



# Challenges in Developing Return on Investment (ROI) Evidence for Special Needs Groups and Contexts

## *Corrections and Re-Entry Education*

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Johan Uvin, Deputy Assistant Secretary  
U.S. Department of Education

# Overview

- How we think about evidence and innovation
- Context for Corrections and Re-entry Education ROI
- “Proven programs” in Corrections Education
- Cost-effectiveness data on Corrections Education
- Pay for Success opportunities to realize and examine pre-specified savings/returns

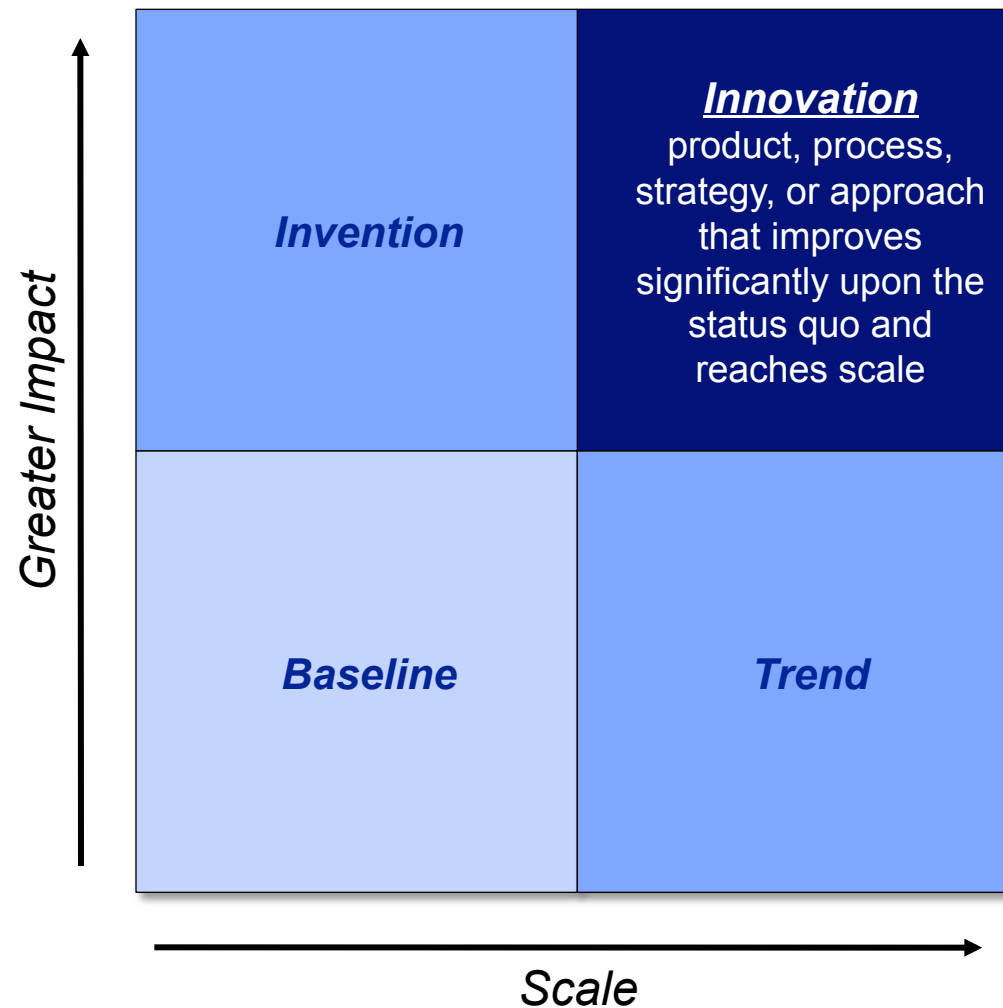




Importance of the Counterfactual

# **EVIDENCE AND INNOVATION**

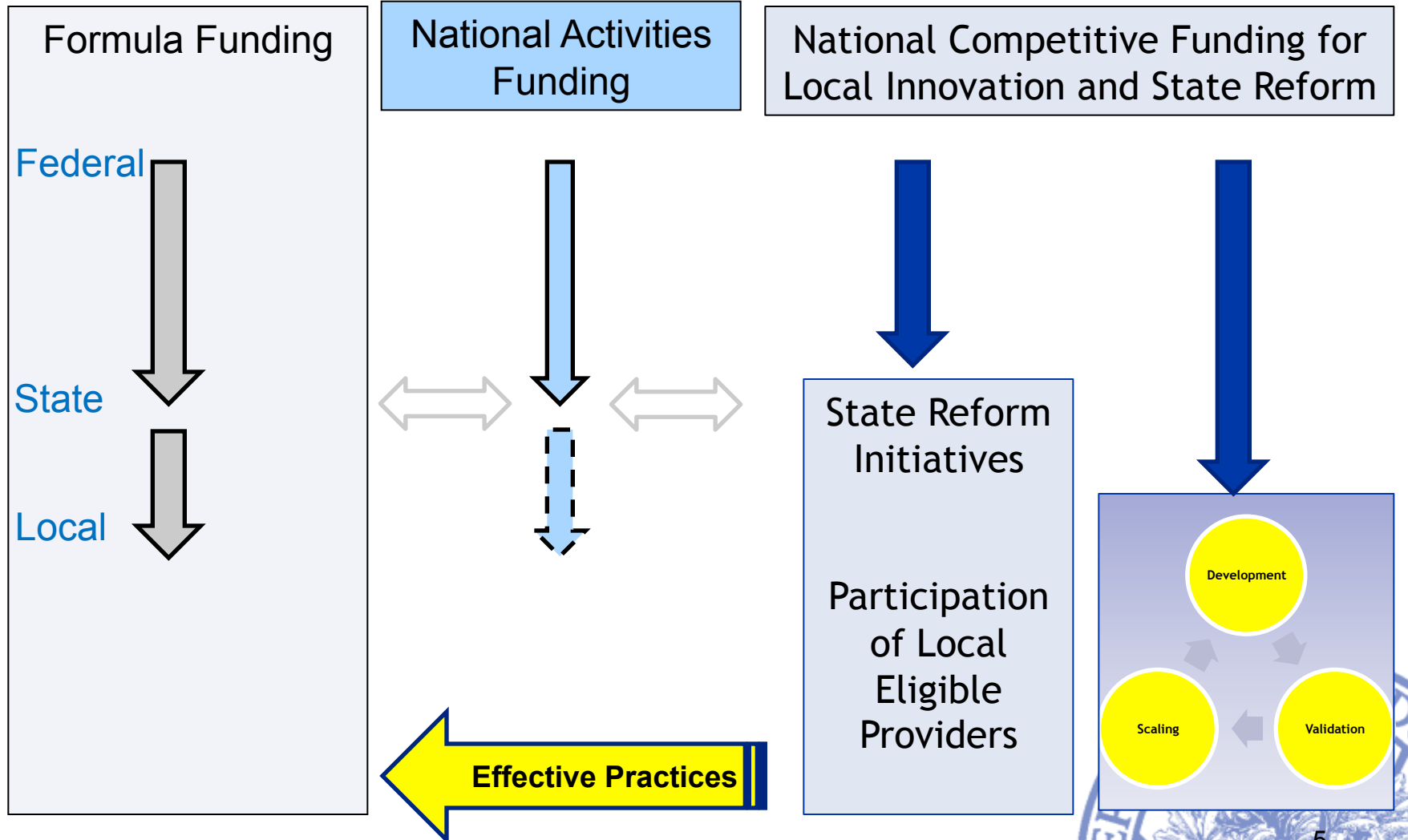
# How We Talk About Innovation



Note: The definition of innovation on this slide is presented as an overview of the concept, not as a specific definition in any of the Department's innovation programs.



# Draft Stylized Depiction of Formula & Innovation Funding Relationships



# ***Was it the program/policy? is the first key question.***

- Effectiveness **first**. Then, ROI/Benefit-Cost Analysis
- Importance of counterfactual

## **What Works Clearinghouse Evidence Standards for Causal Designs**

### Eligible Designs

- Randomized controlled trials (RCTs)
- Quasi-experimental designs (QEDs)

### Potentially Eligible Designs

- Regression discontinuity (RDD)
- Single case (SCD)

### Ineligible Designs

- Anecdotes and testimonials
- Case studies
- Descriptive
- Correlational





Corrections and Re-Entry Education


# **CONTEXT**



# Federal Interagency Reentry Council







**Multiple goals in different arenas can be addressed by effective re-entry policies and programs.**

- *Reentry presents a major opportunity to improve public safety, public health, workforce, education, family, and community outcomes.*



# Corrections - A Special ROI Opportunity

- Recidivism is a relatively easily and commonly measured outcome.
- The direct cost of confinement - numbers that are readily available.
- The direct cost of confinement - expensive!
- Going down a layer, **indirect costs**, these costs rapidly escalate
  - Crime costs - victims' loss, police and courts
  - Crime prevention costs
  - Loss of productivity, tax payments, family support
- Indirect costs - wide ranging estimates

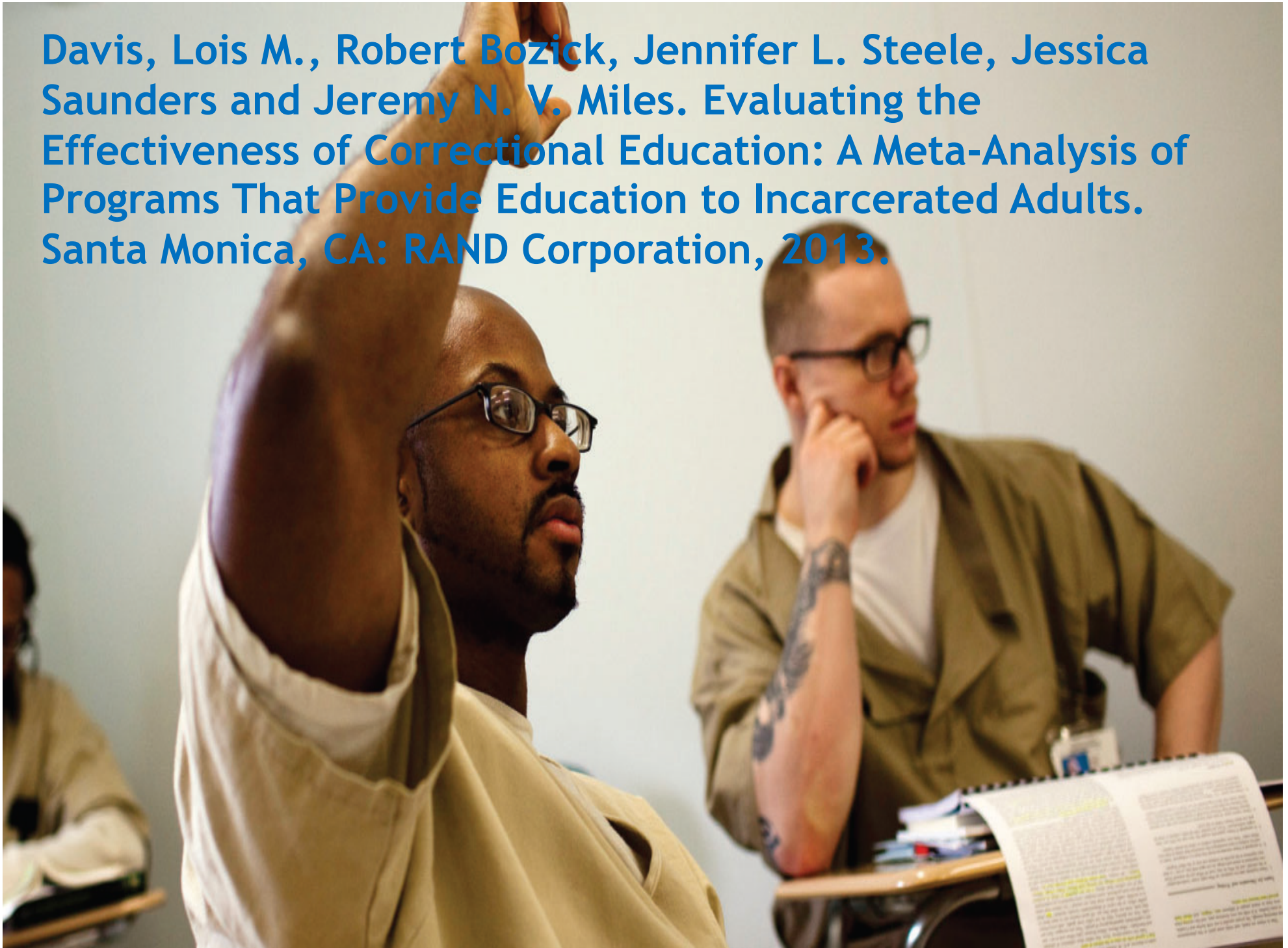




Evidence on Effectiveness First

**“PROVEN PROGRAMS”**

Davis, Lois M., Robert Bozick, Jennifer L. Steele, Jessica Saunders and Jeremy N. V. Miles. Evaluating the Effectiveness of Correctional Education: A Meta-Analysis of Programs That Provide Education to Incarcerated Adults. Santa Monica, CA: RAND Corporation, 2013.



# High quality and recent resource on correctional education impact...

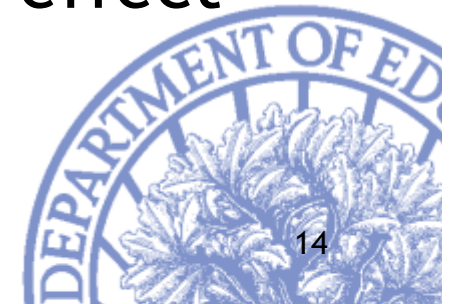
- Mandated in the Second Chance Act of 2007 - conduct a study of correctional education.
- Awarded competitively to the RAND Corporation
- August, 2013 - meta analysis of research on adult correctional education published.
- Strong positive conclusions on recidivism, post release employment benefit and ROI.
- Education compares very favorably to other correctional treatment investments.





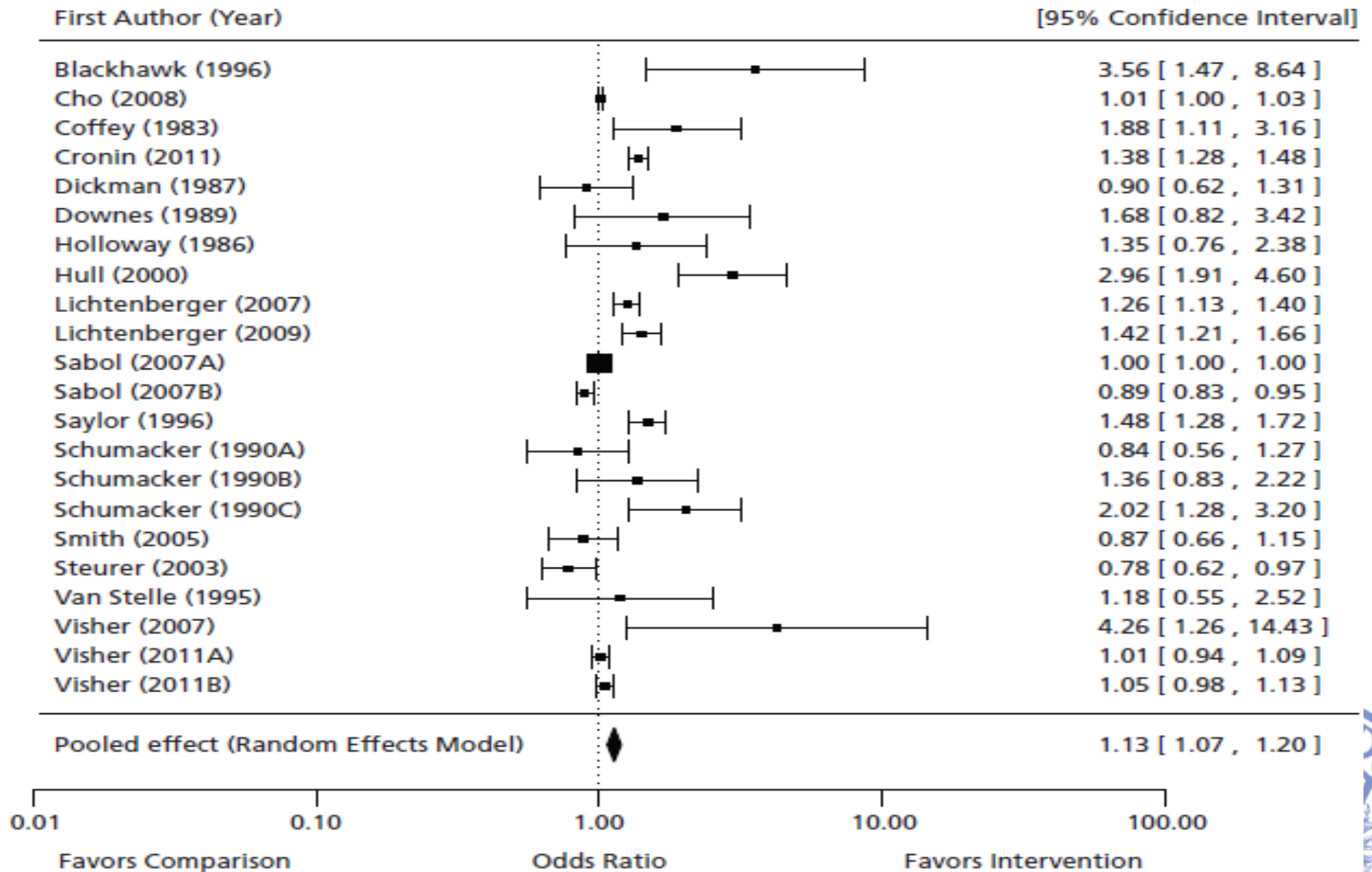
## How did they do their analysis?

- Meta-analysis; not a meta-review. Uses the outcomes (effects) of studies.
- Needed to consider how recidivism was defined, at what time it was measured, and what metric was used (e.g., %).
- 71 effect size estimates from 50 studies were pooled.
- Random-effects models were used because there is substantial heterogeneity in effect size estimates across the different subpopulations.





# Results from 22 most rigorous studies - *Odds Ratios*



# What type of corrections education?

## Estimates of the Effect of Correctional Education Participation on the Odds of Recidivating, by Program Type - *Program Type Odds Ratio*

Adult basic education	0.67*	0.57 to 0.79
High school/GED (ASE)	0.70*	0.64 to 0.77
Postsecondary education	0.49*	0.39 to 0.60
Vocational education	0.64*	0.58 to 0.72

\* $p < 0.05$ .



# Effect of CE Is Large Versus Most Programs

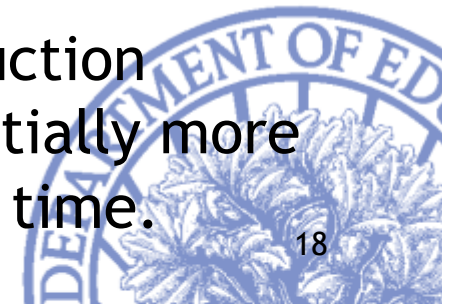
Program (Number of program effects examined)	Recidivism Reduction
Intensive supervision: treatment-oriented approaches (11)	16.7%
<b>RAND correctional education study (67)</b>	<b>12.0-13.0%</b>
Drug treatment in the community (6)	9.3%
Vocational education in prison (4)	9.0%
Adult drug courts (57)	8.0%
General education in prison (11)	7.0%
Drug treatment in prison (therapeutic community or outpatient) (20)	5.7%
Drug treatment in jail (9)	4.5%
Employment/job training in the community (16)	4.3%
Intensive supervision: surveillance-oriented programs (23)	0%
Life skills education for adults (4)	0%
Adult boot camp (22)	0%
Electronic monitoring to offset jail time (9)	0%

Source: Aos, Miller, and Drake (2006). Evidence-based public policy options to reduce future prison construction, criminal justice costs, and crime rates. Olympia: Washington State Institute for Public Policy



## In sum: Correctional Education Improves Inmates' Outcomes after Release

- Improves inmates' chances of not returning to prison.
- Participants in correctional education programs had a 43 percent lower odds of recidivating than those who did not. This translates to a reduction in the risk of recidivating of 13 percentage points.
- May improve their chances of obtaining employment after release. The odds of obtaining employment post-release among participants was 13 percent higher than the odds for those who did not participate in correctional education.
- Inmates exposed to computer-assisted instruction learned slightly more in reading and substantially more in math in the same amount of instructional time.



# Correctional education **is** effective for a broad spectrum of prisoners.

- Consistent positive effect sizes with wide variety of education services, advanced and basic, academic and occupational.
- A broad spectrum of prisoners benefit - unlike other “correctional treatment” services.

*“When you put this in perspective, and couple these effect sizes with a significant number of offenders who are released each year who could benefit from correctional education, this elevates correctional education to one of the most productive and important reentry services.”\**

*\*Gerald G. Gaes; “The Impact of Prison Education Programs on Post-Release Outcomes”*





Emerging Evidence

# **COST-EFFECTIVENESS**



# Is Correctional Education Cost-Effective?

*Although correctional education is effective, is it cost-effective?*

- Hypothetical pool of 100 inmates
- *Direct costs* of correctional education programs and of incarceration itself
- Three-year re-incarceration rate

*These are conservative estimates, as they only include direct costs.*

- Estimate of direct costs of providing education to inmates range from \$140,000 to \$174,400 for the 100 inmates or **\$1,400 to \$1,744 per inmate.**
- Three-year reincarceration costs for those who did not receive correctional education are between \$2.94 million and \$3.25 million, versus \$2.07 million and \$2.28 million for those who did. Re-incarceration costs are thus **\$870,000 to \$970,000 less** for those who receive correctional education.



New Ways of Thinking about ROI

# **PAY FOR SUCCESS**

# Evaluation goal, Rikers SIB

- To determine the reduction in recidivism bed days (RBD) for youth in DOC custody as a result of the implementation of ABLE program
- RBD is the number of days youth spent in jail after the initial release
- RBD will be measured twice
  - After 12 months in community
  - After 24 months in community

\*Courtesy of Jim Parsons; Substance Use and Mental Health Program; Vera Institute of Justice



# Study background

- Experimental approach was attempted, but deemed unfeasible
  - Frequent movement of youth between program and control groups
    - High contamination between groups
    - Dilution of ABLE effect that would lead to inaccurate impact estimate
- A historical comparison group is the most rigorous approach that can be *successfully implemented* in this setting



# Study cohort

- 16-18 year old youth admitted to Rikers Island between Jan. 1, 2013 and Dec. 31, 2013
- Reside at Rikers for more than 6 days
- Include both detainees and sentenced youth
- Include both females and males
- All youth meeting criteria, regardless of actual exposure to ABLE



# NYC SIB: Key parties in the “deal”

- **Investor:** Goldman Sachs
- **Fund Manager:** MDRC (NYC based non-profit)
- **Service Providers:** Osborne Association and Friends of Island Academy
- **Government Partner:** Department of Correction
- **Program Evaluator:** Vera

\*Courtesy of Jim Parsons; Substance Use and Mental Health Program; Vera Institute of Justice





# Evaluating SIBs

- A valuable opportunity to test and evaluate innovative programs
- Measuring process (as well as outcomes)
- Taking initiatives to scale
- May require complex evaluation designs
- Requires an investment of resources that may not be part of the ROI calculation
- Deciding what can be monetized and measured
- Timelines for robust evaluation may be at odds with the needs of government and investors

\*Courtesy of Jim Parsons; Substance Use and Mental Health Program; Vera Institute of Justice





Why It Matters

**NEED IS GREAT;  
CONSEQUENCES ARE  
SEVERE**

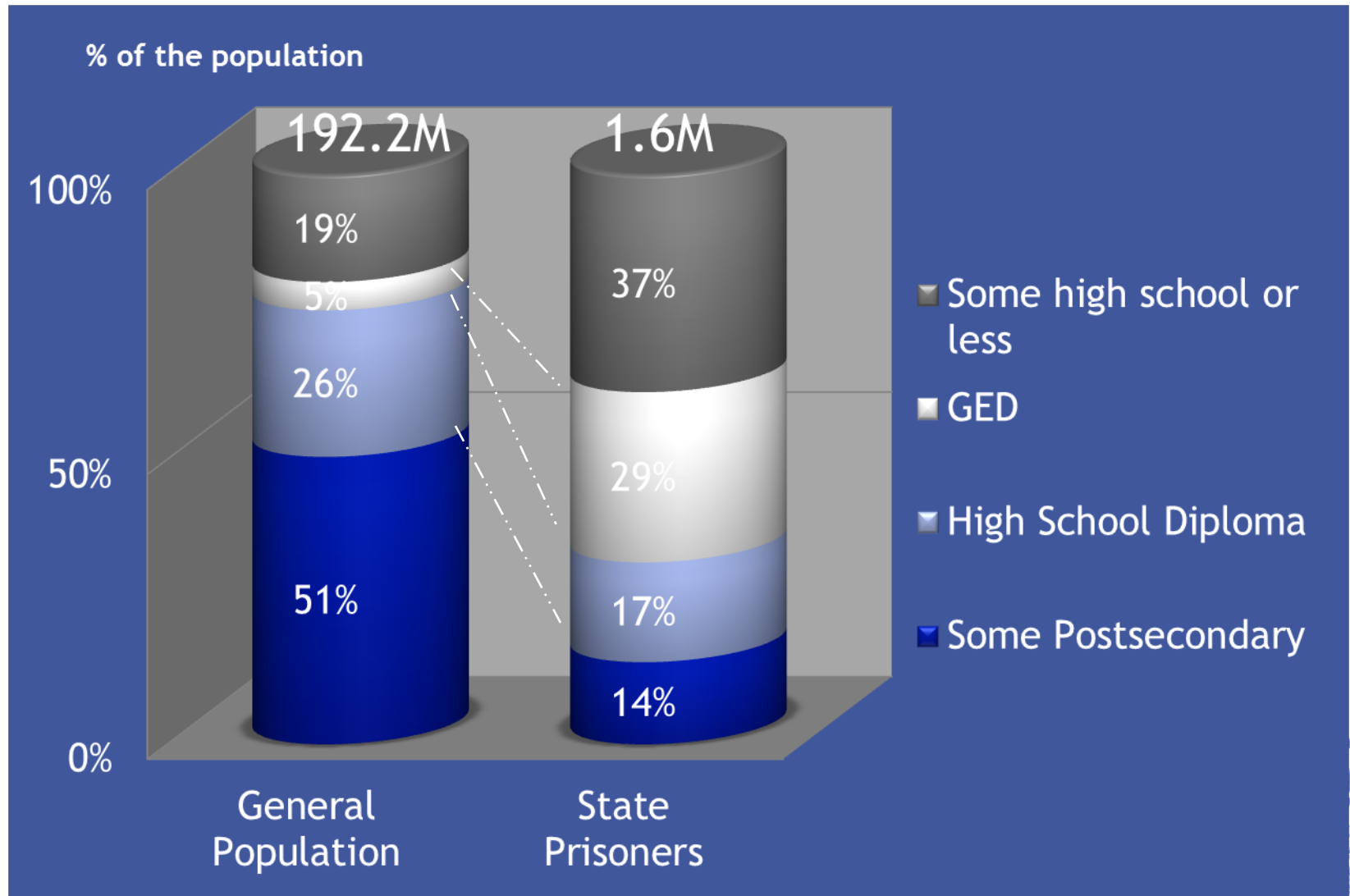


## Only about 63% of State prisoners have a high school credential.

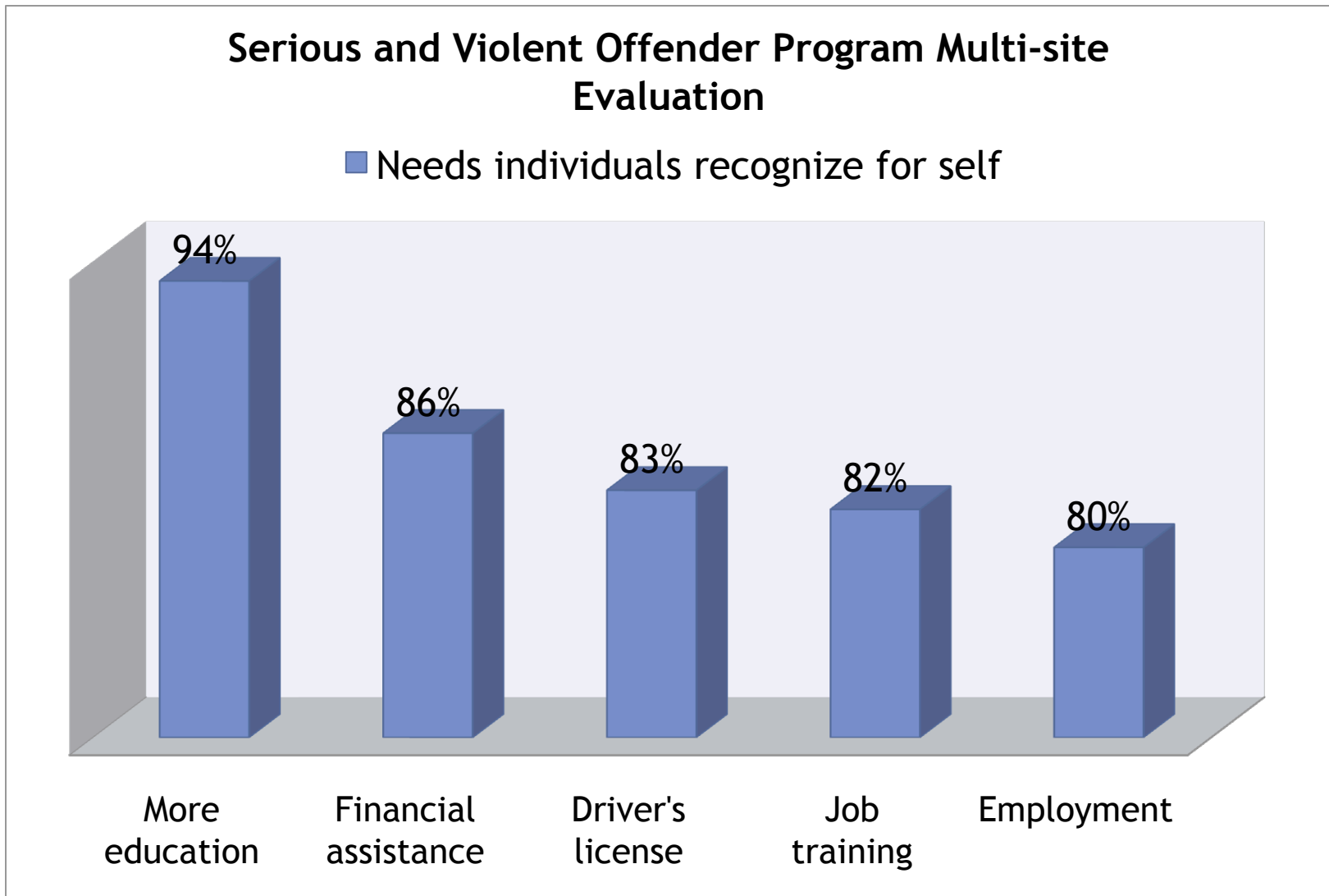
- Two out of three high school credentials are GED's, not diplomas.
- Even among those with a credential, most have skill deficits.
- Lack of credentials, low academic skills, lack of specific job skills - all work in combination with criminal history, “resume gaps,” and lack of a functional support network and other issues to inhibit labor market entry.



# Educational Profile of State Prisoners



# Prisoners recognize their educational needs





So What?

# **IMPLICATIONS AND RECOMMENDATIONS**

# Closing thoughts

- OVAE developed a re-entry model taking into account available evidence to date.
- Through a partnership with Justice, OVAE is testing the model through demonstration projects.
- In the context of re-entry policies and programs, the evidence available indicates Correction Education is a program area where investments in both delivery and net impact studies and ROI analyses make sense because the savings/returns dwarf costs of incarceration.
- Further exploration of various program types and “providers” can yield more precise information.
- Corrections Education is worth considering for a PFS effort. Justice and Education are exploring this.

