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Contracting and Labor Practices in Washington State's Correctional Industries

The 2023 Washington State Legislature directed the Washington State Institute for Public Policy (WSIPP) to conduct a study of contracting practices for goods and services and manufactured products made or offered by Correctional Industries (CI) to state agencies and political subdivisions within the state (Exhibit 1).[1] We were also directed to describe the work assignments offered by the Department of Corrections (DOC) and to explore skills associated with those assignments.

The Department of Corrections has several voluntary work programs for people who are incarcerated. The most comprehensive and diverse set of work opportunities available to incarcerated people is operated by CI. These work assignments include institutional food service, manufacturing, and the production of textile goods. In addition to work opportunities, CI offers training, certification, and mentorship to incarcerated people participating in its programming. These programs are designed to improve post-incarceration employment outcomes.

Summary

The Department of Corrections has work programs for people who are incarcerated. The most comprehensive program is operated by Correctional Industries (CI). In FY 2023, CI generated over $100 million in revenue from nearly 3 million labor hours from incarcerated people. The largest purchaser from CI was DOC, predominantly for food and clothing. Items manufactured by CI were generally priced comparably to products available through other channels. The one exception was for glasses and lenses where CI was the lowest cost for nearly all items reviewed.

Job skill requirements for prison work assignments varied considerably. Higher skilled positions included electrician, data specialist, industrial designer, and machinery mechanic.

The labor of incarcerated people is compensated at a rate below minimum wage. Increasing pay to the 2024 minimum wage would have increased labor costs by over $161 million.

People who had participated in CI programming were more likely to find employment once released from custody, find that employment sooner, work more hours, and earn more per hour. However, this relationship should not be interpreted as causal due to differences in who elects to participate in CI work assignments.

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[1] Engrossed Substitute Senate Bill 5187, Chapter 475, Laws of 2023.

Exhibit 1

Legislative Assignment

(f)(i) …to study the contracting practices for goods and services, and manufactured products, made or offered by correctional industries to state agencies and various political subdivisions within the state. A cost benefit analysis must be included in the report which must:

- *(A) Determine the costs of all contracts utilizing the labor of incarcerated individuals providing services or the manufacture of goods for state entities and other political subdivisions;*
- *(B) Compare the cost savings to the state of Washington that is projected when those goods and services are procured from or produced by corrections industries and not private businesses engaged in a competitive bidding process with the state and its various political subdivisions;*
- *(C) Provide a detailed break out of total number of labor positions that are offered to incarcerated individuals, ranked from least skilled to most skilled and the rate per hour of the gratuities the individuals are given monthly for this labor, including the amount if the gratuity given to incarcerated individuals was the federal or state mandated minimum wage;*
- *(D) Provide a detailed listing of all commissary items purchased by and offered for sale to individuals incarcerated within the facilities operated by the department of corrections. This listing of individual items must also include the wholesale price from outside vendors that correction industries pays for each line item offered to incarcerated individuals, and the price charged to the incarcerated individual for those items; and*
- (E) *Provide a comprehensive list of all positions offered by corrections industries that provide substantive training and labor ready skills for individuals to assume positions in the workforce outside of incarceration; and to the extent the data allows, provide the number of individuals who have positions upon release that were obtained with skills obtained through work at correctional industries.*

Engrossed Substitute Senate Bill 5187, Chapter 475, Laws of 2023

I. Background

Every state and the federal government operate some form of prison industry program. Nationwide, these programs operate in about half of all correctional facilities, covering over 65% of people experiencing incarceration.[2] The most common products produced by these programs are furniture, metal fabrication, paper and printing, vehicle parts, and garment and textile production and cleaning.[3]

Existing research has identified three general goals of correctional industry programs across the country. These are:

- Revenue generation—Producing goods or offering services to generate revenue that helps to offset the costs of incarceration;
- Rehabilitation—Developing skills among incarcerated people that can facilitate desistance from future criminal activity; and
- Reducing idleness—Reducing within-facility misconduct by keeping people active and occupied.[4]

The emphasis of specific goals has varied over time and between programs.

Under RCW 72.09.100, the Washington State Legislature has vested DOC with the authority to establish a voluntary comprehensive work program as long as it does not unfairly compete with Washington businesses. They defined five types of work programs in legislation.[5]

- Class I, Free Venture Industries—Provides opportunities for incarcerated individuals to work for profit or nonprofit organizations that produce goods and services for sale to public and private sector entities. This program is not currently in use.
- Class II, Tax Reduction Industries—Provides work opportunities to produce lower-cost goods and services for tax-supported agencies and nonprofit organizations. Limitations are placed on the organizations that can purchase goods and services produced by Class II work.
- Class III, Institutional Support Industries—Provides services for DOC, such as laundry and food preparation for use within correctional facilities. By statute, work in Class III positions should prepare an individual for work upon release.
- Class IV, Community Work Industries—Provides services in the community, typically maintaining public spaces such as parks and roadways, to "public agencies, to persons who are poor or infirm, or to nonprofit organizations."

[2] Maruschak, L.M., & Buehler, E.D. (2021). *Census of state and federal adult correctional facilities, 2019 - Statistical tables*. U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.

[3] Chang, T.F.H., & Thompkins, D.E. (2002). Corporations go to prisons: The expansion of corporate power in the correctional iIndustry. *Labor Studies Journal*, *27*(1), 45–69.

[4] Funke, G.S., Wayson, B.L., & Miller, N. (1982). The future of correctional industries. *The Prison Journal*, *62*(2), 37–51.

[5] RCW 72.09.100

- Class V, Community Restitution Programs—Provides opportunities for people under community supervision to complete court-ordered restitution.

DOC has exercised authority for Class II labor through the creation of CI. Correctional Industries' goals are to "transform lives and increase successful reentry through training and mentoring by maintaining and expanding work training programs for incarcerated individuals which develop marketable job skills, instill and promote positive work ethics, and reduce the tax burden of corrections."[6]

Individuals participating in CI assignments can learn a variety of skills,[7] including:

- Accounting
- Assembly
- Baking
- Carpentry
- Computer numeric control (CNC) machine operation
- Drafting
- Data entry
- Fabrication
- Food packaging
- Food service
- Janitorial
- Laundry
- Paint and powder coating
- Production work
- Upholstery
- Sewing machine operation
- Welding

In addition to work assignments, CI participants are expected to complete a 20-hour soft skills training program to improve post-release employment outcomes.

CI activities are organized into eight divisions:

- Communications - License Plates and Tabs
- Food Manufacturing
- Food Service
- Furniture
- Laundry Services
- Incarcerated Services - Commissary and Packages
- Optical
- Textiles

CI conducts operations using Class II labor. Correctional programs operating with Class III and Class IV labor are not managed by CI; these are operated by each DOC facility.

The study provides information on both CI and non-CI work assignments. For CI, we also report on contracts and the costs associated with goods and services provided. We describe positions, skills, and pay rates for CI and non-CI work assignments.

Review of Research Literature

We provide a brief overview of relevant literature that has explored outcomes associated with participation in prison industries. The literature included research conducted on Washington's CI program and programs operated by other states.

[6] Correctional Industries.

[7] Skill Development.

Recidivism

Studies exploring the relationship between correctional industry participation and recidivism have been hindered by methodological challenges such as the lack of ability to make random assignment to correctional jobs. Among higher-quality studies, the impact on recidivism has been mixed. One of the earliest studies found no change in recidivism,[8] while a later study found short- and long-term reductions in recidivism.[9]

Lutze et al. (2015) conducted the most comprehensive study of Washington's CI program, evaluating criminal justice and institutional outcomes.[10] Results suggested that people participating in CI were less likely to be convicted of a new offense, and if recidivism did occur, it was less likely to be a felony. More time participating in CI assignments was associated with a lower likelihood of recidivating. Correctional Industry participants were also less likely to commit violent infractions while incarcerated.

A meta-analysis in 2000 found that participation in prison industries (including studies conducted outside of Washington) was associated with lower levels of recidivism, but the impact was non-significant due to high variability in underlying studies.[11] More recently, Duwe et al. (2023)[12] found that more time spent in prison work programs was associated with reduced recidivism.

Women experiencing incarceration have typically been omitted from correctional industry research due to small sample sizes. One of the few studies to explore the impact on female program participants in the federal prison industry program found no impact on rearrest.[13]

Income During and Post-Incarceration

People working in correctional industry programs have historically earned more than people assigned to traditional prison jobs; the hourly wage for working in correctional industry programs varies by state but ranges from $0.33 to $1.41 per hour.[14]

Pay within Washington CI was higher than the national average, ranging from $0.80 to $2.85 per hour.[15] A subset of earnings must be paid to mandatory withholdings, including savings,[16] legal financial obligations, crime victim compensation, cost of incarceration, child support, and civil judgment.[17]

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[8] Maguire, K.E., Flanagan, T.J., & Thornberry, T.P. (1988). Prison labor and recidivism. *Journal of Quantitative Criminology*, *4*(1), 3–18.

[9] Saylor, W.G., & Gaes, G.G. (1997). Training inmates through industrial work participation and vocational and apprenticeship instruction. *Corrections Management Quarterly*, *1*(2), 32–43.

[10] Lutze, F.E., Drapela, L.A., & Schaefer, R.L. (2015). *Washington State Correctional Industries: An outcome evaluation of its effect on institutional behavior, employment, and recidivism*. Washington State University.

[11] Wilson, D.B., Gallagher, C.A., & MacKenzie, D.L. (2000). A meta-analysis of corrections-based education, vocation, and work programs for adult offenders. *Journal of Research in Crime and Delinquency*, *37*(4), 347–368.

[12] Duwe, G., Clark, V., & McNeeley, S. (2023). When prison becomes the devil's workshop: The association between idleness and post-release employment, recidivism, and mortality. *Crime & Delinquency, 71*(4).

[13] Richmond, K.M. (2014b). The impact of federal prison industries employment on the recidivism outcomes of female inmates. *Justice Quarterly*, *31*(4), 719–745.

[14] Sawyer, W. (2017, April 10). *How much do incarcerated people earn in each state?*

[15] Pay is set by DOC policy 710.400. Pay was last increased in 2024.

[16] Savings are released to the person at the time they are released from incarceration.

[17] Washington State Correctional Industries. (2023b). *Just the facts: FY23 at a glance.*

Within Washington, Lutze et al (2015) found that participants in CI programming earned $1.03 more per hour than similar people who had participated in non-CI work assignments (i.e., class III and IV). The same study found that once released from incarceration, CI participants were more likely to be employed one and four years out and earned higher wages during the first year after release from incarceration.[18]

One study exploring participation in prison industry programs in 46 prisons across five states found participants to have more money saved at the time of release.[19]

Participant Perceptions

Existing research has not fully explored how participants perceive prison industry programs. A study conducted at one Washington DOC facility found that people with CI assignments reported positive perceptions of work climate, such as feeling respected by leadership and management and being treated fairly. People with longer tenure in CI assignments tended to have even greater levels of satisfaction.[20] Interviews suggested that CI participants see assignments as a place to build skills and establish routines, which results in feeling more like employees than inmates.[21]

One qualitative study from outside Washington found that program participation improved participants' sense of self and created structure and routine.[22] These participants suggested that additional skill building, such as resume development and interview training, would have been helpful. Notably, these additional resources are available in Washington's CI program; participation is expected for people with CI assignments.

Impacts on Private Sector Businesses

Some private sector businesses argue that the use of labor from incarcerated people can create unfair business competition.[23] Because of these concerns, correctional industry programs may be required to demonstrate that they do not have a negative impact on private businesses.

Washington's CI publishes an annual report on gross business income, revenue, and the proportion of market share of CI for various products and services.[24] In 2023, CI's largest market share was in food service (4.76%).[25] Most CI food products were for people in correctional or other institutional settings.

[18] Lutze et al. 2015.
[19] Smith, C.J., Bechtel, J., Patrick, A., Smith, R.R., & Wilson-Gentry, L. (2006). *Correctional industries preparing inmates for re-entry: Recidivism & post-release employment*. University of Baltimore.
[20] Lutze, F.E., Bagdon-Cox, C., & Mei, X. (2019). *Correctional industries at Airway Heights Corrections Center: A case study and process evaluation (Part 1: Incarcerated worker survey)* (pp. 1–45). Washington State University.
[21] Lutze, F.E., Bagdon-Cox, C., & Mei, X. (2020). *Correctional industries at Airway Heights Corrections Center: A case study and process evaluation (Part 2: Incarcerated worker & staff interviews)* (pp. 1–59). Washington State University.
[22] Richmond, K.M. (2014a). Why work while Incarcerated? Inmate perceptions on prison industries employment. *Journal of Offender Rehabilitation*, *53*(4), 231–252.
[23] Grieser, R.C. (1989). Do correctional industries adversely impact the private sector. *Federal Probation*, *53*, 18.
[24] Reports are available online.
[25] Washington State Correctional Industries. (2023a). *Class II Industries market share report*.

Previous Benefit-Cost Studies

WSIPP has published several benefit-cost analyses for CI.[26] The most recent update, conducted in 2017, identified 13 relevant studies and estimated savings of $12.68 for every dollar spent.[27] These cost savings were based on reductions in recidivism and associated criminal justice and victimization costs.

Research Questions

This report addresses seven research questions.

1) What was the contracted value of goods and services produced through CI?
2) Were the costs of items sold by CI comparable to similar products sold through traditional vendors?
3) How many correctional work assignments and labor hours were provided in 2023?
4) How do skill levels vary within the correctional work assignments?
5) What would the impact on labor costs be if incarcerated people were paid comparable to the traditional labor market?
6) How does participation in CI programming impact post-incarceration employment outcomes?
7) What are the benefits and costs associated with correctional work assignments?

[26] Aos, S., Phipps, P., Barnoski, R., & Lieb, R. (2001). *The Comparative costs and benefits of programs to reduce crime, version 4.0.* (Doc. No. 01-05-1201). Washington State Institute for Public Policy. The analysis conducted by Aos et al. was not limited to Washington's Correctional Industries. Studies conducted in other states were included.

[27] Bitney, K., Drake, E.K., Grice, J., & Lee, S. (2017). *The effectiveness of reentry programs for incarcerated person: Findings for the Washington State Reentry Council* (Doc. No. 17-05-1901) (pp. 1–28). Washington State Institute for Public Policy.

II. Data and Methods

We use CI and the DOC data to address the research questions in Section I. This section discusses the scope of analysis, the data used, the limitations associated with the data, and our methodological approach.

Scope and Exclusions

Several programs that use the labor of incarcerated people were excluded from this analysis:

- Class I programs were excluded because there were no contracts during the analysis period. Class V labor is for people to meet court-ordered obligations for victim restitution. Because this work's purpose is different from other correctional work elements, it was excluded.
- CI operates Braille Services in partnership with the Washington State School for the Blind. The school provides the supervisor for this program and reimburses DOC for labor costs. Because CI does not generate revenue from this program, it was excluded.
- CI discontinued its print shop and sign-making operation in 2023. At the time of writing this report, CI did not intend to restart these operations, so it was excluded.

Larch Correctional Center (LCC) was closed in 2023. Because of the closure, access to detailed information on labor assignments at this facility was unavailable.

Finally, CI operates the commissary and package service, which provides goods (e.g., hygiene items, writing materials) to people who are incarcerated. The part of this assignment about providing detailed cost information about commissary items overlapped with another WSIPP assignment contained in Engrossed Substitute Senate Bill 5187.[28] See Liu, Wanner & McFeely (2025) for more information.[29] Labor hours (operated under CI) used to operate the commissary were included in this report.

Data and Methodological Approach

Contract Values for CI Goods and Services

We collected information on goods sold and services rendered by CI during 2023. Information was provided at the invoice level, which was then aggregated to related purchasers. Invoices included information on the purchaser, the items or services purchased, and the purchase value.

CI Pricing Comparison Strategy

Following the strategy adopted by the Washington State Auditor in 2017,[30] we collected data on items produced by CI and constructed a pool of similar items available for purchase through traditional channels. We selected the top ten items sold by each CI industry: furniture, optical, and textiles.[31]

[28] ESSB 5187.

[29] Liu, L., Wanner, P., & McFeely, M. (2025). *Assessments and charges in Washington Department of Corrections facilities: A review and analysis* (Doc. No. 25-06-1902). Olympia: Washington State Institute for Public Policy.

[30] Office of the Washington State Auditor. (2017). *Performance Audit. Correctional Industries: Planning, Pricing, and Market Share.* Olympia, WA.

[31] The 2017 report by the State Auditor looked at furniture, food, textiles, communications, and cardboard boxes. However, communications and box operations have been

For each item produced by CI, we attempted to identify at least five similar items from other vendors.

In June 2024, online searches were conducted to develop cost comparisons for CI's top-selling items by value within each division. To improve the comparability of reported pricing, we excluded shipping, extended warranties, damage replacement, temporary price reductions, volume discounts, or cost-adjusting modifications (e.g., custom fabric, custom colors). Marketplace vendors (e.g., eBay) and businesses requiring membership (e.g., Costco) were excluded as potential sources. Each vendor was limited to one item per comparison. To improve the comparability of items, we attempted to limit the price range of items so that the most expensive option was no more than ten times the lowest cost option. Statements about the "most expensive" option thus only apply to items within the defined comparison range—there are likely more expensive options available for all items.

For furniture comparisons, we took advantage of another purchasing avenue available to state agencies. In 2022, due to production limits at CI, the Department of Enterprise Services engaged in a process to identify vendors that could provide "office furniture and related accessories, including all customer service, installation, and design services."[32]

Contracts were awarded in six categories: office seating and accessories, desks and tables, panel systems, and storage accessories. We matched CI-produced furniture items to similar items available through these state-authorized furniture contracts. We did not limit the cost range for comparisons made through these alternative state contracts. However, the cost range was more limited for these items and would not have reached the ten times threshold anyway.

Food Manufacturing, Laundry Service, and License Plate Production. Food manufacturing and service,[33] laundry service,[34] and the production of license plates are unique services which made it impractical to create cost comparisons. Instead, we conducted systematic searches of news articles, agency websites, and contracts to describe the cost of these services in other states. We compare the costs of these services provided by CI with costs in other states to determine if CI costs were similar.

One additional avenue was used to explore the cost of license plate manufacturing. Due to production limitations, CI has periodically ordered license plates from an outside commercial vendor. We compared the cost of producing license plates via this external vendor to the standard rate charged by CI.

discontinued. Comparison of food manufacturing was limited due to the difficulty of identifying appropriate comparisons

[32] Contract # 21422.

[33] Food service refers to the production of food consumed by incarcerated people. This includes preparing, cooking, and packaging food. Within facilities, the warming and serving of food is provided by the labor of incarcerated people.

[34] CI manages laundry services with Class II labor. It also manages food service at some, but not all, correctional facilities. In facilities that do not contract for food services through CI, the labor of incarcerated people is provided under Class III.

Correctional Work Assignments and Labor Hours

Data on labor assignments and the number of hours worked were obtained from financial reports produced by CI and DOC and work assignment records maintained at each DOC facility. Due to data limitations, we are unable to report on the unique number of job assignments available.

Skill Requirements of Correctional Work Assignments

Occupational information from O*NET was used to quantify required job skills.[35] O*NET catalogs nearly 1,000 occupations, covering almost the entire U.S. economy. To connect work assignments with job skill requirements, each assignment was given a standard occupational classification (SOC) code.

- For Class II labor, CI provided corresponding SOCs. Some values were recoded due to data availability.[36]
- For Class III labor, researchers reviewed the job title and assigned an SOC code.[37]
- For Class IV labor, we reviewed the scope of work associated with contracts and found they were associated with gardening, landscaping, and grounds maintenance. Because we could not get granular information on person-specific work activities, all Class IV labor was assigned a single SOC code.

Each occupation is rated from 0 to 6 on the required level of expertise of 35 skills (e.g., oral comprehension, written expression). Values for the 35 skills were summed by domain to create a set of skill level scores for each occupation. These domains were:

1) Content—Specific knowledge needed to perform occupational tasks.
2) Process—Skills required to learn, such as critical thinking and active listening.
3) Social—Skills to communicate and collaborate effectively.
4) Complex problem solving—Skills needed to analyze problems, identify solutions, and make decisions.
5) Technical skills—Skills related to tools, equipment, and technology needed for the job.
6) System—Skills for managing technical and organizational systems.
7) Resource management—Effective use of time, money, materials, or other resources.

Training and Post-Incarceration Employment Outcomes

We received these data on people released from DOC custody between January 1, 2021, and June 30, 2023. For people released during this period, DOC provided demographic data, characteristics of their release, and program participation during their period of incarceration. This included:

- Participation in CI programming, including hours and assignments
- Participation in non-CI work assignments through Class III or IV labor programs

[35] U.S. Department of Labor. (2024). *O*NET OnLine*.

[36] Some CI-provided codes were no longer in use by O*NET or corresponded to an "all other" job category for which skills data were not available. These were recoded to the nearest appropriate job.

[37] Both researchers had to select the same code; disagreements were reviewed to reach consensus. When multiple codes were appropriate, the one with the lower education or professional requirements was selected.

- Certificates earned
- Demographics
- Recidivism risk scores as assessed by the Washington ONE Risk Assessment Tool[38]
- Date of release

Data on post-incarceration employment were retrieved from the Employment Security Department (ESD). State law requires employers to report the number of hours worked and wages earned to ESD every quarter. Employers are now required to submit SOC codes for each employee. Unfortunately, this requirement was not in place during the analysis window for this study.

Department of Corrections data on incarcerated individuals were merged with data from ESD. Employment data covered January 1, 2021, through December 31, 2023, providing at least two quarters of post-release employment for all people in the release cohort.

With this combined dataset, we calculated average hourly wage, average hours worked, and time elapsed between release and first employment. Because of differences between people who did and did not participate in CI, we do not seek to make any causal connection between CI participation and post-incarceration employment. Results should be interpreted as descriptive.

During their period of incarceration, people can engage in courses and programs designed to enhance training and develop skills that can support post-incarceration employment. As part of these activities, people can earn certificates for completing courses or participating in programs for a sufficient number of hours. Certificates can also be earned for milestone hours of work (e.g., working over 100 hours) and for proficiency in CI assignments (i.e., 1,500 hours). To quantify training, we retrieved data on certificates earned by people during their current period of incarceration.[39] We collapsed certificates into those associated with CI programming and those not with CI.

Meta-Analysis and Benefit-Cost Analysis

To update the existing benefit-cost analysis, WSIPP conducted a systematic literature review, extracted data from in-scope studies, and retrieved updated program costs from DOC. Newly identified studies were incorporated into the meta-analysis. Meta-analysis results were incorporated into an updated benefit-cost analysis. Results of the meta-analysis[40] and benefit-cost findings were published in previous reports.[41] We review these previously published findings.

[38] Overview of the Washington One Risk Assessment Tool

[39] We used certificates earned instead of hours of program participation because of quality issues associated with how hours are tracked. Certificates earned was believed to be a better indicator of level of participation and engagement.

[40] See, Goodvin, R., Wanner, P., Ippolito, H., Patel, A., & Grob, H. (2024). *Inventory of evidence-based, research-based, and promising programs for adult corrections: Final report* (Doc. No. 24-12-1902). Olympia: Washington State Institute for Public Policy.

[41] *Correctional industries (program costs include expenditures only)* and *Correctional industries (program costs include expenditures and revenue)*

III. Results

Contract Value for Goods and Services Produced by CI

The purchase of goods and services from CI is restricted to DOC, state, local, and other governmental agencies and units, units of government outside of Washington, and some qualified nonprofit organizations. Data provided by CI on reported values of contracts includes both goods and labor. The highest volume purchasers, by division, are reported in Exhibit 2.

- *Food Service*—CI provides food distribution services for five of 11 DOC prison facilities. The revenue for the Food Service Division during FY23 was over $41 million.
- *Food Manufacturing*—CI produces food for a variety of clients, including state agencies, units of county and local governments, and some non-governmental organizations. In FY23, this division did over $9 million in business.
- *Furniture*—CI produces furniture for office, commercial, and other institutional settings (e.g., university dorms). CI also acts as a retailer for furniture produced by other companies. In FY23, this division did $22 million in business.
- *Laundry*—CI provides laundry services to state facilities, primarily DOC. In FY23, CI provided over $3.7 million in laundry services to DOC.

Exhibit 2

FY 2023 Invoiced Revenue by Division

Purchaser	Revenue
Food service	**$41,172,286**
DOC	$41,172,286
Food manufacturing	**$9,688,363**
DOC	$4,616,877
Elmwood Corr. Facility	$3,072,966
Sunnyside Police Dept.	$199,666
Springfield Mun. Jail	$156,423
Pacific County Jail	$150,007
Furniture	**$22,898,740**
DSHS	$5,108,252
DFW	$3,496,857
DOL	$2,047,457
DOC	$1,939,346
DCYF	$1,415,315
Laundry	**$3,732,975**
DOC	$3,717,479
DSHS	$7,868
DNR	$7,628
License plates and tabs	**$4,815,571**
DOL	$4,815,571
Optical	**$8,647,101**
DOC	$155,787
Vision Plus	$141,909
Vancouver Eye Center	$126,714
Spokane Optical	$113,548
Othello Eyecare	$104,060
Textiles	**$30,298,225**
DOC	$11,973,739
DOH	$593,896
Alaska DOC	$503,287
DSHS	$406,657
DOT	$329,429

Notes:
For each division, we only display the top five purchasers, so the purchase costs will not sum to the division total.
DSHS = Department of Social and Health Services; DFW = Department of Fish & Wildlife; DOL = Department of Labor; DCYF = Department of Children, Youth, and Families; DNR = Department of Natural Resources; DOH = Department of Health; & DOT = Department of Transportation.

- *License Plates and Tabs*—CI is the exclusive provider of license plates and tabs for the Department of Licensing. During FY23, CI produced over $3.9 million worth of license plates and over $800,000 worth of tabs.
- *Optical*—Optical Division produces prescription eyewear for incarcerated people and people eligible through Washington Apple Health. In 2023, over $8 million in frames and lenses were sold.
- *Textiles*—The Textile Division produces a variety of clothing and accessories, including the clothing worn by people who are incarcerated. Revenue generated by the Consolidated Distribution Center[42] was also reported through the Textile Division. The Textiles Division was the second largest source of revenue at over $30 million in FY23.

CI Product Pricing Compared to Traditional Vendors

We evaluated the costs of goods produced by CI relative to comparable goods produced or sold by traditional vendors. The CI items included in the price comparison were produced by CI, except for eyeglass frames, which are sold by CI but produced by an outside vendor. Other goods sold but not produced by CI were omitted from the comparison.

Cost comparisons were disaggregated by CI division. Correctional Industries' price of each item was compared to the price of similar items and is visually displayed in Exhibits 3-5. The price for each vendor has been plotted. A marker at 2.5, for example, would indicate that the vendor selling that item was 2.5 times higher than the lowest-cost vendor for that item. Correctional Industries costs are plotted in orange.

Furniture Division

By sales value, the top six items sold by the Furniture Division were two office chairs,[43] a standing desk, a stackable chair, a nesting chair, and a filing cabinet (Exhibit 3).

Across all items, CI was neither the least nor the most expensive vendor. It was the second-lowest-cost provider for standing desks. Correctional Industries was in the middle of the cost-comparison range for the premium office chair and nesting chair. For the remaining three items (office storage, stacking chairs, and basic office chairs), CI was the second most expensive option.

[42] The Consolidated Distribution Center processes, packages, and ships items ordered from DOC.

[43] We labeled these as the basic (lower priced) office chair and the premium (more expensive) office chair.

In addition to online vendors, we compared the cost of CI-produced furniture with vendors that have approved state-level procurement contracts for office furniture. The results of this comparison were similar to the results presented above. Correctional Industries products were typically at the low to middle of the price range. These additional comparisons can be found in Appendix I.

Textile Division

The top ten items sold by the Textile Division were clothing items predominantly provided for people to wear while incarcerated (Exhibit 4).

For three of the ten items (work pants, khaki pants, and shorts), CI was the lowest-priced option among comparable vendors. For five items (jackets, boxers, sweatpants, sweatshirts, and T-shirts), CI items were at the lower end of the cost comparison range but were not the lowest cost option. Correctional Industries was at the higher end of the price range for socks and shoes or was the most expensive vendor.

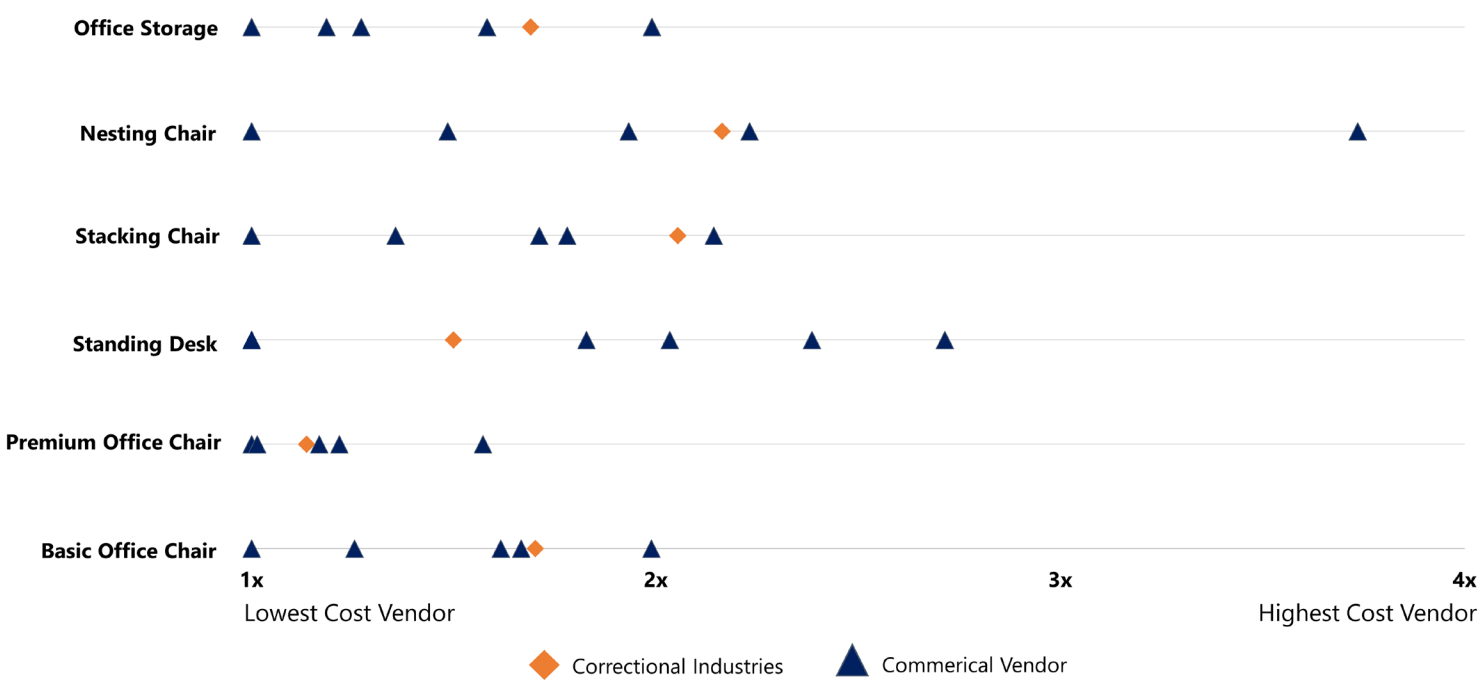
Optical Division

The top ten items sold by CI included five frames and five lens types. Eyeglass frame color options resulted in three frames for cost comparison (Exhibit 5). For all but one item, CI was the lowest-cost provider. For most frames or lenses, CI was about half the cost of the next lowest-cost vendor. For the one item where CI was not the lowest-cost vendor, it was mid-range among the five alternative vendors.[44]

[44] For one frame, we were unable to locate five vendors and were also unable to keep the price range within our 10x goal.

Exhibit 3

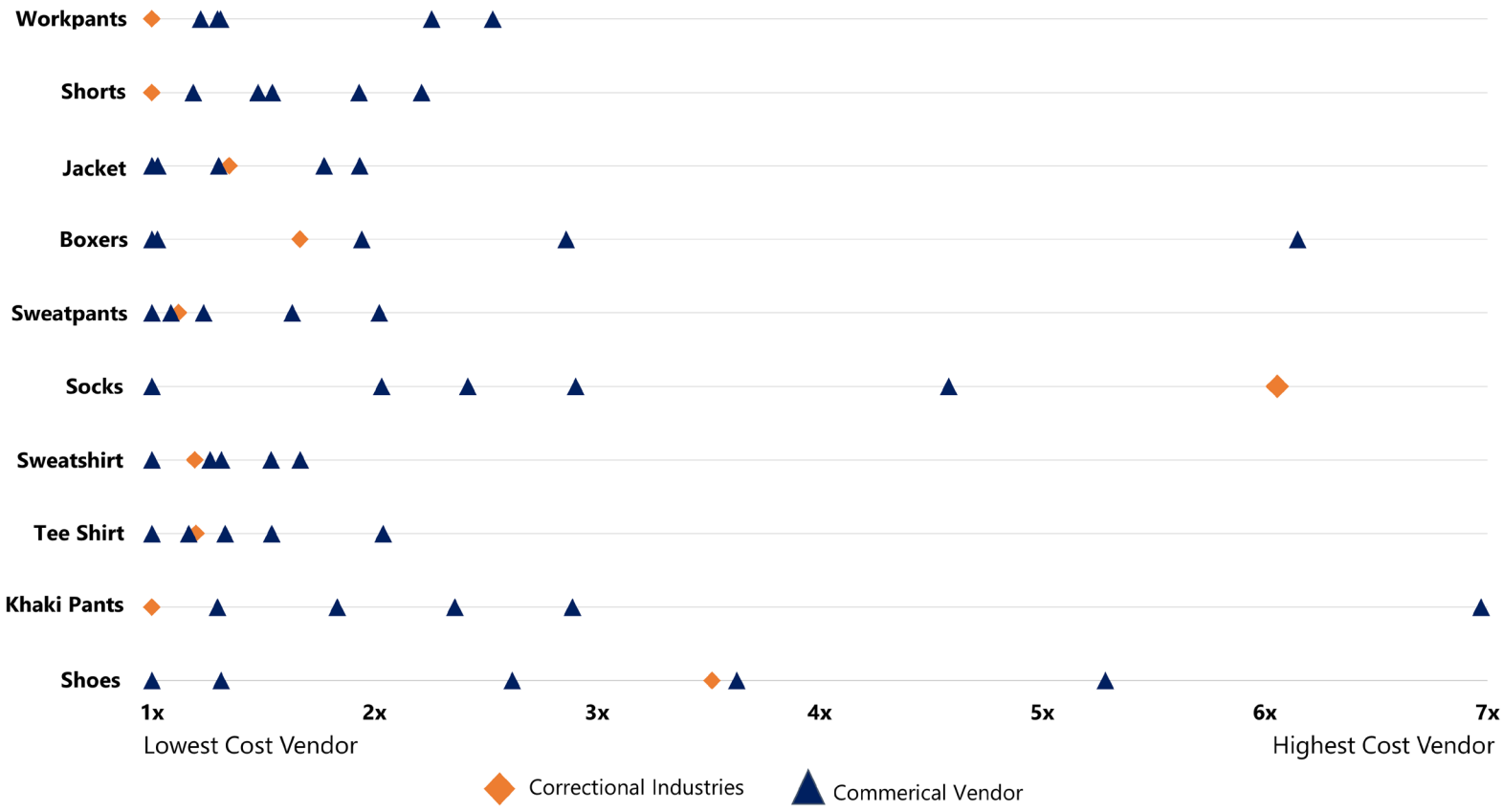
Furniture Division Cost Comparisons



Note:
A marker at 3x would indicate that the vendor was three times the cost of the lowest-cost vendor. Non-CI vendor costs were collected from online research conducted in June 2024. All costs reported are for the same or similar item and do not include shipping, add-ons, or discounts.

Exhibit 4

Textile Division Cost Comparisons

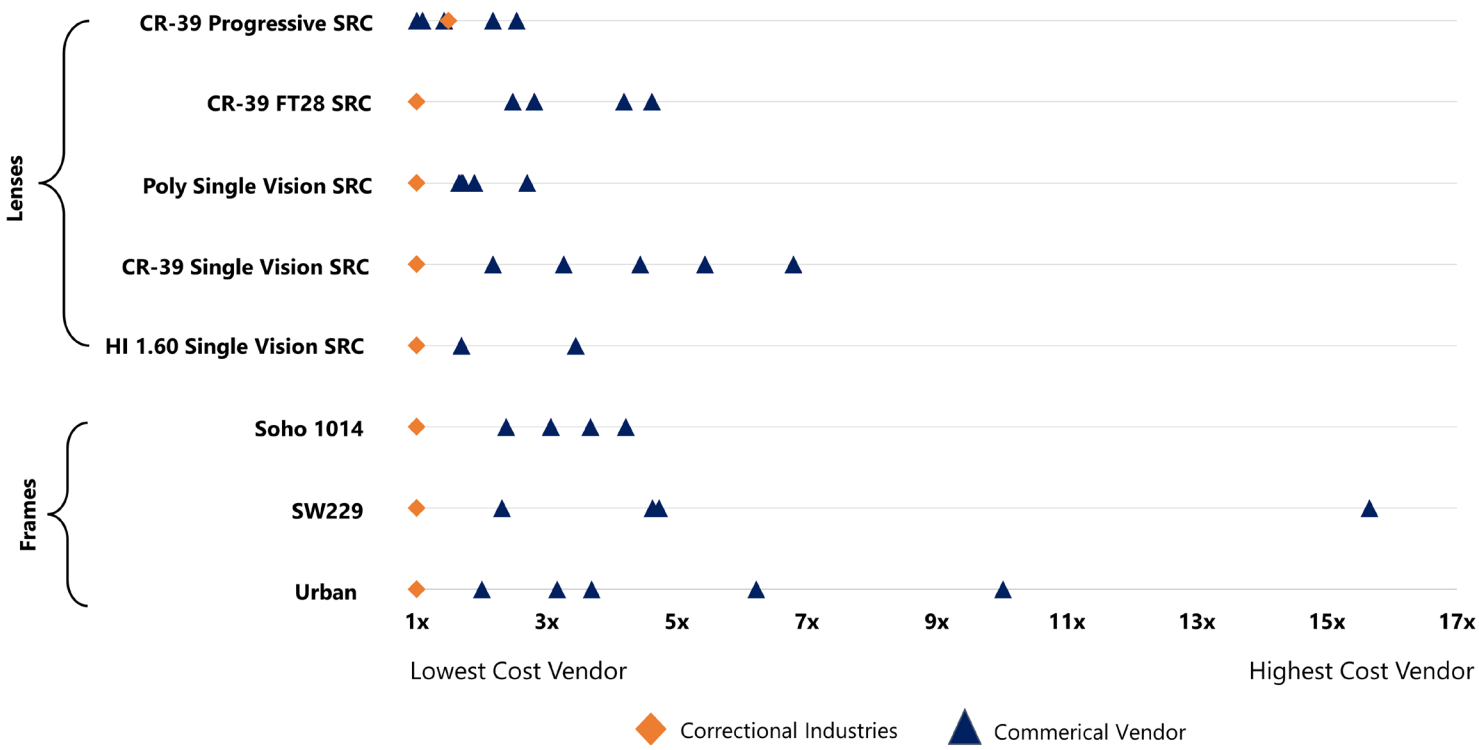


Note:

A marker at 3x would indicate that the vendor was three times the cost of the lowest-cost vendor. Non-CI vendor costs were collected from online research conducted in June 2024. All costs reported are for the same or similar item and do not include shipping, add-ons, or discounts.

Exhibit 5

Optical Division Cost Comparisons



Note:

A marker at 3x would indicate that the vendor was three times the cost of the lowest-cost vendor. Non-CI vendor costs were collected from online research conducted in June 2024. All costs reported are for the same or similar item and do not include shipping, add-ons, or discounts.

License Plates and Tabs

Due to the unique nature of license plate production, we approached alternative pricing strategies differently. CI has contracted with an outside vendor for license plate production when unable to meet production demands (Exhibit 6). These production shortfalls were more prevalent during the public health crisis associated with COVID-19.

Since 2021, CI has contracted to produce 1.1 million license plate pairs. The average cost per license plate pair when produced through contract was $3.71, compared to $2.95 when produced by CI. The use of external vendors to produce these license plates resulted in an additional $871,989 of incurred costs.

The cost differential when using an outside vendor should be interpreted with caution and cannot be extrapolated to the costs if all license plate production was outsourced. Due to the smaller volume and inconsistent ordering, ad hoc purchases of license plates may be more costly. Larger or more consistent orders could reduce the cost per plate. A comprehensive request for proposal would be needed to better explore how these factors would influence plate and tab production costs. Correctional Industries also provided some raw materials, which reduced the per-plate costs in some production runs.[45]

To further explore the costs of license plate production, we collected information from other states that do not use the labor of incarcerated people to produce license plates (Exhibit 7).[46] Eleven states contract with private organizations, nonprofits, or have a state agency that manufactures the plates using the labor of state employees. Costs using these other means of production ranged from $1.31 to $4.25 per plate. Washington CI's cost of $1.48 per plate was towards the lower end of the cost range paid by states that do not use the labor of incarcerated people.

Exhibit 6

Non-CI License Plate Productions

Date	N Plates	Produced by vendor		Cost if produced by CI[a]	Cost difference
		Cost per plate pair	Cost		
Jun 2021	200,000	$3.52	$703,358	$590,000	$113,358
Dec 2021	100,000	$3.94	$394,102	$295,000	$99,102
Mar 2022	200,000	$2.91[b]	$582,715	$590,000	-$7,285
Aug 2022	300,000	$4.08	$1,224,188	$885,000	$339,188
Jan 2023	170,000	$4.39	$745,534	$501,500	$244,034
Aug 2024	170,000	$3.44[b]	$585,092	$501,500	$83,592
Sum	1,140,000	$3.71	$4,234,989	$3,363,000	$871,989

Notes:

a. CI contracts for license plate production when DOL needs exceed CI capacity. CI charges DOL a fixed $2.95 per plate pair.

b. CI provided aluminum for manufacturing which reduced vendor costs.

[45] Department of Licensing (2022). *2022 Plate inventory report.* Olympia, WA.

[46] When costs for more than one type of license plate were available, we report on the standard permanent automotive passenger vehicle license plate. When the price for plates was available for multiple dates, we report on the most contemporaneous cost.

Food Manufacturing

Due to the challenges of creating cost comparisons, we did not construct alternatives for food manufacturing. Instead, we sourced data from other states to understand the range of costs for food services when provided by vendors that do not use the labor of incarcerated individuals (Exhibit 7).[47] This information was sourced from reviewing public documentation and contracts between correctional systems and vendors. Only costs for state-level prisons were included; costs incurred by jails or temporary holding facilities were excluded. For states that rely on external contracts for food manufacturing, costs ranged from $1.92 to $7.02 per incarcerated person per meal. Current DOC estimates indicate spending $2.22 per meal for people who are incarcerated.

Laundry Service

We were unable to locate any state correctional systems that contracted with an outside provider for laundry service. In every state where we could locate supporting evidence, laundry service was conducted using the labor of incarcerated people. Because of this, we were unable to develop a reasonable method for establishing a cost range for this service.

Pricing Summary

In developing price range estimates, we attempted to limit comparison to items that were within 10x of the lowest cost item.

Exhibit 7

States that Contract for Food Manufacturing and License Plate Production

State	Vendor type	Cost
License plate production		
Alaska	Private	$3.61
Arkansas	Private	$1.94
Delaware	Private	$2.25
Hawaii[a]	Private	$2.71
Illinois[a]	Nonprofit	$1.31
Indiana	Private	$1.91
Kansas	Private	$4.25
Mississippi	Private	$2.10
New Mexico	Private	$2.26
Oregon[a]	Private	$1.83
Wyoming[a]	State agency (WYDOT)	$2.06
Food manufacturing		
Arizona	Private	$4.77
Florida	Private	$2.53
Indiana	Private	$4.79
Kansas	Private	$1.92
Kentucky	Private	$4.11
Mississippi	Private	$3.76
Missouri	Private	$5.31
Nevada	Private	$3.65
New Hampshire	Private	$3.56
New Mexico	Private	$7.02
Ohio	Private	$4.55
South Dakota	Private	$4.90
Tennessee	Private	$5.53
West Virginia	Private	$1.94

Notes:
Only includes states that do not use the labor of incarcerated people for production.
a. Requires front and rear plates. Cost reported is per plate.

Therefore, CI's placement at the lower end of the pricing spectrum should be interpreted as a cautious estimate of CI's price positioning. The inclusion of more expensive items would exaggerate this difference but would have increased the risk of including less comparable items.

[47] Costs were collected from contracts covering different periods. To enhance comparability, prices were inflation-adjusted to 2023 dollars using the Implicit Price Deflator for Personal Consumption Expenditures.

Across all item comparisons, CI manufactured items tended to be in the low- to mid-range of costs among all comparison items. In one comparison, the CI item was the most expensive. This may be counterintuitive, considering CI pays incarcerated people considerably less than Washington State's minimum wage, and raises questions about why CI-produced items are not substantially cheaper than those of traditional vendors.

First, some comparison items, especially clothing, were manufactured outside the United States, where wages for factory workers can be considerably lower than even CI wages.[48]

Second, CI contributes over $68 million per year to the Washington economy through CI staff salaries and purchases of supplies and materials from local businesses.[49] Locally sourced supplies and materials may increase overall product costs. Additionally, this benefit to Washington's economy should be considered in light of similarly priced products that are manufactured in other states or countries.

Third, CI positions the costs of goods and services in a way that reduces the tax burden associated with incarceration. For items like office furniture, CI does not sell items at cost but instead seeks to provide items at a price that is competitive with the prevailing market. Revenue generated from operations is used to improve equipment and services, contribute to the state-operated victim compensation funds, and provide training and programming that can facilitate improved reentry outcomes.

Finally, the unique production environment of working in a correctional setting must be considered. Security concerns, for example, may reduce production rates or prohibit the use of more efficient processes or tools.

Together, these factors suggest that we would not necessarily expect CI items to be considerably cheaper than items available through traditional businesses. CI items are priced to be competitive with similar items from other vendors while reinvesting profits to support CI operations, reduce the cost of incarceration, and provide correctional programming and training to improve post-incarceration outcomes.

Cost comparisons should also be interpreted in light of more general challenges. We attempted to match items that were described, such as materials, warranty, capacity, and weight ratings. Outside the characteristics used for matching, qualitative differences can be difficult to capture in a way that allows equitable comparisons. Issues related to the seller or manufacturer, rather than the specific item, must also be considered. For example, the willingness and ability to support warranty repairs or claims may also impact the total life cycle cost of a product.

[48] See, for example, Bangladesh, where the minimum wage for factory work is now $113/month: Fair Labor Association. (2024). *Wage trends: Bangladesh*.

[49] Correctional Industries. (2025). *Annual report: 2024*. Department of Corrections.

Correctional Work Assignments and Labor Hours

Next, we describe the number of labor positions offered, the required level of skill for those positions, the number of hours worked, and the wages earned by incarcerated people through work assignments. In addition to CI, this section also reports on programs operated under Class III and IV authorization.

Number of Assignments and Labor Hours

Across all labor types and assignments, there were over 16,000 work assignments[50] summed to over 10 million work hours (Exhibit 8).[51]

During 2023, CI required nearly 3 million labor hours. This was comparable to over 1,400 full-time equivalent employees.[52]

Over 6.4 million labor hours were recorded for Class III work in 2023. This was comparable to over 3,000 full-time equivalent employees.

Exhibit 8

Labor Assignments by Facility in 2023

Facility	Class II		Class III		Class IV	
	Assignments[a]	Hours	Assignments	Hours	Assignments	Hours
AHCC	1,104	783,087	1,160	846,411	308	163,018
CBCC	14	16,360	530	209,428	0	0
CCCC	89	--	562	260,218	244	173,468
CI HQ	--	47,236	0	0	0	0
CRCC	523	446,712	1,808	885,844	49	33,570
LCC	11	--	382	--	129	129,586
MCC	605	442,825	1,252	655,858	130	65,076
MCCCW	3	--	358	117,820	26	5,905
MISS	--	16,956	--	--	0	0
OCC	6	--	547	188,672	227	188,065
SCCC	243[b]	537,766	1,884	1,432,299	0	0
WCC	305	278,493	345	187,552	0	0
WCCW	64	59,200	891	425,719	20	8,390
WSP	768	290,291	1,850	1,224,486	170	65,016
Total	3,492	2,918,926	11,569	6,434,307	1,303	832,094

Notes:
Number of people participating in labor programs, by facility in 2023. Participant counts are not unique within or between class or facility. People participating in more than one assignment in 2023 would be counted multiple times even if the assignment was within the same class of labor.
AHCC = Airway Heights Corrections Center; CBCC = Clallam Bay Corrections Center; CCCC =Cedar Creek Corrections Center; CI HQ = Correctional Industries Headquarters; CRCC =Coyote Ridge Corrections Center; LCC = Larch Corrections Center; MCC = Monroe Correctional Complex; MCCCW = Mission Creek Corrections Center for Women; MISS = McNeil Island Stewardship; OCC = Olympic Corrections Center; SCCC = Stafford Creek Corrections Center; WCC = Washington Corrections Center; WCCW = Washington Corrections Center for Women; WSP = Washington State Penitentiary.
-- indicates that reliable data were not available
a. Assignments for program or assignment waitlists and CI's *Makin it Work* program were excluded.
b. Value is lower than expected given the amount of labor hours, potentially indicating a data quality issue.

[50] Counts represent people-work assignments. People can have multiple work assignments; each would be counted. This is not the unique count of people.
[51] Information about assignments and hours were retrieved from different tracking systems. In some cases, these systems did not track hours in a way that allowed 1-to-1 mapping of assignments and hours.
[52] Assuming a standard 2,080-hour work year.

Finally, during 2023, over 830,000 Class IV labor hours were used in support of community projects. Most labor hours were allocated to forestry work by the Department of Natural Resources (DNR; detailed in the following section). This was comparable to approximately 400 full-time equivalent employees.

Characteristics of Positions Offered

Next, we describe the positions offered and the level of job skills that those positions would require outside of a correctional setting. A full list of positions available can be found in Appendix II.

Correctional Industries. CI offers 75 different work assignments across 16 major job classifications (Exhibit 9). The most frequent work assignments were in production occupations associated with CI's manufacturing activities, such as building furniture and manufacturing textiles.

Class III Positions. There were fewer types of work assignments operated with Class III labor. In total, 49 unique SOC codes were identified; the most frequent positions were associated with the construction, maintenance, and repair of DOC facilities.[53]

Class IV Positions. Class IV labor was predominantly used for groundskeeping activities (e.g., mowing lawns, pruning and trimming trees, and debris and trash collection) and by DNR to prevent and control wildfires. Community work crews are often employed by units of local or county government to do property maintenance and landscaping. Labor provided to DNR included training, forestry work, and wildland firefighting.

Due to data limitations, we were unable to disaggregate hours used in support roles (e.g., maintaining forestry camps used by wildland firefighters, preparing food for firefighting crews) versus active firefighting duty.

There were indications that the data for positions and hours worked were not always aligned (e.g., some labor hours exceeded what would be plausible for the number of people assigned to those roles). Data on assignments and work hours were retrieved from different record systems, which contributed to data inconsistencies that we were not able to resolve. For example, positions working at CI headquarters were tracked as a unique assignment but were not uniquely identified in the hours worked data.

Skill Level of Correctional Work Assignments

Jobs and positions offered were linked to SOC codes, which were then linked with the skill categories developed by O*NET. In 2023, 108 unique occupational positions were available to incarcerated people. Individual skill scores were aggregated into seven categories. Equivalent jobs that required the greatest level of skill varied within these categories. The most skilled positions by category were:

- *Content*—Labor Relations Specialists
- *Process*—Substance Abuse and Behavioral Disorder Counselors
- *Social*—Substance Abuse and Behavioral Disorder Counselors
- *Complex problem solving*—Data Warehousing Specialists

[53] Two positions could not be assigned to an SOC code due to the ambiguous job title. These positions accounted for approximately 6,500 hours that were omitted from further analysis.

- *Technical*—Electricians
- *Systems*—Data Warehousing Specialists
- *Resource management*—Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors

Job skill information can be found in Appendix II, Exhibit 18 and is available to download online.[54]

It is difficult to quantify the skills required for a job with a single value. Limitations of the approach used by O*NET have been documented in other research.[55] This includes concerns about over- or under-coverage of some job content areas, overly complex question items, and response anchors that can be difficult to relate to some occupations.

More generally, there can be considerable variation in necessary skills even within similar careers, especially when those careers can operate in different job sectors. These differences are difficult to identify or quantify and can't be represented with a single score averaged across a career category. Despite these challenges, O*NET data are the best source for describing skills requirements across a diverse set of occupations.

Connecting job skills with participation in CI has additional limitations. Participation in prison jobs may not translate directly into transferable experience after release from incarceration. Due to security and practical concerns, jobs performed by incarcerated people may not have the same range of responsibilities or skills typically found in corresponding jobs outside of a correctional setting. These findings should be interpreted with these limitations in mind.

[54] https://docs.google.com/spreadsheets/d/1yS4I0P5F1tseHO8w_pSQyNGRHh321cVBcrdYBYQ6OxU/edit?gid=360708096#gid=360708096

[55] See, for example, Handel, M.J. (2016). The O*NET content model: strengths and limitations. *Journal for Labour Market Research*, *49*(2), 157–176.

Exhibit 9

Assignment Categories, by Labor Type in 2023

SOC major group	SOC major group description	Number of job types		
		Class II	Class III	Class IV
13	Business and financial operations	0	2	0
15	Computer and mathematical	2	1	0
17	Architecture and engineering	1	0	0
21	Community and social service	0	2	0
25	Educational instruction and library	2	1	0
27	Arts, design, entertainment, sports, and media	2	3	0
31	Healthcare support	0	3	0
35	Food preparation and serving related	4	1	0
37	Building and grounds cleaning and maintenance	2	2	1
39	Personal care and service	0	5	0
43	Office and administrative support	10	6	0
45	Farming, fishing, and forestry	1	1	0
47	Construction and extraction	1	8	0
49	Installation, maintenance, and repair	5	7	0
51	Production occupations	39	5	0
53	Transportation and material moving	6	2	0

Notes:
Job classifications were standardized by manually recoding or collapsing similar positions, with Class II and III roles adjusted based on skill level and similarity, while all Class IV jobs were assigned a single code due to limited task details.
See Appendix II for a full list of positions.

Estimated Impact of Pay Changes on Labor Associated with Correctional Work Assignments

Exhibit 10 describes the cost implications of increasing the level of gratuity from the current hourly average[56] to the average prevailing wage by job type. The average pay rate for analogous non-incarcerated labor was estimated using BLS data on hourly wages by SOC code for Washington State.

Hourly rates were weighted by the number of hours worked by incarcerated people in 2023. This was used to create a weighted average hourly rate for non-incarcerated labor in Washington. If incarcerated labor were compensated at the prevailing wage, it would cost an additional $193 million annually.

A more cautious approach is to estimate the difference compared to the state minimum wage, which was $15.74 per hour in 2023. Using this value, the difference between the actual incarcerated pay rate and the equivalent non-incarcerated pay rate was $155 million. In 2024, the minimum wage increased to $16.28. Assuming all incarcerated labor was compensated at the 2024 minimum wage, the cost would have been $161 million.

Due to the unique nature of CI, we did not extrapolate the potential impact of these pay changes to the costs of items sold by CI. CI uses profits to reduce the tax burden of incarceration. Increasing labor costs might result in reduced profits, which could result in fewer contributions to inmate betterment or crime victim compensation funds.

Exhibit 10

Cost Implications of Pay Change

Work class	Labor hours (2023)	Incarcerated		Non-incarcerated		Difference
		Average pay rate	Pay sum	Average pay rate	Pay sum	
II	2,601,515[a]	$1.74[b]	$4,521,550	$19.33[d]	$50,287,284	$45,765,734
III	6,434,307	$0.42[c]	$2,702,408	$20.96[d]	$134,863,075	$132,160,666
IV	832,094	$2.70[c]	$2,246,653	$21.76[e]	$18,106,361	$15,859,708
Total	9,867,916	--	$9,470,611	--	$203,256,720	$193,786,108

Notes:

a. Hours retrieved from CI Monthly Managerial Financial Statements. Hours reported are lower than Class II hours reported in Exhibit 8 because of differences in recording payroll hours versus programming hours.
b. Based on 2023 payroll data.
c. In 2022, DOC prepared a Fiscal Note in response to proposed legislation that would have increased pay for people experiencing incarceration. In assessing the fiscal impact of the proposed legislation, DOC calculated the average pay by class of labor. We adopted those hourly rates for this analysis.
d. Correctional work assignments were mapped to SOC code and merged with hourly average pay rates in Washington. The average hourly pay rate for non-incarcerated labor was weighted by the number of hours of work performed by incarcerated people in 2023.
e. Mean hourly wage for Landscaping and Groundskeeping Workers (SOC 37-3011) in Washington in 2023.

[56] The only work assignment to pay a considerably higher rate was working for the Department of Natural Resources during active wildland firefighting. When on firefighting service, program participants are paid at Washington State's minimum wage ($16.28 in 2024). The standard hourly rate for a wildland firefighter 2 was $18.97 in 2023. We were unable to account for this pay differential because active fire service hours could not be distinguished from other Class IV labor.

Given the challenges associated with forecasting how these increased costs may also result in changes to the cost of incarceration, we do not estimate likely changes in item costs.

Association Between CI Participation and Post-Release Employment Outcomes

Next, we explore differences between CI and non-CI participants in training received during their incarceration and post-incarceration employment outcomes. We explored the characteristics of a cohort of people released from custody between January 1, 2021, and June 30, 2023. Employment data covered January 1, 2021, to December 31, 2023.

There were some differences in demographic and incarceration characteristics between CI and non-CI participants (Exhibit 11). CI participants tended to be older and were more likely to be male. CI participants also tended to have had lower violent and property crime risk scores, suggesting that they were less likely to recidivate after release.

During a period of incarceration, people can earn a variety of certificates for participating in programming that helps to develop life skills and employment readiness and signify work participation (Exhibit 12).

People who participated in CI programming were more likely to have earned at least one certificate and, on average, earned more certificates than people who did not participate in CI programming. About 72% of CI participants earned at least one certificate compared to 42% of non-CI participants.

Exhibit 11

Description of People in Post-Incarceration Employment Analysis

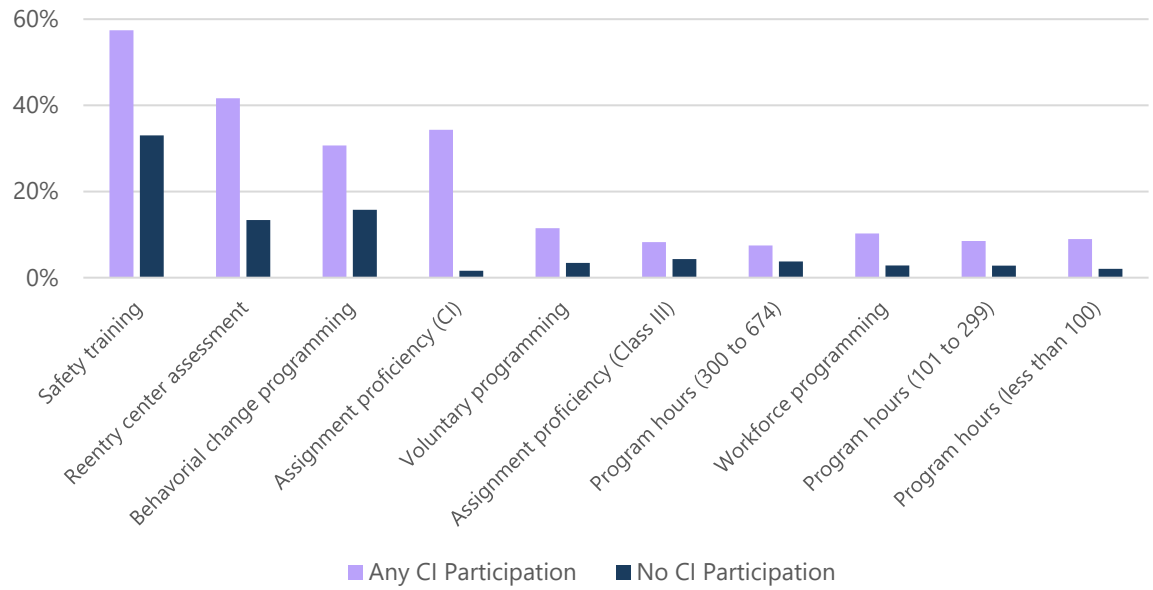
	Any CI participation N (SD)	No CI participation N (SD)
Number of people	2,791	9,513
Days incarcerated	2,140 (2,256)	795 (1,227)
Days in community[a]	915 (351)	910 (366)
Gender – Male	2,744	8,473
Mean age	42 (11)	38 (11)
Race & Ethnicity		
Alaskan Native/American Indian	133	619
Asian or Pacific Islander	113	348
Black	490	1,425
Hispanic	452	1,552
Other	6	24
Unknown	15	24
White	1,582	5,521
Mean risk score[b]		
Violent	228 (107)	263 (111)
Property	272 (129)	332 (128)

Notes:
People released from DOC custody between January 1, 2020, and June 30, 2023. If a person had more than one correctional stay during the observation period, the latest period of incarceration was retained.

a. Count of days between release date and December 31, 2023, or date of reincarceration (if applicable).
b. Risk score assessment closest to time of analysis.

Exhibit 12

Mean Certificates Earned, by Type and CI Participation



Notes:
People released from DOC custody between January 1, 2020, and June 30, 2023. If a person had more than one correctional stay during the observation period, the latest period of incarceration was retained. If a person earned multiple certificates of the same type, it was counted once. Certificate titles were aggregated by type. The top ten certificate types by volume earned are displayed.

The most earned certificates were associated with safety training. About 60% of CI participants and 30% of non-CI participants earned a certificate for completing safety training. Compared to people who had not participated in CI programming, CI participants were more likely to have earned all of the most frequently issued certificates, including those for completing behavioral change programming (31% versus 16%),[57] workforce training (10% versus 3%),[58] and other voluntary programming (11% versus 3%).

Participation in CI was generally associated with improved post-incarceration employment outcomes (Exhibit 13). CI participants were more likely to achieve any employment after release from incarceration (66% vs 56%; 18% more likely), and when they did achieve employment, they typically did so more quickly.[59] On average, CI participants achieved some employment within 124 days versus 142 for non-CI participants (13% less time).[60]

[57] Programs in this category include Thinking for a Change, Moral Reconation Therapy, and Getting it Right

[58] Current Programming.

[59] Research on people released from federal prisons found that about 66% of people released found some form of employment within four years. See Carson, E.A., Bhaskar, R., Fernandes, L.E., & Porter, S.R. (2021). *Employment of persons released from federal prison in 2010*. Bureau of Justice Statistics.

[60] Employment data are reported quarterly. Because no more precise date was available, time to first employment was calculated based on the difference between release time and the end of the quarter of an individual's first employment record.

On average, people who participated in CI earned more per hour after release than people who did not ($21.91 versus $21.27; 3% more pay).[61] Correctional Industry participants also worked more hours on average (21 versus 17 hours per week; 24% more hours).[62]

Given differences in participant characteristics, the results of this section should be interpreted with caution. Differences in employment or earnings may reflect the benefits of CI programming, or they may be due to self-selection into or out of participating in CI assignments. Participants were also more likely to engage with behavioral change programming which could also impact employment outcomes.

Electing to participate in CI and other programming may be indicative of interest and willingness to learn skills that can help facilitate the transition back into the community. This interest and skills learned through these other programs may be responsible for the differences. Although these findings are indicative of improved outcomes, establishing a causal relationship between CI participation and post-incarceration employment outcomes requires additional research.

It is also worth noting that the employment observation period for people included the time when a state of emergency was in effect due to the public health crisis associated with COVID-19 (February 2020 to October 2022). This may have affected earnings, making results less generalizable to other times.

[61] The sum of all wages earned by an individual was divided by the summed number of hours worked. Outliers indicative of data quality issues were identified; people who earned on average less than the minimum wage in 2020 ($13.50/hour) or in excess of $100/hour were removed.

[62] Average number of hours worked based on time between release from custody and December 31, 2023.

Exhibit 13

Differences in Employment Outcomes for CI Participants

Notes:
Cohort of people released from custody between January 1, 2021, and June 30, 2023.
Employment data covered January 1, 2021, to December 31, 2023.
If a person had more than one correctional stay during the observation period, the latest period of incarceration was retained.
These are descriptive findings and should not be interpreted as causal.

Meta-Analysis and Benefit-Cost Analysis

WSIPP first published a meta-analysis and benefit-cost analysis of correctional industries in 2001. Literature reviews were performed to incorporate new research in 2005 and 2016. Cost estimates were updated in 2023.

To update this previous work, we conducted a systematic review, screened resulting resources for relevance, and extracted data needed for the meta-analysis (Appendix III). The literature search returned 537 articles; seven passed screening, were subject to data extraction, and provided information necessary to calculate an effect size.[63]

More information on meta-analysis and results for correctional industries can be found in a previously published WSIPP report.[64] Findings published in that previous report indicated that averaging across all studies, participation in correctional industries was associated with less recidivism, although the effect was very small and did not reach conventional levels of statistical significance (ES = -0.05; p = 0.08).

Post-incarceration employment was significantly higher for correctional industry participants (ES = 0.17; $p < 0.01$). Participation in correctional industries did not have a measurable impact on technical violations or prison misconduct, although there were few studies that explored these outcomes.

Results from the meta-analysis were fed into two benefit-cost analyses; findings from the analysis were originally published in December 2024. The first approach included program expenditures, while the second included both program expenditures and revenue earned by CI from the sale of goods and services.

Results from this analysis indicated that there was a net benefit of $4,975 per CI participant after accounting for revenue generated by CI. In other words, for the outcomes we could incorporate, the benefits of operating correctional industries were larger than the expected monetary costs to society. This should be interpreted as a lower estimate because we were unable to monetize outcomes associated with improved employment outcomes observed for program participants. If these additional outcomes were incorporated, the net benefits would have been higher.

[63] Washington State Institute for Public Policy. (December 2024). *Benefit-cost technical documentation.* Olympia, WA.

[64] Goodvin et al. (2024).

IV. Conclusion and Limitations

DOC operates work programs for people who are incarcerated. The most comprehensive work and training program is operated by CI, which uses the labor of incarcerated people to offer a variety of goods and services to state and local governments and some nonprofits. Outside of CI, legislation authorizes the use of the labor of incarcerated people to operate and maintain DOC facilities, support community maintenance projects, and fight wildfires.

In fiscal year 2023, CI generated over $100 million in revenue from nearly 3 million hours of labor from incarcerated people. The largest purchaser of goods and services was DOC, predominantly for providing food services within correctional facilities and manufacturing textiles and clothing for use by people who are incarcerated.

In general, items manufactured by CI were priced comparably to similar products available through other procurement channels. The one exception was for items produced by the Optical Division; glasses and lenses offered by CI were the lowest cost, often by a considerable margin, for nearly all items reviewed.

There are several reasons why CI items may not be the cheapest options despite the low-cost labor of incarcerated people. It competes against products that are made outside of the United States in places that pay considerably less than Washington State's minimum wage.

CI positions item pricing so that it is competitive with other vendors and uses profits to improve CI services, reduce the cost of incarceration, and contribute to inmate betterment and crime victim compensation funds.

Item costs may also be impacted by low production efficiency compared to commercial businesses. Correctional Industries has a primary goal of developing job skills useful after release from incarceration. Activities and production may be more focused on vocational training rather than maximizing productivity. Production rates in CI manufacturing may also be negatively impacted by security precautions that require additional supervision or restricted access to tools and equipment.

Finally, CI has a large contingent of traditional employees. Staff provide programming aimed at reducing recidivism by conducting mock interviews, assisting with resume building, and providing post-incarceration job connection services. These services support CI's mission but increase the costs of goods and services. In fiscal year 2023, CI spent over $30 million on traditional employees, which accounted for about 30% of CI's total revenue.

Across all of DOC's work assignments, the required skills had a considerable range. Correctional Industries offered a more diverse range of work assignments compared to other DOC labor programs.

Work assignments while incarcerated are compensated at a rate considerably lower than the state minimum wage. Across all uses of incarcerated labor, increasing pay to the Washington State minimum wage would have increased labor costs to over $150 million per year.

People who participated in CI earned, on average, more certificates compared to non-CI participants. Once released, CI participants were more likely to achieve employment, attain that employment more quickly, work more hours, and earn more per hour. Despite these positive outcomes, results should be interpreted with caution. Our analysis does not indicate a cause-and-effect relationship between CI participation and positive outcomes; people who participated in CI programming and those who did not appear different on important characteristics such as length of incarceration and age at release. These characteristics may help explain why people participating in CI had better outcomes on average than those who did not. Employment characteristics were also measured during the public health crisis associated with COVID-19. Results may differ at other times.

Results from the systematic review, meta-analysis, and benefit-cost analysis suggested that CI reduces the cost of incarceration and produces a net benefit through reducing recidivism and improving post-incarceration employment prospects.

Limitations

Results should be interpreted in light of data limitations. We describe these limitations by major report section.

Cost Comparisons

Creating appropriate cost comparisons presents several challenges. Prices fluctuate, purchased quantities and options can impact pricing, and it can be difficult to construct comparison lists that represent key characteristics of an item. Vendors also offer different levels of service, which may be important to measuring overall product lifecycle costs.

Positions, Participants, and Skills

Due to data limitations, we could not report the unique number of program participants or the number of positions offered by CI or through other correctional work assignments. Data from CI and DOC were only available at the person-assignment level. We provide descriptive data on person assignments for a 12-month period but caution that this cannot be interpreted as a unique count of assignments. If a person participated in multiple programs, they would be counted multiple times.

Connecting work assignments with skills is challenging because the work activities of people while incarcerated may not match the career experiences of unincarcerated people. People in a correctional setting will not be responsible for the full range of employment-related activities due to security or practical concerns associated with confinement.

Finally, job assignments recorded by DOC did not always correspond to a single SOC code. For example, the job assignment for "Kitchen" could be classified as a dishwasher, food preparation worker, or non-restaurant food server. In general, we selected the most generic occupation that aligned with the DOC-provided assignment description.

Post-Release Employment

It was not possible to describe the type of jobs people obtained after they were released from incarceration. In 2024, Washington began requiring employers to submit employment data that includes SOC codes, but these were not available for the people analyzed in this study.

Participating in CI programming is optional, and people who opt into CI programming may have different motivations and intentions than those who do not. Participants tended to be older, have been incarcerated for longer, and have participated in additional programming. Given the differences between CI and non-CI participants, the impact of CI on post-incarceration employment should be interpreted with caution because we cannot adequately adjust for self-selection into or out of CI assignments. These relationships should not be interpreted as causal, but findings are indicative of a relationship worth further exploration.

Benefit-Cost Analysis

The study assignment language required a benefit-cost analysis that would consider a full-cost comparison of items and services that could be procured through a competitive bidding process, essentially comparing the costs and benefits of CI-produced goods with those produced through competitive bids.

We were unable to conduct this type of analysis (as explained below), so instead, we relied on WSIPP's standard approach to fulfill this part of the assignment. In WSIPP's standard approach, we consider the costs to the taxpayer to administer CI and compare those to the benefits to society at large from outcomes like recidivism, employment, and other measures.

The benefit-cost analysis presented in this report was updated to reflect the most up-to-date research. However, the only outcome that was monetized was the impact of correctional industry participation on recidivism-related measures. Other outcomes, such as impact on earnings post-incarceration, were not included in the benefit-cost analysis. Additionally, correctional work programs in other states may have different work assignments or program offerings. These potential differences should be considered when making comparisons to Washington's CI.

We did not conduct a full-cost comparison of items and services that could be procured through a competitive bidding process for several reasons. First, CI offers numerous services and a wide range of products. Each item or service would need to be described and bid through a competitive process, which would have created a substantial burden on private businesses and expanded this evaluation beyond available resources.

Second, the cost range of items was considerable even after matching key characteristics. These comparisons suggested that CI items were competitively priced relative to items available through conventional purchasing channels. The Department of Enterprise Services conducted a comprehensive bid process to identify alternative sources of office furniture when CI production capacity could not match demands. We took advantage of this by comparing CI items to those offered through the alternative contract. Our analysis found that the pricing of CI items was similar to items offered through these contracts.

Third, some services provided by correctional industries would not be amenable to outsourcing to private businesses. For example, we could not identify any examples where laundry services for correctional institutions were provided by a private business. Practical or security concerns may render service provision by outside vendors impractical.

Fourth, CI contributes to the correctional system in ways that are difficult to operationalize when only considering the cost of individual products. Profits generated by CI directly support correctional operations, thereby reducing the tax burden of incarceration. Profits generated by CI also contribute to the inmate betterment, crime victim compensation, and family support funds. Reducing money spent on items manufactured or sold by CI may result in increased incarceration costs.

Fifth, CI provides skill development, training, and other support to ease the transition back to the community.[65] This includes developing resumes, building interview skills, and developing employment plans that are useful once released. Participation in CI has been associated with reduced recidivism and improved employment outcomes. These long-term benefits cannot be captured by just comparing item costs.

Because of these challenges, we adopted a broader approach towards understanding the benefits and costs associated with CI. This included the cost of program operation, revenue generated by CI, and the longer-term societal benefits from reduced recidivism.

[65] Employment Support.

Appendices

Contracting and Labor Practices in Washington State's Correctional Industries

Appendices

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Appendix I. Detailed Pricing Comparisons

Detailed pricing information can be found in Exhibit 14 (office chairs), Exhibit 15 (other office furniture), and Exhibit 16 (items sold by Textile and Optical Divisions). Additional product descriptions and characteristics are omitted for items in Exhibits 15 and 16 because all items were substantially similar, and there was less variation among comparison items.

Exhibit 14

Cost Comparison: Ergonomic Office Chairs

Source	Manufacturer or vendor	Model	Weight limit (lbs.)	Warranty (years)	Price
Basic office chair					
Alt. state contract	Hon	Gateway	250	5	$202.84
Web	Office Star	Pro-Line ProGrid Ergonomic Mid-Back Mesh Chair	275	3	$279.00
Web	Tempur-Pedic	Ergonomic Mesh Swivel Task Chair	250	10	$349.99
Web	Lorell	ErgoMesh Series Managerial Mesh Mid-Back Chair	250	5	$451.00
Web	Alera	Elusion Mesh High-Back Multifunction Chair	275	5	$464.99
Alt. state contract	Steelcase	Series 2 Air	400	12	$505.97
Web	CI	Breathe Task Chair	300	10	$515.00
Web	Hon	Ignition	300	Lifetime	$554.99
Alt. state contract	Haworth	Very Task	325	12	$635.96
Alt. state contract	MillerKnoll	Mirra 2	350	12	$757.35
Premium office chair					
Alt. state contract	Hon	Ignition	300	Lifetime	$445.28
Alt. state contract	Steelcase	Amia	400	12	$463.25
Web	Office Master	PT74 Paramount Low Back Adj. Lumbar Ergo Task Chair	300	12	$532.35
Web	Sitmatic	GoodFit Mid-Back Chair	400	Lifetime	$539.99
Web	CI	Range Task Chair	350	10	$605.00
Web	Flash Furniture	HERCULES Series 24/7 Intensive-Use Ergonomic Mid-Back Executive Multifunction Office Chair	300	2	$621.49
Web	Global Truform	Fabric Computer and Desk Chair	350	12	$647.99
Alt. state contract	Haworth	Zody LX	300	12	$713.77
Alt. state contract	MillerKnoll	ReGeneration	300	12	$735.13
Web	Human Solution	ergoCentric geoCentric Task Chair	280	Lifetime	$837.00

Notes:
All basic office chairs were made of mesh fabric and were pneumatic height-adjustable. All premium office chairs have standard upholstery fabric, adjustable lumbar support, and are height and depth-adjustable. The list price from web sources does not include sales or discounts. Prices for alternative contractors include the lowest applicable discount rate established in the contract. More information about the state contract for office furniture can be found online.

Exhibit 15

Cost Comparison of Top-Selling CI Furniture Items

Product description	CI	Vendor 1	Vendor 2	Vendor 3	Vendor 4	Vendor 5
File cabinet CI Product Name: Mobile Ped Metal Box/Box/File	$355.00	$209.99	$249.00	$266.98	$332.30	$417.92
Nesting chair CI Product Name: Navigator Chair	$290.00	$133.99	$199.00	$259.00	$299.00	$500.49
Stackable chair CI Product Name: Value Stacking Chair, High Back	$150.00	$73.00	$99.00	$124.95	$129.99	$156.47
Standing desk CI Product Name: Toggle Electric Base Black/Silver W/Top	$525.00	$349.99	$639.99	$711.99	$834.99	$950.00

Notes:
The price does not include shipping, sales, discounts, or extended warranties. Vendor numbers do not necessarily reflect the same vendor across all items. For example, Vendor 2 for office storage and Vendor 2 for nesting chairs represent different vendors. Prices were retrieved in June 2024.

Exhibit 16

Cost Comparison of Textile and Optical Items

Product description or name	CI	Vendor 1	Vendor 2	Vendor 3	Vendor 4	Vendor 5
Textile Items						
Shoes	$25.50	$7.25	$9.50	$18.99	$26.30	$38.31
Khaki pants	$10.04	$13.00	$18.40	$23.70	$29.00	$69.90
T-shirt	$6.23	$5.20	$6.06	$6.91	$8.00	$10.60
Sweatshirt	$10.72	$8.99	$11.34	$11.79	$13.80	$14.98
Socks	$1.88	$0.31	$0.63	$0.75	$0.90	$1.42
Sweatpants	$10.29	$9.20	$9.99	$11.34	$14.99	$18.60
Boxers	$2.03	$1.22	$1.25	$2.37	$3.49	$7.50
Jacket	$20.21	$15.00	$15.39	$19.49	$26.60	$29.00
Shorts	$7.68	$9.10	$11.34	$11.83	$14.83	$16.99
Work pants	$10.67	$13.00	$13.80	$13.95	$24.07	$26.99
Eyeglass frames						
Soho – 1014	$9.46	$19.00	$29.95	$35.00	$59.00	$94.95
Modern Optical – Urban	$9.46	$22.50	$29.00	$29.00	$34.76	$39.95
Stylewise – 229[a]	$9.51	$21.95	$44.00	$44.95	$148.80	--
Eyeglass lenses						
CR-39 Single Vision SRC	$11.04	$24.00	$36.00	$49.00	$60.00	$75.00
HI 1.60 Single Vision SRC[a]	$40.90	$69.00	$141.00	--	--	--
Poly Single Vision SRC	$34.48	$57.00	$58.00	$59.00	$65.00	$93.00
CR-39 FT28 SRC	$21.00	$52.00	$59.00	$59.00	$88.00	$97.00
CR-39 Progressive SRC	$102.77	$69.00	$75.00	$98.00	$150.00	$175.00

Notes:

The price does not include shipping, sales, discounts, or extended warranties. Lens pricing excludes any coatings (e.g., scratch resistance, anti-glare). For frames, all colors were the same price. Vendor numbers do not necessarily reflect the same vendor across all items. For example, Vendor 2 for shoes and Vendor 2 for sweatpants represent different vendors. Prices were retrieved in June 2024.

a. We were unable to locate five vendors for this item.

Appendix II. Positions Offered to Incarcerated Individuals

Class II, III, and IV labor positions were categorized into 108 SOC codes (Exhibit 17). Data from O*NET was used to determine job skill level and mean hourly rate for Washington in 2023.

Exhibit 17

Equivalent SOCs Offered by DOC

SOC	Job title	Offered by class	Skill category							
			Basic Skills Content	Basic Skills Process	Social Skills	Complex Problem -Solving Skills	Tech. Skills	Systems Skills	Resource Mgmt. Skills	Hourly Rate[a]
13-1075	Labor Relations Specialists	III	4.1	3.8	3.8	3.8	0.6	3.5	2.3	$43.39
13-1199.05	Sustainability Specialists	III	3.5	3.5	3.2	3.6	1.5	3.5	2.4	
15-1232	Computer User Support Specialists	II, III	3.1	3.3	2.9	3.3	2.3	3.0	1.8	$30.77
15-1243	Data Warehousing Specialists	II	3.4	3.5	3.1	4.0	2.2	3.8	2.1	$72.32
17-3013	Mechanical Drafters	II	3.3	3.2	2.7	3.1	2.3	3.0	1.9	$30.70
21-1011	Substance Abuse and Behavioral Disorder Counselors	III	3.4	4.0	3.9	3.5	1.1	3.5	2.0	
21-1093	Social and Human Service Assistants	III	3.3	3.5	3.5	3.1	1.2	3.1	2.0	$20.67
25-3011	Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	II, III	3.1	3.6	3.4	3.0	0.9	2.9	3.1	$29.67
25-4011	Archivist	II	3.2	3.3	2.9	3.1	1.3	3.1	2.5	$33.57
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	III	2.7	3.0	2.0	2.9	1.8	2.4	1.8	$32.21
27-1021	Commercial and Industrial Designers (ProCAD)	II	3.7	3.7	3.1	3.9	2.3	3.7	2.5	$42.53
27-2023	Umpires, Referees, and Other Sports Officials	III	2.4	3.1	2.8	2.8	0.7	2.3	2.4	
27-3091	Interpreters and Translators (Braille)	II	3.5	3.4	2.9	3.0	1.1	2.4	2.8	$30.85
27-4021	Photographers	III	2.7	3.1	3.0	3.0	1.6	2.6	2.0	$28.45
31-1122	Personal Care Aides	III	2.4	2.9	2.8	2.4	1.6	2.0	1.6	
31-1132	Orderlies	III	2.0	2.0	2.2	1.6	1.4	1.3	1.9	$18.75
31-1133	Psychiatric Aides	III	2.5	3.3	3.3	3.0	1.4	2.3	1.8	$21.68
35-2012	Cook, Institution and Cafeteria	II	2.8	2.9	2.7	2.9	1.6	2.3	2.6	$19.88

Exhibit 17 (Continued)
Equivalent SOCs Offered by DOC

SOC	Job title	Offered by class	Skill category							Hourly Rate[a]
			Basic Skills Content	Basic Skills Process	Social Skills	Complex Problem -Solving Skills	Tech. Skills	Systems Skills	Resource Mgmt. Skills	
35-2021	Food Preparation Workers	II, III	2.1	2.1	2.0	2.1	1.6	1.5	1.4	$17.61
35-9011	Dining Room and Cafeteria Attendant	II	1.7	2.1	2.1	2.0	1.3	1.5	1.7	$16.76
35-9021	Dishwasher	II	1.8	1.9	1.9	2.1	2.0	1.5	1.4	$16.97
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	II, III	1.9	2.0	2.0	2.1	1.7	1.6	1.2	$18.32
37-3011	Landscaping and Groundskeeping Workers	II, III, IV	1.5	1.9	1.9	2.1	1.9	1.8	1.4	$20.20
39-2011	Animal Trainers	III	2.5	3.5	2.9	2.8	1.4	2.7	2.1	$18.38
39-2021	Animal Caretakers	III	2.3	2.5	2.2	2.3	0.9	1.8	1.3	$17.15
39-5011	Barbers	III	2.2	2.4	2.1	2.1	1.2	1.3	1.7	$25.60
39-6011	Baggage Porters and Bellhops[b]	III	2.5	2.3	2.5	2.1	1.4	2.1	1.6	$16.68
39-9032	Recreation Worker	III	2.8	3.3	3.5	3.0	1.1	2.8	2.8	$18.31
43-3021	Billing, Cost, and Rate Clerk	II	3.1	2.8	2.5	2.6	0.9	2.4	1.7	$21.67
43-3031	Bookkeeping, Accounting, and Auditing Clerk	II	3.4	2.8	2.5	2.9	0.5	2.4	1.9	$24.74
43-3061	Procurement Clerk	II	3.5	3.2	2.8	3.1	0.8	2.5	2.6	$22.22
43-4051	Customer Service Representative	II	3.2	3.1	3.1	3.0	0.8	2.4	1.5	$21.12
43-4071	File Clerks	II, III	2.8	2.4	2.2	2.3	0.9	2.1	1.6	$20.11
43-4121	Library Assistants, Clerical	III	2.9	2.5	2.6	2.1	0.8	2.0	1.8	$18.67
43-4151	Order Clerk	II	3.3	2.9	2.9	2.6	0.9	2.3	1.7	
43-5021	Couriers and Messengers	III	2.7	2.2	2.1	2.4	1.3	1.8	1.4	$18.16
43-5061	Production, Planning, and Expediting Clerk	II	3.2	3.0	2.7	3.1	1.3	2.7	2.6	$26.87
43-5071	Shipping, Receiving, and Traffic Clerk	II	2.8	2.6	2.4	2.3	1.4	2.2	1.7	$22.04
43-6012	Legal Secretaries and Administrative Assistants	III	3.4	2.7	2.5	2.6	1.0	2.2	2.4	$26.21
43-6013	Medical Secretaries and Administrative Assistants	III	3.0	2.6	2.5	2.8	0.6	2.1	1.5	$22.68
43-9021	Data Entry Keyer	II	2.9	2.3	2.2	2.5	1.0	2.2	1.7	$19.58
43-9061	Office Clerks, General	II, III	3.0	2.7	2.6	2.3	0.9	2.0	1.8	$21.64
45-2091	Agricultural Equipment Operator	II	1.8	2.0	1.9	2.4	2.4	1.6	1.4	$17.28
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	III	2.5	2.4	2.2	2.5	1.9	2.3	1.8	$15.92

Exhibit 17 (Continued)
Equivalent SOCs Offered by DOC

SOC	Job title	Offered by class	Skill category							Hourly Rate[a]
			Basic Skills Content	Basic Skills Process	Social Skills	Complex Problem -Solving Skills	Tech. Skills	Systems Skills	Resource Mgmt. Skills	
47-2031	Carpenters	III	2.7	3.1	2.8	2.9	2.1	2.5	2.3	$31.86
47-2073	Operating Engineers and Other Construction Equipment Operators	III	2.0	2.7	2.4	2.6	2.4	2.1	1.7	$35.87
47-2111	Electricians	III	3.0	3.4	3.1	3.0	3.2	3.1	2.8	$38.00
47-2141	Painters, Construction and Maintenance	II	2.1	2.3	2.1	2.1	1.3	1.8	1.8	$25.80
47-2152	Plumbers, Pipefitters, and Steamfitters	III	2.4	2.8	2.3	2.9	2.5	2.9	2.1	$38.17
47-3012	Helpers--Carpenters	III	2.5	2.3	2.3	2.1	1.8	1.6	1.5	$19.10
47-3013	Helpers--Electricians	III	2.1	2.4	2.0	2.3	2.5	1.7	1.4	$21.84
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	III	1.9	2.2	2.1	2.1	2.1	1.5	2.3	$20.01
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	III	1.9	2.1	2.0	2.0	1.8	1.3	1.4	$19.85
49-3023	Automotive Service Technicians and Mechanics	III	2.3	2.9	2.6	3.0	2.8	3.0	1.8	$25.83
49-3031	Bus & Truck Mechanics & Diesel Engine	II	2.5	3.0	2.5	3.0	2.6	2.6	1.7	$30.65
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	III	2.8	3.1	2.7	3.3	2.9	2.8	2.4	$31.91
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	III	2.2	2.7	2.3	2.8	2.3	2.3	1.7	$24.44
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	III	2.5	3.1	2.8	3.3	2.8	3.3	2.4	$29.96
49-9041	Industrial Machinery Mechanic	II	2.6	3.2	2.3	3.0	3.2	2.9	1.7	$31.71
49-9043	Maintenance Workers, Machinery	II, III	2.2	2.4	2.3	2.9	2.7	2.2	1.5	$25.86
49-9071	Maintenance and Repair Workers, General	II, III	2.6	2.9	2.5	3.0	2.9	2.5	2.0	$24.56
49-9098	Helpers--Installation, Maintenance, and Repair Workers	II, III	2.2	2.5	2.0	2.1	2.3	2.2	1.5	$22.11
51-2041	Structural Metal Fabricators and Fitters	II	2.1	1.8	2.1	2.3	1.6	1.1	2.2	$24.41
51-2092	Team Assemblers	II	2.7	2.5	2.7	2.6	1.8	2.3	1.9	
51-3011	Baker	II	2.3	2.7	2.2	2.0	1.5	2.3	1.7	$17.75
51-3022	Meat, Poultry, and Fish Cutter and Trimmer	II	2.2	2.5	2.3	2.1	1.8	1.5	1.6	$16.06
51-3023	Slaughterers and Meat Packers[c]	II	1.5	1.6	1.5	1.8	1.4	1.3	1.1	$17.26

Exhibit 17 (Continued)
Equivalent SOCs Offered by DOC

SOC	Job title	Offered by class	Skill category							Hourly Rate[a]
			Basic Skills Content	Basic Skills Process	Social Skills	Complex Problem -Solving Skills	Tech. Skills	Systems Skills	Resource Mgmt. Skills	
51-3093	Food Cooking Machine Operator and Tender	II	2.3	2.4	2.1	2.4	1.4	1.8	1.5	$17.16
51-4031	Cutting, Punching, and Press Machine Operators, Metal and Plastics	II	2.3	2.5	2.0	2.6	2.3	1.9	1.4	$22.78
51-4081	Multiple Machine Tool Setter, Operator, and Tender, Metal and Plastic	II	2.8	2.9	2.5	3.0	2.6	2.5	1.7	$24.22
51-4121	Welders, Cutters, Solderers, and Brazers	II, III	1.9	2.2	1.8	2.5	1.8	2.0	1.4	$27.67
51-4122	Welding, Soldering, and Brazing Machine Setter, Operator, and Tender	II	2.1	2.5	2.1	2.5	2.2	1.8	1.3	$22.98
51-4192	Layout Worker, Metal and Plastic	II	2.9	2.7	2.3	2.9	2.0	2.2	1.4	$30.51
51-5111	Prepress Technicians and Worker	II	2.5	2.8	2.5	2.9	1.8	2.5	1.6	$21.80
51-5112	Printing Press Operator	II	2.7	2.8	2.6	2.9	2.4	2.4	1.9	$22.79
51-5113	Print Binding and Finishing Worker	II	2.7	2.8	2.4	2.9	2.3	2.4	1.7	$20.87
51-6011	Laundry and Dry-Cleaning Workers	II, III	2.0	2.2	2.2	2.3	1.7	1.7	1.6	$16.24
51-6021	Presser, Textile, Garment, and Related Material	II	1.6	1.7	1.5	1.8	1.4	1.4	0.9	$15.89
51-6031	Sewing Machine Operator	II	2.0	2.1	1.7	2.1	1.6	1.6	1.3	$17.61
51-6052	Tailors, Dressmakers, and Custom Sewers	II, III	2.5	2.5	2.4	2.6	1.8	1.8	1.6	$21.03
51-6062	Textile Cutting Machine Setter, Operator, and Tender	II	2.3	2.5	2.0	2.6	2.4	2.3	1.7	$19.55
51-6063	Textile Knitting and Weaving Machine Setter, Operator, and Tender	II	2.1	2.1	1.7	2.1	2.2	1.5	1.3	$19.27
51-6092	Fabric and Apparel Patternmaker	II	3.1	3.2	2.8	3.0	2.1	2.7	2.2	
51-6093	Upholsterer	II	2.8	2.9	2.6	3.0	2.1	2.3	2.1	$25.03
51-7011	Cabinetmaker and Bench Carpenter	II	2.2	2.8	2.2	2.8	2.4	2.3	2.0	$20.79
51-7021	Furniture Finishers	II	2.4	2.8	2.5	2.8	2.2	2.3	2.2	$20.09
51-7041	Sawing Machine Setter, Operator, and Tender, Wood	II	2.0	2.4	2.0	2.3	2.1	1.9	1.3	$20.88
51-7042	Woodworking Machine Setter, Operator, and Tender, Except Sawing	II	2.1	2.5	1.7	2.5	2.4	1.5	1.3	$20.45

Exhibit 17 (Continued)
Equivalent SOCs Offered by DOC

SOC	Job title	Offered by class	Skill category							Hourly Rate[a]
			Basic Content	Basic Process	Social	Complex Problem -Solving	Tech.	Systems	Resource Mgmt.	
51-8031	Water and Wastewater Treatment Plant and System Operators	II, III	2.9	3.2	2.5	3.0	2.5	2.9	1.8	$35.99
51-9011	Chemical Equipment Operator and Tender	II	2.9	2.9	2.4	2.9	2.4	2.7	1.7	$29.03
51-9022	Grinding and Polishing Worker, Hand	II	2.4	2.4	2.2	2.5	2.4	2.2	1.7	$19.50
51-9061	Inspector, Tester, Sorter, Sampler, and Weigher	II	2.6	2.7	2.3	2.8	1.8	2.3	1.7	$28.91
51-9083	Ophthalmic Laboratory Technician	II	2.4	2.7	2.2	2.5	2.2	2.1	1.6	$22.23
51-9111	Packaging and Filling Machine Operator and Tender	II	2.4	2.4	2.4	2.1	2.3	2.0	2.3	$18.01
51-9123	Painting, Coating, and Decorating Workers	II, III	2.0	2.3	2.2	2.0	1.2	1.5	1.5	$21.00
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	II	2.2	2.6	2.1	2.6	2.2	2.1	1.5	$26.35
51-9161	Computer Numerically Controlled Tool Operators	II	2.7	3.2	2.2	3.0	2.8	2.8	1.7	$29.86
51-9191	Adhesive Bonding Machine Operator and Tender	II	2.2	2.6	2.2	2.5	2.6	2.3	1.7	$26.91
51-9193	Cooling and Freezing Equipment Operator and Tender	II	2.5	3.0	2.4	3.0	2.4	2.5	2.1	$22.94
51-9194	Etcher and Engraver	II	2.5	2.6	2.1	2.3	2.1	1.8	1.7	$21.22
51-9198	Helper – Production Worker	II	1.9	2.1	1.7	2.0	1.8	1.4	1.2	$18.29
53-3031	Driver/Sales Workers	III	2.8	2.5	2.8	2.9	1.5	2.2	1.7	$17.62
53-7051	Industrial Truck and Tractor Operator	II	2.2	2.1	2.0	2.0	2.0	1.9	1.4	$21.09
53-7061	Cleaners of Vehicles and Equipment	II	1.5	1.7	1.5	1.6	2.1	1.3	1.5	$17.24
53-7062	Laborer and Freight, Stock, and Material Mover, Hand	II	2.2	2.1	2.0	2.3	1.8	1.8	1.3	$18.79
53-7063	Machine Feeder and Offbearer	II	2.3	2.3	1.9	2.1	2.0	1.5	1.4	$18.29
53-7064	Packers and Packaging, Hand	II	1.8	1.6	1.4	1.8	1.0	1.3	1.3	$16.37
53-7065	Stockers and Order Fillers	II, III	2.6	2.3	2.2	2.3	1.3	2.0	1.8	$18.63

Notes:
Some codes provided by CI were replaced because BLS no longer used them or because they did not have corresponding skill profiles. Updated codes were the closest corresponding active code. Work assignment availability varies over time; not all assignments are available in all locations. Class III and IV SOCs were determined by WSIPP staff.
-- Data not available
a. Mean hourly pay rate for Washington in 2023
b. The activities of people assigned as a porter varies by facility. They may act as a janitor, a representative between DOC staff and people experiencing incarceration, or be responsible for distributing games/enrichment items. Because we were unable to classify this work with additional granularity, it was assigned a single SOC.

c. People experiencing incarceration do not perform animal slaughtering. Activity is limited to processing and packaging.

Appendix III. Meta-Analysis Methods

WSIPP's procedures for conducting systematic literature searches, meta-analysis, and benefit-cost analysis have been documented in past publications.[66] We provide a brief overview of the approach.

Systematic Literature Search

EBSCOhost was used to search 34 databases.[67] Search results were restricted to conference materials, trade publications, electronic resources, books, academic journals, government documents, reports, eBooks, and dissertations. We used the following search string: *("incarcerated labor" OR "prison labor" OR "correction* industr*" OR "prison industr*" OR "prison work" OR "prison vocation") AND ("prison" OR "incarceration")*. The search was conducted on April 03, 2024, and returned 2,251 references.

Using Google Scholar in systematic reviews presents several challenges related to consistency and replicability. To partially address this issue, the search was performed using Publish or Perish.[68] Citations, patents, and review articles were excluded from the search results. Two searches were performed.

- Search 1: *("incarcerated labor" OR "prison labor" OR "correctional industries" OR "correctional industry") ("evaluation" OR "outcome")*
- Search 2: *incarcerated labor prison labor correctional industries correctional industry prison work prison vocation*

The search was conducted on March 22, 2024. Consistent with best practices for identifying gray literature, the first 200 references from each search were retained.[69] Results from all searches were loaded into Zotero, a reference management software. Manual cleaning and deduplication between search results were conducted. After removing duplicates, the 600 references produced from the three searches were reduced to 537 unique records eligible for screening.

[66] WSIPP (December 2024).

[67] Databases included in the search: Academic Search Complete, Alternative Press Index, America: History & Life, American Antiquarian Society (AAS) Historical Periodicals Collection: Series 1, 2, 3, 4, & 5, Art Full Text (H.W. Wilson), Business Source Complete, eBook Collection (EBSCOhost), eBook Open Access (OA) Collection (EBSCOhost), Environment Complete, ERIC, European Views of the Americas: 1493 to 1750, Financial Times, GreenFILE, Health Source - Consumer Edition, Health Source: Nursing/Academic Edition, Historical Abstracts, Humanities Source, Left Index, Legal Collection, Library, Information Science & Technology Abstracts, MAS Reference eBook Collection, MAS Ultra - School Edition, MasterFILE Premier, MasterFILE Reference eBook Collection, MEDLINE, Military & Government Collection, Primary Search, Primary Search Reference eBook Collection, Sociology Source Ultimate, Teacher Reference Center

[68] Harzing, A.W. (2007). *Publish or perish*.

[69] 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.

Exhibit 18

Inclusion and Exclusion Criteria

Dimension	Inclusion criteria	Exclusion criteria
Study characteristics	• Published or translated in English	• Review articles • Meta-analyses[a] • Reports only survival analyses[b] • Not an outcome evaluation • Not a quantitative study • Law/legal review • Studies conducted on samples before 1979[c]
Population	• Adults • Any gender/sex	• People under the age of 18 • People over 18, if held in a juvenile facility
Intervention	• Participation in a prison work, labor, or correctional industry program • Participation occurs in a correctional facility • Inclusion in treatment group must not require participation in other programs	• Job placement programs • Post-incarceration employment assistance • Prison privatization
Comparator	• Experimental design • Quasi-experimental design (including propensity score-matched comparison) • Substantial similarity along baseline characteristics	• No comparator used
Outcomes	• Arrests • Convictions • Incarceration • Post-incarceration employment • Post-incarceration income • In-facility behaviors • Technical violations, revocations, and infractions	• Perceptions of people who are incarcerated (e.g., work ethic) • Perceptions of correctional officers or administrators • Macro-economic impacts (e.g., industry, community) • Employment law • Employment rights

Notes:

a. Meta-analyses were not eligible for inclusion, but they were included in backward citation chasing.

b. Studies that only reported survival analyses were excluded because they could not be included in the meta-analysis.

c. In 1979, the Federal government passed the Prison Industry Enhancement Certification Program (PIECP), which exempts certified state departments of corrections from some restrictions on the sale of goods made with the labor of incarcerated people. Because this program also spurred changes to prison work conditions and structure, research conducted prior to PIECP enactment was excluded.

A set of inclusion and exclusion criteria was established (Exhibit 18). Criteria were established for study characteristics. The population was restricted to adults, excluding training or skills programs focused on juveniles or people held in juvenile facilities. Studies must have included a comparable comparison group with similar baseline characteristics.[70] Program employment must have occurred within a correctional facility, and participation could not have been contingent upon participating in other programs. Both experimental and quasi-experimental studies were eligible for inclusion. A variety of outcomes were eligible. This included in-facility behaviors (e.g., infractions), recidivism measures (e.g., recidivism, reincarceration), and post-release employment measures (e.g., income earned, employment hours). Because of the difficulty in monetization, outcomes associated with changes in perceptions and macro changes (e.g., impacts on furniture production) were excluded. Studies only reporting results from survival analyses were not included because these effect sizes could not be combined with other effect sizes included in the meta-analysis.

Reference Screening

References were screened in Covidence, a web-based platform that facilitates systematic reviews and data extraction.[71] A two-stage screening was conducted to identify in-scope articles. The first screening stage was to review article titles and abstracts to determine if an article was (1) about correctional industries, (2) quantitative, 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 the use of the labor of incarcerated people and had an outcome appropriate for the benefit-cost analysis. Articles that passed this stage of screening were subject to data extraction.

Backward Citation Chasing

Backward citation chasing is a supplementary search technique that looks at all references in a set of articles. For this review, we limited backward citation chasing to articles determined to be in-scope and previously published meta-analyses. Backward citation chasing was performed using the R package citationchaser.[72] Backward citation chasing on in-scope articles and existing meta-analyses returned 296 references, which were reduced to 261 after deduplication. These articles went through the same two-stage screening procedure described above. One additional article was identified through consultation with an expert.

Meta-Analysis and Benefit-Cost Approach

Details on WSIPP's meta-analytic approach and benefit-cost modeling can be found online.[73] Averaging across all studies, participation in correctional industry programming was associated with lower levels of recidivism, but the relationship was only marginally significant (-0.05; $p = 0.08$). Post-incarceration employment was significantly higher for correctional industry participants (0.17; $p < 0.001$). Additional details on the benefit-cost results can be found in previous WSIPP reports.[74]

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[70] Baseline comparability could have been achieved through statistical adjustments such as weighting.
[71] https://www.covidence.org/.
[72] Haddaway, N.R., Grainger, M.J., & Gray, C.T. (2021). *citationchaser: An R package and Shiny app for forward and backward citations chasing in academic searching* (0.0.3).
[73] Washington State Institute for Public Policy. (2024). *Estimating program effects using effect sizes: A brief guide.* Olympia, WA.
[74] Washington State Institute for Public Policy. (2024). *Correctional Industries (program costs include expenditures and revenue).* Olympia, WA.

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