housing First approach to lower barriers to housing and end homelessness through permanent, affordable housing subsidies and intensive case management and wraparound services. (In prior evaluation reports on the related Denver SIB Initiative, Cunningham and colleagues [2018b] describe the intervention's housing and services model in detail.) However, deeply subsidized or even affordable housing is extremely scarce in Denver and is not available to meet the full extent of the need demonstrated by the current eligibility list. Because of this scarcity, the project is suitable for an RCT evaluation. Random assignment will be used as a fair method to allocate scarce supportive housing resources and to evaluate the impact of the intervention on the treatment group as compared with a control group receiving usual services available in the community in the absence of a targeted supportive housing intervention. Because random assignment helps ensure the treatment and control groups are as similar as possible for as many observation characteristics as possible, by comparing outcomes between the two groups we can attribute any differences directly to the supportive housing program and not to participant characteristics or other general conditions or changes in the community.

Overview of Evaluation

Theory of Change

As a result of experiencing homelessness and barriers to care for substance use and mental health problems, many individuals who experience homelessness are frequently cited for offenses such as public intoxication, panhandling, and trespassing. Individuals in this population are frequently arrested and cycle in and out of jail, detoxification centers, and avoidable emergency department and hospital visits, effectively increasing costs across systems. Because they often do not receive follow-up services when they are released from jail, detox centers, or hospitals, these individuals return to the same risks

and experience a recurring cycle of negative outcomes. This cycle results in continuously high costs across agencies and service providers. Supportive housing is a scarce but proven intervention to interrupt the status quo (Tsemberis, Gulcur, and Nakae 2004). As depicted in table 1, supportive housing results in intermediate and long-term outcomes that demonstrate a shift from the usual homelessness–jail cycle to a more cost-effective, cross-sector solution for improving outcomes at the intersection of criminal justice and health.

TABLE 1

Theory of Change

Intervention	Intermediate outcomes	Long-term outcomes
Housing subsidy	Increase housing stability	Decrease criminal justice involvement
<ul style="list-style-type: none"> ▪ provide rent assistance in a housing unit that is safe, sustainable, functional, and conducive to tenant stability 	<ul style="list-style-type: none"> ▪ reduce homelessness ▪ provide a safe, healthy, and stable housing unit 	<ul style="list-style-type: none"> ▪ decrease arrests ▪ decrease jail days
Case management services	Decrease police contacts	Decrease emergency health services
<ul style="list-style-type: none"> ▪ develop a case plan ▪ facilitate access to benefits ▪ provide referrals ▪ coordinate care 	<ul style="list-style-type: none"> ▪ decrease alcohol and drug use, trespassing, and panhandling 	<ul style="list-style-type: none"> ▪ decrease detox visits ▪ decrease avoidable emergency department and hospital visits
	Increase access to health services	Improve health
	<ul style="list-style-type: none"> ▪ connect to mental and physical health care and substance abuse treatment ▪ increase preventive, office-based care 	<ul style="list-style-type: none"> ▪ decrease severity of illness ▪ improve mental health ▪ improve physical health

Source: Framework developed by Urban.

Research Questions

Our evaluation is designed to understand how supportive housing interrupts the target population’s cycle of homelessness, jail, and emergency health services and to estimate the impact on health care use and associated costs, including patterns of primary care, avoidable emergency and hospital care, and substance use treatment. The evaluation will determine the amount of any net reductions in federal expenditures for associated Medicaid claims as defined below in “Net Reduction in Federal Expenditures for Medicaid Claims.” The primary research questions to be answered by the evaluation include the following:

- Do housed participants retain housing?
- Does supportive housing decrease days in jail?

- Does supportive housing impact the target population’s pattern of primary care, emergency and hospital care, and mental health and substance abuse treatment?
- Does supportive housing decrease avoidable emergency department and hospital services for the target population?
- Does supportive housing decrease net federal expenditures for Medicaid claims?

Major Components of the Evaluation

OUTCOMES AND IMPACT STUDY

To determine outcomes and the associated outcome payments, we will track participant exits from housing and measure days spent in housing and jail to determine associated payments from the City and County of Denver; estimate the impact that supportive housing has on the target population’s jail days to determine associated payments from the City and County of Denver; and estimate the impact that supportive housing has on the target population’s health service use as shown in the data from Medicaid and Medicare claims to determine the associated payments from Social Impact Partnerships to Pay for Results Act (SIPPRA) funding.

As described in the next section, we will use an RCT as the foundation of the evaluation. Eligible individuals will be randomly assigned to one of two groups—one that receives supportive housing as part of the project and one that receives usual care services. We will measure differences in outcomes between the groups (i.e., their use of services) using administrative data. We will use data from CCH and WellPower to measure days in housing. We will use data from the Denver Sheriff Department to measure the impact on jail days. We will use data from the Colorado Department of Health Care Policy and Financing or other sources of Medicaid or Medicare as needed and available to measure the impact on health service use and Medicaid and Medicare claims.

OUTCOME VALUATION

To determine the amount of any net reductions in federal expenditures for associated claims, we will compare the amounts billed for these claims for the treatment and control groups using claim-level data from the Colorado Department of Health Care Policy and Financing. Below, and in the outcome valuation attachment of the H2H SIPPRA application, we describe the steps we will follow using a difference-in-differences (DID) analysis. We also outline the key assumptions we will use in our analysis to determine the change in the federal share of amounts billed for Medicaid and Medicare claims and

the associated outcome payments from SIPPRA funding based on the net reduction in federal expenditures.

IMPLEMENTATION STUDY

Key process-related information, including information from the housing and referral pipeline, is necessary to manage implementation and to make midcourse 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, and other descriptions of program components. Table 2 lists the primary evaluation components of the study.

TABLE 2

Primary Evaluation Components

Evaluation component	Research questions	Data sources
Outcomes and impact study	<ul style="list-style-type: none"> ■ Do housed participants retain housing? ■ Does supportive housing decrease days in jail? ■ Does supportive housing impact the target population's pattern of primary care, emergency and hospital care, and mental health and substance abuse treatment? ■ Does supportive housing decrease avoidable emergency department and hospital services for the target population? 	<ul style="list-style-type: none"> ■ program housing retention data from the Colorado Coalition for the Homeless and WellPower ■ administrative data from Colorado Department of Health Care Policy and Financing
Outcome valuation	<ul style="list-style-type: none"> ■ Does supportive housing decrease net federal expenditures for Medicaid and Medicare claims? 	<ul style="list-style-type: none"> ■ administrative data from Colorado Access, Denver Health, and Colorado Department of Health Care Policy and Financing
Implementation study	<ul style="list-style-type: none"> ■ How is the program implemented? ■ How are eligible individuals located and engaged? ■ How do participants take up housing and services? ■ Is there fidelity to the service model? ■ How does this intervention differ from usual care? ■ What types of systems change were achieved? 	<ul style="list-style-type: none"> ■ engagement dashboard ■ key informant interviews ■ program documents from service providers

Source: Framework developed by Urban.

RCT Design

Randomized controlled trials are 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 compare the trajectories of individuals who receive priority placement in supportive housing and those who receive usual care. The target population for the Denver H2H includes more individuals who are eligible for the intervention than can be accommodated by the limited available supportive housing. The initiative will therefore allocate the limited supportive housing by lottery, which is a fair way to allocate the scarce housing resources.

The study will randomly assign eligible individuals to the treatment group, whose members will be referred to one of the two supportive housing providers for the H2H program, or to the control group, whose members will continue receiving services as usual in the community. The H2H program will fund 125 units of supportive housing over seven years. Participants will enroll in the study on a rolling basis until all units are filled. Based on our experience with the previous SIB evaluation, we expect approximately 16 percent of the supportive housing units to turn over every year and require a new study participant, resulting in a total of 245 individuals served over the seven-year enrollment period. We also estimate, based on the SIB evaluation, that approximately 75 percent of people randomized into the treatment group will ultimately enter supportive housing. Therefore, we expect to randomize approximately 327 individuals to the treatment group to fill the provided units of supportive housing. We also expect to randomize 327 individuals to the control group to receive usual care. This sample will allow us to estimate a small-to-medium effect size as described below under “Minimum Detectable Effects Sizes.”

Referral and Randomization Strategy

Using the eligibility criteria, DPD will identify eligible individuals through a data pull and create a deduplicated, deidentified eligibility list for the H2H project, assigning a unique research ID to each individual on the eligibility list. Individuals are identified from the eligibility list as they enter a designated intake point. The H2H project will use primary and secondary intake points to randomly assign individuals to the treatment and control groups. The flowchart in figure 1 outlines the referral and randomization strategy described in this section.

PRIMARY INTAKE POINTS FROM DENVER HEALTH

Denver Health is the primary hospital serving the target population. Denver Health will match the H2H eligibility list (including periodic updates) with its data systems and will send data on the matched individuals who had two or more emergency department visits with Denver Health to the Urban Institute (Urban). After randomization, a treatment individual's name, gender, race, and date of birth will be sent to the supportive housing provider, either CCH or WellPower, by the H2H referral coordinator. The treatment individual's personal identification number (PIN) will be returned to Denver Health. Denver Health may attempt to help CCH find treatment individuals either through passive or direct referrals.

SECONDARY INTAKE POINTS FROM DENVER POLICE DEPARTMENT

DPD intake points will be used to supplement the Denver Health intake points. This practice will allow for data sharing without revealing protected health information, specifically the subjects' use of the emergency department in the past year. It will also serve to supplement the sample size if the Denver Health criteria do not provide sufficient eligible individuals to support the project's enrollment timeline. DPD intake points will consist of having a contact with DPD in the past year but will not include the emergency department criterion. Contacts include police contacts and both custodial and noncustodial arrest. DPD will electronically maintain the SIB eligibility list (including periodic updates) and match the eligibility list with daily arrest and contact lists to identify eligible individuals. Individuals with open felonies within the two years before randomization will be screened out because they are awaiting sentencing, which may negatively affect their ability to enter supportive housing. DPD will send Urban a daily, automatically generated report that lists deidentified PINs for all noncustodial arrests, custodial arrests, and police contacts flagged as transient for individuals on the SIB master eligibility list.

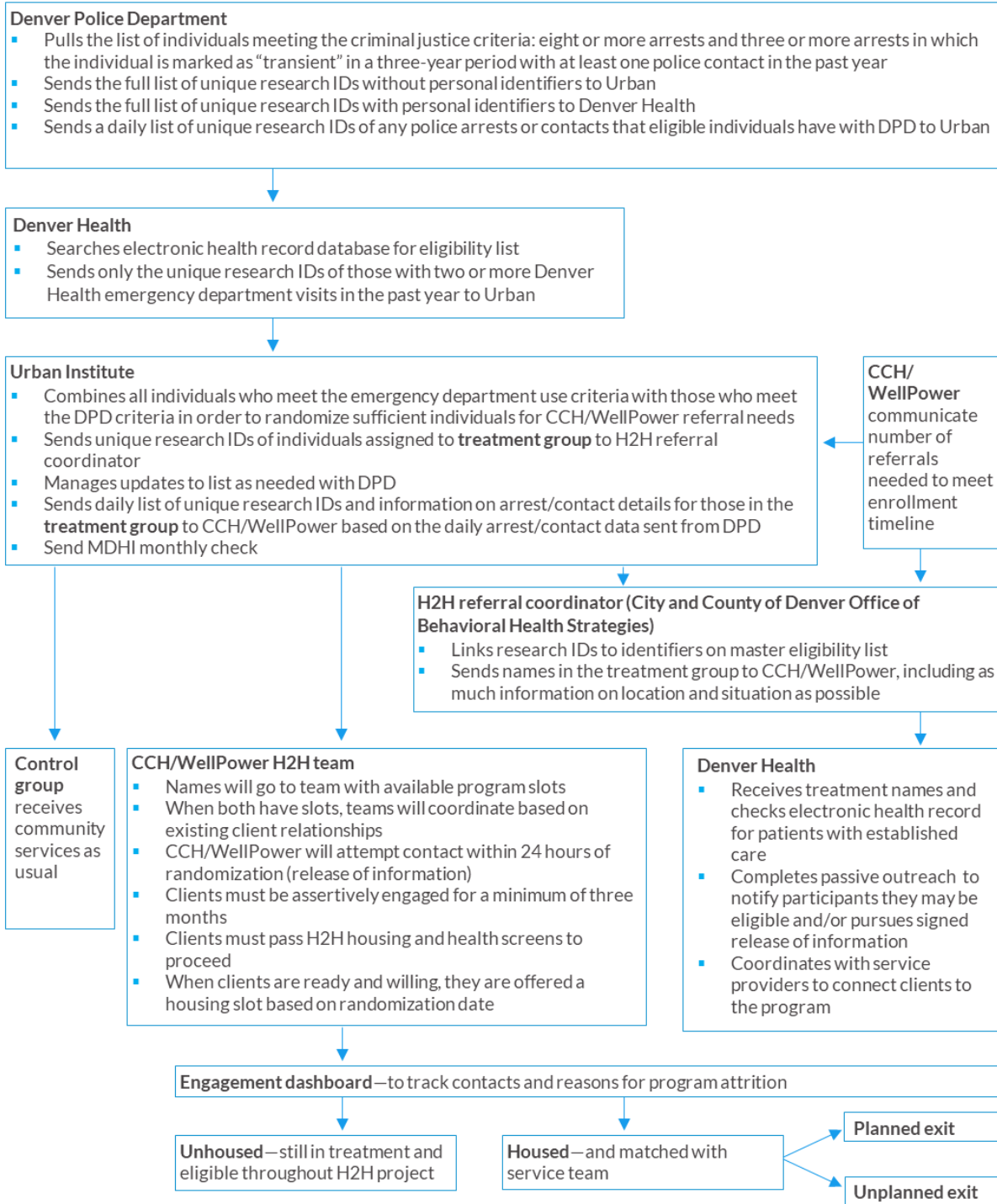
RANDOMIZATION PROCESS

On days when H2H partner providers have open slots to randomize new individuals into the evaluation based on the enrollment timeline, Urban will use the list of eligible individuals identified from the Denver Health intake points and, if additional referrals are necessary, from the automatically generated reports from the DPD intake points. PINs that have already been randomized will be removed, and if there are more eligible individuals than randomization slots, they will be randomly selected for randomization. The number of randomization slots in a given day will be based on the number of new individuals H2H partners have the capacity to serve based on the lease-up schedule. Half of those new PINs will be randomized to the treatment group and half to the control group, stratified by the type of intake (Denver Health intake or criminal justice intake). Individuals not selected for randomization into

either group will return to the master eligibility pool. Urban will send the list of new treatment PINs to the referral coordinator. The referral coordinator will reattach names and other identifying information to the treatment PINs and send this information to the service providers for outreach.

FIGURE 1

Referral and Randomization Flowchart



Source: Framework developed by Urban.

Note: Urban = Urban Institute; Denver Health = Denver Health and Hospital Authority; DPD = Denver Police Department; CCH = Colorado Coalition for the Homeless; H2H = Housing to Health.

If both CCH and WellPower have supportive housing slots available, the two service providers will work together to assign individuals based on any existing client relationships. Outreach workers will attempt to locate each referred individual within one business day of referral to minimize location challenges. When outreach workers locate individuals in the treatment group, they will first have them sign a release of information form. Outreach workers then can immediately begin program engagement, working with other service providers and co-responders to engage each 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 they are located, individuals must also pass the H2H housing and health screens (see housing screen in appendix C; the health screen will be developed by service providers before implementation begins) to confirm homelessness and the ability to live independently before continuing toward housing placement. Urban, working with DPD, will update the list to ensure that individuals are randomized only once; manage any updates as the list is refreshed or expanded; and coordinate with service providers to turn randomization on and off as necessary.

Minimum Treatment Randomization Timeline

The minimum treatment randomization timeline shown in table 3 ensures that a sufficient number of individuals will be randomized to the treatment group to meet available housing slots and the H2H enrollment timeline, based on an average take-up rate of 75 percent, as demonstrated by the related SIB initiative. Urban will ensure that individuals are randomized at least two months before housing slots become available to allow for engagement before lease-up, based on average time from referral to lease-up as demonstrated by the related SIB initiative. Should the H2H enrollment timeline be amended at any time, Urban will amend the randomization timeline.

TABLE 3

Minimum Treatment Randomization Timeline

Month	Total monthly projected placements	Cumulative projected placements	Minimum monthly treatment assignments	Minimum cumulative treatment assignments
November 2022	68	68	9	101
December 2022	8	76	9	110
January 2023	12	88	9	119
February 2023	12	100	9	128
March 2023	12	112	9	137
April 2023	4	116	9	146
May 2023	4	120	9	155
June 2023	5	125	9	164
July 2023	0	125	9	173
August 2023	0	125	9	182
September 2023	0	125	2	184

Source: Urban analysis and project documents.

Data Sharing

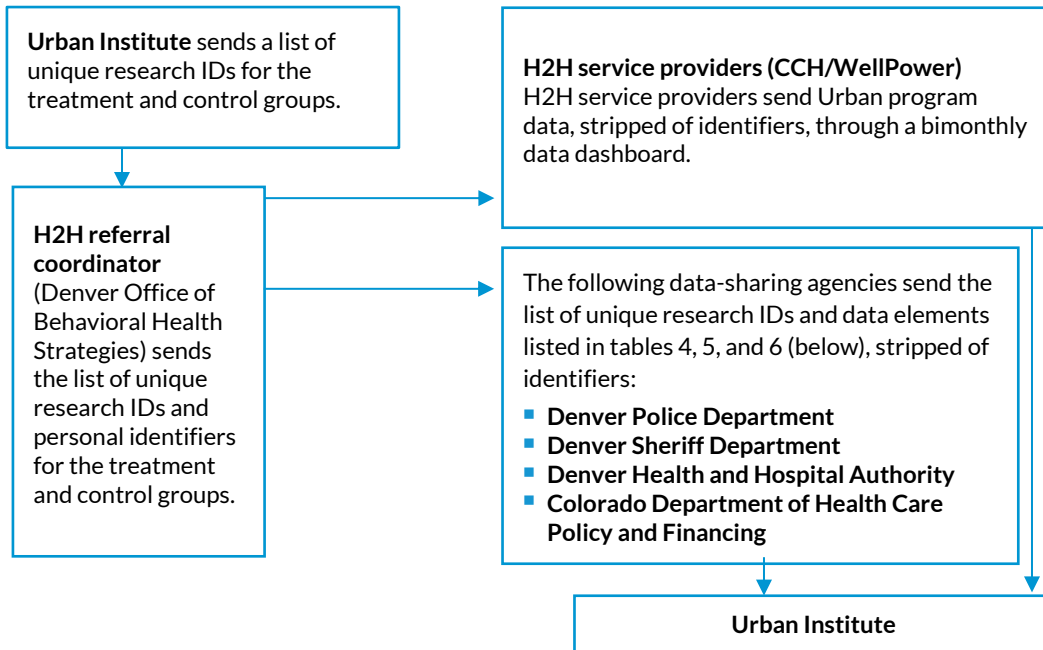
Urban will collect only deidentified administrative data that it will link through a project-specific ID that one central agency will share with other administrative data agencies. To make this work, the City and County of Denver’s Office of Behavioral Health Strategies will assign a staff person to be the H2H referral coordinator and have access to the master eligibility list. That list will include personal identifiers as well as a project-specific unique ID number for each individual in the treatment or control group. Urban will have only the deidentified eligibility list.

The H2H referral coordinator will share the personal identifiers and the project-specific IDs of the individuals in the study with each of the other agencies identified for data sharing (figure 2). Urban will collect administrative data based on data-sharing agreements with each of those agencies (e.g., H2H service providers, DPD). 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 dataset, and strip the personal identifiers from the dataset. Each of the agencies will send their data, including the project-specific ID, directly to Urban. This method will allow Urban to generate a single deidentified dataset with data from each agency.

Under this plan, Urban 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 dataset with identifiers. Furthermore, Urban will be in control of the linking process and will ensure its quality.

FIGURE 2
Data Access Plan



Source: Framework developed by Urban.

Note: H2H = Housing to Health; CCH = Colorado Coalition for the Homeless.

Data Collection and Analytic Methods for the Outcome Valuation and Outcomes and Impact Study

The evaluation metrics will include information on housing stability and reductions in jail days, to be paid by the City and County of Denver if successful, and net reductions in federal expenditures for Medicaid and Medicare claims, to be paid by SIPBRA funding if successful. Housing stability among the housed treatment group will be used as an interim outcome metric paid by the City and County of Denver because housing retention is a strong predictor of longer-term outcomes of interest. Reduction in jail days, paid by the City and County of Denver, as well as net reduction in federal expenditures for Medicaid and Medicare claims, paid by SIPBRA funding, will be used as the final outcome payment metrics, measured by the differences between the treatment and control groups at the end of the project period.

Net Reduction in Federal Expenditures for Medicaid Claims

The SIPPRA outcome payment will be based on the program's impact on reducing federal expenditures for Medicaid claims. The net reduction in federal expenditures will be measured as the average difference in the change over time (pre- and postrandomization) in the amount billed for claims between the treatment and control groups. This approach to measuring net reductions accounts for potential increases in certain types of claims due to the intervention, such as office-based visits, as well as reductions in certain types of claims, such as emergency department visits and hospitalizations. This outcome will be measured over the full seven-year project period and estimated using the DID approach described in the analysis plan below. All individuals who have been randomly assigned to the treatment or control group for at least one year before the last day of the observation period (December 31, 2027) will be included in the DID estimate for the payment analyses. The evaluation will also report on this outcome midproject to provide a preliminary look at project performance, but no payment will be associated with the outcome at that point. The payment for net reduction in federal expenditures will be made once, based on the final outcome report at the end of the project period.

The proposed data source in table 4 will capture Medicaid information on all individuals in the target population. The Colorado Department of Health Care Policy and Financing oversees and operates Health First Colorado (the state's Medicaid program) and other public health care programs for qualifying Coloradans. If necessary and available, we may pull Colorado Access or Denver Health data. We will request Medicaid enrollment, service use, claims and managed care data, and expenditure data for all individuals enrolled in the H2H treatment and control groups.

TABLE 4

Data Source and Measures for Calculating Net Reduction in Federal Expenditures for Claims

Data source	Measure
Colorado Department of Health Care Policy and Financing	unique research ID beneficiary and provider enrollment service use claims and managed care data expenditure data

Source: Framework developed by Urban.

In calculating the outcome valuation attachment for the H2H SIPPRA application, we made several assumptions, including eligibility of the target population under Medicaid expansion; the federal share of Medicaid expenditures for the target population; the value of claims missing from the data available at the time of this evaluation design; and the impact of reductions in use on federal expenditures through reduced fee-for-service claims, reduced negotiated capitated rates for managed care claims,

and reduced supplementary payments for uncompensated costs. We also assumed a gross domestic product cost deflator from the White House’s “Economic Assumptions and Overview” (OMB 2020). The data we use to calculate the actual outcome valuation will resolve some of these assumptions; for example, we will have the full universe of fee-for-service and managed care claims for the study population.

To understand the calculation of how treatment impacts net changes in federal (Medicaid and Medicare) expenditures for health services, we will use a DID approach. The DID estimate, β^{DID} , can be represented by the following equation:

$$\beta^{DID} = (Y_{t=1}^T - Y_{t=0}^T) - (Y_{t=1}^C - Y_{t=0}^C)$$

where

$Y_{t=1}^T$ is the mean outcome for the treatment group (those referred to H2H supportive housing) in the postrandomization period;

$Y_{t=0}^T$ is the mean outcome for the treatment group in the prerandomization period;

$Y_{t=1}^C$ is the mean outcome for the control group in the postrandomization period; and

$Y_{t=0}^C$ is the mean outcome for the control group in the prerandomization period.

Eligible individuals randomized to the treatment population will be counted in the treatment population, regardless of whether they engaged with the service provider, pass the H2H screens, 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.

The DID estimate will be measured by using the regression equation below:

$$Y_{it} = \alpha + \beta^T T_i + \beta^P Post_t + \beta^{DID} (T_i * Post_t) + \beta^X X_{it} + \varepsilon_{it}$$

where

Y_{it} is the amount of medical expenditures for each individual i during time period t ($t = 0$ is the prerandomization period, and $t = 1$ is the postrandomization period);

T_i and $Post_t$ form an interaction term where T_i is an indicator equal to 1 for individuals assigned to the treatment group and 0 for individuals assigned to the control group, and $Post_t$ is an indicator equal to 1 for the postrandomization period and 0 for the prerandomization period;

X_{it} is a vector of treatment-specific time-varying controls, to be specified later;

β^T is the treatment group-specific effect (measuring the permanent differences between treatment and control);

β^P is the time trend common to control and treatment groups;

β^x is effect of treatment-specific time-varying controls, to be specified later; and

ε is the regression error term.

Urban will obtain approval from the US Department of the Treasury prior to adding any proposed time-varying controls, X_{it} , to the analysis. Thus, β gives the average treatment effect of the intervention on Medicaid and Medicare expenditures of an individual. The savings will be calculated as the coefficient, β , multiplied by the number of individuals randomized into the treatment group.

Housing Stability

The City and County of Denver will make annual outcome payments based on the number of days in stable housing achieved by program participants. 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—such as reductions to payment points and how exits will be treated—are outlined in table 5.

TABLE 5

Measurement of Housing Stability and Payment Points

Threshold	Payment points	Reductions
<ul style="list-style-type: none"> ■ The client 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 his or her name, as defined in the contract. ■ A client moves into assisted living with occupancy agreement after being housed in an H2H unit, and service provider continues to provide H2H services to participant; or a client is randomized into the project, moves directly into assisted living with occupancy agreement, and service provider continues to provide H2H services. 	<ul style="list-style-type: none"> ■ After threshold is met, the City and County of Denver makes payments annually starting on May 31, 2024, based on days in housing before and after threshold, according to payment schedule, as defined in the contract. 	<ul style="list-style-type: none"> ■ Days spent in jail since lease-up date will be subtracted from days eligible for payments, as defined in the contract.
Exits		
<p><i>Planned:</i> 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 before exit at the per diem rate:</p> <ul style="list-style-type: none"> ■ 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 he or she is allowed to reside with the leaseholder or owner in the unit on a permanent basis ■ entrance to long-term residential treatment (other than assisted living) that exceeds 120 days in order to address a physical or behavioral health issue ■ incarceration for actions solely occurring before H2H randomization 	<p><i>Unplanned:</i> If a client meets any of the conditions below before achieving the one-year threshold, success payments will not be made for that client:</p> <ul style="list-style-type: none"> ■ loss of voucher/lease for any reason other than those specified under planned exit reasons (voucher loss may occur after 120 days away from unit; e.g., incarceration, return to homelessness, or after eviction) ■ termination of assisted living occupancy agreement after 120 days away from the facility for any reason other than those specified under planned exit reasons 	

Source: Framework developed by Urban.

The data sources and measures that will be used to calculate housing stability are outlined in table 6. Program data from WellPower and CCH will be collected approximately bimonthly through the engagement dashboard, as specified in the data-sharing agreements with each service provider. Data from the Denver Sheriff Department will be collected at least every six months as specified in the data-sharing timeline within Urban’s contract with the City and County of Denver. Data will be linked by unique research IDs to calculate housing stability outcomes.

TABLE 6

Data Sources and Measures for Calculating Housing Stability

Data source	Measures
CCH and WellPower 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

Source: Framework developed by Urban.

Note: CCH = Colorado Coalition for the Homeless.

Jail Day Reduction

In addition to making outcome payments based on the number of days in stable housing, the City and County of Denver will make two outcome payments 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 two and four years from randomization date and will be estimated using the treatment-on-the-treated (TOT) approach described in the analysis plan below. The payment for jail day outcomes will be made twice, at the middle and end of the evaluation period. The first payment will be based on two-year jail day outcomes, and the second payment will be based on four-year jail day outcomes.

JAIL DAY REDUCTION ESTIMATION METHODS

To understand the calculation of treatment impacts using the TOT approach, we first explain how treatment impacts are calculated using the intent-to-treat (ITT) approach. The ITT estimate is defined as the difference between the average outcomes for individuals referred to H2H (the treatment group) and those not referred to H2H (the control group), adjusting for prerandomization covariates.

All eligible individuals randomized to the treatment population will be counted in the treatment population, regardless of whether they engage with the service provider, pass the H2H 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.

The ITT estimate is measured as the average individual outcomes for the treatment population minus the average individual outcomes for the control population. We control for prerandomization

covariates using a regression framework. Specifically, the ITT estimate would be measured using the regression equation below:

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

where

Y_i is the number of jail days for each individual, i , who 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 prerandomization covariates;

β^n is the vector of coefficients on the covariate, X^n ; and

ε is the regression error term.

The inclusion of the prerandomization covariates is intended to improve the precision of the estimates. The initial proposed list of covariates to control for in the model is $X_i^1 \dots X_i^{Nn}$: race, gender, age, number of stays in jail in the three years prior, number of days in jail in the three years prior, number of arrests in the three years prior, and entry type (Denver Health, contact, noncustodial arrest, or custodial arrest).

We will finalize the exact covariates after we review 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 prerandomization 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 $p = .05$ (i.e., with at least 95 percent confidence that they are different) will be included as covariates in the regressions. Similar analysis for the related SIB evaluation included the following covariates:

- race/ethnicity
- age at randomization
- gender

- number of jail days in the three years prior to randomization
- number of jail stays in the three years prior to randomization
- number of arrests in the three years prior to randomization
- number of custodial arrests in the three years prior to randomization

The TOT estimate will be calculated using an instrumental variables (IV) estimate (Angrist, Imbens, and Rubin 1996). The IV estimate is per person served, among those who comply with their referral assignment, which accounts for the fact that some people referred to H2H may not enroll and that some people in the control group may end up receiving services from H2H. For example, all study participants can be divided into three types of individuals: those who will always enroll in H2H regardless of whether they are referred to it or not; those who will never enroll in H2H even if they are referred to it; and those who comply with whatever referral assignment they are given, whether it is to enroll in H2H or to remain in the control group. The IV estimate represents the effect of H2H enrollment on study outcomes among this third group, the compliers. In the special circumstance in which decisions to comply are independent of the study outcomes, the IV estimate also represents the average treatment effect.

The IV estimate scales up the ITT estimate by the difference between the treatment group's and the control group's fractions enrolled in H2H. Enrollment will be defined as the participant's having an initial housing lease-up (enrollment) date in SIB housing. Conceptually, Urban will estimate the effect of referring an individual to H2H on enrollment in H2H in exactly the same manner as calculating the ITT above, except that the dependent variable in the model will be enrollment:

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

where

P_i is 1 if the individual, i , enrolled in the program, regardless of whether he or she was in the treatment group or the control group;

T_i is an indicator equal to 1 for individuals assigned to the treatment group and 0 for individuals assigned to the control group;

δ^T is the parameter of the effect of getting randomly assigned into treatment on actual enrollment (P_i);

X^n is a vector of prerandomization covariates;

δ^n is the vector of coefficients on the covariates, X^n ; and

ε is the regression error term.

The IV estimate is the ratio of the two estimates:

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

In practice, the two equations will be estimated simultaneously using a two-stage least squares estimation procedure. In the first stage, the dependent variable (enrolling in the program) 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.

Because the payment schedule specifies the payment amount in per participant–served units, the IV estimate will be the basis for the performance-based outcome payments. The IV estimate also represents the per participant–served difference in mean jail days between the treatment and control groups, among those who comply with referral assignments.

DETERMINATION OF INDIVIDUALS INCLUDED IN JAIL DAY REDUCTION ANALYSES

For the interim payment, all individuals who have been randomly assigned to the treatment or control group for at least two years before the last day of the observation period (December 31, 2023) will be included for the ITT estimate of jail days. For the TOT estimate, we will define the treatment group as all individuals who leased up at least one year before the last day of the observation period (December 31, 2024). If any individuals have been in the defined treatment group for longer than two years, we will look at the first two years they were in the treatment group as defined for the analyses.

For the final payment, all individuals who have been randomly assigned to the treatment or control group for at least four years before the last day of the observation period (June 30, 2025) will be included for the ITT estimate of jail days. For the TOT estimate, we will define the treatment group as all individuals who leased up at least one year before the last day of the observation period (June 30, 2028). If any individuals have been in the defined treatment group for longer than four years, we will look at the first four years they were in the treatment group as defined for the analyses.

For both jail payments, however, referrals will continue past the ITT and TOT cutoffs (if and when housing slots are open), as individuals enrolled in the treatment group after that point will still be potentially eligible to generate housing stability payments.

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 Department at least every six months as specified in the data-sharing timeline within the evaluation contract.

TABLE 7

Data Source and Measures for Calculating Reduction in Jail Days

Data source	Measures
Denver Sheriff Department	unique research ID jail entry date jail exit date facility

Source: Framework developed by Urban.

Early Outcomes Termination Process

If the H2H partnership agreement is terminated early, the outcome measurements for payment purposes, if appropriate as specified in the H2H contract, will be calculated for all participants meeting the payment requirements before the early termination quarter, as outlined in the H2H contract.

Minimum Detectable Effect Sizes

Based on our experience with the previous SIB evaluation, we expect approximately 16 percent of the supportive housing units to turn over every year and a take-up rate of approximately 75 percent. In table 8, we show minimum detectable effect sizes for the interim jail day report, the final jail day report, and the Medicaid outcomes final report. The interim jail day report will include all individuals randomized for SIPPPRA through December 31, 2023. Given our assumptions and the lease-up timeline, we expect the sample size to be 328 individuals, with 164 in the treatment group and 164 in the control group. This sample size would allow us to detect effect sizes greater than 0.29. The final jail day report will include all individuals randomized for SIPPPRA through June 30, 2025. We expect the sample to be 440 individuals, with 220 in the treatment and 220 in the control group, which would allow us to detect effect sizes greater than 0.25. Finally, for the Medicaid outcomes final report, we will include all individuals randomized before December 31, 2027. We expect the sample size to be 574 individuals, with 287 in the treatment group and 287 in the control group. This sample size would allow us to detect effect sizes of 0.21 or higher. Effect sizes of 0.2 or lower are considered small effect sizes, and those between 0.2 and 0.5 are considered medium.

TABLE 8

Minimum Detectable Effect Sizes

	Treatment	Control	Total	MDE
Jail day interim report	164	164	328	0.286
Jail day final report	220	220	440	0.247
Medicaid outcomes final report	287	287	574	0.216

Source: Urban analysis.

Notes: MDE = minimum detectable effect. Calculations are based on the following assumptions: alpha is 0.05, 80 percent power, a two-tailed test, and R-squared of 0.15.

Data Collection and Analytic Method for the Implementation Study

We will conduct the implementation study over the course of the evaluation by collecting and analyzing data at regular intervals. Early data collection, especially, will inform research design and evaluability. The implementation study will begin at enrollment and determine program flow—that is, the number of eligible individuals flowing through the initiative’s intake points on any given day, week, or month. The implementation study also will collect data on how service providers locate and engage individuals in 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 implementation 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 midcourse corrections. Identifying and evaluating the different program components is also critical to describing the entirety of the program model and interpreting the results obtained by the impact study.

Building from lessons from the process study component of the Denver SIB, we will assess the key components of the initiative, including the following:

- **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 how the process changes over time
- **Program components, requirements, and supportive services:** program duration and intensity; program features, rules, and restrictions; how program components compare with usual care services; how components change over time; 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; and how supportive services change over time for individuals

- **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 in these systems over time

In addition to describing these key components, we will collect information on the larger environment in which the program operates. The Denver H2H initiative will operate within the criminal justice system and other public systems that will have shifting processes for responding to the target population. We also will 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 may be 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.

Finally, we will document what constitutes “usual care” in the Denver community as the H2H program is implemented over time. In doing so, we will rely on the same components we use in describing the program model, including the absence of components (e.g., housing subsidies and certain types of supportive services). Understanding the counterfactual—what housing and services the 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, we will attend management meetings and program meetings.
- **In-person staff interviews and provider or 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 to get program and evaluation updates and encourage coordination among all partners.

The semistructured 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.

Data Security and Ownership

Data Security

Data that are not publicly available will be provided to Urban via secure file transfer protocol with password protection. This is the *only* acceptable method of providing data. The following methods are unacceptable: plain text email, US Postal Service with unencrypted CD-ROM, unsecure file transfer protocol, and all other methods that are not mentioned above.

Urban staff members will use PGP data encryption software to encrypt the administrative data file and to 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 or DVDs will be stored in a locked file cabinet in the researcher's office. Only research staff members who have 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 Urban Institute Institutional Review Board–approved standards of confidentiality and will not be able to turn over raw data to the City and County of Denver, the intermediary (Corporation for Supportive Housing), 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 Denver H2H payment triggers. The qualified independent researcher must sign the confidentiality pledge signed by all members of the research team and operate under the same

Institutional Review Board standards of confidentiality as the research team. The qualified independent researcher would have access to only the data outlined in table 9 for verifying the outcomes tied to the Denver H2H payment triggers.

TABLE 9

Data for Outcome Verification for Denver Housing to Health Payment Triggers

Data source	Measures
Colorado Coalition for the Homeless and WellPower	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 Department	unique research ID jail entry date jail exit date facility
Colorado Department of Health Care Policy and Financing	unique research ID beneficiary and provider enrollment service use claims and managed care data expenditure data

Source: Framework developed by Urban.

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 were collected before Urban can turn over any data to the new independent evaluator. It will be incumbent on the new independent evaluator to ensure that any necessary confidentiality and data security protocols are in place such that new data-sharing agreements can be signed with each administrative data agency to allow Urban to turn over any data already collected to the new independent evaluator.

Reports and 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. All outcome reports will be publicly available, including findings from the implementation study. Urban may broadly disseminate publicly available findings through a variety of communication strategies, in collaboration with H2H partners and according to an agreed upon H2H communications protocol.

Destruction of Data

All data will be destroyed by December 2031, or two years after all publications have been finalized. Urban will use PGP data encryption software to permanently destroy all datasets in a way that renders them unreadable.

Project Monitoring and Outcome Reports

Project Monitoring

For project monitoring purposes, Urban will maintain a bimonthly engagement dashboard (appendix A) and a monthly pipeline dashboard (appendix B). Data for these dashboards will be collected bimonthly from CCH and WellPower as specified in the data-sharing agreements with each service provider. The bimonthly engagement dashboard will track individual-level data on participant engagement and on enrollment in the program. Those data will 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 and County of Denver and the intermediary. The process for project monitoring will follow the schedule outlined in table 10.

TABLE 10

Project Monitoring Reports

Report name	Frequency and distribution	Description	Source
Engagement dashboard	bimonthly—data dashboard due to Urban twice per month	individual-level data of client engagement and enrollment	CCH, WellPower
Pipeline dashboard	monthly—data dashboard due to the City and County of Denver on the 15th of each month	aggregate number of referrals, assignments, and housing outcomes	Urban

Source: Framework developed by Urban.

Note: CCH = Colorado Coalition for the Homeless; Urban = Urban Institute.

Outcome Reports

Urban will submit outcome reports on housing stability starting in February 2024 for observations through December 31, 2023 and continuing annually thereafter, as indicated in table 11, through the end of the project in December 2029. Urban will report outcome measurements on jail days for interim and final payment purposes in April 2025 and October 2029, respectively. Outcome measurements for net reduction in federal expenditures will be reported in the final evaluation report in October 2029. Outcome reports will be structured similarly to those provided to the governance committee for the related Denver SIB (Cunningham et al. 2018a), including updates on project implementation (Cunningham et al. 2018b). The final outcome report for SIPBRA funding will be structured similarly to the steps and tables outlined in the outcome valuation attachment of the H2H SIPBRA application. The final Wind-Up Net Federal Expenditures Reductions Outcomes report will be delivered to the federal government in November 2029.

TABLE 11
Outcome Reports

Outcome report delivered ^a	Housing Stability		Jail Days		Federal Outlays	
	Period of project under evaluation	Date outcomes observed through	Period of project under evaluation	Date outcomes observed through	Period of project under evaluation	Date outcomes observed through
4/15/24	Q1-6	12/31/23				
4/15/25	Q7-10	12/31/24				
4/15/26	Q11-14	12/31/25	Q1-14	12/31/25	Q1-14 ^b	12/31/25
4/15/27	Q15-18	12/31/26				
4/15/28	Q19-22	12/31/27				
4/15/29	Q23-26	12/31/28				
10/15/29	Q27-28	6/30/29	Q1-28	6/30/29	Q1-26	12/31/28

Source: Urban framework and project documents.

Notes: ^a Urban's ability to produce reports on time is dependent upon receiving accurate data from providers and other data-sharing agencies. Urban may request reasonable extensions for data delivery delays. Payment dates will be adjusted accordingly.

^bThis report will be an initial analysis of federal expenditures for an early cohort of participants and will not be used for payment purposes.

Appendix A. Bimonthly Engagement Dashboard

ID	Random assignment date	Transferred	Date located	Currently engaged
Unique research identifier	Random assignment date	Whether the client was transferred to or from CCH/WellPower	Date this client was first located	Is this person currently engaged? Y/N

Disengagement reason	Disengagement other reason	Passed housing screen	Locus
If this person is no longer being engaged, why?	Only fill out this column in case of Disengagement Reason = Other	Client passed H2H eligibility housing screen (Y-Chronic, Y-H2H definition, No)?	Level One: Recovery Maintenance and Health Management; Level Two: Low-Intensity Community-Based Services; Level Three: High-Intensity Community-Based Services; Level Four: Medically Monitored Nonresidential Services (ACT); Level Five: Medically Monitored Residential Services; Level Six: Medically Managed Residential Services

Date of housing orientation	Date of lease-up	Housing facility type	Housing type reason	Total months homeless directly before housing
date housing orientation completed		RPMC or scattered site?	client choice; client need; client eligibility; other	(reported at initial intake)

Date of exit 1	Exit 1 type	Exit 1 reason	Exit 1 reason other	Date of housing reentry after housing exit
	planned, unplanned, or AL	Planned exit housing for other permanent housing, residential treatment, prior offense incarceration, death? Leave blank if no exit. Unplanned exit for voluntary voucher loss, lease violation voucher loss, other voucher loss? Leave blank if no exit. AL exit for AL	Only fill out this column in the case of Exit 1 Reason = Other	

Date of exit 2	Exit 2 type	Exit 2 reason	Exit 2 reason other	Date of housing reentry after housing exit 2
	planned, unplanned, or AL	Planned exit housing for other permanent housing, residential treatment, prior offense incarceration, death? Leave blank if no exit. Unplanned exit for voluntary voucher loss, lease violation voucher loss, other voucher loss? Leave blank if no exit. AL exit for AL	Only fill out this column in the case of Exit 2 Reason = Other	

Date of exit 3	Exit 3 type	Exit 3 reason	Exit 3 reason other	Date of housing reentry after housing exit 3
	planned, unplanned, or AL	Planned exit housing for other permanent housing, residential treatment, prior offense incarceration, death? Leave blank if no exit. Unplanned exit for voluntary voucher loss, lease violation voucher loss, other voucher loss? Leave blank if no exit. AL exit for AL	Only fill out this column in the case of Exit 3 Reason = Other	

Date of exit 4	Exit 4 type	Exit 4 reason	Exit 4 reason other	
	planned, unplanned, or AL	Planned exit housing for other permanent housing, residential treatment, prior offense incarceration, death? Leave blank if no exit. Unplanned exit for voluntary voucher loss, lease violation voucher loss, other voucher loss? Leave blank if no exit. AL exit for AL	Only fill out this column in the case of Exit 4 Reason = Other	

Source: Framework developed by Urban.

Note: CCH=Colorado Coalition for the Homeless; H2H= Denver Housing to Health Pay for Success Project; AL=Assisted living.

Appendix B. Monthly Pipeline Dashboard

	Total	Feb. 22	Mar. 22	Apr. 22	May 22	Jun. 22	Jul. 22	Aug. 22
Referrals								
Total on eligibility list								
Individuals meeting criminal justice criteria								
<i>Arrest</i>								
<i>Police contact</i>								
<i>Jail</i>								
Individuals meeting criminal justice and emergency department visit criteria								
Eligible individuals randomized								
Control								
Treatment								
# Not found								
# Found								
Failed housing screen								
Passed housing screen								
<i>Agreed to housing</i>								
<i>Refused program</i>								
<i>Found ineligible for voucher</i>								
Housing								
# Available slots								
# Issued voucher								
# Not leased-up								
<i>Still looking for housing</i>								
<i>Voucher expired</i>								
<i>Lost voucher</i>								
<i>Other</i>								
# Leased-up								
# Exited housing								
Planned exit event								
<i>Other permanent housing</i>								
<i>Residential treatment/other care</i>								
<i>Prior offense incarceration</i>								
<i>Death</i>								
Unplanned exit event								
<i>Lost voucher—voluntary</i>								
<i>Lost voucher—lease violation</i>								
<i>Lost voucher—incarceration</i>								
<i>Lost voucher—other</i>								

Appendix C. SIPPRA H2H Housing Screen

Client Name: _____

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

- The person has a disability as defined in Section 223 of the Social Security Act of (42 USC 423)
- The person has a developmental disability as described by Section 102(7) of the Developmental Disabilities Assistance and Bill of Rights Act (42 USC 6001(7));
- The person has a physical, mental, or emotional impairment that
 1. is expected to be of long-continued and indefinite duration,
 2. substantially impedes his or her ability to live independently, and
 3. is of such a nature that ability to live independently could be improved by more suitable housing conditions.

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

- Med-9 indicating permanent disabling condition for 12+ months
- Social Security Statement indicating disability status
- Signed disability verification form
- Signed letter (on letterhead) from social service agency confirming disability
- Hospital record stating disability or mental health diagnosis

Part II. Literal Homeless Status (*check ONE*):

- Has a primary nighttime residence that is a public or private place not meant for human habitation

- Is living in a publicly or privately operated shelter designated to provide temporary living arrangements (including congregate shelters, bridge housing, transitional housing, and hotels and motels paid for by charitable organizations or by federal, state, and local government programs)
- Is in rapid rehousing or supportive housing for homeless persons who were originally chronically homeless and came from the streets or emergency shelters and/or is in any of the above places but is spending a short time (up to 90 consecutive days) in a hospital or other institution
- Is exiting an institution where he or she resided for 90 days or less AND was residing in emergency shelter or a 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 has no identified subsequent residence AND lacks 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 four (4) episodes of homelessness in the last three (3) years that total at least 12 months (3 months self-report; 9 months third-party verification).
- The individual has a total of at least 12 months of homelessness in the past 3 years and meets DedicatedPlus criteria for Continuum of Care(CoC) programs (<https://www.hudexchange.info/faqs/3284/what-is-a-dedicatedplus-project/>).

Part II or III is supported by third-party certification that 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. As appropriate, written narratives should include date(s) attempted for third-party verification and date(s) completed.

First Level of Verification

- ❑ Signed third-party letter(s) on agency letterhead from a shelter worker, homeless service provider, outreach worker, or other healthcare or human service provider attesting to homelessness. Printouts from the Homeless Management Information System (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, or other healthcare or human service provider attesting to homelessness. Printouts 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. Printouts from HMIS database documenting episode(s) of homelessness can be used with written narrative explaining such.

Fourth Level of Verification

- ❑ Signed and 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 the chronology of a homeless person's history meets the time frame for the definition of chronic homelessness.

Time Period	Location/Narrative	Documentation? y/n

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E	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			42JENAE6777	01/01/2022	01/01/2023	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ \$
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DEDUCTIBLE <input checked="" type="checkbox"/> RETENTION \$ 10,000			42XHUNA0533	01/01/2022	01/01/2023	EACH OCCURRENCE \$10,000,000 AGGREGATE \$10,000,000 \$ \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> N	N/A	42WBRJ7174	01/01/2022	01/01/2023	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000
D	Cyber Liability			652180438	01/01/2022	01/01/2023	\$2,000,000/\$3,000,000
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DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

(See Attached Descriptions)

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City and County of Denver
Department of Housing Stability
201 W Colfax Ave
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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. Celanovi

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DESCRIPTIONS (Continued from Page 1)

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Denver Housing to Health (H2H) Evaluation

Assurance of Confidentiality

The Urban Institute assures all respondents and participating organizations that the information they release to this study will be held in the strictest confidence possible by the contracting organizations and that no information obtained in the course of this study will be disclosed in such a way that individuals or organizations are identifiable. Access to the data in this study is by consent of the respondents who have been assured confidentiality. This assurance of confidentiality does not prevent researchers from voluntarily disclosing information as required by law, without consent. For example, the study team may voluntarily disclose information about incidents such as child abuse, or intent to hurt oneself or others. In addition, this assurance of confidentiality does not prevent respondents or members of respondents' family from voluntarily releasing information about respondents or their involvement in this research.

In furtherance of our commitment of confidentiality to respondents and participating organization, you hereby confirm the following:

“I have carefully read and understand this assurance that pertains to the confidential nature of all information and records to be handled in this study. I have read a copy of the “Confidential Data at the Urban Institute – Guidelines for Data Security,” which has been provided for me with this Confidentiality Pledge. I understand that I must comply with all of data security requirements adapted from those Guidelines for this project as approved by the Urban Institute Institutional Review Board to the extent permitted by federal laws, regulations, and directives applicable. As an employee of The Urban Institute, I understand that I am prohibited from disclosing any such confidential information which has been obtained under the terms of this contract to anyone other than authorized contractor staff and agree to follow the procedures outlined to me during training. Should situations arise that warrant the disclosure or release of such information, I will do so only under approved circumstances and in accordance with the laws, regulations, or directives applicable. **I understand that I am also prohibited from any attempts to identify individuals using the data collected by this study.** I understand that each provision of the Guidelines is severable and if any provision of the Guidelines is found to be unenforceable, all other provisions shall remain in full force and effect. **I will report any suspected breach of confidentiality/data security immediately to the Chief Information Officer of The Urban Institute at the address**

below. I understand that any willful and knowing disclosure of information released to this study may subject an employee of The Urban Institute to disciplinary action, up to and including termination of employment or contract.”

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Urban Institute Procedures and Policies for Protecting Confidential Data

The Urban Institute has developed explicit policies and procedures regarding the protection of confidential data. This can be superseded by specific requirements imposed by funding agencies regarding confidential data.

Overview

The term “confidential data” encompasses any information designated confidential by external agencies or parties with whom Urban has a data use agreement, and information designated as sensitive material by the Urban Institute’s Institutional Review Board (IRB). All managers of projects using confidential data must complete a data security plan which includes specification of a data security officer for the project. Only those with a documented "need to know" are allowed access to confidential data. All employees who may access confidential data are required to take IRB training.

Project managers are encouraged to limit access to confidential files as much as possible. Access restriction can be achieved by limiting the use of confidential variables. For example, if a file is considered confidential because it contains identifying names and addresses, those variables may be removed from the file and replaced with pseudo identifiers. The sanitized file can then be used and shared without risk of violating confidentiality. Access restriction can also be achieved by limiting staff members’ access to a designated computer accounts or an entire set of files.

Although technology and procedures can assist in the protection of confidential data, the Urban Institute requires each person who uses confidential data to adhere to the applicable data security plan and ensure that their work habits are secure. All staff members, consultants, and subcontractor staff using or handling confidential data must sign confidentiality pledges asserting that they will adhere to the guidelines for confidential data use and nondisclosure. Project managers reinforce the importance of these pledges; clearly explain the specifics of the data security plan; and monitor their teams’ security practices.

Before Receiving Confidential Data

A project manager must submit a Data Security Plan to the IT Security specialist, in advance of receiving any confidential data. Arrangements are then made for appropriate transmission of these data, including:

- File transfer over secure electronic connections. This means the source system must be a trusted and recognized source for the data, and the means of transfer must be secure, such as an encrypted Internet connection to the Urban Institute. Urban Institute maintains a secure ftp server where external parties can exchange data with Urban through encrypted connections.
- Delivery by secure, trackable means, such as FedEx, UPS, or registered US mail.
- Hand delivery by a cleared individual.

Urban Institute staff are prohibited from using inappropriate delivery mechanisms, such as unencrypted file transfer over the Internet or unencrypted email.

Storing and Protecting Confidential Data

The Urban Institute maintains confidential disks separate from non-confidential disks on all its system servers. Confidential data are stored on the confidential disks and not backed up in the Institute's normal system backups. Staff are instructed not to copy these data to a non-confidential disk. If confidential data are stored on an individual PC, these data are encrypted or stored on removable storage media that is secured in a locked cabinet when not in use. The Institute's standard encryption software is PGP, but specific requirements from project sponsors will be honored.

When a staff member uses an account or a computer with access to confidential data, he or she does not leave the session unattended, logs out at the end of the session, and locks up any storage media that hold confidential data.

File protections and access controls are established to ensure that confidential data are not accessible to anyone who is not explicitly authorized to use them. More specifically, across operating systems, access control lists grant access only to project members and system administrators.

All storage media (e.g. CDs, internal and external hard drives, flash drives) that hold confidential data are explicitly labeled confidential. Project managers maintain a log for each piece of confidential storage media recording the following:

- Receipt of item from external source
- Creation of item at the Urban Institute
- Destruction of item
- Transfer of item to someone else's responsibility (even within the Institute)

If a project requires off-site storage or archiving of confidential data (for purposes of disaster recovery), UI ensures that the off-site facility is authorized to hold and protect confidential data.

Confidential storage media and printouts can be removed from the Urban Institute only when they are hand delivered to a person authorized to receive them.

Each center at the Urban Institute is required to conduct annual training for its staff regarding the proper handling of confidential data and to conduct a semi-annual review of confidential logs, confirming that all confidential media can be accounted for.

Disposal or Scrubbing of Confidential Storage Media

The acceptable methods for the disposal or "scrubbing" of confidential storage media include: returning the media to the source; physical destruction; or erasure using a "secure erasure" product. Confidential printouts are disposed of by shredding. Hard drives are degaussed, CD and DVDs are shredded.

Infrastructure to support data security

Urban Institute maintains a private LAN on premise and a virtual private cloud (VPC) presence on AWS (Amazon Web Services). The Institute strives to maintain data security on all systems. On premise, an industry standard firewall is maintained which evaluates and monitors all attempted connections from the Internet to internal servers and to our private network. On our AWS VPC we also maintain a firewall and store files in S3, where files can be encrypted at rest as needed. Data transmissions from our Urban Institute private net travel via an AWS Direct Connect dedicated line, and are encrypted during transmission as required.

For security logging and monitoring the Institute has a 24x7 security monitoring service, which proactively allows us to detect, notify, analyze and report on server conditions. On servers and user workstations, anti-virus software is kept up to date, and we employ best practices in our procedures for securing servers, desktops, and laptops. Confidential data that must be stored locally are encrypted using PGP, which provides FIPS 140-2 level protection.

Data Use by Project Teams

All projects' use of confidential human subject data must be approved by the Urban Institute's Institutional Review Board, adhering to the IRB data security guidelines, and data security plans for any kind of confidential data are reviewed by IT Security Officer.

If a data use agreement requires it, all staff using data under the agreement will sign a confidentiality pledge before access to the data will be granted. The IT Security Officer maintains a list of all staff having access to data under a data use agreement, and a contact to which to report any incident that occurs under the agreement. Staff who have confidential data access are required to have PGP full disk encryption with FIPS 140-2 level protection. As required under agreements, data are scrubbed of any personal information such as IDs, names, addresses, birthdates, etc., and will be aggregated at a level so that individuals cannot be identified by one or more variables.