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## Housing Vouchers Upon Release from DOC Custody: *Relationship to Homelessness, Public Benefits, Employment, and Recidivism*

In Washington, people leaving custody after a period of prison confinement may be eligible for rental housing vouchers. The Washington State Legislature has authorized rental housing vouchers through several legislative efforts. These programs have been implemented at different times and vary in eligibility criteria and requirements but generally provide up to \$700 per month in housing support for up to six months.

The period immediately following release from prison has been found to be critical to long-term successful reentry into the community. Stable housing may reduce recidivism, increase the likelihood of achieving employment, and reduce reliance on the use of other public assistance.

In 2023, the Washington State Legislature directed the Washington State Institute for Public Policy (WSIPP) to conduct a study of the impact of vouchers after changes were made to the program ([Exhibit 1](#)).<sup>1</sup> We explored the impact of post-incarceration housing support on a variety of outcomes, including recidivism, homelessness, employment and earnings, and receipt of public benefits. A systematic review, meta-analysis, and benefit-cost analysis were also conducted.

<sup>1</sup> [Second Substitute House Bill 1818, Chapter 29, Laws of 2022.](#)

### Summary

This report describes the impact of reentry housing vouchers offered to people leaving a period of Department of Corrections (DOC) custody. The goal of housing support is to reduce the challenges faced by people reentering the community, and ultimately, to reduce crime. Authorized by various legislative efforts, housing vouchers provide eligible people leaving DOC custody with six months of rental housing assistance. Payments are made directly to housing providers that are pre-approved by DOC.

Results suggest that vouchers were associated with improvements in several reentry outcomes. People who were vouchered were less likely to have experienced homelessness, more likely to have found employment and to have earned more money from that employment, and less likely to have been rearrested. Longer periods of vouchered housing were associated with larger benefits. People who received housing vouchers were also more likely to receive public benefits.

A benefit-cost analysis indicated that the benefits of voucher programs outweighed the costs of the program. Each dollar spent on vouchers returned about \$1.12 in benefits.

These findings should be understood as descriptive and not interpreted as causal. Other factors may influence the desire to seek housing vouchers upon release from DOC custody, which may have influenced findings.

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## I. Background

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Post-incarceration housing instability has been linked to increased recidivism and other negative outcomes. Efforts to stabilize post-release housing can help improve the reentry process and reduce recidivism.<sup>2</sup> Recognizing the need to support people leaving Department of Corrections (DOC) custody, the Washington State Legislature has passed legislation authorizing funding for more stable housing upon release from incarceration.

### WA DOC Housing Voucher Programs

The Reentry Housing Assistance Program has been authorized to provide several types of housing vouchers ([Exhibit 2](#)).<sup>3</sup> Eligibility criteria differ by program, but benefits generally include \$700 per month in rental assistance for up to six months.

### Earned Release Date Vouchers

Introduced in 2009, the Earned Release Date (ERD) Vouchers were the first post-incarceration housing support program authorized by law. Individuals who reach their earned release date<sup>4</sup> are required to establish housing arrangements as part of their release plan. Earned Release Date Vouchers are intended to facilitate approval of a release plan for people who are unable to secure a release address without financial assistance.

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<sup>2</sup> LeBel, T.P. (2017). Housing as the tip of the iceberg in successfully navigating prisoner reentry. *Criminology & Public Policy*, 16(3), 891–908.

<sup>3</sup> Washington State Department of Corrections. [Reentry Housing Assistance Program](#).

### **Exhibit 1** Legislative Assignment

*Subject to the availability of amounts appropriated for this specific purpose, the Washington state institute for public policy shall conduct an outcome evaluation and benefit-cost analysis of Washington's housing voucher program to account for the expansion of the program under RCW 9.94A.729 and 72.02.100. The analysis should take into account impacts on homelessness, recidivism, criminal justice costs, use of public services, and other factors determined to be appropriate by the institute. The department of corrections shall cooperate with the institute to facilitate access to data or other resources necessary to complete the analysis required under this section. The institute shall submit a final report to the governor and appropriate committees of the legislature by November 1, 2025.*

*2SHB 1818*

Earned Release Date Vouchers are provided with additional transition support, such as substance use and mental health treatment, educational programming, or employment training. Individuals released at their ERD remain under DOC supervision until their maximum sentence date. Of the DOC voucher programs, the ERD Voucher program provides vouchers to the greatest number of people. In June 2022, the maximum duration of ERD Vouchers was extended from three to six months.<sup>5</sup>

<sup>4</sup> Individuals can reduce their time in confinement through program participation and good behavior. Earned release dates are the date a person is eligible for release after accounting for this reduction.

<sup>5</sup> [RCW 9.94A.729](#).

**Exhibit 2**  
DOC Housing Voucher Types

	ERD	Reentry	GRE	CPA/FOSA	Resentencing
<b>Amount per month</b>	\$700	\$700	\$700	\$700	\$700
<b>Dates active</b>	2009-Present	2022-Present	2018-Present	2010-Present	2021-2023
<b>Max duration</b>	6 months <sup>a</sup>	6 months	6 months	12 months	6 months
<b>Eligibility criteria</b>	No major prison discipline, less than \$5,000 in DOC savings account, and release at ERD	No major prison discipline and less than \$5,000 in DOC savings account	Participation in the GRE program	Participation in the CPA program	Release due to the Blake decision

**Notes:**

ERD=Earned Release Date.

CPA/FOSA=Community Parenting Alternative/Family Offender Sentencing Alternative.

GRE=Graduated Reentry.

Eligibility criteria can be waived on a case-by-case basis.

a. Program changed from three months to six months of housing support in June 2022.

**Reentry Vouchers**

Earned Release Date Vouchers are not available to people who are held in custody until their maximum release date (i.e., people who are not released between their ERD and their maximum sentence date). Because of this, people who were reentering their community after reaching their maximum sentence date could not receive housing support. To address this gap in coverage, Reentry Vouchers were implemented to support people who did not have community custody requirements or had reached their maximum sentence date and were at risk of housing instability or homelessness after release.

Unlike people released via ERD, individuals who reach their maximum sentence are not under DOC supervision following release. Although people are expected to comply with the rules of their housing provider, they are not required to attend or participate in other programming.<sup>6</sup>

For both ERD and Reentry Vouchers, DOC has flexibility in program implementation. Certain requirements, such as disciplinary history or value of a person’s DOC savings account, can be waived on a case-by-case basis upon petition by the person being released. People released from DOC custody may also request housing support after they are released from custody if their housing situation changes.<sup>7</sup>

<sup>6</sup> Reentry Voucher recipients are expected to call into their assigned housing specialist each month to determine if they are still in need of voucher support.

<sup>7</sup> Requests occurring more than four months after release must receive approval from the program administrator.

### Other Types of Housing Vouchers

Three additional voucher types are currently provided through DOC. Participants in the Graduated Reentry Program, which began in 2018, are eligible for vouchers if they are unable to obtain an approved address without assistance before transferring to home detention.

Parents released under the Community Parenting Alternative/Family Offender Sentencing Alternative (CPA/FOSA) are eligible for vouchers if they need assistance obtaining an approved residence or living arrangement for their period of home confinement.

A fifth program, Resentencing Vouchers, was available from 2021 to 2023. This program was created to assist with the release of individuals in response to the Blake decision, which vacated or dismissed certain drug possession charges.

Vouchers provided through the Graduated Reentry Program and CPA/FOSA were not impacted by recent legislative changes and were not included in this analysis. We excluded Resentencing Vouchers because of their limited applicability.

### Housing Providers

Eight Regional Housing Specialists work to help housing providers collaborate with DOC to provide transitional housing.<sup>8</sup>

Prospective housing providers are vetted first by a regional housing specialist and then by the local jurisdiction. Local jurisdictions (represented by law enforcement agencies, law and justice councils, etc.) can submit impact statements if they believe the housing will be problematic.

If the housing is determined to meet standards and would not have an undue negative influence on surrounding areas, it is placed in the DOC housing directory. To meet the diverse needs of people reentering the community, various types of accommodations (e.g., studio, apartments, group homes) are eligible to be transitional housing. Some housing providers combine housing with programming and case management services.

The number of housing providers and residences operated by those providers has varied over time, but at the time of publication, there were over 900 residences.<sup>9</sup> The greatest number of providers were in King and Spokane counties.

Reentry specialists work with people leaving custody to identify appropriate housing options. This can be determined by personal preference, housing availability, and housing- or location-based restrictions. People can request to change housing providers during their period of voucher support. They can work with their housing specialist (and if under community supervision, their community corrections officer) to identify available alternatives.

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<sup>8</sup> Washington State Department of Corrections. (2015). *Housing vendor orientation packet*.

<sup>9</sup> WA DOC. (2025). *Reentry housing assistance program*.

## Review of Relevant Literature

Reentering the community after a period of incarceration can be difficult.<sup>10</sup> It is a time that is characterized by housing instability, limited financial resources, poor employment prospects, and heightened risk of recidivism.

**Recidivism.** Recidivism refers to a person's relapse into criminal behavior after some type of sanction. The exact definition of recidivism can vary considerably in both how long the observation period is (e.g., one year, two years) and how it is operationalized (e.g., rearrest, reconviction). Although rates in Washington have declined over time, recidivism remains persistent; about 35% of people who are released from prison will recidivate within three years.<sup>11</sup>

Recidivism is most likely to occur in the year immediately following release and generally declines the longer someone has been in the community.<sup>12</sup> Housing instability has been associated with higher levels of recidivism, suggesting that programs that can improve housing after release may reduce rates of reoffending.<sup>13</sup>

**Homelessness.** Formerly incarcerated individuals are nearly ten times more likely to experience homelessness than the general population, and the period immediately after release has an especially high risk of homelessness.<sup>14</sup> The need for housing post-incarceration is most often met by the person's family and relatives.<sup>15</sup> If family is unavailable, the person may be at risk of experiencing homelessness if they are unable to secure housing on their own. Most people leave custody with very limited funds, which are generally insufficient to secure traditional housing.<sup>16</sup>

**Public Assistance.** People often have very limited financial resources during the reentry process. This can drive the use of public assistance programs such as the Supplemental Nutrition Assistance Program (SNAP)<sup>17</sup> and Aged, Blind, and Disabled (ABD) assistance. A common strategy for reentry programs is to help connect individuals with public assistance programs.<sup>18</sup> Previous research has found that eligibility for public assistance was associated with reduced recidivism.<sup>19</sup>

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<sup>10</sup> Petersilia, J. (2009). *When prisoners come home: Parole and prisoner reentry*. Oxford University Press and Western, B. (2018). *Homeward: life in the year after prison*. Russell Sage foundation.

<sup>11</sup> Knoth, L., Wanner, P., & He, L. (2019). *Washington State adult and juvenile recidivism trends: FY 1995-FY 2014 (Doc. No. 19-03-1901)*. Olympia: Washington State Institute for Public Policy.

<sup>12</sup> Antenangeli, L., & Durose, M.R. (2021). *Recidivism of prisoners released in 24 states in 2008: A 10-year follow-up period (2008–2018)*. Bureau of Justice Statistics.

<sup>13</sup> Jacobs, L.A., & Gottlieb, A. (2020). The effect of housing circumstances on recidivism. *Criminal Justice and Behavior*, 47(9), 1097–1115.

<sup>14</sup> Couloute, L. (2018). *Nowhere to go: Homelessness among formerly incarcerated people*. Prison Policy Initiative.

<sup>15</sup> Bahr, S.J. (2015). *Returning home: reintegration after prison or jail*. NASW Press.

<sup>16</sup> People released from DOC custody receive \$300 (commonly referred to as gate money) to help ease the first few days post-release. People may also receive funds from their inmate savings account, if any ([RCW 72.09.111](#)).

<sup>17</sup> Schanzenbach, D.W. (2023). Understanding SNAP: An overview of recent research. *Food Policy*, 114, 102397.

<sup>18</sup> Wolkomir, W. (2018). *How SNAP can better serve the formerly incarcerated*. Center on Budget and Policy Priorities.

<sup>19</sup> Yang, C.S. (2017b). Does public assistance reduce recidivism? *American Economic Review*, 107(5), 551–555.

*Employment and Wages.* Formerly incarcerated individuals are unemployed at a rate of 27%, nearly five times higher than the national average.<sup>20</sup> Driven by stigma and limited experience and qualifications, finding stable employment with sufficient pay after a period of incarceration can be a challenge.<sup>21</sup>

Being employed has been linked to lower recidivism rates,<sup>22</sup> and higher wages have been linked to greater reductions in recidivism.<sup>23</sup> Unemployment rates are highest within the first two years after release from prison,<sup>24</sup> highlighting the need for reentry support during the period immediately following incarceration.

Additionally, housing instability can exacerbate challenges associated with securing employment,<sup>25</sup> suggesting that stable housing may provide benefits through multiple channels. Past research has also found that individuals who are employed are less likely to receive public assistance.<sup>26</sup>

### Studies of WA's Reentry Housing Programs

Most prior studies that have evaluated post-incarceration housing support programs have been conducted in Washington. Although these evaluations have generally found positive results, there have been important limitations. Programs have differed on eligibility criteria, length of housing vouchers provided, and how recidivism was operationalized.

Researchers evaluated the impacts of ERD Vouchers shortly after implementation in 2009.<sup>27</sup> Results suggested that voucher recipients had lower rates of misdemeanor and felony charges and reincarceration, but these differences were not statistically significant. Voucher recipients, however, had higher rates of technical violations.

Another study evaluated the Reentry Housing Pilot Program.<sup>28</sup> Participants had significantly lower rates of convictions and prison readmission but no significant differences in revocations. Participants were provided with wrap-around services, which may have contributed to the reduction.

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<sup>20</sup> Couloute, L., & Kopf, D. (2018). *Out of Prison & Out of Work*. Prison Policy Initiative.

<sup>21</sup> Berg, M.T., & Huebner, B.M. (2011). Reentry and the ties that bind: An examination of social ties, employment, and recidivism. *Justice Quarterly*, 28(2), 382–410.

<sup>22</sup> Siwach, G. (2018). Unemployment shocks for individuals on the margin: Exploring recidivism effects. *Labour Economics*, 52, 231–244.

<sup>23</sup> Yang, C.S. (2017a). Local labor markets and criminal recidivism. *Journal of Public Economics*, 147, 16–29.

<sup>24</sup> Couloute & Kopf (2018).

<sup>25</sup> Fontaine, J., & Biess, J. (2012). *Housing as a platform for formerly incarcerated persons*. Urban Institute.

<sup>26</sup> Harding, D.J., Wyse, J.J.B., Dobson, C., & Morenoff, J.D. (2014). Making ends meet after prison: Special symposium on qualitative and mixed-methods for policy analysis. *Journal of Policy Analysis and Management*, 33(2), 440–470.

<sup>27</sup> Hamilton, Z., Kigerl, A., & Hays, Z. (2015). Removing release impediments and reducing correctional costs: Evaluation of Washington State's Housing Voucher Program. *Justice Quarterly*, 32(2), 255–287.

<sup>28</sup> Lutze, F.E., Rosky, J.W., & Hamilton, Z.K. (2014). Homelessness and reentry: A multisite outcome evaluation of Washington State's Reentry Housing Program for High Risk Offenders. *Criminal Justice and Behavior*, 41(4), 471–491.

Another team evaluated the Second Chance Act – Continuum of Care program and found participants had lower rates of felony, but not misdemeanor, convictions.<sup>29</sup> However, only 29% of participants received housing vouchers, making it less clear how housing contributed to this effect.

Finally, researchers evaluated the Seattle Women’s Reentry Initiative, which included activities and programming while in custody and social, financial, and housing support after release.<sup>30</sup> Despite the small sample size (N = 85), participation was associated with fewer arrests but no change in return to DOC custody.

#### Reentry Housing Programs Outside of WA

Three non-Washington studies of reentry housing support programs were identified. The first evaluated the Maryland Opportunities through Vouchers Experiments, which was unique in that it tested the impact of providing housing vouchers outside of the person’s home jurisdiction.<sup>31</sup> The program was found to be associated with lower levels of recidivism, but the sample size was very small.

The second evaluated the Alameda County Justice Restoration Project, which provided housing and other reentry support.<sup>32</sup>

The program was associated with lower levels of misdemeanor and felony arrests.

Finally, two separate evaluations of Minnesota’s High Risk Revocation Reduction Reentry Program were conducted.<sup>33</sup> The program provided intensive case management both before and after release. Transitional housing was limited to 75 days, and only one-third of participants received housing support. Participation was found to be associated with reduced reconviction but not arrests.

Considering the body of existing studies, several limitations are apparent.

- Sample size—Many studies have been conducted on a small sample of people, which may limit the ability to detect an effect, if there is one. Results may also be more difficult to generalize to other settings.
- Housing uptake—Some programs had housing support as a component of the program, but actual provision was low. This makes it difficult to identify housing provision as the main reason for any effects found.
- Length of housing support—Evaluations often do not explore how the length of housing support impacts outcomes.

<sup>29</sup> Pedneault, A., Hamilton, Z., Kigerl, A., Pimley, N., & Choi, E. (2017). *Evaluation of Washington State Department of Corrections (WADOC) Second Chance Act—continuum of care pilot program: process, outcome and cost-benefit*. Washington State University.

<sup>30</sup> Helfgott, J., & Gunnison, E. (2023). Gender-responsive services for women leaving prison: The IF Project’s Seattle Women’s Reentry Initiative. *Corrections*.

<sup>31</sup> Kirk, D.B., Geoffrey C., Hyatt, Jordan M., & Kearley, Brook W. (2017). The impact of residential change and housing stability on recidivism: pilot results from the Maryland Opportunities through Vouchers Experiment (MOVE). *Journal of Experimental Criminology*, 14(2), 213–226.

<sup>32</sup> Lam, A.C., Wendt, S.J., Grant, A., Tran, J., Lolashvili, G., Raifu Durodoye, & Thomas Hanson. (2022). *Evaluation of the Alameda County Justice Restoration Project: Final report*. WestEd.

<sup>33</sup> McNeeley, S. (2018). A long-term follow-up evaluation of the Minnesota High Risk Revocation Reduction reentry program. *Journal of Experimental Criminology*, 14(4), 439–461 and Clark, V.A. (2014). Making the most of second chances: an evaluation of Minnesota’s high-risk revocation reduction reentry program. *Journal of Experimental Criminology*, 11(2), 193–215.

- Wrap-around services—Some programs offered extensive pre- and post-release support services. This can make it difficult to disentangle the effect of housing from other programs.

The current study adds to existing research by addressing many of these issues. This evaluation uses a more consistent treatment group where all people have received some housing support and directly explores the role of voucher dosage (i.e., number of months using vouchered housing) on outcomes. It is also the first to evaluate the changes in the ERD Voucher program since voucher duration increased from three months to six months, and the first to evaluate extending eligibility for vouchers to people who reach their maximum sentence.

## Current Study

This report addresses the following research questions:

- 1) Is the provision of housing vouchers associated with recidivism as measured through arrests and the time to first arrest?
- 2) Is the provision of housing vouchers associated with employment outcomes as measured through the likelihood of finding employment, the number of hours worked, and total wages earned?
- 3) Is the provision of housing vouchers associated with homelessness?
- 4) Is the provision of housing vouchers associated with the use of public assistance?

Finally, we explored the benefits and costs associated with housing vouchers.

- 5) Do the benefits of the housing voucher program outweigh the monetary costs?

## II. Data and Methods

To address these research questions, we analyzed data on individuals released from DOC custody between July 1, 2021, and June 30, 2024.

### Data

This study used data from WSIPP’s Criminal History Database (CHD), DOC, the Department of Social and Health Services (DSHS) – Economic Services Administration (ESA), and the Employment Security Department (ESD).

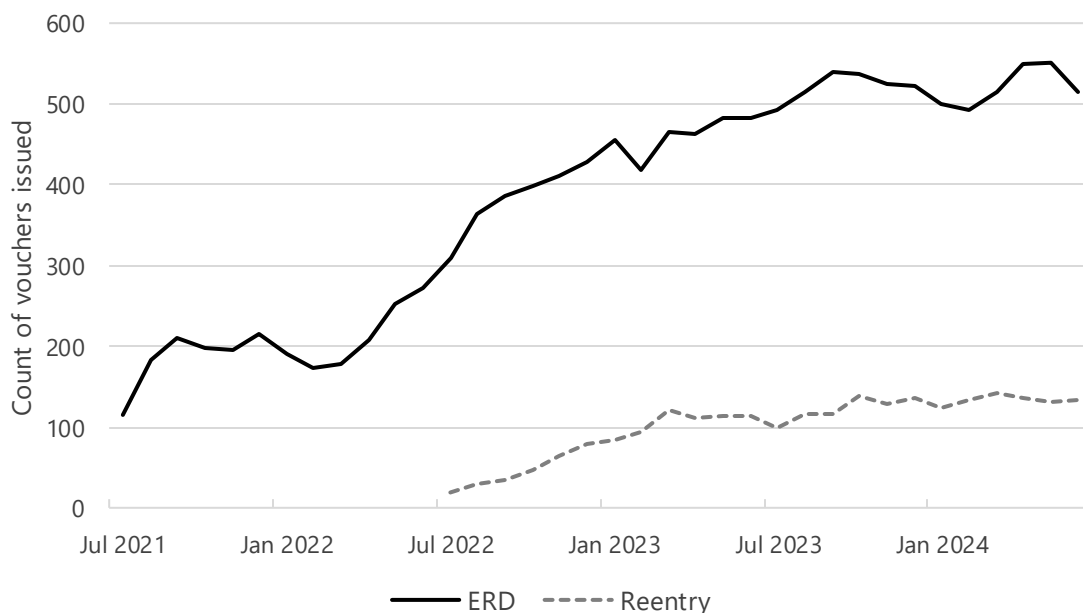
### Voucher Payments

We received data on voucher payments from DOC. Data include information on the person who qualified for the voucher, the housing provider that received the voucher, the type of voucher received (i.e., ERD or Reentry), and voucher amount. About one-third of individuals released during this time period received an eligible voucher, with a small percentage receiving another voucher type.<sup>34</sup>

The number of housing vouchers per month is described in [Exhibit 3](#). By volume, most vouchers were issued through the ERD program. Earned Release Date Vouchers provide about four times as many vouchers as Reentry Vouchers.

### Exhibit 3

Number of Vouchers Issued, by Program and Month



<sup>34</sup> We excluded people who received GRE, CPA, or resentencing vouchers. We also excluded people who received voucher payments more than 60 days after their release date. We excluded these cases because of the

inconsistency in recidivism at-risk period compared to people who are vouchered immediately upon release from custody.

The total number of vouchers provided has trended up over time.

In June 2022, the maximum duration of housing voucher support increased from three to six months. However, the actual number of housing vouchers provided is conditional upon participant interest, need, and compliance with conditions of release and rules of the housing provider. On average, people received 3.7 months of housing support. For ERD Voucher recipients, the average number of months of vouchers received increased from 2.7 to 4.2 after the policy change that increased the maximum voucher duration to six months.

### Voucher Recipients

People who receive vouchers upon leaving DOC custody are predominantly male (93%), White (62%), and about 40 years old on average ([Exhibit 4](#)). There were some differences between voucher recipients and the comparison group, a set of individuals who did not receive vouchers.

On average, voucher recipients were slightly older, more likely to be male, more likely to be White, and less likely to be Hispanic or Latino relative to the comparison group (these differences were significant at  $p < 0.01$ ). Those who received vouchers, on average, had higher WA ONE felony and violent risk scores, fewer infractions while incarcerated, and a shorter incarceration duration. They were slightly older at their first conviction and had fewer prior felony convictions on average ( $p < 0.01$  for each).

Because these factors may be associated with recidivism, we account for differences in the analyses below.

### Exhibit 4

#### Voucher Recipient and Comparison Group (Unweighted) Characteristics

Category	Sub-category	Voucher recipients N (%)	Comparison group N (%)
Voucher type <sup>^</sup>	Received ERD Vouchers	3,916 (83.7%)	--
	Received Reentry Vouchers	894 (19.1%)	--
Gender	Total	4,681 (100.0%)	8,896 (100.0%)
	Male	4,369 (93.3%)**	8,070 (90.7%)
Race and ethnicity	American Indian or Alaska Native	274 (5.9%)	574 (6.5%)
	Asian or Pacific Islander	162 (3.5%)	350 (3.9%)
	Black	683 (14.6%)*	1,412 (15.9%)
	Hispanic or Latino	648 (13.8%)**	1,538 (17.3%)
	White	2,886 (61.7%)**	4,965 (55.8%)
	Another race	10 (0.2%)	23 (0.3%)
	Unknown	18 (0.4%)	34 (0.4%)
		m (SD)	m (SD)
Number of months vouchered		3.7 (2.1)**	0 (0)
Age (years)		40.0 (11.4)**	38.4 (11.0)
WA ONE risk score	Felony	299.9 (106.3)**	287.0 (105.7)
	Violent	275.4 (115.4)**	255.1 (111.8)
	Property	318.0 (132.7)	320.7 (131.5)
	Drug	266.5 (123.3)	267.6 (123.7)
Total infraction count		4.0 (7.6)**	4.7 (10.4)
Incarceration duration (days)		992.6 (1,510.4)**	1,075.5 (1,578.5)
Age at first conviction		19.9 (9.8)**	18.7 (9.1)
Total prior felonies		5.1 (4.1)**	5.5 (4.1)
Total prior misdemeanors		8.0 (8.1)*	7.7 (7.6)

**Notes:**

People released from DOC custody between July 1, 2021, and June 30, 2024.

Voucher recipients received at least one ERD or Reentry Voucher.

Unweighted difference between vouchered and comparison group is significant at \*p < 0.05 or \*\*p < 0.01.

<sup>^</sup> The sum of ERD and Reentry Voucher recipients will not equal the total. A small number of people received voucher payments under both programs.

## Outcomes

Descriptive characteristics of study outcomes can be found in [Exhibit 5](#).

*Homelessness.* Homelessness was measured with data from the Automated Client Eligibility System (ACES), managed by ESA, which is part of DSHS. Caseworkers use ACES to record client information about living arrangements to determine public assistance eligibility. Living arrangements are assigned into categories, including homeless without housing, homeless with housing (i.e., living temporarily with a friend), and use of shelter accommodations.<sup>35</sup>

The indicator of homelessness in ACES is a persistent measure; it is only updated when someone applies for or modifies public benefits. We model homelessness as a binary indicator during the post-incarceration period (i.e., whether the person was ever recorded as experiencing homelessness).

Within Washington, other measures of homelessness exist but were not available for this analysis. Previous research found that homelessness estimates were 27% higher when captured through multiple statewide data systems,<sup>36</sup> compared to ACES alone.<sup>37</sup> Therefore, the use of ACES data in this analysis may underestimate actual levels of homelessness or fail to capture the complexities of housing instability.

## Exhibit 5

### Outcome Overview

Category	Outcome description	Mean	Range
Homelessness	Reported as experiencing homelessness in ACES	22.4%	-
Use of public assistance	Total Basic Food assistance over 12 months	\$1,701.72	\$0-19,020
	Total Aged, Blind, Disabled (ABD) assistance over 12 months	\$319.02	\$0-7,478
Employment	Employed within 12 months of release	44.9%	-
	Total earnings over 12 months	\$9,087.50	\$0-180,169
	Total hours worked over 12 months	393.6	0-2,880 hours
Recidivism	Count of arrests within 0-6 of release	0.35	0-13 arrests
	Count of arrests within 7-12 months of release	0.25	0-10 arrests
	Time to first arrest	90.7 days	0-1,356 days

#### Notes:

Outcome measures are calculated after release from the current period of incarceration (e.g., sum of earnings after release from incarceration).

To be considered employed, the person had to have had at least 32 hours of employment in a year.

<sup>35</sup> Shah, M.F., Black, C., & Felver, B. (2012). *Identifying homeless and unstably housed DSHS clients in multiple service systems*. Washington State Department of Commerce.

<sup>36</sup> These multiple systems could include the Homeless Management Information System or the chemical dependency assessment records.

<sup>37</sup> Shah et al. (2012).

*Public Assistance.* We explored differences in the receipt of public assistance between voucher recipients and non-recipients after release from incarceration. When modeling recidivism outcomes, we also controlled for receipt of public assistance in the years prior to their incarceration. Public assistance data from January 1, 2001, to July 31, 2024, were obtained.<sup>38</sup>

We received data on the monthly dollar amount provided through each program to each participant. Data on the following public assistance programs were included in the analysis:

- *Basic Food.* This included funds from the Supplemental Nutrition Assistance Program (SNAP) and the Food Assistance Program (FAP), which provides low-income households with monthly benefits to buy food.<sup>39</sup>
- *Aged, Blind, or Disabled (ABD) Cash Program,* which provides cash assistance to low-income people who are over the age of 65, blind, or determined to be likely to meet Supplemental Security Income Disability criteria.<sup>40</sup>

*Wages and Employment.* For each person released from DOC custody, we received data on the total amount of wages and hours worked, aggregated by quarter. To construct outcome measures, we aggregated the number of hours worked and wages earned in the 12-month period immediately following release from custody. As such, this analysis was restricted to people who had been released for at least 12 months.<sup>41</sup>

Although official data are the most comprehensive measure of employment available, they do not capture wages earned through the informal or grey market economy. Depending on the employment sector, this under-reporting may be considerable.<sup>42</sup>

*Recidivism.* Using arrest data collected by the Washington State Patrol (WSP), recidivism was operationalized as arrest for a new offense after release from incarceration. We looked at both the time between release and rearrest and the number of times someone was arrested at 0-6 and 7-12 months. These non-overlapping periods were constructed to explore the impact of housing vouchers over different periods of time.

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<sup>38</sup> We also received data for Housing and Essential Needs, General Assistance, Disability Lifeline, and Temporary Assistance for Needy Families (TANF) assistance programs. Use of these programs was found to be too infrequent to include in the analysis.

<sup>39</sup> See DSHS [Basic Food](#).

<sup>40</sup> See DSHS [Aged, Blind or Disabled Cash Program](#).

<sup>41</sup> A small number of people had implausible values most likely associated with reporting errors by employers. We removed observations when there were less than eight hours, or more than 720 hours, in a three-month period. Observations were also removed if a person was reported as earning more than \$49,999 in a quarter.

<sup>42</sup> For example, Briar & Krnacik (2023) estimated that over 14% of construction workers are not reported.

WSIPP and other researchers often use convictions,<sup>43</sup> rather than arrests, to measure recidivism. However, measuring convictions requires a multi-year follow-up period to allow time for processing through the criminal legal system. For this analysis, the follow-up period was limited because voucher program changes were implemented shortly before the analysis period. Because of the need for short-term measures of recidivism, we use arrest for a new offense as our main indicator. Not all arrests lead to convictions, so recidivism rates based on arrests will be higher than rates based on convictions or incarceration.<sup>44</sup>

This definition of recidivism also differs from DOC's definition of recidivism, which is "a non-violator readmission to a Washington State facility within 36 months following release from incarceration."<sup>45</sup>

### Other Characteristics

Criminal history is a strong predictor of future involvement in the criminal legal system. We operationalize criminal history as a person's past criminal convictions. These data were obtained from WSIPP's Criminal History Database (CHD).

Because voucher provision can be conditional upon conduct while incarcerated,<sup>46</sup> we controlled for the total number of infractions a person received during their current period of incarceration.

Department of Corrections provided risk scores derived from the WA ONE, a structured risk assessment tool that DOC uses to assess risk of recidivism and potential treatment needs.<sup>47</sup> For this analysis, we controlled for a person's risk score for being reincarcerated for a 1) felony, 2) violent, 3) property, and 4) drug offense.

We also utilized several individual items that were captured as part of the WA ONE assessment. These included:

- If the person reported being homeless or transient immediately before incarceration;
- If the person reported a lack of neighborhood/social support immediately before incarceration;
- Less than a high school education;
- Employment and income before incarceration; and
- Number of children.

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<sup>43</sup> Drake, E.K., Fumia, D., & He, L. (2014). *Washington's residential Drug Offender Sentencing Alternative: Recidivism & cost analysis* (Doc. No. 14-12-1901). Olympia: Washington State Institute for Public Policy; Knoth-Peterson, L., Kelley, K., & Mack, C. (2022). *Washington State's Drug Offender Sentencing Alternative: 2022 outcome evaluation* (Doc. No. 22-11-1903). Olympia: Washington State Institute for Public Policy; and Whichard, C., Grob, H., Wanner, P., & Adams, N. (2024). *An assessment of Washington State's Reentry Community Services Program: Outcome Evaluation, potential for expansion, and effective components* (Doc. No. 24-06-1901). Olympia: Washington State Institute for Public Policy.

<sup>44</sup> DOC defines recidivism as a readmission to DOC custody within three years. Readmission can be associated with a

violation of the conditions of release or may be associated with a new offense. Because our observation window for most people is shorter than three years, we do not use return to institution as our primary indicator of recidivism but provide a preliminary assessment of this outcome in Appendix III.

<sup>45</sup> WA DOC. (2024). *Agency Fact Card - Expanded*.

<sup>46</sup> In making the decision to authorize waivers, DOC considers how long ago the infraction occurred and the nature of the infraction. People can also petition for a waiver from this requirement.

<sup>47</sup> Bagdon-Cox, C., & Adams, G. (2023). *Overview of the Washington ONE Risk Assessment Tool*. Washington State Department of Corrections, Research & Data Analytics.

These variables were included in models to control for living situation and family support, which may impact reentry outcomes.

Finally, we included information on the county of release and the type of supervision upon release. We included supervision type because it can impact the amount of DOC oversight and other resources provided to people upon release.<sup>48</sup>

### [Analytical Approach](#)

To measure the impact of housing vouchers in general, we compare differences in outcomes for people who received a voucher relative to the remainder of people who did not (i.e., the comparison group). We used entropy balancing to improve comparability between vouchered and non-vouchered participants. Entropy balancing variables included demographics (i.e., age, gender, race, and ethnicity), incarceration characteristics, criminal history, and pre-incarceration income.<sup>49</sup>

In addition, all models controlled for time since release; age; gender; race and ethnicity; length of incarceration; number of infractions while incarcerated; age of first conviction; total number of prior misdemeanor and felony convictions; felony, violent crime, property crime, and drug crime risk scores assessed by the WA ONE; receipt of public benefits prior to incarceration; county of release; and indicators of pre-incarceration living and family conditions.

---

<sup>48</sup> When information on county of release or type of supervision were missing, they were assigned a unique category so that the cases would not be dropped in the analysis. We excluded cases where the county of release

We examine the relationship between voucher receipt and relevant outcomes using analytical approaches tailored to the way each outcome is measured. Further information on these methods is available in [Appendix I](#).

Despite these efforts, this analysis cannot demonstrate causality. Because the study was not experimental in design, we cannot conclusively demonstrate that housing vouchers cause study outcomes. Results should be read with this limitation in mind.

### [Extension of ERD Vouchers from Three to Six Months](#)

In June 2022, the maximum duration for ERD Vouchers was extended from three to six months. To evaluate this change, we first separated people who were released before versus after the policy change. People were further separated into those who received vouchers and those who did not. We present comparisons of people with and without vouchers before and after the policy change.

indicated that the person was released into the custody of federal law enforcement.

<sup>49</sup> See [Appendix I, Exhibit A2](#) for additional details on model specification.

### III. Results

In this section, we describe the relationship between receipt of vouchers and recidivism, employment, homelessness, and receipt of public assistance. An overview of results is provided in [Exhibit 6](#).

#### [Homelessness](#)

Receipt of housing vouchers was associated with lower odds of being homeless after release. Each additional voucher was associated with a 5.5% reduction in the odds of being indicated as homeless (statistically significant at  $p < 0.01$ ). This relationship was persistent across a variety of model specifications.

To better describe the impact of vouchers for the average recipient, we estimated the predicted probabilities of homelessness for people who were vouchered (using the average number of vouchers received) and never vouchered ([Exhibit 7](#)).<sup>50</sup> People who received the average number of vouchers had a lower probability of being homeless following release (21.2%) compared to people who were never vouchered (24.1%) ( $p < 0.01$ ).

#### [Receipt of Public Assistance](#)

Receipt of housing vouchers was associated with receipt of higher amounts of Basic Food and ABD support in the 12 months following release. Each additional voucher was associated with an 8.6% higher value in Basic Food support and a 14.0% higher value of ABD support ( $p < 0.01$  for each).

<sup>50</sup> Predicted values for the impact of vouchers were estimated while setting all other model covariates at their mean. Average number of vouchered housing months is 3.7

### Exhibit 6

#### Results Summary

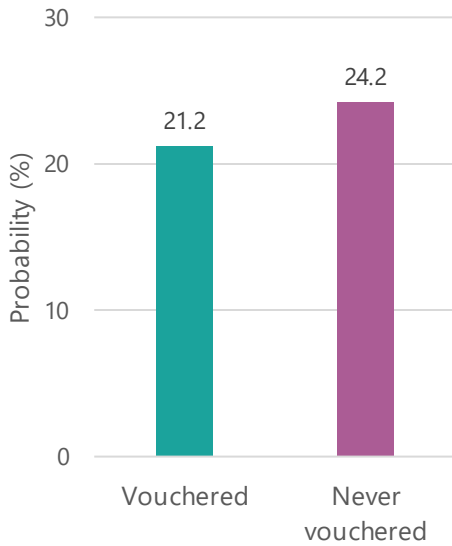
Outcome category	Being vouchered was associated with...
Homelessness	Reduced odds of experiencing homelessness
Use of public assistance	Receipt of higher value of Basic Food assistance
	Receipt of higher value of ABD benefits
Employment	Higher odds of achieving employment
	Greater number of hours worked
	Higher total wages earned
Recidivism	Lower counts of arrests between 0-6, 0-12, and 7-12 months
	Increased time to first arrest

The predicted amount of Basic Food and ABD support for people who received the average number of vouchers was about 36% and 64% higher, respectively, compared to people who never received vouchers ( $p < 0.01$  for each; [Exhibit 8](#)).

with the whole sample and 3.6 for models restricted to those with at least 12 months of release data.

### Exhibit 7

Predicted Probability of Being Homeless

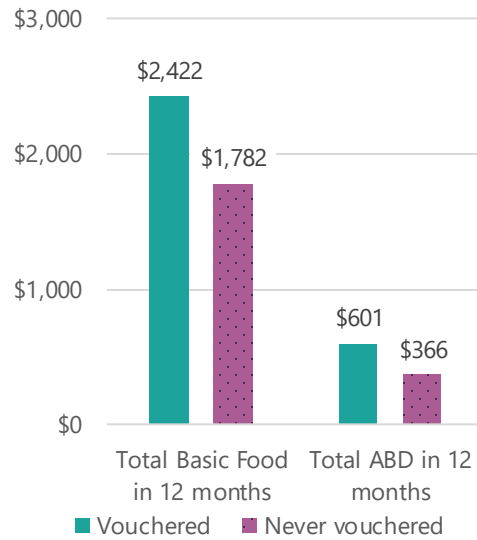


Notes:

Predicted probability of homelessness at any point after release from custody. Estimates for the vouchered group are based on receiving 3.7 months of vouchered housing. The difference between vouchered and non-vouchered groups was significant ( $p < 0.01$ ).

### Exhibit 8

Predicted Value of Public Assistance Within 12 Months



Notes:

Predicted value of Basic Food and ABD support in the 12 months following release from custody. Estimates for the vouchered group are based on receiving 3.6 months of vouchered housing (the average for those with at least 12 months since release). The difference between vouchered and non-vouchered groups was significant ( $p < 0.01$  for both outcomes).

## Employment, Hours Worked, and Earnings

Being vouchered was associated with several positive employment outcomes.

### Any Employment

Receiving vouchers was associated with increased employment in the 12 months following release. Each additional voucher was associated with a 20.1% ( $p < 0.01$ ) increase in the odds of having some employment within 12 months. The predicted probability of achieving employment within 12 months was about 50% for people who received the average number of vouchers, compared to 36% for those who did not receive vouchers ( $p < 0.01$ ) (Exhibit 9, Panel A).

### Total Number of Hours Worked

Vouchers were associated with a higher number of total hours worked. Each voucher was associated with a 12.7% higher expected total number of hours of employment in the 12 months following release ( $p < 0.01$ ). The predicted total number of hours worked when someone received the average number of vouchers was about 53% higher than that of non-recipients ( $p < 0.01$ ) (Exhibit 9, Panel B).

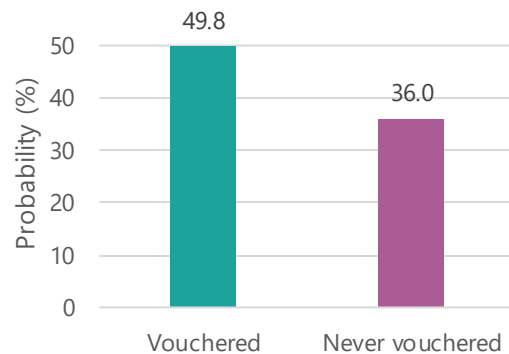
### Total Earnings

Vouchers were associated with higher total earnings during the first 12 months following release. Each additional voucher was associated with a 10% higher expected total dollars earned ( $p < 0.01$ ). The predicted total earnings in 12 months were higher for people who received the average number of vouchers (\$12,611) compared to people who never received vouchers (\$8,960;  $p < 0.01$ ) (Exhibit 9, Panel C).

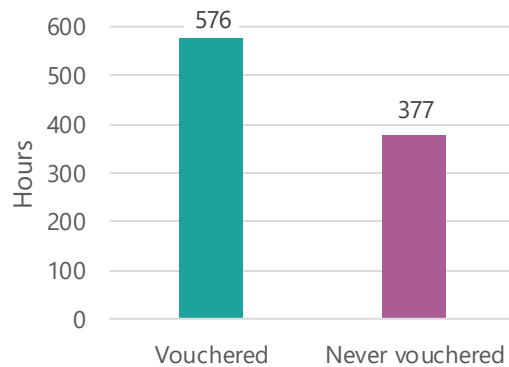
## **Exhibit 9**

### Employment Measures Within 12 Months of Release

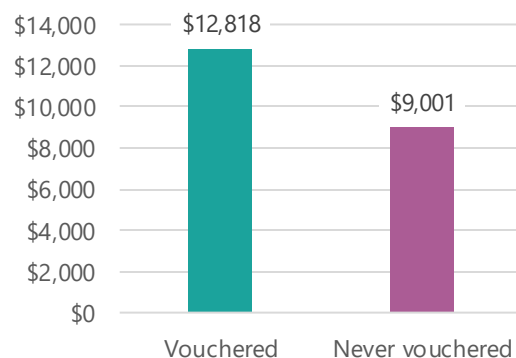
Panel A. Probability of Employment



Panel B. Hours Worked



Panel C. Wages



Notes:

Predicted probability of employment, predicted number of hours worked, and predicted total wages in the 12 months following release from custody.

Estimates for the vouchered group based on receiving 3.6 months of vouchered housing.

The difference between vouchered and non-vouchered groups was significant for all outcomes ( $p < 0.01$  for each).

## Recidivism

### Total Number of Arrests

Vouchers were associated with a lower expected number of arrests in the year following release. Each additional voucher was associated with an 8.5% lower expected count of arrests in the six months immediately following release ( $p < 0.01$ ) and a 2.8% lower expected count of arrests during the 7-12 month follow-up period ( $p < 0.05$ ).<sup>51</sup>

Within six months of release ([Exhibit 10](#)), the predicted number of arrests was about 28% lower for vouchered individuals who received the mean number of vouchers ( $p < 0.01$ ). Looking at 7-12 months after release, the vouchered group had about a 10% lower predicted number of arrests compared to no vouchers ( $p < 0.05$ ).

### Time to First Arrest

Next, we investigated how the receipt of vouchers was associated with time to first arrest after release.<sup>52</sup> For this analysis, a longer period of time (i.e., a higher value) would be interpreted as a beneficial result.

We begin by looking at overall group differences between people who received vouchers and the comparison group. Voucher recipients were estimated to be arrested more quickly (46 months) compared to people who had never received a voucher (54 months).

Next, we explored the impact of active periods of receiving vouchers. During non-vouchered periods, the predicted time to arrest was 51 months. This time increased to 62 months during periods of being vouchered, a 22% increase. While people were vouchered, they had a longer delay until they were arrested. This suggests that the overall differences between the vouchered and non-vouchered group are being driven by differences in the post-vouchered period.

To better illustrate the relationship between vouchers and risk of recidivism over time, we calculated the odds of being arrested by month for people who had ever been vouchered and people who had never been vouchered ([Exhibit 11](#)). The odds of arrest for people who were never vouchered were generally lower than for those who had received vouchers. However, there was a considerable protective effect for the periods when people were actively vouchered (covering months 1 through 6). The predicted probabilities of arrests between the two groups cross immediately after the voucher period ends, suggesting that the vouchers may be delaying recidivism. Unfortunately, data limitations prevent fully interpreting why we observe this pattern.

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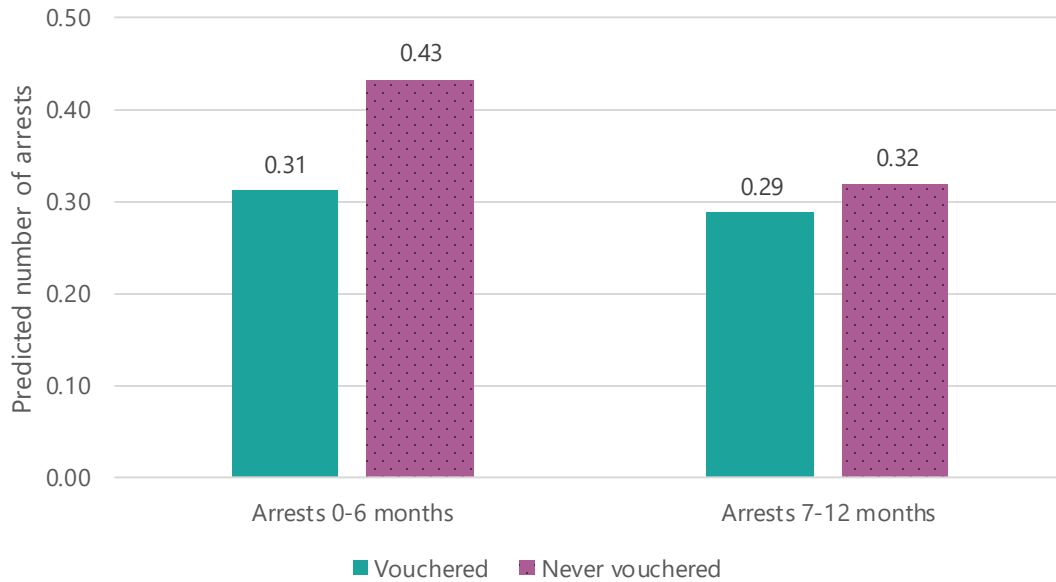
<sup>51</sup> Analysis was restricted to people who had at least 12 months of follow-up time after release.

<sup>52</sup> Results described here were developed from a single model that included an indicator for month of being vouchered and if the person ever received a voucher. Not all people are re-

arrested within the limited observation period available. If a person completes the observation period without being rearrested, they are referred to as censored. We use statistical methods that can accommodate both variable post-incarceration observation periods and censoring.

### Exhibit 10

#### Predicted Number of Arrests



Notes:

Predicted probability of being reincarcerated after release from custody.

Estimates for the vouchered group based on receiving 3.6 months of vouchered housing.

The differences between the vouchered and non-vouchered groups were significant for arrests 0-6 months ( $p < 0.01$ ) and 7-12 months

( $p < 0.05$ ).

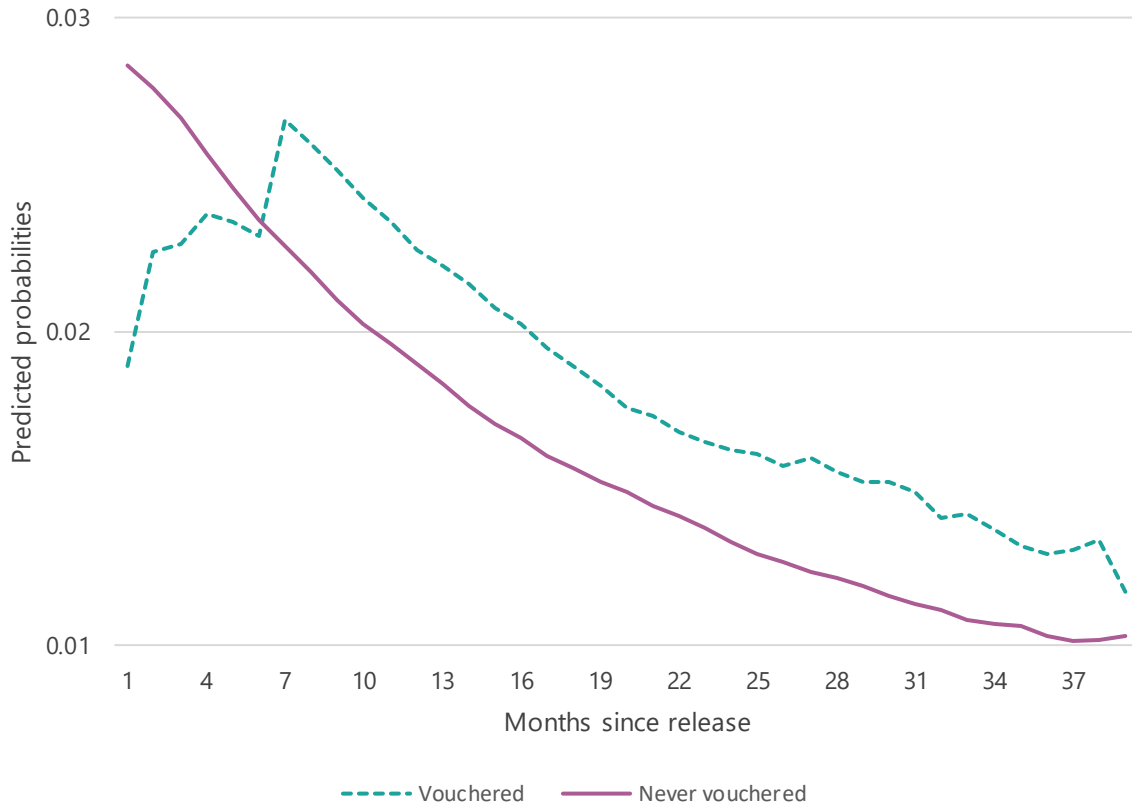
#### Recidivism Summary

Taken together, these results support several key findings. First, vouchers appear to be associated with reduced recidivism. Vouchers were associated with a lower number of arrests relative to the comparison group for at least 12 months following release.

Second, the relationship between vouchers and recidivism was strongest while people were actively receiving vouchers. The number of arrests was lowest in the 0-6 months following release, when individuals were likely to be on vouchers. The estimated time to arrest also indicated that when someone was actively receiving voucher support, there was a longer delay until arrest.

### Exhibit 11

Predicted Probability of Arrest, by Month Since Release from Custody



Notes:  
People released from DOC custody between July 1, 2021, and June 30, 2024.  
Predicted probabilities from multilevel mixed-effects logistic regression models. More details of the model specification can be found in [Appendix I](#).

## Impact of the ERD Extension

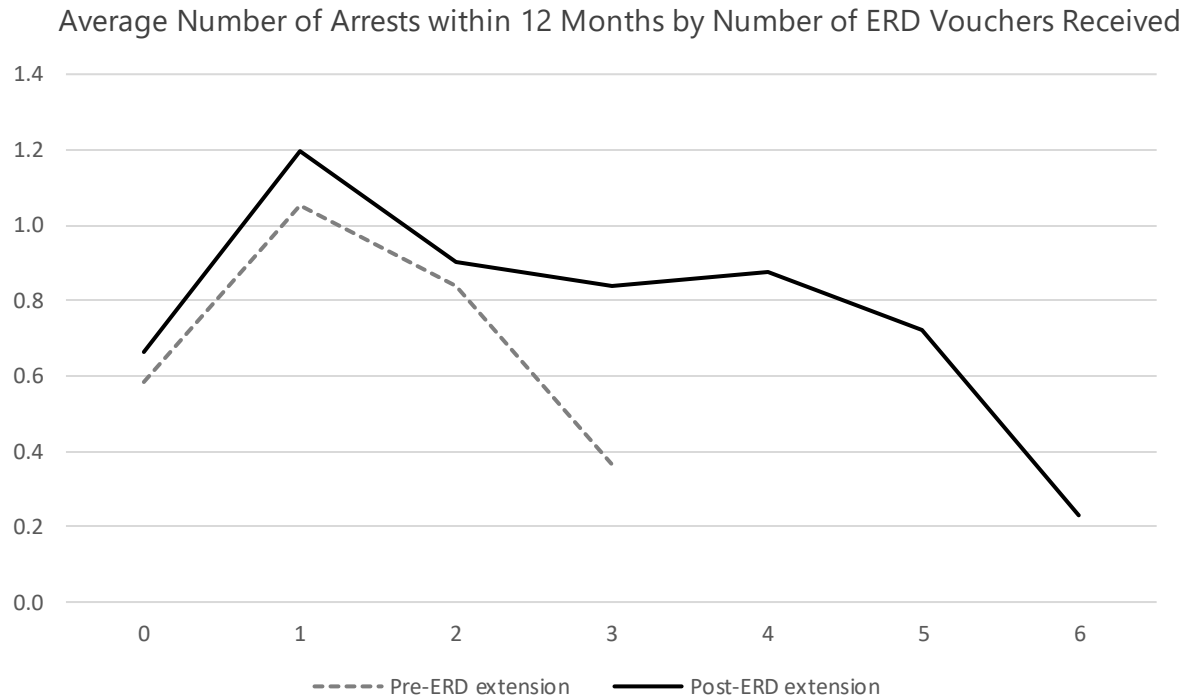
In June 2022, legislation extended the maximum duration of ERD Vouchers from three to six months.<sup>53</sup> To explore the impact of this change on recidivism, we conducted a series of analyses. First, we constructed two analysis groups: people who were released before the policy change and people who were released after the policy change.<sup>54</sup>

Next, we grouped people according to the number of vouchers received. For each of these groups, we calculated the mean number of arrests in the 12 months following release from custody (Exhibit 12). These counts do not control for group differences, but demonstrate several underlying patterns.

First, people released after June 2022 had, on average, higher levels of recidivism compared to people released before that date. This was true for both the vouchered and non-vouchered groups.

Second, longer periods of receiving vouchers were associated with lower levels of recidivism. Those who received the maximum number of vouchers available had the lowest number of arrests. This was true for people released both before the policy change and after the policy change. This should be interpreted with caution, however, as it may reflect underlying differences between those who are able to maintain voucher eligibility for longer.

**Exhibit 12**



<sup>53</sup> 2SHB 1818.

<sup>54</sup> We excluded people that were currently being vouchered when the extension took effect.

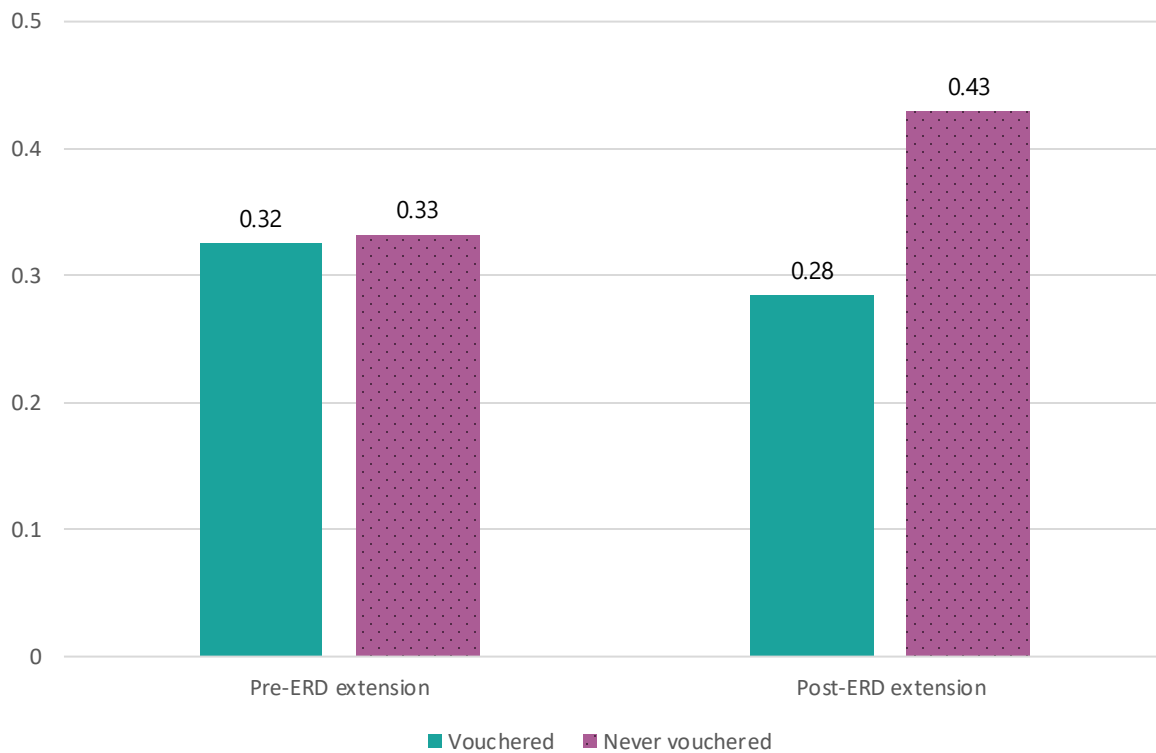
Finally, longer voucher duration was associated with greater reductions in recidivism. People who received the maximum three months of voucher support during the pre-policy change period had a higher average number of arrests compared to people who received six months of vouchers after the policy changed.

To control for potential underlying differences between the vouchered and comparison group, we analyzed the count of arrests within six months of release before and after the policy change (Exhibit 13).

Overall, people released before the ERD extension had a similar predicted number of arrests, whether they were vouchered or not. After the ERD extension, vouchers were associated with a lower predicted number of arrests. Each additional voucher was associated with a 9.3% lower expected count of arrests within six months of release ( $p < 0.01$ ). Estimating the impact of the average number of vouchers received, the predicted number of arrests was 33% lower for the vouchered group during the post-ERD extension cohort ( $p < 0.01$ ).

### Exhibit 13

Predicted Number of Arrests in Six Months, by Vouchered Status Before and After ERD Policy Extension



**Notes:**

Predicted number of arrests for vouchered and unvouchered people in six months following release, before and after the ERD policy extension.

Estimates for the vouchered group are based on receiving average months of vouchered housing (2.7 months before extension, 4.2 months after extension).

Pre-ERD extension, the difference between the vouchered and non-vouchered group was not significant. Post-ERD extension, the difference was significant at  $p < 0.01$ .

We again calculated the odds of being rearrested by month for people who had ever been vouchered and people who had never been vouchered. This time, we separated the analysis for people who were released before ([Exhibit 14](#), Panel A) and after ([Exhibit 14](#), Panel B) the policy extended voucher availability from three to six months.

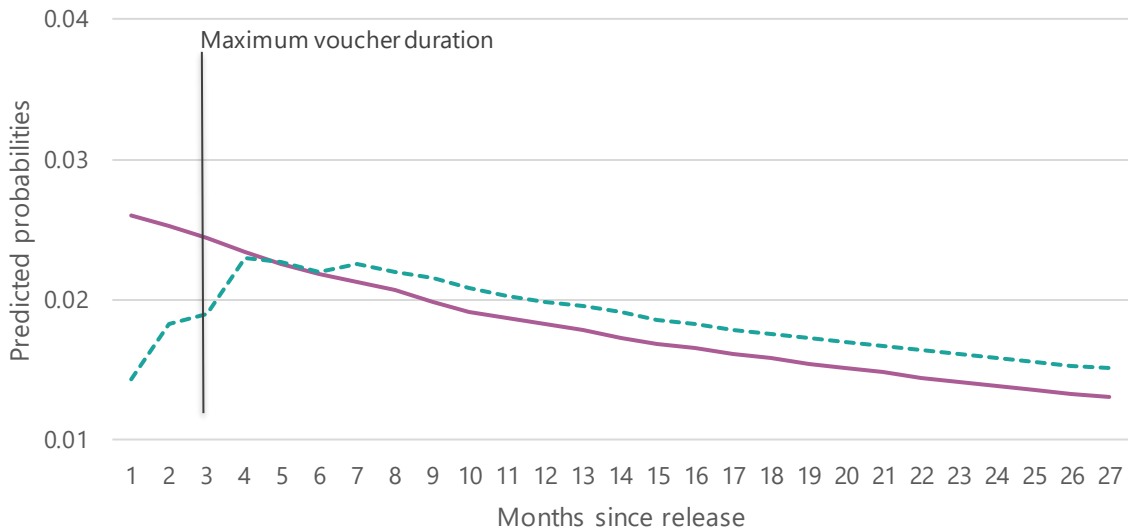
Similar to the results presented above, we found that people receiving vouchers were generally more likely to recidivate in any month than people who never received vouchers. However, during periods of active vouchering, the odds of being arrested were lower.

In comparing people released before and after the policy change, we note that the longer period of vouchered housing availability was associated with longer periods of reduced risk of recidivism. Although these analyses do not demonstrate causality, they provide additional evidence that longer voucher periods were associated with longer reductions in risk of recidivism.

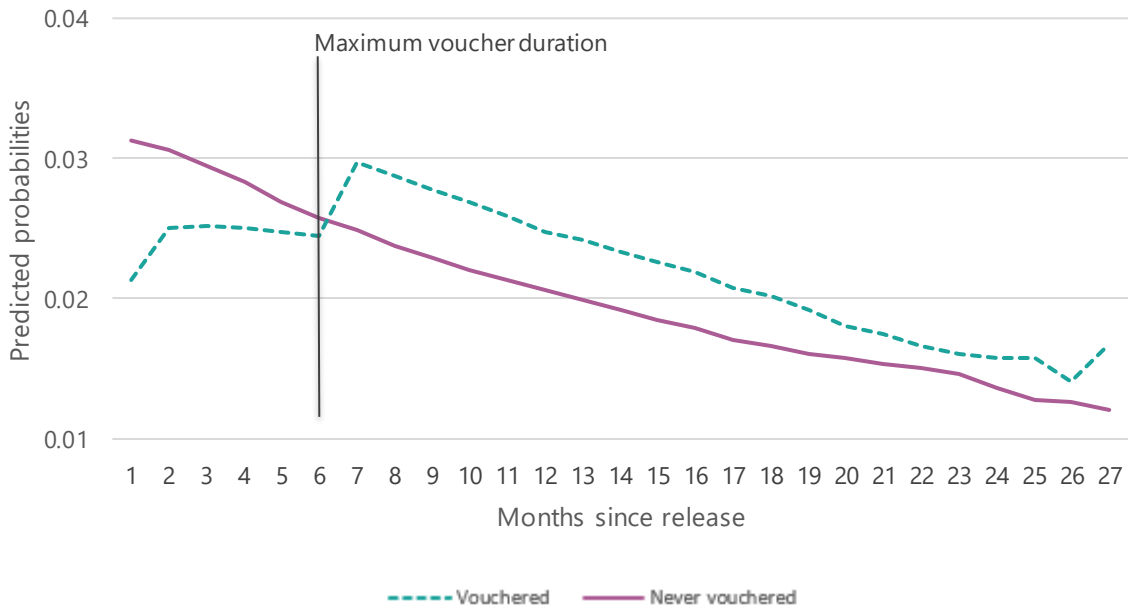
### Exhibit 14

#### Predicted Probability of Arrest Pre- and Post-ERD Policy Change

Panel A. Predicted Probability When the Maximum Voucher Period Was Three Months



Panel B. Predicted Probability When the Maximum Voucher Period Was Six Months



**Notes:**

Panel A reports on predicted probabilities for people who were released between January 2021 and June 2022, when the maximum duration of ERD Vouchers was three months.  
 Panel B reports on people who were released in or after July 2022, when the maximum ERD Voucher period was six months.  
 Model specification can be found in [Appendix I](#).  
 Group differences between vouchered and non-vouchered, and the difference between vouchered and non-vouchered months were both significant at < 0.01.

## Meta and Benefit-Cost Analyses

### Approach

We conducted a systematic review to identify existing literature on the relationship between post-incarceration housing assistance and reentry outcomes. Searches were conducted via ESBCOhost, PsycInfo, Google Scholar, the Cochrane Library, CrimeSolutions.gov, and the National Reentry Resource Center.

Articles from the search were deduplicated and loaded into Covidence,<sup>55</sup> a systematic review management platform, to screen for eligibility. In total, 1,097 articles were screened. For in-scope articles, we extracted information on the demographics of study participants, study design, intervention components, and reported outcomes. Each article was double-coded, and disagreements were flagged and discussed to reach consensus. We also completed a quality assessment for each in-scope study.

WSIPP's meta-analysis and benefit-cost approach have been extensively documented elsewhere.<sup>56</sup> Additional details on the review process are available in [Appendix II](#).

## Systematic Review and Meta-Analysis Results

From the studies that were in scope and included in our meta-analysis, we were able to estimate effect sizes for recidivism (including arrests, convictions, and incarceration), technical violations, homelessness, receipt of ABD assistance, and receipt of Basic Food. We evaluated the monetary impact of changes in recidivism, receipt of ABD, and receipt of Basic Food; other outcomes have not been monetized in our model. Other measures of the impact of post-incarceration housing vouchers, such as employment and health outcomes, have not been sufficiently studied, so we were unable to include them in the benefit-cost analysis.

A systematic review conducted in August 2024 identified seven studies that met inclusion and quality criteria ([Appendix II](#)). We included the current study for a total of eight studies. Each study evaluated a post-incarceration housing voucher or assistance program. Five of the eight studies were conducted within Washington state ([Exhibit 15](#)).<sup>57</sup>

Three studies reported on evaluations using randomized controlled trials (RCTs), while the other five were quasi-experimental, relying on comparison groups that were not assigned randomly. These studies employed a variety of statistical techniques to improve equivalence between treatment and comparison groups.

These programs had different eligibility criteria and program resources. The program studied by Lutze et al. offered up to 12 months of housing support, while the program studied by Hamilton et al. offered up to three months.

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<sup>55</sup> [Covidence](#).

<sup>56</sup> Washington State Institute for Public Policy. (2024b). [Benefit-Cost Technical Documentation](#) (p. 218). Washington State Institute for Public Policy.

<sup>57</sup> Both Lutze et al. (2014) and Hamilton et al. (2015) studied housing support programs in Washington from 2008-2009.

## Exhibit 15

### Studies Included in Meta-Analysis

Author	Site	Years of evaluation
Hamilton et al.	Washington	2008-2009
Helfgott et al.	Washington	2017-2018
Kirk	Maryland	2016
Lam et al.	California	2018-2019
Lutze et al.	Washington	2008-2009
McNeeley	Minnesota	2011-2015
Pedneault et al.	Washington	2015-2017
Taniguchi & Hardenbergh	Washington	2021-2024

Recidivism was measured in all eight studies and was operationalized through arrests, convictions, and incarceration. When a study reported multiple measures of recidivism, we used the outcome representing the furthest involvement in the criminal legal system (e.g., convictions over arrests). We collected outcomes measuring technical violations, but they were not included in the recidivism measure. In addition to the current study, one other study evaluated the impact of housing assistance on homelessness.

We calculated effect sizes (ES) for the current study, both alone and in combination with the outcomes identified by the systematic review (Exhibit 16). Effect size quantifies the strength of the relationship between variables. It helps describe the practical importance of the relationship. Across all studies, post-incarceration housing assistance was associated with a modest but significant reduction in recidivism (ES = -0.11,  $p = 0.05$ ).<sup>58</sup>

<sup>58</sup> Reported effect sizes include research located during the systematic review and the findings of the current study.

<sup>59</sup> The analysis used for calculating the effect size of public assistance programs was adapted to match the input needs of the benefit-cost model. Rather than predicting the amount of benefits received, we predicted the likelihood that

someone would be enrolled in Basic Food or ABD programs. We set a lower limit of \$100 of benefits received to have been considered enrolled in either program.

There was no significant relationship with technical violations (ES = -0.01,  $p = 0.99$ ). Experience with post-incarceration homelessness was not measured in most studies. In the two studies where it was included, housing assistance was associated with a non-significant reduction in homelessness (ES = -0.13,  $p = 0.17$ ).

Basic Food and ABD programs were only included in the current study, where we found housing assistance to be associated with an increase in receipt of benefits provided by these programs (Basic Food ES = 0.42,  $p < 0.01$ ; ABD ES = 0.14,  $p < 0.01$ ).<sup>59</sup>

### Benefit-Cost Results

We used WSIPP's benefit-cost model to estimate the long-run return on state investments in social programs. This economic model provides a standardized and internally consistent method for applying monetary values to outcomes across policy areas.<sup>60</sup>

We begin by discussing the program's benefits and costs separately. Then, we combine the benefits and costs to calculate the program's overall net benefit. We use the results as inputs for the benefit-cost model to estimate the overall monetary value of the voucher program per participant. Our model uses information about outcomes typically experienced by individuals involved in the criminal legal system to represent what would have happened to these individuals in the absence of the voucher program.

<sup>60</sup> For more information on the benefit-cost model, see

[WSIPP's Technical Documentation](#).

Benefits were categorized into four perspectives based on who receives them:

- 1) The benefits that accrue to people who receive vouchers;
- 2) The benefits received by federal, state, and local taxpayers;
- 3) The direct benefits received by other members of society; and
- 4) The indirect benefits received by society.<sup>61</sup>

Benefits for taxpayers include reductions in government spending on the criminal legal system. For this category, we disaggregated benefits at the federal, state, and local levels. Other members of society may benefit from an intervention through the decreased likelihood of criminal victimization. Indirect benefits are driven by effects like changes in projected mortality or the deadweight costs of taxation.<sup>62</sup>

### Exhibit 16

#### Meta-Analytic Results: Effects of Exposure to Post-Incarceration Housing Assistance

Outcome	No. of effect sizes	Treatment N	Effect size	Standard error	p
Current study <sup>a</sup>					
Arrests	1	3,277	-0.11	0.02	<0.01
Employment	1	3,276	0.28	0.02	<0.01
Receipt of Basic Food	1	3,277	0.42	0.02	<0.01
Receipt of ABD	1	3,254	0.14	0.02	<0.01
Homelessness <sup>b</sup>	1	4,584	-0.07	0.02	<0.01
All in-scope studies <sup>c</sup>					
Recidivism composite <sup>d</sup>	8	6,102	-0.11	0.06	0.05
Arrests	2	3,285	-0.11	0.04	<0.01
Convictions	5	1,234	-0.09	0.13	0.50
Incarceration	1	1,583	-0.11	0.06	0.07
Technical violations	4	2,359	-0.01	0.08	0.99
Employment	1	3,276	0.28	0.02	<0.01
Receipt of Basic Food	1	3,277	0.42	0.02	<0.01
Receipt of ABD	1	3,254	0.14	0.02	<0.01
Homelessness	2	4,792	-0.13	0.10	0.17

**Notes:**

- a. The effect size of the current study was calculated based on the average number of vouchers received.
- b. We restricted our sample to those who had been released for at least 12 months for all outcomes except homelessness.
- c. Includes all in-scope studies identified from the systematic review and findings from the current study of Washington’s housing voucher program.
- d. When studies included multiple outcomes, preference was given to the outcome furthest along in criminal legal system processing (e.g., retaining a measure of convictions instead of arrests). The “recidivism composite” aggregates the impacts of arrests, convictions, and incarceration.

<sup>61</sup> For individuals involved in the criminal legal system, we do not directly monetize the benefits of reduced crime accruing to diverted people.

<sup>62</sup> Deadweight costs estimate the economic losses (or gains) that result when taxes cause people to change their behavior. This acts as a counterbalance to net benefits.

**Benefits Results.** Exhibit 17 provides an accounting of outcomes according to the main perspectives. A positive total benefit comes from the reduction in crime, driven by the lower levels of arrests, charges, and incarceration captured in the meta-analysis.<sup>63</sup> Less crime means less money spent on arrests, prosecution, and incarceration. This is reflected in the estimated benefits to taxpayers of \$3,140 when looking across the results of all studies.<sup>64</sup>

In addition, fewer crimes mean less victimization. This is reflected in the estimated benefits to society at large of \$5,981 per person vouchered when looking across all studies.

Overall, the expected value of this reduction in recidivism to society was \$10,690 per person vouchered when considering evidence from all studies.

Basic Food and ABD are transfer programs, and while benefits accrue to voucher recipients from increased enrollment, they represent costs to taxpayers. Voucher recipients receive an estimated \$3,610 in food assistance and \$1,061 in ABD payments. We also account for the administrative costs of operating these programs.

To arrive at an estimated total benefit to society, we first adjust for the net deadweight losses to society of taxation. After making that adjustment, the benefits of housing vouchers were \$5,083 across all studies. We were not able to capture monetary benefits associated with reductions in homelessness or increases in employment with the current benefit-cost model.

### Exhibit 17

#### Detailed Monetary Benefits Results per Participant

Outcome	Voucher recipients	Taxpayer	Federal	State	Local	Other	Indirect	Total
Recidivism	\$0	\$3,140	\$0	\$2,184	\$956	\$5,981	\$1,570	\$10,690
Basic Food	\$3,610	(\$4,133)	(\$3,862)	(\$271)	\$0	\$0	(\$2,067)	(\$2,590)
ABD	\$1,061	(\$1,212)	(\$242)	(\$969)	\$0	\$0	(\$606)	(\$756)
Adj. for deadweight cost							(\$2,262)	(\$2,262)
<b>Total</b>	<b>\$4,671</b>	<b>(\$2,205)</b>	<b>(\$4,104)</b>	<b>\$943</b>	<b>\$956</b>	<b>\$5,981</b>	<b>(\$3,364)</b>	<b>\$5,083</b>

**Notes:**

Includes all in-scope studies identified from the systematic review and findings from the current study of Washington’s housing voucher program.

Employment and homelessness outcomes are not monetized.

<sup>63</sup> Recidivism was estimated based on historical trends of criminal-legal involved populations. This estimates recidivism

rates for people that had previously been incarcerated or sentenced to a term of community supervision.

<sup>64</sup> All costs are reflected in 2023 dollars.

**Costs.** We calculate the annual per-client costs of the housing voucher programs as \$4,523 in 2023 dollars, which is the base year used in the model. We estimated costs based on the total spent on housing vouchers in fiscal year 2024 (July 2023-June 2024) and the program overhead associated with staff needed to manage the program. These cost estimates were based on Washington data. Most other studies found through the systematic review did not provide detailed cost estimates.

**Combined Benefit-Cost Results.** Finally, we combined costs and benefits to estimate the total predicted monetary value from housing voucher programs.

We calculated a total benefit of \$5,083 and a total cost of \$4,523 on average per vouchered person, producing a total net benefit of \$560 per participant. In other words, for the outcomes incorporated, the benefits of providing housing vouchers were larger than the expected monetary cost to society. On average, we estimate that a dollar spent on the housing voucher program returns \$1.12 in benefits.

**Exhibit 18** summarizes the benefit-cost results and includes information on how likely it is that the program's benefits would exceed its costs. We conducted a Monte Carlo simulation, running the model 10,000 times, each time allowing model assumptions to vary. These simulations indicated that 54% of the scenarios resulted in housing voucher programs providing net benefits to society.<sup>65</sup>

**Exhibit 18**  
Net Benefit Results

Benefit-cost summary statistics per participant				
Benefits to:			Benefit-to-cost ratio	\$1.12
Voucher recipients	\$4,671			
Taxpayers	(\$2,205)	Chance the program will produce		
Others	\$5,981	benefits greater than the costs		54%
Indirect	(\$3,364)			
Total benefits	\$5,083			
Net program cost	(\$4,523)			
Benefits minus cost	\$560			

Note:  
Includes all in-scope studies identified from the systematic review and findings from the current study of Washington's housing voucher program.

<sup>65</sup> This benefit-cost analysis supersedes two previous analyses conducted by WSIPP: Housing assistance with services and housing assistance without services. These previous analyses were disaggregated by whether the housing was provided in conjunction with other types of

supportive services. We aggregated programs because it was difficult to disentangle housing programs that provide services from those that do not. Instead, we focused on the provision of transitional housing immediately after a person was released from a period of incarceration.

## IV. Summary and Limitations

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People reentering the community after a period of incarceration face numerous challenges. The Reentry Housing Assistance Program was designed to provide transitional housing to people as they leave DOC custody. Although program specifics vary, people can generally qualify for six months of subsidized housing at a verified housing provider. We explored the impact of this program for the two largest voucher programs (ERD and Reentry Vouchers) for people released from DOC custody between July 1, 2021, and June 30, 2024.

### Findings

#### Are People who Receive Vouchers Different from People who do not Receive Vouchers?

There appear to be systematic differences in the people who receive vouchers compared to those who do not. People who received vouchers tended to have higher WA ONE felony risk scores but received fewer infractions while incarcerated and had a shorter incarceration duration. We used several statistical techniques to adjust for these differences, but unobserved differences may still have impacted results.

#### How are Vouchers Associated with Post-Incarceration Homelessness?

People who received vouchers were less likely to experience homelessness following incarceration. Each voucher was associated with about a 5% reduction in the likelihood of homelessness.

However, the available measures of homelessness were relatively insensitive and relied on administrative records that were only updated as needed for other reasons. Homelessness is a complex experience that can be difficult to quantify. Alternative measures of homelessness that are more sensitive to changes over time and the type of homelessness experienced would be an important avenue for future research.

#### What is the Association between Vouchers and Post-Incarceration Receipt of Public Assistance?

People who were vouchered tended to receive more public assistance. This result was consistent with other WSIPP research that has found supportive post-incarceration programming associated with increased receipt of public assistance programs.<sup>66</sup>

People who receive vouchers may have a greater need for public assistance due to limited social support from family and friends and limited savings upon release. Alternatively, voucher-funded housing may facilitate access to public assistance. Although voucher-funded housing does not convey additional eligibility for public assistance, the experience may bring people together in an environment that facilitates information sharing about available resources. For example, peer-to-peer information sharing may result in increased knowledge about resources that are available to people reentering the community after incarceration.

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<sup>66</sup> See, for example, [Whichard et al. \(2024\)](#).

### What is the Relationship between Vouchers and Post-Incarceration Employment?

People who received housing vouchers were more likely to obtain employment, work more hours, and earn more money compared to people who were never vouchered.

The housing stability provided by vouchers may help to facilitate employment by providing a stable address. Other research has found that job instability was higher among people who experienced housing loss.<sup>67</sup> Similar to public assistance, group housing may facilitate information sharing about employers that are more amenable to hiring people with criminal histories. Another possibility is that people who do not accept vouchers may have alternative support structures that reduce pressure to find employment. They may have savings or family and friends who can provide money.

### What is the Association between Vouchers and Recidivism?

Vouchers were associated with lower levels of recidivism. During active periods of vouchering, if recidivism did occur, it was likely to occur after a longer delay. Vouchers were associated with lower rates of arrest at both 0-6 months and 7-12 months, suggesting that the early provision of vouchers during the reentry period may have impacts beyond the vouchered period.

Data limitations prevented us from directly describing why voucher provision may be associated with lower levels of recidivism.

It is plausible that receipt of housing vouchers indirectly reduces recidivism by mitigating circumstances that are known risk factors for recidivism—namely, homelessness, material insecurity, and unemployment.

### How does Dosage Impact Outcomes?

Receipt of more vouchers was associated with greater reductions in recidivism and longer delays until recidivism occurred. We found additional evidence that the impact of vouchers is strongest during the period when people were actively receiving vouchers. Comparing the periods where the maximum duration of ERD Vouchers was three months versus six months suggested that the odds of being arrested were lower for longer when voucher availability was longer.

### What has Other Research Found?

Looking across studies identified from the systematic review, we found that housing assistance programs were associated with lower levels of recidivism and lower levels of homelessness. We note that a majority of these studies were conducted in Washington. We also note that the evidence on non-recidivism outcomes was limited, which may limit the ability to fully understand how reentry housing support programs work to reduce recidivism.

### Are Housing Vouchers Cost-Beneficial?

Benefit-cost analyses indicated that housing support immediately after release from incarceration resulted in overall cost savings for society. Both in Washington and in the other studies reviewed, the benefits of reduced crime exceeded the costs of vouchers and higher levels of publicly funded assistance.

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<sup>67</sup> Desmond, M., & Gershenson, C. (2016). Housing and employment insecurity among the working poor. *Social Problems*, 63(1), 46–67.

## Limitations

Results should not be interpreted as causal; we cannot demonstrate that housing vouchers caused reductions in recidivism, changes in employment, reduced homelessness, and use of public assistance. Although the analysis suggested improved outcomes for people who received housing vouchers, the study was not experimental (we did not assign participants to treatment and control groups).

Likely, the same factors that influence whether someone applies for vouchers may also impact the length of participation in the program and downstream outcomes. For example, people who did not apply for housing vouchers may have had other sources of funds or social support that could provide housing and other necessities following release from incarceration.

We were also not able to disaggregate the impact of different voucher programs. The non-experimental nature of this research means that we could not identify a comparison group that would have been unique to each voucher type. Although eligibility for ERD and Reentry Vouchers differs, we could not systematically identify people who could have, but did not, receive either ERD or Reentry Vouchers. Because of this, we had to combine programs and report on the general impact of vouchers. We also cannot extend these results to other voucher programs.

These results do not speak directly to the optimal length of vouchered housing.

Although we find longer periods of vouchered housing to be associated with lower levels of recidivism, methodological and practical considerations prevented the identification of an optimal length of support and prevented us from determining if providing housing vouchers beyond six months would generate additional benefits.

The benefit-cost model does not allow us to monetize every outcome. The duration of employment and long-term earnings for this population are uncertain, so we do not include this outcome in our benefit-cost analysis. The model does not project additional benefits beyond those that could be observed, quantified in existing literature, and monetized. The model quantifies the average financial costs and benefits of programs as they impact participants, taxpayers, and others.

These economic outcomes do not necessarily indicate the overall societal value or quality of life, health, and well-being of individuals and their communities.

Finally, these models were designed to provide information about the average situation facing an individual in that population. We cannot determine how a program would affect a specific individual in the group. Individuals in sub-groups of the population may have different experiences.

Notwithstanding these limitations, this study provides novel and robust evidence that housing support during the period immediately following release from prison was associated with several positive outcomes, including reduced homelessness, improved employment outcomes, and lower levels of recidivism.



# Appendices

Housing Vouchers Upon Release from DOC Custody:  
*Relationship to Homelessness, Public Benefits, Employment, and Recidivism*

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## Appendix I. Analytical Details

### Analytical Approach

We used survival analysis, count, and logistic regression models to explore the relationship between receipt of vouchers and outcome measures. All models were estimated accounting for characteristics that, in other studies, have been found to influence recidivism, employment, and use of public assistance. We describe these in [Exhibit A1](#). All models were specified with robust standard errors.

### Negative Binomial Regression Models

Negative binomial regression models were used to model count outcomes. Count regression models are used when the outcome represents a discrete number of events. Traditional regression models do not work well for these types of data because counts cannot go negative and often do not follow a normal distribution. We used negative binomial regression instead of Poisson regression because preliminary analysis indicated overdispersion among the outcome measures. Outcomes modeled using negative binomial regression included:

- Count of arrests 0-6 months following release
- Count of arrests 7-12 months following release
- Total wages earned in the 12 months following release
- Total hours worked in the 12 months following release
- Total value of Basic Food benefits received in the 12 months following release
- Total value of Aged, Blind, and Disabled (ABD) benefits received in the 12 months following release

We measure the impact of the voucher program by including the number of months of vouchered housing received in the model. All count regression models were run with first-moment weights generated through entropy balancing ([Exhibit A2](#)).<sup>68</sup>

### Logistic Regression Models

Logistic regression models were used to model binary outcomes, which for this study were employment (whether a person achieved employment within 12 months of release from custody) and experiencing homelessness (whether a person was reported as homeless at any time after their release). Again, program impact was assessed by including the number of vouchered housing months received. Logistic regression models were also run with weights generated through entropy balancing.

<sup>68</sup> Hainmueller, J., & Xu, Y. (2013). ebalance: A Stata package for entropy balancing. *Journal of Statistical Software*, 54, 7.

## Exhibit A1

### Included Model Covariates

Characteristic	Description
<b>Demographics</b>	
Age	Age at date of release
Race and ethnicity	A combined race and ethnicity indicator recorded by DOC. Included in the model as a set of binary indicators
Sex	Sex as recorded by DOC
<b>Current incarceration period</b>	
Incarceration duration	Length of incarceration during current period of incarceration (in days)
Total number of infractions	Number of prison infractions during the current period of incarceration
Months since release	Number of months since release from a DOC facility
<b>Prior criminal legal system involvement</b>	
Number of felony convictions	Number of adult felony convictions prior to the current period of incarceration
Age at first conviction	Age at the date of first criminal conviction
<b>Prior use of public assistance</b>	
Total past Basic Food and ABD	Amount of Basic Food and ABD support received between January 2001 and their current period of incarceration
Total use of homeless shelters	Total number of months in which the person was recorded as homeless prior to the current period of incarceration
County of release	County where the person was released upon release from DOC custody for the current period of incarceration
Supervision type upon release	Type of supervision required upon release from DOC custody for the current incarceration
<b>WA ONE risk assessment</b>	
Risk scores	Calculated felony, violent, property, and drug risk score
Homelessness	Living on the street, homeless, or transient during the most recent six months in the community
Community	Pro-social support in the neighborhood immediately prior to incarceration (no barriers, strong social support)
Education	Highest grade level achieved at time of assessment
Employment	Employment status immediately prior to incarceration
Income	Average monthly income during the most recent six months in the community
Children	Number of children under 18

Note:

WA ONE variables are based on the assessment conducted closest to the time of release.

## Exhibit A2

### Results of Entropy Balancing Procedure

Characteristic	Voucher recipients		Non-recipients: Unweighted		Non-recipients: Weighted	
	Mean	Variance	Mean	variance	Mean	variance
Age	40.2	129.7	38.4	121.7	40.2	144.3
Total infractions	3.8	52.3	4.8	108.4	3.9	45.9
Incarceration duration (days)	1,003.0	2,318,211.0	1,067.7	2,467,561.9	1,014.6	2,306,757.0
Gender (male, %)	93.2	0.1	91.0	0.1	93.2	0.1
Age of first prior conviction	20.1	98.6	18.6	82.8	20.1	115.9
Total misdemeanors	7.8	62.1	7.8	59.6	7.8	57.0
Total felonies	5.0	16.8	5.6	17.1	5.1	13.3
<b>Race and Ethnicity</b>						
Alaska Native (%)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Asian/Pacific Islander (%)	3.5	<0.1	3.9	<0.1	3.5	<0.1
Black (%)	14.5	0.1	15.8	0.1	14.5	0.1
Hispanic (%)	13.6	0.1	17.3	0.1	13.5	0.1
American Indian (%)	5.8	0.1	6.3	0.1	5.9	0.1
White (%)	61.9	0.2	55.9	0.3	61.9	0.2
Another race (%)	0.2	<0.1	0.2	<0.1	0.2	<0.1
<b>WA ONE risk score</b>						
Violent	273.5	13,314.4	256.7	12,584.7	273.6	14,093.2
Property	315.8	17,643.1	321.7	17,266.7	315.8	18,298.8
Drug	265.0	15,260.2	268.3	15,260.2	265.1	16,134.8
Felony	298.3	11,401.7	288.2	11,134.7	298.4	12,308.4
Any pre-incarceration income (%) <sup>a</sup>	57.5	0.2	58.2	0.2	57.5	0.2

**Notes:**

Voucher recipients (N = 4,681); Non-recipients (N = 8,896)

a. Pre-incarceration income was dichotomized. People received a value of 1 if they reported any income from legal services in the period immediately prior to incarceration.

### [Survival Analysis and Multilevel Mixed-Effects Logistic Regression](#)

Survival analysis was used to estimate the impact of voucher provision on time to arrest. We used multilevel mixed-effects parametric survival analysis. All models were specified with an exponential distribution and robust standard errors. Data were structured as person-month observations, allowing us to model time-dependent and time-invariant characteristics. To explore the relationship between vouchers and arrest over time, we also conducted mixed-effects logistic models.

Both parametric survival and logistic regression models specified random intercepts and random slopes that allowed the effects of vouchers to vary across individuals. Random intercepts allow for differences in baseline risk, while random slopes allow for differential impact of the intervention, capturing heterogeneity in both the baseline hazard and the effect of the predictor across individuals.

Survival and multilevel mixed-effects logistic models included two treatment indicators: 1) a time-varying indicator for each month a person received a voucher, and 2) a time-invariant indicator that equaled 1 if the person was ever vouchered. The time-varying measure captured within-person changes in being vouchered and association with being arrested, while the time-invariant variable captured between-person differences in baseline risk associated with receiving a voucher. The time-invariant indicator helps to better control for underlying differences between the vouchered and non-vouchered groups.

### [Sensitivity Tests](#)

#### [Variations in Model Specification](#)

For each outcome, we conducted a series of models to test the robustness of key findings. A forward stepwise approach was taken:

- 1) Voucher count (negative binomial and logistic regression models) or time-varying voucher + time-invariant voucher indicator (survival models)
- 2) Demographics
- 3) Demographics + offense history
- 4) Demographics + offense history + public assistance history
- 5) Demographics + offense history + public assistance history + WA ONE
- 6) Demographics + offense history + public assistance history + WA ONE + voucher count (or time-varying voucher)
- 7) Demographics + offense history + public assistance history + WA ONE+ time-varying voucher + time-invariant voucher (survival analysis only)

We also conducted models removing variables that were responsible for eliminating cases due to item missingness. Models were run omitting the county of release, felony risk score, or age, which tended to reduce the sample size by 1-3%. Key results were robust to these different model specifications. The impact of voucher count, or time-varying and time-invariant voucher indicators, changed slightly between model specifications, but these changes were minor. Across different model specifications and excluding variables that had higher levels of missingness, the direction, magnitude, and significance of key voucher program indicators were consistent.

### Income, Vouchers, and Recidivism

We conducted additional analyses to determine if the relationship between vouchers and recidivism was conditional upon income. Consistent with the approach described previously, we ran regression and survival analyses, adding earned income to the models. For the regression analysis, we included a variable for total earnings in the 12 months following release. For the survival analysis, we included the amount of earnings in each month.

When income was included as a potential mediator, the magnitude of the voucher coefficient decreased slightly, consistent with the possibility that some of the relationship between vouchers and arrests operated through changes in income. In these models, each vouchered month was associated with a 5.9% reduction in the predicted count of arrests in the 12 months following release. This association was reduced to 3.9% once income was introduced to the model.

In the survival model, income was negatively associated with the hazard of recidivism. The hazard ratio (HR) for each \$1,000 increase in income was 0.74 ( $p < 0.01$ ), indicating that higher income was associated with a 26% lower instantaneous risk of recidivism, net of other covariates. Inclusion of income had a modest impact that strengthened the impact of vouchers on the instantaneous risk of recidivism. In a month when someone was actively vouchered, the instantaneous risk of recidivism was 35.8% lower (HR = 0.64,  $p < 0.01$ ) if income wasn't included and 36.5% lower (HR = 0.63,  $p < 0.01$ ) after it was included.

Taken together, these models suggest that vouchers and income have an independent and combined relationship with recidivism. Higher income was associated with lower levels of recidivism net of vouchers and other covariates included in the model. Nevertheless, even after controlling for income, vouchers were associated with lower levels of arrests.

## Select Model Results

Model-predicted values are summarized in [Exhibit A3](#). These were developed from the fully specified model described in [Exhibit A1](#).

**Exhibit A3**  
Predicted Values from Regression Models

Outcome	Predicted values		B	SE
	Vouchered	Never vouchered		
Homelessness	21.2%	24.2%	-0.06	0.01
Receipt of public assistance				
Total Basic Food in 12 months	\$2,422	\$1,782	0.08	<0.01
Total ABD in 12 months	\$601	\$366	0.13	0.02
Employment				
Any employment in 12 months	49.8%	36.0%	0.18	0.01
Number of hours worked in 12 months	576	377	0.11	0.01
Earnings in 12 months	\$12,818	\$9,001	0.10	0.01
Arrests				
0-6 months	0.31	0.43	-0.09	0.01
7-12 months	0.29	0.32	-0.03	0.01

Note:

Predicted values for people who received vouchers were calculated using the mean number of vouchers received.

Full model results for negative binomial regression models predicting the number of arrests within six months of release are provided in [Exhibit A4](#). Complete model results for other outcomes are available upon request.

### Exhibit A4

#### Negative Binomial Regression Models Predicting Number of Arrests Within Six Months of Release

Variable	Incident rate ratios	SE	P
Number of vouchers received	0.92	0.01	<0.01
Months from release	0.98	0.00	<0.01
Age	0.98	0.00	<0.01
Gender	1.68	0.10	<0.01
Race and Ethnicity			
Alaska Native	0.52	0.74	0.38
Asian or Pacific Islander	1.11	0.48	0.83
Black	1.21	0.47	0.68
Hispanic	1.04	0.47	0.93
American Indian	1.25	0.47	0.64
White	1.02	0.47	0.97
Another race	0.35	0.60	0.08
Total number of infractions	1.02	0.00	<0.01
Incarceration duration	1.00	0.00	<0.01
Age at first conviction	1.01	0.00	<0.01
Felony convictions	1.03	0.01	<0.01
Misdemeanor convictions	1.03	0.00	<0.01
TANF prior to incarceration	1.00	0.00	0.69
Basic food prior to incarceration	1.00	0.00	0.92
Homelessness before incarceration	1.00	0.00	0.24
WA ONE			
Felony risk score	1.00	0.00	<0.01
Violent risk score	1.00	0.00	0.02
Property risk score	1.00	0.00	0.16
Drug risk score	1.00	0.00	0.03
Homelessness	1.00	0.06	0.95
Community	1.04	0.06	0.54
Education	1.04	0.05	0.42
Employment	1.13	0.07	0.06
Income	1.11	0.05	0.06
Children	0.98	0.05	0.69

**Notes:**

Models also controlled for the county of release and the type of supervision upon release. We omitted these from the table to save space. Results are available upon request.

Robust standard errors reported.

Full model results for survival analysis predicting time to first arrest is provided in [Exhibit A5](#). Results for alternative model specifications are available upon request.

**Exhibit A5**

Survival Analysis Predicting Time to First Arrests

Variable	Hazard ratios	SE	P
Month vouchered	0.62	0.06	<0.01
Ever vouchered	1.22	0.04	<0.01
Month	1.00	0.00	<0.01
Age	0.98	0.00	<0.01
Gender	2.00	0.07	<0.01
<b>Race and ethnicity</b>			
Alaska Native	1.16	0.43	0.72
Asian or Pacific Islander	1.07	0.10	0.50
Black	1.34	0.05	<0.01
Hispanic	1.06	0.05	0.29
American Indian	1.32	0.07	<0.01
Other	1.39	0.35	0.35
Total number of infractions	1.01	0.00	<0.01
Incarceration duration	1.00	0.00	<0.01
Age at first conviction	1.00	0.00	0.94
Felony convictions	1.04	0.01	<0.01
Misdemeanor convictions	1.00	0.00	0.41
TANF prior to incarceration	1.00	0.00	0.02
Basic food prior to incarceration	1.00	0.00	0.64
Homelessness before incarceration	1.00	0.00	<0.01
<b>WA ONE</b>			
Felony risk score	1.00	0.00	<0.01
Homelessness	0.94	0.04	0.15
Community	1.06	0.04	0.22
Education	1.05	0.04	0.23
Employment	1.11	0.05	0.02
Income	1.07	0.04	0.08
Children	0.99	0.04	0.72

**Notes:**

Models also controlled for the county of release and the type of supervision upon release. We omitted these from the table to save space. Results are available upon request.

Robust standard errors reported.

## Appendix II. Systematic Review and Benefit-Cost Analysis Methods

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WSIPP's procedures for conducting benefit-cost analysis are extensively documented in other publications.<sup>69</sup> We provide a brief overview of the approach.

### Systematic Literature Search

#### Search Sources

We used the following search string to search all primary sources: ("Reentry" OR "return\*" OR "release\*" OR "transition\*") AND ("housing" OR "voucher\*" OR "coupon" OR "rent" OR "subsid\*" OR "homeless\*" OR "accommodation\*") AND ("prison\*" OR "jail" OR "incarcerat\*" OR "recidivism" OR "custody") AND ("evaluat\*" OR "experiment" OR "intervention" OR "analysis").

EBSCOhost was used to search eight databases.<sup>70</sup> Search results were restricted to academic journals, conference materials, reports, electronic resources, books, and dissertations. Magazines and newspapers were excluded. The search was conducted on August 23, 2024, using the search string above, and returned 493 references.

We searched PsycInfo and Cochrane Library on August 23, 2024. PsycInfo returned 326 references, and Cochrane Library returned 69 trials and one review.

Use of Google Scholar in systematic reviews presents several challenges for consistency and replicability. To partially address this issue, the search was performed using Publish or Perish.<sup>71</sup> Citations and patents were excluded from the search results. Two searches were performed.

- Search 1: ("Reentry" OR "return\*" OR "release\*" OR "transition\*") AND ("housing" OR "voucher\*" OR "coupon" OR "rent" OR "subsid\*" OR "homeless\*" OR "accommodation\*") AND ("prison\*" OR "jail" OR "incarcerat\*" OR "recidivism" OR "custody") AND ("evaluat\*" OR "experiment" OR "intervention" OR "analysis")
- Search 2: *Reentry return transition housing voucher coupon rent accommodation homeless prison jail incarceration recidivism outcome analysis*

The search was conducted on August 23, 2024. Consistent with best practices for identifying gray literature, the first 200 references from each search were retained.<sup>72</sup>

Crime Solutions "Programs" and "Practices" were first searched for program descriptions containing the word "housing", and then reviewed for relevance. A total of 21 references listed under programs and practices related to reentry housing were saved on August 28, 2024.

Research by the National Reentry Resource Center was searched on August 26, 2024. The search was restricted to adult reentry populations and returned 23 references from 22 search results.

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<sup>69</sup> See [WSIPP's Benefit-Cost Results page](#) for more information.

<sup>70</sup> Databases included in the search: Academic Search Complete, eBook Collection, eBook Open Access Collection, ERIC, Humanities Source, MasterFILE Premier, and Primary Search, Sociology Source Ultimate.

<sup>71</sup> Harzing, A.W. (2007). *Publish or Perish*.

<sup>72</sup> Haddaway, N.R., Collins, A.M., Coughlin, D., & Kirk, S. (2015). The role of Google Scholar in evidence reviews and its applicability to grey literature searching. *PLoS One*, 10(9), e0138237.

### Reference Management

Results from all six searches were loaded into Zotero, a reference management software. Manual cleaning and deduplication between search results were conducted. After removing duplicates, the 1,333 references produced from the three searches were reduced to 999 unique records eligible for screening.

### Inclusion and Exclusion Criteria

A set of inclusion and exclusion criteria was established for the literature screening ([Exhibit A6](#)). Study populations were restricted to adults recently released from a federal or state prison or jail. To be included, we required that studies examined programs that provide at least one month of housing vouchers or subsidies immediately upon release. Studies evaluating direct cash assistance, work release programs, temporary shelter for the unhoused, placement into halfway housing, partial confinement, recovery housing, or long-term rentals were excluded. We required studies to have a comparison group that did not receive vouchers or subsidized housing. Outcomes of interest for this search included arrests, convictions, incarceration, technical violations, homelessness and/or use of homeless shelters, receipt of public assistance, post-incarceration employment and income, and health outcomes.

### Exhibit A6

#### Inclusion and Exclusion Criteria

Dimension	Inclusion criteria	Exclusion criteria
Study characteristics	<ul style="list-style-type: none"> <li>• Published or translated in English</li> <li>• Peer review not required</li> <li>• May include dissertations/theses</li> </ul>	<ul style="list-style-type: none"> <li>• Review articles or meta-analyses</li> <li>• Not an outcome evaluation</li> <li>• No quantitative component</li> <li>• Non-U.S. study area</li> </ul>
Population	<ul style="list-style-type: none"> <li>• Adults</li> <li>• Any gender or sex</li> <li>• Released from a federal or state prison or jail</li> </ul>	<ul style="list-style-type: none"> <li>• People under the age of 18</li> <li>• People over 18, if held in a juvenile facility</li> <li>• Limited to populations with additional/special needs (e.g., severe mental illness)</li> </ul>
Intervention	<ul style="list-style-type: none"> <li>• Receipt of housing vouchers or subsidies for at least one month immediately upon release from a period of confinement in prison or jail</li> <li>• Services can be provided by DOC, another unit of government, or as a contracted service</li> <li>• May provide wrap-around or other supportive services, or not</li> <li>• Partially subsidized housing included</li> </ul>	<ul style="list-style-type: none"> <li>• Halfway houses</li> <li>• Partial confinement facilities</li> <li>• Recovery housing</li> <li>• Long-term rental subsidies</li> <li>• Permanent supportive housing</li> <li>• Work release programs</li> <li>• Temporary shelter for the unhoused</li> <li>• Subsidized housing programs that are available to the general population</li> <li>• Direct cash assistance</li> </ul>
Comparator	<ul style="list-style-type: none"> <li>• Experimental design</li> <li>• Quasi-experimental design (including propensity score matched comparison)</li> <li>• Comparison group must have no vouchers or subsidized housing (e.g., cannot be three vs six months)</li> </ul>	<ul style="list-style-type: none"> <li>• No comparator used</li> <li>• Comparison between different types of housing provision</li> </ul>
Outcomes	<ul style="list-style-type: none"> <li>• Arrests</li> <li>• Convictions</li> <li>• Incarceration</li> <li>• Technical violations</li> <li>• Homelessness</li> <li>• Use of homeless shelters</li> <li>• Receipt of public assistance</li> <li>• Post-incarceration employment</li> <li>• Post-incarceration income</li> </ul>	<ul style="list-style-type: none"> <li>• Self-report/surveys</li> <li>• Macro impacts on housing costs</li> </ul>

### Reference Screening

References were screened in Covidence, a web-based platform that facilitates systematic reviews and data extraction.<sup>73</sup> A two-stage screening was conducted to identify in-scope articles. The first screening stage was to review article titles and abstracts. During this stage, reviewers were tasked with determining if an article was 1) about correctional programs with a housing voucher component, 2) quantitative in nature, and 3) likely to include relevant outcome measures. The second screening stage involved a review of the full text of each article. This stage of screening focused on ensuring that the article was about a program that had a housing component and had outcomes appropriate for the benefit-cost analysis. We also reviewed articles to determine if they used a statistical approach appropriate for meta-analysis. The seven articles that passed this stage of screening were subject to data extraction. The results of each screening and processing stage can be found in [Exhibit A7](#).

### Citation Chasing

Forward citation chasing is a supplementary search technique used to locate sources that have cited a certain reference. We used forward citation chasing on the seven studies that passed the full-text screening and identified an additional 146 references. These references underwent the same screening process detailed above. None of these 146 references were passed to the data extraction stage.

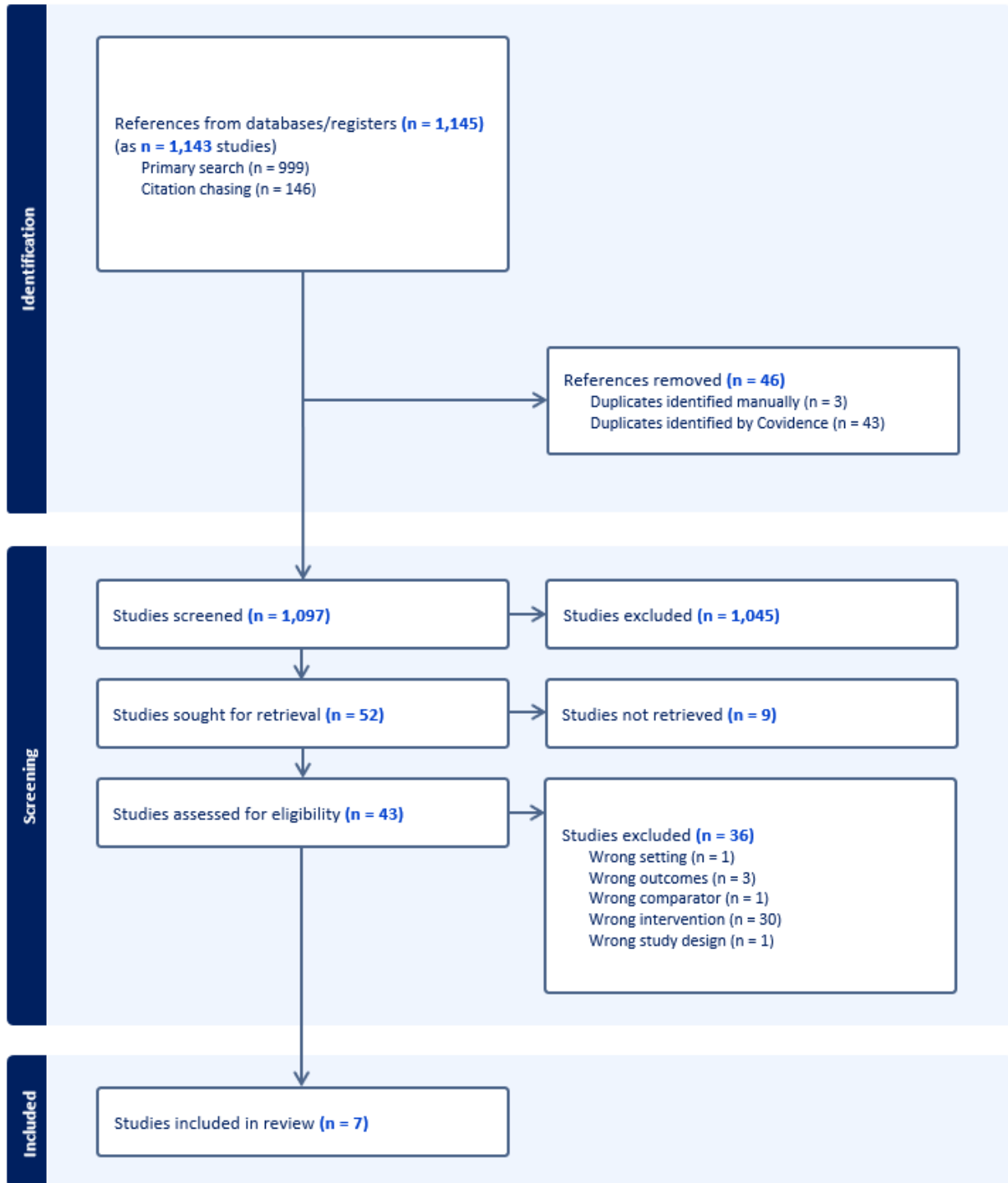
### Data Extraction

Data was extracted in Covidence by two reviewers using a custom data extraction template. Information extracted from each study included baseline population characteristics, number of participants, study methods, research quality, intervention characteristics, outcomes measured, and results for treatment and control groups. Each study was double-coded; any disagreements were discussed and reviewed in the study to reach consensus. Consensus results were coded into WSIPP's Effect Size Model.

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<sup>73</sup> Covidence.

**Exhibit A7**  
PRISMA



## Quality Assessment

In line with best practice recommendations from the Cochrane Scientific Committee, we conducted Risk Of Bias In Non-Randomized Studies of Interventions (ROBINS-I) assessments for each non-randomized study and Risk of Bias for randomized trials (RoB 2) assessments for each randomized control trial that was in scope for the meta-analysis.<sup>74</sup> The risk of bias in various domains was assessed for each study. Each study was assessed independently by two reviewers. Differences were reviewed until consensus was reached (Exhibit A8).

**Exhibit A8**  
Risk of Bias Domains

	D1	D2	D3	D4	D5	D6	D7	Overall
Lutze	+	+	+	-	+	-	+	-
Pedneault	-	+	-	X	X	+	+	X
McNeeley	-	?	-	!	+	-	+	!
Kirk	-	?	+	-	+	+	+	!
Helfgott	X	+	+	-	+	+	+	!
Lam	+	?	+	!	+	!	+	!
Hamilton	+	+	+	-	+	+	+	-

- ! Critical
- X Serious
- Moderate
- + Low
- ? No information

Domains differ slightly in the ROBINS and RoB assessments. Domain 1 captures bias due to confounding (ROBINS) or the randomization process (RoB). Domain 2 captures bias in the classification of the intervention, and is used only in ROBINS. Domain 3 captures bias in the selection of participants into the study/analysis (ROBINS) or assignment to intervention (RoB). Domain 4 captures bias due to deviations from the intended interventions (ROBINS) or from adhering to the intervention (RoB). Domain 5 captures bias due to missing data. Domain 6 captures bias in the measurement of the outcome. Domain 7 captures bias in the selection of the reported result.

Based on risk assessments for each domain, an algorithm was used to determine overall risk. We manually overrode the overall risk for Kirk and Helfgott to critical risk rather than serious risk, due to quality concerns that were not captured in individual domains.

Using the results of the quality assessment, we ran a separate meta-analysis using only studies that were assessed as *not* having a “critical” risk of bias (Exhibit A9). This was done to evaluate the degree to which results were or were not driven by studies determined to have a critical risk of bias. In the interest of further reducing potential bias, we also omitted our own study from this sensitivity analysis. All three studies that were assessed to have a lower risk of bias were conducted in Washington on different housing voucher programs.

<sup>74</sup> Risk of bias information.

### Exhibit A9

#### Sensitivity Analysis: Comparison of All Studies and Studies without Critical Risk of Bias

Outcome (recidivism)	No. of effect sizes	Treatment N	Effect size	Standard error	P
All studies	8	6,102	-0.11	0.06	0.05
Only studies with less than critical risk of bias	3	2,191	-0.24	0.09	<0.01

Notes:

Results for any recidivism measure.

Studies with less than critical risk of bias: Lutze et al., Pedneault et al., Hamilton et al.

Results remained significant and in the same direction when studies with a critical risk of bias were excluded. When only considering studies with a lower risk of bias, vouchers were associated with larger reductions in recidivism.

## Appendix III. Relationship Between Vouchers and Reincarceration

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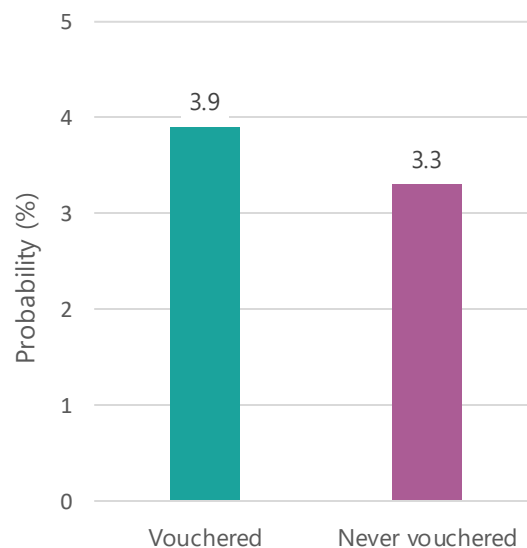
Because of the limited post-incarceration observation period, we did not use reincarceration as a main indicator of recidivism. However, we conducted a preliminary analysis of reincarceration to provide an initial description of the relationship. Because of the low counts of reincarceration, we used logistic regression instead of count regression models.

People who were vouchered had lower odds of being reincarcerated within six months of release relative to those without a voucher; each additional voucher was associated with a 4.2% lower odds of reincarceration. However, when looking at 12 months of release, each voucher was associated with a 4.2% higher odds of being reincarcerated ( $p = 0.05$ ). In [Exhibit A10](#), we used these models to predict the probability of reincarceration for people who were never vouchered compared to people who received the average number of vouchers. People who received the mean number of vouchers had about an 18% greater probability of being reincarcerated in 12 months.

Survival analyses also suggested that people receiving vouchers were more likely to be reincarcerated more quickly, but that the period of vouchering was helpful in reducing the odds of reincarceration ([Exhibit A11](#)). Model estimates indicated that individuals who had ever received a voucher tended to be reincarcerated sooner overall (median 69 months) than those who never received a voucher (median 119 months).

**Exhibit A10**

Predicted Probability of Being Reincarcerated in 12 Months  
for Any Reason, by Vouchered Status



Notes:

Predicted probability of being reincarcerated after release from custody.

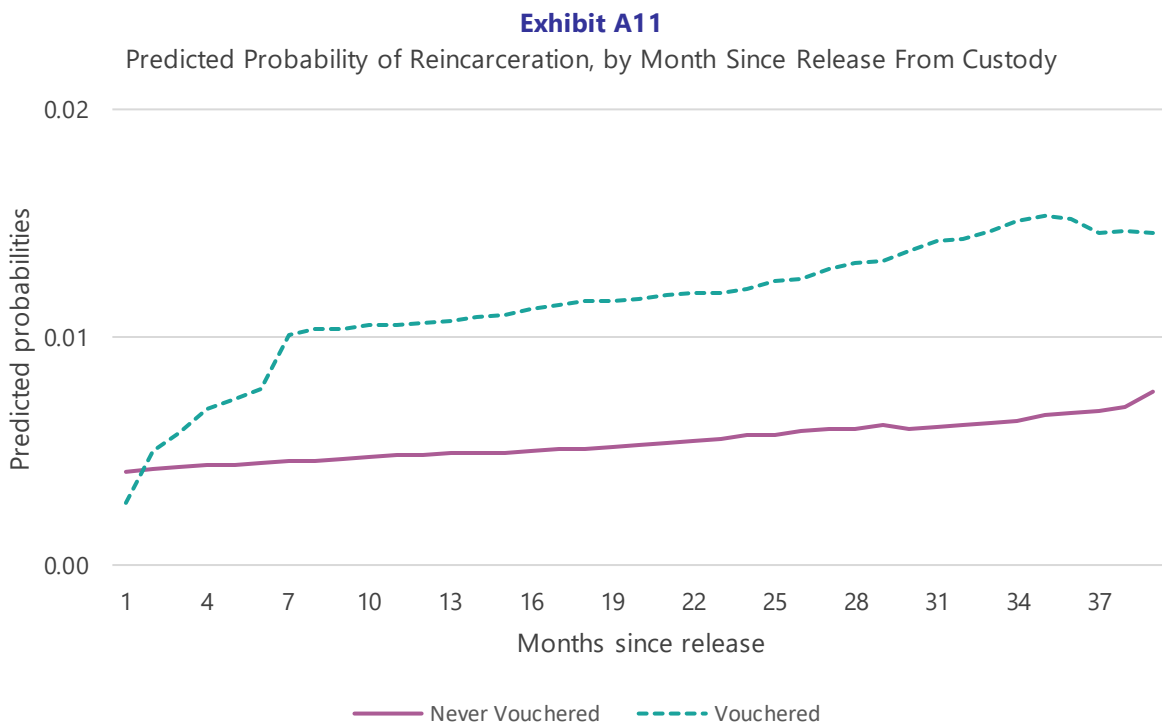
Estimates for the vouchered group based on receiving 3.6 months of vouchered housing.

The effect of each voucher was significant ( $p = 0.05$ ).

However, during months when a voucher was active, the odds of reincarceration were lower. Model-based predictions showed that the median time to reincarceration was 104 months during non-vouchered periods, compared with 266 months during vouchered periods, a 155% increase in expected time to reincarceration.

Given the inconsistency between these results of reincarceration and our earlier arrest analyses, we conducted additional exploratory analyses of reincarceration patterns. We hypothesized that reincarceration probability may differ based on the reason for reincarceration.

Reincarceration can be classified into two categories: reincarceration associated with a new offense or reincarceration for violating the conditions of their release. People in voucher-funded housing may be subject to additional surveillance, which may have driven higher levels of reincarceration associated with violating their terms of release.



Notes:

People released from DOC custody between July 1, 2021, and June 30, 2024.  
 Predicted probabilities from multilevel mixed-effects logistic regression models.  
 More details of the model specification can be found in [Appendix I](#).  
 Group differences between vouchered and non-vouchered and differences between vouchered and non-vouchered months were both significant at <0.01.

To explore this possibility, we conducted separate analyses based on the reason that people were reincarcerated. Two groups were created: people who were readmitted (associated with a new offense; approximately 38% of all reincarceration) and people who were reincarcerated for any other reason (generally associated with violations of the terms of release). We then estimated the impact of voucher count received on the odds of being incarcerated for each group.

Results were consistent with a surveillance hypothesis. Vouchers were associated with lower odds of being reincarcerated for a new offense but higher odds of return to prison for other reasons. Each additional voucher reduced the odds of reincarceration for a new offense by about 2.5%. For people who were reincarcerated for reasons associated with violating terms of their release, each additional voucher was associated with a 2.0% increase in the odds of being reincarcerated.

These results should be interpreted with caution, given the short follow-up period and limited additional information about housing type. Reincarceration for a new offense can take a considerable amount of time as it requires action from law enforcement, prosecutors, and courts. Reincarceration for events associated with violating the terms of release generally happens more quickly. The differences seen between these two may diminish over time, suggesting that future research would be needed to explore this relationship over a more typical observation period. Additional research would also be needed to confirm the surveillance hypothesis. Exploring variations in housing types could provide additional insight into the role of housing providers in explaining reincarceration risk.

## Acknowledgements

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