



Budgeting for Results

IDOC Adult Basic Education/GED Program Assessment



Introduction

The statute that created Budgeting for Results (BFR) states that in Illinois, budgets submitted and appropriations made must adhere to a method of budgeting where priorities are justified each year according to merit (Public Act 96-958). The BFR Commission, established by the same statute, has worked since 2011 to create and implement a structure for data-driven program assessment useful to decision makers.

The BFR framework utilizes the Results First benefit-cost model and the State Program Assessment Rating Tool to produce comprehensive assessments of state funded programs.

The Pew-MacArthur Results First Initiative developed a benefit-cost analysis model based on methods from the Washington State Institute for Public Policy (WSIPP). The Results First benefit-cost model can conduct analysis on programs within multiple policy domains including; adult crime, juvenile justice, substance use disorders, K-12 education, general prevention, health, higher education, mental health, and workforce development.

The State Program Assessment Rating Tool (SPART) combines both quantitative (benefit-cost results) and qualitative components in a comprehensive report. It is based on the federal Program Assessment Rating Tool (PART) developed by the President's Office of Management and Budget and has been modified for state use. The SPART provides a universal rating classification to allow policy makers and the public to more easily compare programs and their performance across results areas.

Methods

BFR begins each assessment by modeling an Illinois program's design and assessing its implementation. Each program is then matched with an existing rigorously studied program or policy. BFR completes a comprehensive review of related program literature to inform the modeling and matching process.

Each rigorously studied program has an effect size determined from existing validated research that summarizes the extent to which a program impacts a desired outcome. The effect size is useful in understanding the impact of a program run with fidelity to best practices or core principles.

The Results First benefit-cost model uses the effect size combined with the state's unique population and resource characteristics to project the optimal return on investment that can be realized by taxpayers, victims of crime, and others in society when program goals are achieved.

The SPART contains summary program information, historical and current budgetary information, the statutory authority for the program, performance goals and performance measures. The SPART tool consists of weighted questions, which tally to give a program a numerical score of 1-100. Numerical scores are converted into qualitative assessments of program performance: effective, moderately effective, marginal and not effective.

Section 1

Results First Benefit-Cost Report

Benefit-Cost Summary – IDOC Adult Basic Education/GED

This is the pilot benefit-cost analysis in the Adult Crime domain of the Illinois Department of Corrections (IDOC) Adult Basic Education/GED program. The IDOC Adult Basic Education/GED program was chosen to be analyzed using the Results First model due to the potentially large and long-lasting benefits of the program for the State of Illinois. Providing basic education and GED preparation to offenders in IDOC custody can increase their earnings and employment potential after release, which can reduce their risk of recidivism.

The IDOC Adult Basic Education/GED program served 13,489 inmate students in FY 2017, with a budget of just over \$11 million. This pilot benefit-cost analysis completed by BFR calculated that for every one dollar spent on Adult Basic Education/GED programs in Illinois correctional institutions, **\$8.23** of future benefits could be realized by Illinois taxpayers and crime victims.

The major takeaways from this analysis can be found in *Table 1* below. The optimal benefits are projected for programs run with fidelity to best practices or core principles. The optimal benefits are determined using a standard metric called an effect size. The real costs of a program are the sum of its direct and indirect costs. The benefit/cost ratio is the return on investment (ROI) Illinois can optimally expect from implementing the program with fidelity. BFR performs a Monte Carlo risk estimate showing the percent of time that the benefits exceed the costs when simulated 10,000 times with random variation in costs and benefits.

Table 1:

Benefit-Cost Results	
Illinois Adult Basic Education/GED per Participant	
Optimal Benefits	\$7,234
Real Cost (Net)	\$879
Benefits - Costs	\$6,355
Benefits/Costs (ROI)	\$8.23
Chance Benefits Will Exceed Costs	97%
SPART Score	95, Effective

Benefit-Cost Detail – IDOC Adult Basic Education/GED

Program Information

The IDOC Adult Basic Education/GED program provides primary or secondary-level education to offenders in IDOC custody, with the opportunity to complete a GED. One of the primary outcomes this program was implemented to achieve is a reduction in recidivism.

Using program information gathered with IDOC, BFR matched Illinois’ Adult Basic Education/GED program with the Corrections-Based Adult Basic/Secondary Education practice profile in the *CrimeSolutions.gov* clearinghouse. The program information for Adult Basic Education/GED in Illinois was provided by the Office of Adult Education and Vocational Services (OAEVS) at IDOC, and is described in *Table 2* below.

Table 2:

Program Name	Program Description
<u>Adult Basic Education (ABE)</u>	Students who receive a score of 5.9 or lower on the Test of Adult Basic Education (TABE) are mandated to attend ABE for 90 days. The curriculum consists of math, reading, language arts, science, and social studies.
<u>Adult Secondary Education (GED)</u>	Students who receive a score of 9.0 or higher on the TABE may enroll in the Adult Secondary Education program. The curriculum consists of high school level academics and GED preparation.
In FY2017, 13,489 inmate students participated in Adult Basic Education/GED academic classes.	

The clearinghouse rated this type of program as “effective, promising” based on three meta-analyses, each of about one dozen individual experimental and quasi-experimental studies. The clearinghouse results explained how the “three meta-analyses found that there were significant reductions in recidivism (including reoffending, rearrest, reconviction, reincarceration, and technical parole violation) for inmates who participated in adult basic education (ABE) and adult secondary education/General Educational Development (GED) programs, compared with inmates who did not participate.”¹

¹ Crime Solutions (<https://www.crimesolutions.gov/PracticeDetails.aspx?ID=21>)

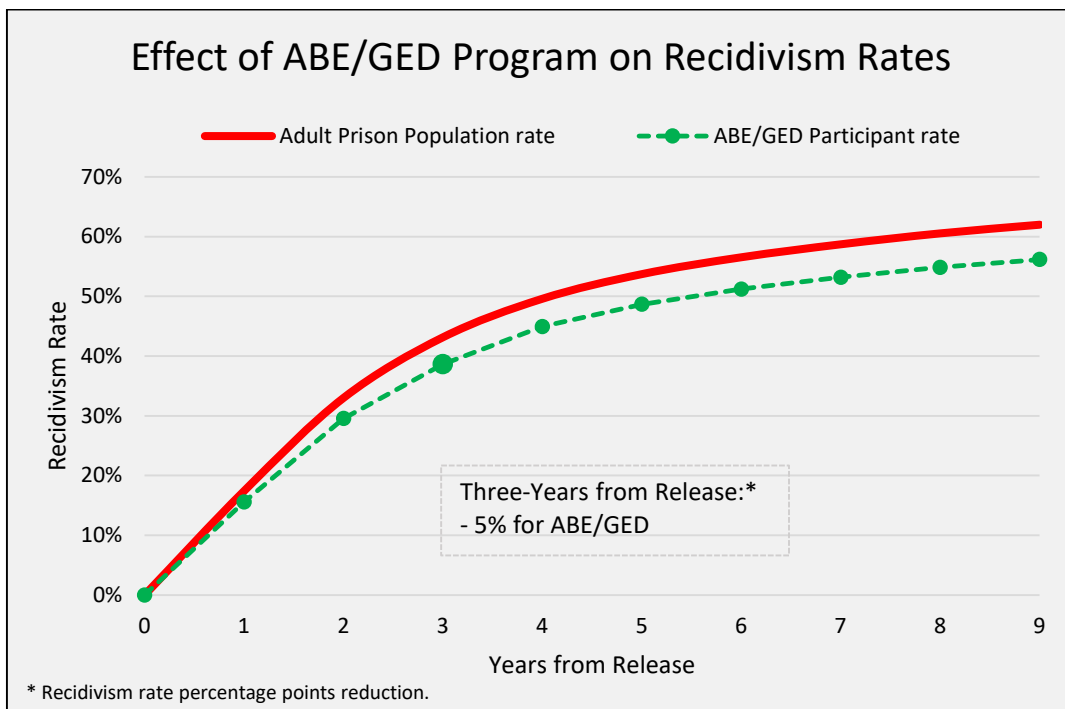
Analysis

A well-run prison education program saves taxpayers' money over time by avoiding future criminal justice expenses. Taxpayers avoid paying for additional criminal justice system costs of arrests and processing; prosecutions, defense, and trials; and incarceration and supervision. Lower recidivism rates lead to fewer prisoners that need to be paid for by the State.

Just as importantly, decreasing recidivism saves money by avoiding private costs incurred as a result of fewer Illinois crime victims. The private victimization costs include lost property, medical bills, wage loss, and the pain and suffering experienced by crime victims.

The benefit-cost model, using the program effect size, predicts a 5% decrease in the recidivism rate² three years from release from IDOC custody for participants in the ABE/GED Education program, as shown in *Figure 1*. The model also predicts the 9-year recidivism rate for participants in the program to be 56%, or 5% less than the general population rate of 62%.

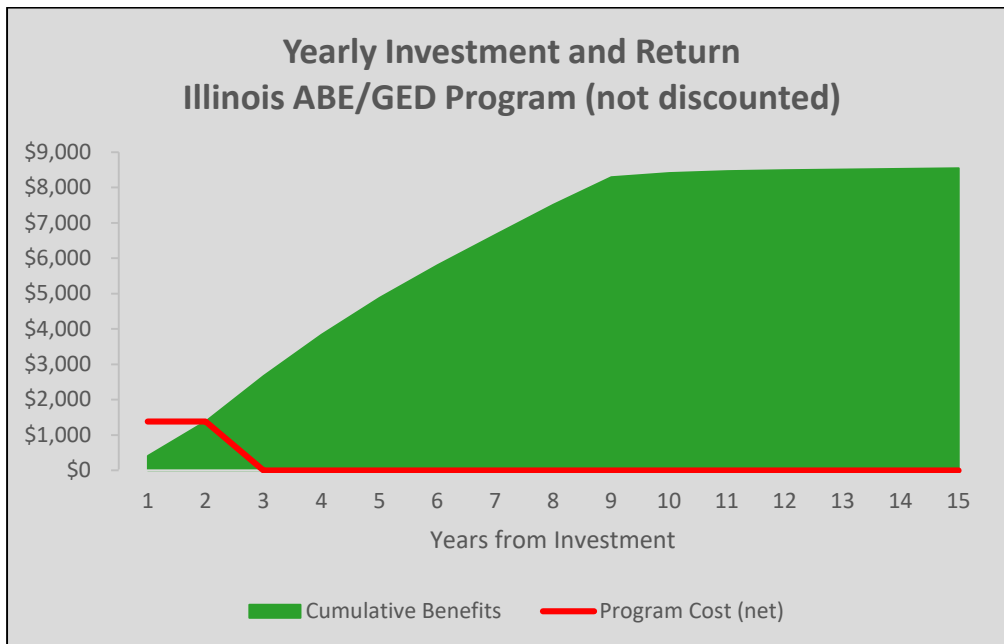
Figure 1:



² Recidivism is defined as reconviction after a release from prison or sentence to probation.

The average cost to the State of Illinois for providing basic or GED education to an offender in IDOC custody is \$879 per year. All costs for the ABE/GED education program are incurred in the first two years, while the benefits grow over time. This is illustrated in *Figure 2* below. The red line depicts net program costs, which are zero after the second year. The green area shows the accumulation of program benefits achieved through the reduction of recidivism. As illustrated, the program benefits exceed the program costs in the third year after initial investment. Over ten years, the program could yield over \$7,000 per participant in benefits to the State and society.

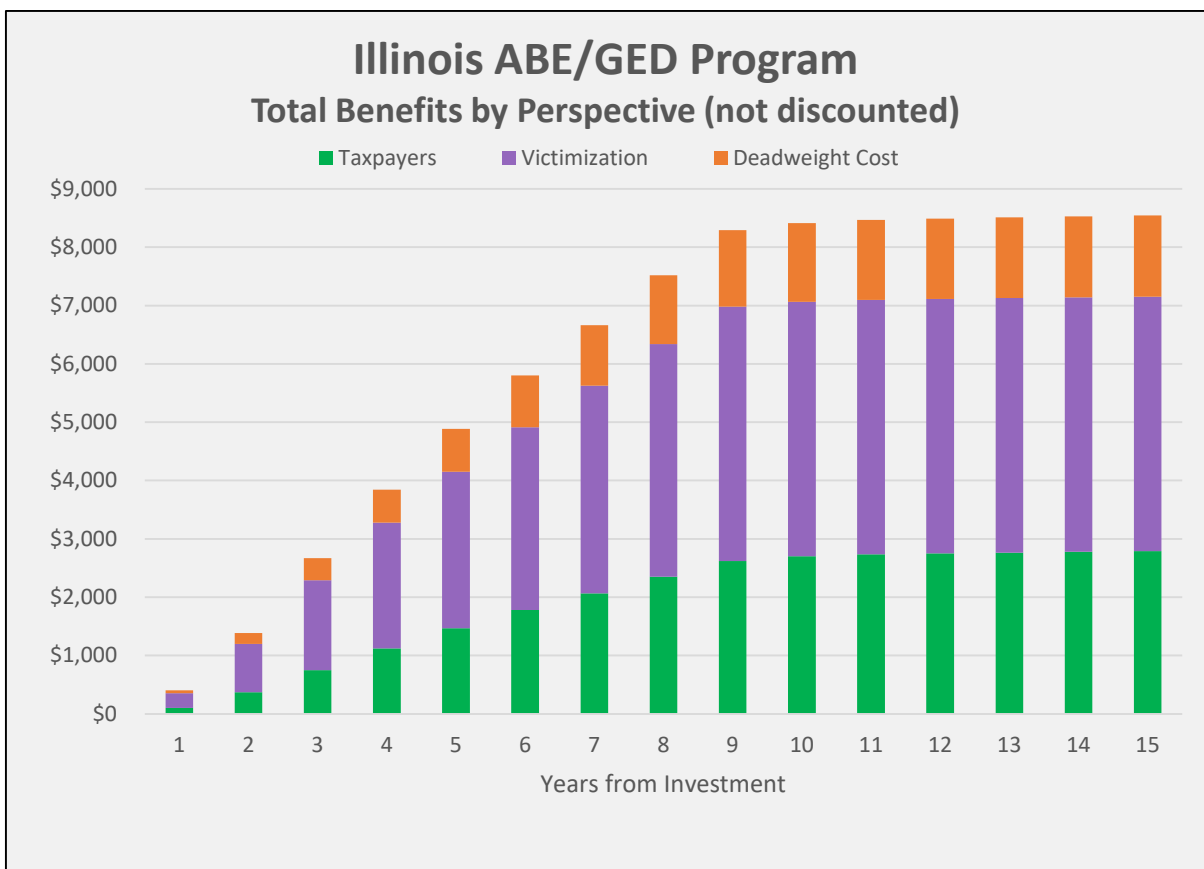
Figure 2:



The Illinois ABE/GED program could optimally produce \$7,234 in future benefits per average participant over ten years. Beyond the direct benefits to Illinois taxpayers and crime victims, additional indirect benefits accrue to society as well, including better use of the tax dollars that are currently raised, and future taxes that won't have to be raised to pay for avoidable costs due to recidivism. When tax revenue is spent on one program, it has an opportunity cost of revenue that cannot be spent on other beneficial programs and services like public safety or economic development. Money that is taxed is also not available for private consumption and investment. The indirect benefits of making effective, economically efficient investments to reduce criminal recidivism are quantified within the Results First model using the Deadweight Cost of Taxation.

Figure 3 below illustrates that most of the benefits come from future avoided taxpayer costs and the benefits from future victimization costs avoided by society in general. The remaining benefits come from other avoided indirect deadweight costs.

Figure 3:



This is one of three Pilot analyses run by BFR using the Results First cost-benefit model. Please see Budget.illinois.gov for BFR annual reports, additional benefit-cost reports and supporting information.

Section 2

State Program Assessment Rating Tool

State Program Assessment Rating Tool (SPART)
Adult Basic Education and General Education Diploma
426-IL Department of Corrections

This report was compiled by the Budgeting for Results Unit of the Governor’s Office of Management and Budget with the support of the IL. Department of Corrections. The SPART is an evaluation of the performance of state agency programs. Points are awarded for each element of the program including: evidence based practices, strategic planning, program management and program results. This combined with cost-benefit analysis through Results First establishes an overall rating of the program’s effectiveness, which can be found on the final page of this report.

Prior Year (PY), Current Year (CY), Fiscal Year (FY) Budget (in thousands) Appropriated ___ Expended X

PY 2013	PY2014	PY2015	PY2016	CY 2017	FY 2018
8,837.0	10,971.0	12,177.0	11,941.0	11,064.0	N/A

Is this program mandated by law? Yes X No ___
Identify the Origin of the law. State X Federal ___ Other ___
Statutory Cite 20 ILCS 405.50 (a) and 20 ILCS 405.5 (g)
Program Continuum Classification Prevention, Selective

Evaluability

Provide a brief narrative statement on factors that impact the evaluability of this program.

Information technology compatibility between Offender 360 and legacy databases impact the ability of program managers to tack offender data and progress though the program longitudinally. Budgetary impacts from the prolonged impasse resulted in losing several community-colleges that provide the educational services that are the bedrock of this program. This loss impacts the scale of benefits that could potentially be realized by the program.

Performance Goal (Data represents actual values)	FY 2015	FY2016	FY 2017	Major Challenges Meeting this Goal
Recidivism Rate Reduction	46.9	45.5	43.9	

Key Performance Measure	FY 2015	FY 2016	FY 2017	Reported in IPRS Y/N
Number of offenders eligible for ABE and GED Programming	2,389	2,556	2,716	Y

Section 2: Evidence Based-Programming and Benefit-Cost

Total Points Available: 30

Total Points Awarded: 30

Question	Points Available	Yes/Partial /No	Points Awarded	Explanation
2.1 Is the Program Evidence-Based?	10	YES	10	This program was matched with evidence-based programs in the Results First clearinghouse. Please see the attached clearinghouse report from the National Institute of Justice.
2.2 Does the program have fidelity to best practices?	10	YES	10	This program was matched with evidence-based programs in the Results First clearinghouse. The program is targeted to offenders that score below threshold levels on IDOC Test for Adult Basic Education "TABE" and have not obtained a GED. Please see the attached report from the National Institute of Justice.
2.3 Is the return on investment for this program equal to or greater than \$1 for each \$1 spent?	10	YES	10	The Program did achieve a greater than one dollar return on investment. For details, please see the attached Results First Program Report.

Section 3: Strategic Planning

Total Points Available: 30

Total Points Awarded: 25

Question	Points Available	Yes/Partial /No	Points Awarded	Explanation
3.1 Does the program have a limited number of specific annual performance measures that can demonstrate progress toward achieving the program's long-term goals?	10	YES	10	The program collects performance measures that reflect annual performance and point toward long-term goals. Some of the measures reported to GOMB can be found on the attached IPRS report. In addition the program collects additional measures which are maintained by IDOC.
3.2 Do the annual performance measures focus on outcomes?	10	YES	10	The Program collects measures of ABE and GED completion rates.
3.3 Are independent and thorough evaluations of the program conducted on a regular basis or as needed to support program improvements and evaluate effectiveness?	10	PARTIAL	5	This program does not have any independent evaluations. However, currently, the only program evaluations completed are an annual needs assessment that takes place in the Spring per Administrative Directive. However, another goal for FY 18 is pursuing accreditation through the Correctional Education Association. This labor intensive accreditation would be implemented over 3 years with the OAEVS doing 10 facilities per year due to fiscal constraints. These evaluative and planning practices do meet the criteria for partial credit as established in the SPART guidance.

Section 4: Program Management

Total Points Available: 20

Total Points Awarded: 20

Question	Points Available	Yes/Partial /No	Points Awarded	Explanation
4.1 Does the Agency regularly collect timely and credible performance information?	10	YES	10	The program collects performance measures that reflect annual performance. Some of the measures reported to GOMB can be found on the attached IPRS report. In addition the program collects additional measures which are maintained by IDOC.
4.2 Does the Agency use performance information (including that collected from program partners) to adjust program priorities, allocate resources, or take other appropriate management actions?	10	YES	10	The Office of Adult Education and Vocational Services (OAEVS) is committed to achieving annual performance goals and outcomes. One of the main goals for the new administration was increasing the amount of GED completers from FY 16 to FY 17. This goal was achieved as GED completers increased from 346 to 660. A few goals for FY 18 include conducting regional staff development trainings, increasing our ABE success rate by 10% as demonstrated by achieving a 6.0 on the TABE, maintaining our success rate on the GED test (currently 94% and #1 in the nation).

Section 5: Program Results

Total Points Available: 20

Total Points Awarded: 20

Question	Points Available	Yes/Partial /No	Points Awarded	Explanation
5.1 Does the program (including program partners) commit to and achieve annual performance targets?	10	YES	10	Program managers set and work to achieve program goals, reference explanation to question 4.2.
5.2 Is the program (including program partners) on track to meet all performance goals, including targets and timeframes?	10	YES	10	See attached Results First Program Report.

Concluding Comments

Adult Basic Education programs are run by most states in the country. The Illinois ABE and GED program meet standards for best practices as established in the Results First Clearinghouse. It is recommended that technology improvements will allow for better tracking of offenders through the program and easier tracking of outcomes. It is further recommended that performance measures tracking program outcomes, including ABE and GED completers, currently collected internally at IDOC, be included in the IPRS. Additionally, staff training may help improve overall program outcomes. Overall, this program is well managed and achieves outcomes which are cost-effective and are a benefit to the goal to decrease recidivism and provide a safer Illinois in general.

Final Program Score and Rating

Final Score	Program Rating
95	EFFECTIVE

SPART Ratings

Programs that are **PERFORMING** have ratings of **Effective, Moderately Effective, or Adequate.**

- **Effective.** This is the highest rating a program can achieve. Programs rated Effective set ambitious goals, achieve results, are well-managed and improve efficiency. Score 75-100
- **Moderately Effective.** In general, a program rated Moderately Effective has set ambitious goals and is well-managed. Moderately Effective programs likely need to improve their efficiency or address other problems in the programs' design or management in order to achieve better results. Score 50-74
- **Adequate.** This rating describes a program that needs to set more ambitious goals, achieve better results, improve accountability or strengthen its management practices. Score 25-49

Programs categorized as **NOT PERFORMING** have ratings of **Ineffective or Results Not Demonstrated.**

- **Ineffective.** Programs receiving this rating are not using your tax dollars effectively. Ineffective programs have been unable to achieve results due to a lack of clarity regarding the program's purpose or goals, poor management, or some other significant weakness. Score 0-24

Results Not Demonstrated. A rating of Results Not Demonstrated (RND) indicates that a program has not been able to develop acceptable performance goals or collect data to determine whether it is performing.

Glossary

Best Practices: Policies or activities that have been identified through evidence-based policymaking to be most effective in achieving positive outcomes.

Evidence-Based: Systematic use of multiple, rigorous studies and evaluations which demonstrate the efficacy of the program's theory of change and theory of action.

Illinois Performance Reporting System (IPRS): The state's web-based database for collecting program performance data. The IPRS database allows agencies to report programmatic level data to the Governor's Office of Management and Budget on a regular basis.

Optimal Return on Investment (OROI): A dollar amount that expresses the present value of program benefits net of program costs that can be expected if a program is implemented with fidelity to core principles or best practices.

Outcome Measures: Outcomes describe the intended result of carrying out a program or activity. They define an event or condition that is external to the program or activity and that is of direct importance to the intended beneficiaries and/or the general public. For example, one outcome measure of a program aimed to prevent the acquisition and transmission of HIV infection is the number (reduction) of new HIV infections in the state.

Output Measures: Outputs describe the level of activity that will be provided over a period of time, including a description of the characteristics (e.g., timeliness) established as standards for the activity. Outputs refer to the internal activities of a program (i.e., the products and services delivered). For example, an output could be the percentage of warnings that occur more than 20 minutes before a tornado forms.

Results First Clearinghouse Database: One-stop online resource providing policymakers with an easy way to find information on the effectiveness of various interventions as rated by eight nation research clearinghouses which conduct systematic research reviews to identify which policies and interventions work.

Target: A quantifiable metric established by program managers or the funding entity established as a minimum threshold of performance (outcome or output) the program should attain within a specified timeframe. Program results are evaluated against the program target.

Theory Informed: A program where a lesser amount of evidence and/or rigor exists to validate the efficacy of the program's theory of change and theory of action than an evidence-based program.

Theory of Change: The central processes or drives by which a change comes about for individuals, groups and communities

Theory of Action: How programs or other interventions are constructed to activate theories of change.

Agency	Department Of Corrections
Program Name	Educational Programming
Program Description	These educational programs provide offenders the statutorily mandated level of education through the adult basic education program. In addition to the mandate, offenders are provided the opportunity of education through adult basic education, GED classes, and associate degree programs. These opportunities can be utilized to gain employment post-release. Studies in Illinois consistently demonstrate recidivism is significantly reduced when offenders participate in these types of educational programs. These programs also allow offenders who participate to earn educational service credit that reduces their time of incarceration.
Target Population	Offender population that meets programmatic qualifications, standards and guidelines.
Activities	Educational programming provides a platform for inmates to receive adult basic education classes and the opportunity to obtain their GED.
Goals	Reduce the recidivism rate; provide basic education to inmates so that they can successfully reintegrate back into society upon release.
Outcome	Create Safer Communities

PROGRAM FUNDING

Appropriations (\$ thousands)		
FY16 Actual	FY17 Enacted	FY18 Recommended
17,334.9	16,545.7	19,254.4

MEASURES**Number of offenders eligible for Adult Basic Education (ABE) and General Education Development (GED) educational programming**

Reported : Annually **Key Indicator :** Yes **Desired Direction :** Increase

Benchmark : Prior fiscal year. Provide service to all offenders that are eligible for educational programming. **Source :** Internal information

Baseline : 3,569 **Baseline Date :** 7/1/2011

Methodology : Number of offenders who participate in ABE and GED educational programming.



FY 2016	FY 2017	FY 2018 Est.	FY 2019 Proj.
2,556	2,716	2,797	



Practice Profile

Corrections-Based Adult Basic/Secondary Education

Evidence Ratings for Outcomes:

-  Crime & Delinquency - Multiple crime/offense types
-  Employment & Socioeconomic Status - Job placement

Practice Snapshot

Age: 18+

Gender: Both

Targeted Population:
Prisoners

Settings: Correctional

Practice Type: Academic Skills Enhancement, Aftercare/Reentry

Unit of Analysis: Persons

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Practice Description

Practice Goals

Adult basic education (ABE) classes for incarcerated adult offenders provide instruction in arithmetic, reading, and writing [English as a second language (ESL) may also be taught, if needed]. ABE classes are targeted to adult prisoners who read below the ninth grade level. Those who can read at a ninth grade level move onto adult secondary education (ASE) classes. ASE classes provide high school-level coursework that generally prepares inmates to take tests, such as the General Education Development (GED) exam, to earn a certificate of high school equivalency (Crayton and Neusteter 2008; Davis et al. 2013).

The *2005 Census of State and Federal Correctional Facilities* found that 85 percent of all reporting facilities offered formal educational programs to inmates (Stephan 2008). The most common types of education programs offered by facilities included secondary education or GED (77 percent), literacy or first through fourth grades (67 percent), and fifth through eighth grades (66 percent). Although the majority of facilities responding to the census reported providing educational programming, participation in the programs is not always high and may be decreasing. In 2004, only 2.1 percent of state prison inmates participated in basic education programs and 19.2 percent participated in GED/high school courses. This is down from 1997, when 3.1 percent reported participating in basic education and 23.4 percent reported participating in GED/high school courses, and down even further from 1991 when 5.1 percent and 27.3 percent reported participating in basic education and GED/high school courses, respectively (Harlow 2003; Crayton and Neusteter 2008).

Practice Theory

There are several obstacles that incarcerated adults must face upon their release from prison. On average, prison inmates are less educated than the general public. For example, 37 percent of inmates in American state prisons had attained less than a high school education in 2004, compared with 19 percent of the general population in the United States (Davis et al. 2014). The idea behind providing educational programming in prison is to help inmates successfully reenter society with basic skills, such as math, reading, and writing, which are necessary for everyday living. A report on participants in the Serious and Violent Offender Reentry Initiative found that additional education was cited as the most common reentry need by formerly incarcerated inmates (94 percent), followed by general financial assistance, driver's license, and job training and employment (Visher and Lattimore 2007).

Practice Components


Correctional education programs, including ABE and ASE classes, can vary dramatically from prison to prison. For example, whether participation in educational programming is voluntary or mandatory for inmates varies across jurisdictions. By 2002, almost half of states (44 percent) and the federal government had passed legislation or policies that required mandatory education for inmates. When education is mandatory in prison, inmates who have not achieved a specified level of education must participate in programming for a certain amount of time. Inmates can withdraw from the program only after the compulsory period has passed (Crayton and Neusteter 2008). The amount of required time in the program and the level of education achievement will also vary by jurisdiction.

In addition, the method in which classes are provided to inmates will vary by jurisdiction. Some prisons may use onsite instruction, where teachers and volunteers go to the facility to conduct classes. There are some programs that even allow prisoners to provide peer instruction to other prisoners. Distance learning programs involve coordinating with an outside educational institution. The correspondence courses are generally done through U.S. Mail, though some facilities may allow the use of the Internet. Under study release programs, prisoners are allowed to leave the facility to attend classes at nearby educational institutions (such as a community college or training center). Some state prison systems have partnered with local community colleges to provide onsite class instruction, while other states administer classes through their own correctional school district (Davis et al. 2013). Some jurisdictions have taken advantage of technological advances in correctional education. For example, satellite television has been used as a way to conduct instructor-led courses without requiring teachers/volunteers to be in the prison. In addition, there are numerous software programs available that can replace face-to-face classroom instruction all together.

Other Information

In 2014 the GED exam will be changed, to better align with the Common Core State Standards. Not only will the test become more rigorous, but it will also rely on a new test delivery method: computer-based testing will replace the paper-and-pencil exam. This may present a challenge to some states that are not prepared for the changes to the exam and cannot provide the means for inmates to earn their GEDs (Davis et al. 2014).

Meta-Analysis Outcomes

-  **Crime & Delinquency - Multiple crime/offense types**

Overall, three meta-analyses found that there were significant reductions in recidivism (including reoffending, rearrest, reconviction, reincarceration, and technical parole violation) for inmates who participated in adult basic education (ABE) and

adult secondary education/General Educational Development (GED) programs, compared with inmates who did not participate. Across 11 studies, Wilson, Gallagher, and MacKenzie (2000) found that inmates who participated in ABE and GED programs were significantly less likely to recidivate than those who did not participate (odds ratio=1.44). This means that, for example, if the comparison group had a recidivism rate of 50 percent, those who participated in adult education programs would have a recidivism rate of 41 percent. Aos, Miller, and Drake (2006) examined the outcomes from seven studies and also found basic adult education programs had a significant but small effect on the recidivism rates (effect size = -0.114). This means that, on average, ABE programs achieved a 5.1 percent reduction in the recidivism rates of program participants compared with nonparticipants. Davis and colleagues (2013) examined the impact of ABE and high school/GED programs separately. They found across 13 studies of ABE a significant odds ratio of 0.67, meaning the odds of recidivating among inmates participating in ABE are 67 percent of the odds of recidivating among similar inmates not participating in the programs. For high school/GED programs, the odds ratio was 0.70, meaning the odds of recidivating among inmates participating in those programs are 70 percent of the odds of recidivating among inmates not participating.



Employment & Socioeconomic Status - Job placement

Wilson, Gallagher, and MacKenzie (2000) looked at the impact of adult basic education, GED programs, and postsecondary education on employment status. Pulling results from four studies, they found that those who participated in education programs were significantly more likely to find employment than those who did not participate (odds ratio=1.70). Davis and colleagues (2013) also examined the combined impact of adult basic education, high school/GED programs, and postsecondary education. They found across 12 studies a significant odds ratio of 1.08, meaning that inmates who participate in academic programs are more likely to obtain employment following release from prison compared with similar inmates not participating in such programs.

Meta-Analysis Methodology

Meta-Analysis Snapshot			
	Literature Coverage Dates	Number of Studies	Number of Study Participants
Meta-Analysis 1	1976 - 1997	17	0
Meta-Analysis 2	1985 - 2006	7	2399
Meta-Analysis 3	1981 - 2011	13	0

Meta-Analysis 1

Wilson, Gallagher, and MacKenzie (2000) examined the effectiveness of corrections-based education, vocation, and work programs for adult offenders through a meta-analysis of 33 experimental and quasi-experimental evaluations. Studies were included in the meta-analysis if they 1) evaluated an education, vocational, or work program for convicted adults or persons identified by the criminal justice system, 2) provided a postprogram measure of recidivism (including arrest, conviction, self-report, technical violation, or incarceration), 3) included a nonprogram comparison group (i.e., a comparison group that did not receive an educational, vocational, or work program), 4) were published after 1975 in English.

A thorough search of the literature led to the inclusion of 33 eligible studies. The program comparison—contrast was the unit of analysis, allowing for multiple program comparison—contrasts for each study. The 33 studies reported 53 program comparison—contrasts that were identified and coded for the analysis. More than 40 percent of the studies (14 out of 33) were from journal articles or book chapters. The other studies were either government documents (10 out of 33) or unpublished manuscripts (9 out of 33). The studies generally had large sample sizes. The median number of participants across the program groups was 129, and the median number across the comparison groups was 320 (a total number of participants was not provided). Slightly fewer than half of the studies included only male participants. Female participants were included in 19 studies; however, they generally represented less than 21 percent of the study sample, therefore it is difficult to generalize findings from the analysis to women. In the remainder of the studies, it was unclear whether study participants included both men and women. Information on the age and racial/ethnic breakdown of the study samples was not provided.

Most of the studies (17 out of 33) examined the relative effects of vocation training. The outcome data for adult basic education and General Educational Development (GED) programs are often combined in reports. Therefore, the authors combined the few studies that examined the effects of adult basic education and GED programs separately with those studies reporting only a combined effect (11 out of 33).

The form of effect size selected was the odds ratio. Recidivism was the primary outcome of interest. This was measured as a dichotomy (i.e., the percentage or proportion of program and comparison participants who recidivated). Employment status was also an outcome of interest in the analysis; however, only 16 studies provided data on the results of employment once offenders were released to the community. All mean effect sizes were estimated under a random-effects model.

Meta-Analysis 2

The 2006 meta-analysis by Aos, Miller and Drake updated and extended an earlier 2001 review by Aos and colleagues. The overall goal of the review was to provide policymakers in Washington state with a comprehensive assessment of adult corrections programs and policies that have the ability to affect crime rates. This meta-analysis focused exclusively on adult correctional programs.

A comprehensive search procedure was used to identify eligible studies. Studies were eligible to be included if they 1) were published in English between 1970 and 2005, 2) were published in any format (peer-reviewed journals, government reports, or other unpublished results), 3) had a randomly assigned or well-matched comparison group, 4) had intent-to-treat groups that included both complete and program dropouts, or sufficient information was available that the combined effects could be tallied, 5) provided sufficient information to code effect sizes, and 6) had at least a 6-month follow-up period and included a measure of criminal recidivism as an outcome.

The search resulted in the inclusion of seven studies of in-prison adult basic education. The seven studies included almost 2,400 treatment group participants (however, the number of comparison group participants was not provided). One study was published in a journal. The other studies were government reports or unpublished evaluations. No information was provided on the age, gender, or racial/ethnic breakdown of the studies' samples, nor on the location of the programs.

The mean difference effect size was calculated for each program. Adjustments were made to the effect sizes for small sample sizes, evaluations of "non-real world" programs, and for the quality of the research design. The quality of each study was rated using the University of Maryland's five-point scale; only studies that received a rating of 3 or higher on the scale were included in the analysis (a rating of 3 means a study used a quasi-experimental design with somewhat dissimilar treatment and comparison groups but there were reasonable controls for differences). The fixed effects model was used for the analysis.

Meta-Analysis 3

Davis and colleagues (2013) conducted a meta-analysis of evaluations examining the effectiveness of programs that provide education to incarcerated adults. A comprehensive literature search was done that covered the period from Jan. 1, 1980, through Dec. 31, 2011. To be included in the review, a study needed to 1) evaluate an eligible intervention, 2) measure success of the program using an eligible outcome measure, and 3) employ an eligible research design. Eligible interventions were defined as educational programs administered in jails or prisons in the United States and published (or released) during the time covered by the review. In this review, adult basic education was defined as basic skills in arithmetic, reading, writing, and, if needed, English as a second language. Adult secondary education was defined as instruction to complete high school or prepare for certificate of high school equivalency, such as the GED.

Eligible outcomes were defined as measures of recidivism (including reoffending, rearrest, reconviction, reincarceration, technical parole violation, and successful completion of parole), employment (including having ever worked part time or full time since release, employed for a specified number of weeks since release, and employment status), and achievement test scores. Eligible research designs were those in which there is a treatment group composed of inmates who participated in and/or completed the correctional education program under consideration and a comparison group composed of inmates who did not. The search resulted in the inclusion of 58 eligible studies. Of the 58 studies, 13 looked at the effectiveness of adult basic education on recidivism rates and 12 looked at the impact on obtaining employment. No information was provided on the age, gender, or racial/ethnic breakdown of the studies' samples. The programs were located at correctional facilities throughout the United States. The meta-analysis used a random-effects approach. The form of effect size selected was the odds ratio. The quality of each study was rated using the University of Maryland's five-point scale; only studies that received a rating of 2 or higher on the scale were included in the analysis (a rating of 2 means a study used a quasi-experimental design but there were substantial baseline differences between the treatment and comparison groups that may not be controlled well for). The U.S. Department of Education's What Works Clearinghouse (WWC) rating scheme was also used, because the WWC instrument scores education studies; however, the Maryland Scale was primarily used to determine the rigor of studies.

Cost

Davis and colleagues (2013) conducted a straightforward cost analysis using estimates of the costs of correctional education and of reincarceration. They estimated the average annual cost of correctional education programs per inmate participant was between \$1,400 and \$1,744. The authors used a hypothetical sample of 100 inmates and assumed that correctional education would reduce reincarceration rates by 12.9 percentage points (based on the results from the meta-analysis). It was estimated that 3-year incarceration costs for those who did not receive correctional education would be between \$2.94 million and \$3.25 million. In comparison, the 3-year incarceration costs for those who did receive correctional education would be between \$2.07 million and \$2.28 million. This would mean the reincarceration costs are between \$870,000 and \$970,000 (almost \$1 million) less for those who receive correctional education.

Evidence-Base (Meta-Analyses Reviewed)

These sources were used in the development of the practice profile:

Meta-Analysis 1

Wilson, David B., Catherine A. Gallagher, and Doris Layton MacKenzie. 2000. "A Meta-Analysis of Corrections-Based Education, Vocation, and Work Programs for Adult Offenders." *Journal of Research in Crime and Delinquency* 37(4):347–68.

Meta-Analysis 2

Aos, Steve, Marna Miller, and Elizabeth K. Drake. 2006. *Evidence-Based Adult Corrections Programs: What Works and What Does Not*. Olympia, Wash.: Washington State Institute for Public Policy.
<http://www.wsipp.wa.gov/ReportFile/924>

Meta-Analysis 3

Davis, Lois M., Robert Bozick, Jennifer L. Steele, Jessica Saunders, and Jeremy N.V. Miles. 2013. *Evaluating the Effectiveness of Correctional Education: A Meta-Analysis of Programs That Provide Education to Incarcerated Adults*. Washington, D.C.: U.S. Department of Justice, the Office of Justice Programs, Bureau of Justice Assistance.
https://www.bja.gov/Publications/RAND_Correctional-Education-Meta-Analysis.pdf

Additional References

These sources were used in the development of the practice profile:

Aos, Steve, Polly Phipps, Robert Barnoksi, and Roxanne Lieb. 2001. *The Comparative Costs and Benefits of Programs to Reduce Crime*. Version 4.0. Olympia, Wash.: Washington State Institute for Public Policy. (This meta-analysis was reviewed but did not meet CrimeSolutions.gov criteria for inclusion in the overall outcome rating.)
<http://www.wsipp.wa.gov/rptfiles/costbenefit.pdf>

Crayton, Anna, and Suzanne Rebecca Neusteter. 2008. "The Current State of Correctional Education." Paper prepared for the Reentry Roundtable on Education. New York, N.Y.: John Jay College of Criminal Justice, Prisoner Reentry Institute.
<http://www.urban.org/projects/reentry-roundtable/upload/Crayton.pdf>

Cho, Rosa Minhyo, and John H. Tyler. 2013. "Does Prison-Based Adult Basic Education Improve Postrelease Outcomes for Male Prisoners in Florida?" *Crime & Delinquency* 59(7):975–1005.

Davis, Lois M., Jennifer L. Steele, Robert Bozick, Malcolm V. Williams, Susan Turner, Jeremy N.V. Miles, Jessica Saunders, and Paul S. Steinberg. 2014. *How Effective is Correctional Education, and Where Do we Go from Here? The Results of a Comprehensive Evaluation*. Washington, D.C.: RAND.
http://www.rand.org/pubs/research_reports/RR564.html

Harlow, Caroline Wolf. 2003. *Education and Correctional Populations*. Bureau of Justice Statistics Special Report. Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
<http://www.bjs.gov/content/pub/pdf/ecp.pdf>

Stephan, James J. 2008. *Census of State and Federal Correctional Facilities, 2005*. National Prisoner Statistics Program. Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.

<http://bjs.gov/content/pub/pdf/csfcf05.pdf>

Visher, Christy A., and Pamela K. Lattimore. 2007. "Major Study Examines Prisoners and Their Reentry Needs." *NIJ Journal* 258.
<http://www.nij.gov/journals/258/Pages/reentry-needs.aspx>

Wilson, David B., Catherine A. Gallagher, Mark B. Coggeshall, and Doris Layton MacKenzie. 1999. "A Quantitative Review and Description of Corrections-Based Education, Vocation, and Work Programs." *Corrections Management Quarterly* 3(4):8–18.