



Washington State Department of Corrections

Tracking Washington State Offenders Pilot Study:

Do Education Programs Affect Employment

Outcomes?

Principal Author

Michael Evans, DOC Senior Research Manager

Research Analyst

Susan Koenig

March 2011

Abstract

Substantial barriers to legal employment exist for former prison offenders after their release, such as finding a job with a livable wage and keeping the job are also more difficult due to their previous criminal histories and lower education levels compared to the general population. However, offenders participating in academic degree programs from Walla Walla Community College were employed at 25.5 percent level one year after release in 2009 compared to 15.7 percent of offenders with similar demographic characteristics, and recidivated at a lower rate (19.6 percent compared to 36 percent, respectively). Holding a job is an important signal that the individual is moving toward a crime-free life. Not only are these individuals working and crime-free, they are also taxpayers and consumers who help the local economies grow.

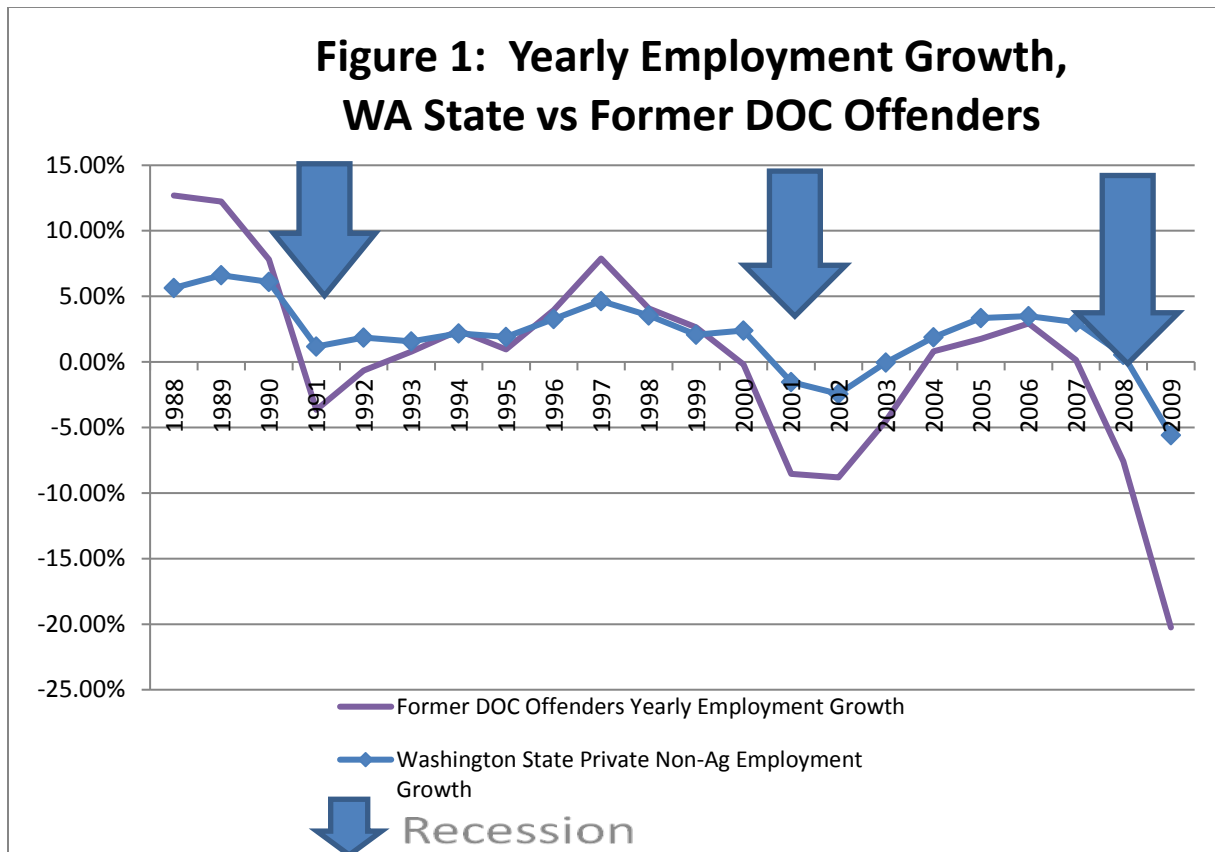
Tracking Washington State Offenders: Does Education Affect Employment Outcomes?

The most widely used measure of success or failure for former prisoners is recidivism. Yet, the use of recidivism as a performance measure is problematic (see “Recidivism Revisited” <http://www.doc.wa.gov/aboutdoc/measuresstatistics/docs/Recidivism%20Revisited.pdf>). Certain correctional programs have other goals and objectives that in tandem reduce recidivism. This article will focus on education program differences for employment outcomes of former offenders, before incarceration and after release. Offender employment programs should evaluate successful offender reentry based on post-prison wages, job placement and job retention, along with recidivism.

Substantial barriers to legal employment exist for former prison offenders after their release. Finding a job with a livable wage and keeping the job are also more difficult due to their previous criminal histories, having fewer job skills, and having lower education levels than the general population. The Bureau of Justice Statistics (BJS; <http://www.bjs.gov/index.cfm?ty=pbdetail&iid=814>) reported approximately 40 percent of offenders had not completed high school or attained a GED, compared to 18 percent of the general population over 18 years old (Harlow 2003). In the State of Washington, approximately 59 percent of offenders are under the 12th grade education level at incarceration.

Offender Employment Growth Compared With Private Sector Employment Growth and Recessions

Before looking at education impact, we need to look at employment outcomes in general for all offenders for context and comparison purposes. Employment growth over the year for former offenders follows the same pattern as the rest of the state employment growth, but former offenders are hit harder during recessions than the rest of the workers in the state (See Figure 1). During 2009, offenders’ employment growth fell at a 20.25 percent rate, compared to a 5.5 percent rate loss for employees in the Washington State private sector; the number of hours worked and wage growth follows this same pattern.



**Source Employment Data: Employment Security Department, Labor Market and Economic Analysis*

The largest percentage (15.9%) of former offenders work in the waste services industry, while 11 percent work in retail trade and 12.5 percent in the manufacturing sectors. Eleven and a half and 15.9 percent of the offenders work in food services and construction sectors, respectively (See Table 1). As the economy moves away from a manufacturing base to a service industry and the economy remains in recessionary growth with less housing construction, fewer job opportunities exist for former offenders. Further changes in the labor market and economy will affect the employment opportunities available to released offenders (n=299,229)¹.

¹ Those offenders who were under community supervision and never entered the prison system were broken out and compared with those in the prison system at one time, but there was no statistical significant difference; this is due to a large portion of those individuals in the community supervision that served jail time but not prison.

Table 1: Employment and Wages by Industry for All WA Offenders employed in 2008 (n=299,229)

| Industry Description | Percent Employed | Average Hourly Wage |
|--|-------------------------|----------------------------|
| Agriculture, Forestry, Fishing and Hunting | 3.0% | \$15.49 |
| Mining | 0.2% | \$23.13 |
| Utilities | 0.2% | \$27.31 |
| Construction | 15.9% | \$25.07 |
| Manufacturing | 12.5% | \$19.07 |
| Wholesale Trade | 4.5% | \$19.24 |
| Retail Trade | 11.0% | \$14.69 |
| Transportation and Warehousing | 4.1% | \$21.51 |
| Information | 0.9% | \$30.87 |
| Finance and Insurance | 0.7% | \$26.47 |
| Real Estate and Rental and Leasing | 1.7% | \$17.63 |
| Professional and Technical Services | 2.5% | \$25.18 |
| Management of companies and enterprises | 0.2% | \$21.07 |
| Administrative and Waste Services | 15.9% | \$15.81 |
| Educational Services | 1.3% | \$21.07 |
| Health care and Social Assistance | 4.8% | \$16.55 |
| Arts, Entertainment and Recreation | 2.5% | \$14.71 |
| Accommodation and Food Services | 11.5% | \$11.78 |
| Other services, except public administration | 4.6% | \$18.47 |
| Public Administration | 1.9% | \$22.74 |
| | 100% | \$14.49 |

Pre and Post-Prison Employment and Wage Experiences for All Offenders in Washington

Nationally, 21 to 38 percent of offenders were unemployed prior to incarceration, with 57 to 76 percent reporting wages in the month prior to arrest and incarceration during 2001 depending on their education level (Harlow 2003). In 2001, 72 percent of Washington offenders were employed one year prior to their admission to prison, compared with 40 percent one year after release from prison with 12.2 percent recidivating (See Table 2). By the great recession in 2008, only 33 percent of the offenders were employed one year prior to admission, and only 10 percent were employed one year after release from prison. Of the 90 percent that were not employed one year after release from prison, 8.8 percent

recidivated, which is surprising, since fewer jobs were available during the great recession in 2008 compared with the 2001 recession.

Table 2: Employment and Recidivism Outcomes for Offenders Released During 2001 and 2008 Recessions (n=6,331 and 8,156).

| | Employment One-Year Before Admission to Prison | Employment One-Year After Admission to Prison | Recidivism Rate |
|----------------|---|--|-----------------|
| 2001 Recession | 72% | 40% | 12.1% |
| 2008 Recession | 33% | 10% | 8.8% |

The number of hours and average wages for Washington offenders also decreased after incarceration, which corresponds with national studies. Nationally in 2008, offenders who were employed after release experience a 40 percent drop in annual earnings, annual employment by 9 weeks, an 11 percent drop in hourly wages, and hours worked were cut by 17 percent (Western and Pettit 2010), where former inmates experience less upward job mobility than those who are never incarcerated. We find similar results in Washington, where the average wage for offenders in 2008 was \$13.38 per hour before incarceration and dropped to \$10.54 per hour after incarceration (this was \$11.85 lower than the state average of \$22.39 for all workers).

Pilot Study of Education Program

Looking at the Walla Walla Community College education program, which requires offenders who participate in academic degree programs from Walla Walla Community College be under 36 years of age; 25.5 percent of offenders were employed one year after release, compared to 15.7 percent of all offenders who were not in the program, with an average wage of \$9.54 per hour for both groups (See

Table 3). The recidivism rate one year after release for offenders in this program was 19.6 percent compared to 36 percent for all offenders with similar demographic characteristics not in the program. This makes intuitive sense that this group of offenders would have higher rates of employment and recidivism compared to all other offenders due to their young age (Christy Visher, Sara Debus and Jennifer Yahner 2008).

Table 3: Employment and Recidivism Outcomes in 2009 one year after prison release for those completing education program versus those who did not participate (n=102 and 40).

| | Completed Education Program | Did Not Participate in Education Program |
|--|-----------------------------|--|
| Percent Employed One-Year After Prison Release | 25.5% | 15.7% |
| Percent Recidivating One-Year After Prison Release | 19.6% | 36.0% |

Successful Outcomes

Offenders who are employed after release are less likely to recidivate (Baer 2006), along with those who earn higher wages after release. Holding a job is an important signal that the individual is moving toward a crime-free life. Not only are these individuals working and crime-free, they are also taxpayers and consumers who help the local economies grow.

This research does not contain information into causes for employment outcomes, but is intended to summarize employment outcomes of WA offenders and provide a starting point for future research. Identifying factors to predict better employment outcomes and lower recidivism rates will help DOC

manage and understand program needs. Future research on in-prison work assignments, job training and education programs would help evaluate and determine the effectiveness of Washington pre and post-prison employment programs; Wilson, Gallagher, and MacKenzie (2000) showed that adult basic education and vocational programs increased post-release employment and reduced future criminal activity. Do offender employment programs help offenders from recidivating, remain attached to the labor market, maintain work hours and make livable wages?

Appendix:

Administrative Data and Methodology

We started by looking at the universe of all offenders that served prison time and/or were under supervision by DOC, so some offenders may never have entered a DOC prison but have served time in the jail system and were under DOC community supervision (N=346,538). We use linked quarterly Unemployment Insurance (UI) administrative employer/employee (Wage Record) files to the DOC offender database to develop a time series (longitudinal) data on the aggregated characteristics of the offenders and jobs held back to 1987. We also link to other offender administrative databases (i.e., Offender Needs Assessment (ONA), Risk Assessment, etc.) to provide aggregated demographic cross-sectional data on offender and employer characteristics (Industry).

The data set tables used are all-encompassing for the offenders and employees with no sampling.

Unlike other studies that look at just large businesses at one point in time; we looked at continuous data to assess the employment condition of offenders before and after incarceration. Over 85 percent of the total employment in the state of Washington is covered under UI, which are businesses that typically have a payroll of \$500 or more in a calendar year or acquire all or part of an organization, business, or trade, subject to the UI law at the time of acquisition. UI typically does not cover self-employed, agricultural workers on small farms, unpaid family workers, some domestic help, military personnel, railroad workers, and non-profit workers (some offenders work in supported employment). Washington State is slightly different than other states, where most agricultural workers are covered by UI. In Washington, most businesses are required to submit UI forms on the number of employees working on the 12th of the month, along with their employees' wage records at the end of each quarter; a list of each individual employed, wages paid, and hours worked by the business. One exception, federal employees do not have wage records available.

One advantage to using administrative data is the standardized longitudinal databases can be easily linked by UI and Social Security Number (SSN) rather than an inferred or imputed connection, which can lead to misleading inferences, integrating the dynamics of labor supply and demand. As Sherwin Rosen in the *Handbook of Labor Economics*, and Troske and Haltiwanger of the Center for Economic Studies put it, “On the empirical side of these questions the greatest potential for future progress rests in developing more suitable sources of data on the nature of selection and matching between workers and firms. Virtually no matched worker-firm records are available for empirical research, but obviously are crucial for the precise measurement of job and personal attributes required for empirical calculations and combining information on the characteristics of both workers and their employers has long been a Grail for labor economists.”

Other advantages to using administrative records are the ability to look at reliable universe data that is audited for accuracy and completeness, so no sampling bias occurs, along with accurate earnings data, no recall or non-response bias, and errors are random. UI practices a full audit trail for tax purposes. This provides a more accurate method of counting employment than inferring, estimating, or using demographic methods. Although, the most attractive feature is the low cost time series/longitudinal compared to sampling, along with reduced respondent burden to fill out surveys. By matching SSNs from one quarter to the next, it is possible to construct longitudinal employment histories for offenders working, to track subsequent employment and wages among job changers, and to identify unemployment/joblessness duration.

There are disadvantages using administrative records; only wages paid by employers are available, while fringe benefits and other income are not reported to UI and data can only be reported at certain aggregate levels due to confidentiality. Other useful information and variables (e.g., occupation) are missing from wage records, so you can only access what data are available. Also, approximately 85

percent of offender SSNs are accurate, so no match can occur on the UI employment data when SSNs are not correct (leaving 299,229 offenders to match employment data). Offender SSNs are problematic, due to inaccurate and multiple numbers provided by the offenders. Using the Enumeration Verification System (EVS) provided by the Social Security Administration (SSA), offender social security numbers were verified for data integrity and then matched in the wage record of the offender. At times, employers are delinquent and/or request extensions for reporting and/or paying UI tax, which creates missing employee data. Data are only available quarterly with a five month lag in availability; each quarter, the UI data are updated six quarters back to capture those employers' data. Typically, the most recent two quarters have the largest share of missing data.

Finally, labor markets are geographically mobile and attrition occurs, where individuals cross state lines; however, offenders under community supervision are not allowed to leave the state, so attrition is not a big issue that needs addressed. Levesque and Alt (1994) and Statistics Canada (1988) describes the problems and advantages of using record linked administrative data and Hildreth and Pudney (1998) and Grogger give attention to econometric issues using linked employer-worker data. Without analysis of administrative data, it is unrealistic to assume inferences about aggregate data are correct or not distorted with bias. Analyzing and using universe micro-data at the state level across all industries is the only way to accomplish universal access, internal consistency, and avoid distortions, but ultimately the research question drives method. Misinterpretation of administrative data can cause poor consequences, but a deeper understanding and assumptions of administrative data allows for better research analysis.

After matching employment and wage outcomes for all offenders, offenders who participated in academic degree programs from Walla Walla Community College and completed a high school diploma or equivalent were broken out and compared to a statistically validated control group of offenders with similar demographic and risk characteristics not in the program (e.g. age, gender, race, risk level, etc.).

References:

Washington State Employment Security Department, Labor Market and Economic Analysis, Quarterly Census of Employment and Wages.

Drake, E. (2003). "Class 1 Impacts: Work during incarceration and its effects on post-prison employment patterns and recidivism. Olympia: Washington Department of Corrections.

Morenoff & Harding (2008). MI study, "Neighborhoods, Recidivism, and Employment Among Returning Prisoners." National Institute of Justice.

Jeff Grogger (2009). "Bounding the Effects of Social Experiments Accounting for Attrition in Administrative Data." Working Papers NBER June 2009.

Traci Burch (2010). "Using Government Data to Study Current and Former Felons." Sentencing Project.

Bruce Western and Becky Pettit (2010). "Collateral Costs: Incarceration's Effect on Economic Mobility," The PEW Charitable Trusts

Mason Burley & Jim Mayfield (2010). "Factors related to employment and housing outcomes of public mental health consumers in Washington State." Olympia: Washington State Institute of Public Policy, Document No 10-08-3401.

Jeremy Travis (2003). Speech Transcript, "In thinking about "What Works," what works best?" The Margaret Mead Address at the National Conference of the International Community Corrections Association, Urban Institute Justice Policy Center.

Christy A. Visher, Laura Winterfield and Mark Coggeshall (2005). "Ex-Offender employment programs and recidivism: A meta-analysis." *Journal of Experimental Criminology*, 1: 295-315.

Christy Visher, Sara Debus and Jennifer Yahner (2008). "Employment after Prison: A Longitudinal Study of Releases in Three States." Research Brief, Urban Institute Justice Policy Center.

John Pawasarat (2007). "Barriers to Employment: Prison Time." Employment and Training Institute, University of Wisconsin-Milwaukee.

Amy Solomon, Kelly Dedel Johnson, Jeremy Travis, and Elizabeth McBride (2004). "From Prison to Work: The Employment Dimensions of Prison Reentry." Research Report, Urban Institute Justice Policy Center.

Lance Lochner and Enrico Moretti (2004). "The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports." *American Economic Review*, 94(1): 155-189.

Johannes Wheeldon, (2010). "Understanding the Impact of Correctional AA Programs in WA State: A Research Not." Prepared for Walla Walla Community College AA Program and WA DOC.

Gerald G. Gaes (2008). "The Impact of Prison Education Programs on Post-Release Outcomes." Reentry Roundtable on Education, March 31 and April 1, 2008.