

Maximizing the Impact of Taxpayer Dollars:
*An Outcome-Based Approach to Public
Spending and Service Provision*

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LJAF Evidence-Based Policy and Innovation Division

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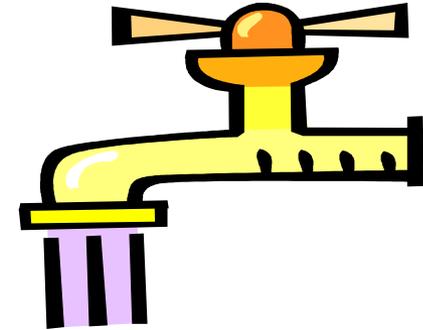
Mission: LJAF's Evidence-Based Policy and Innovation division works to develop and support initiatives that encourage policy leaders and the public to consider reliable evidence as a key factor in their decisions. These efforts will help to ensure that government rigorously evaluates existing programs and designs new ones with the use of credible research.

1. Rationale for Evidence-Based Policy

Problem: U.S. Social Programs Often Do Not Produce the Desired Results

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- Most federal and state social programs do not award funds based on evidence of effectiveness.
- Instead, most programs use a “faucet” approach to allocate funding.



Problem: U.S. Social Programs Often Do Not Produce the Desired Results

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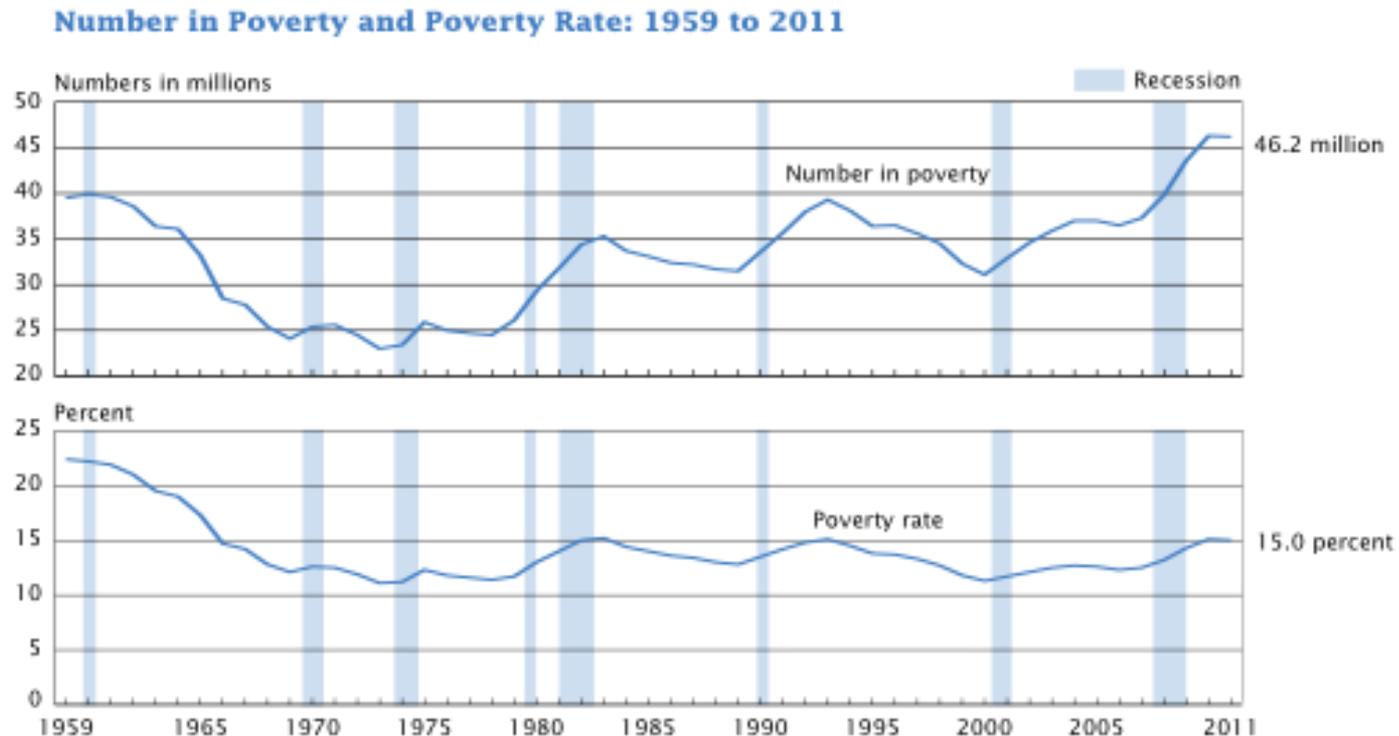
- Of the 11 whole federal programs rigorously evaluated over 1995-2011 (e.g., Head Start, Job Training Partnership Act, Job Corps), 10 produced small or no positive effects.
- Only 1 program – Early Head Start (a sister program to Head Start, for younger children) – was found to produce meaningful, though modest, positive effects.

Isabel V. Sawhill and Jon Baron. "Federal Programs for Youth: More of the Same Won't Work." Youth Today, May 1, 2010.

Meanwhile, we've made little progress in addressing important U.S. social problems

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- U.S. poverty rate is 14.5%, has shown little overall change since late 1970s (per official or alternative NAS measures)



Source: U.S. Census Bureau, Current Population Survey, 1960 to 2012 Annual Social and Economic Supplements.

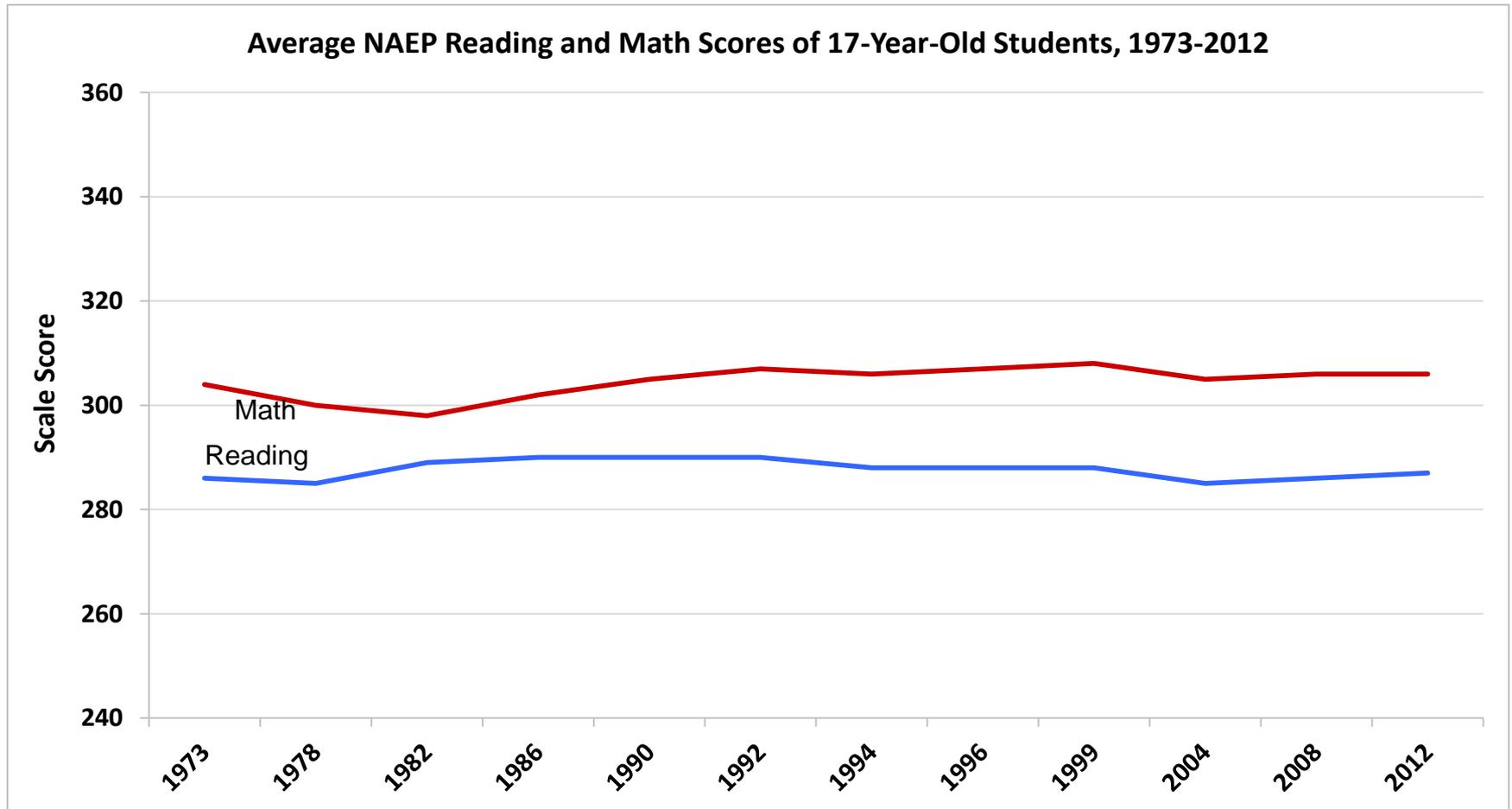
Little progress

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- Reading and math achievement of 17 year-olds – the end product of our K-12 education system – is virtually unchanged over the past 40 years.

Little progress

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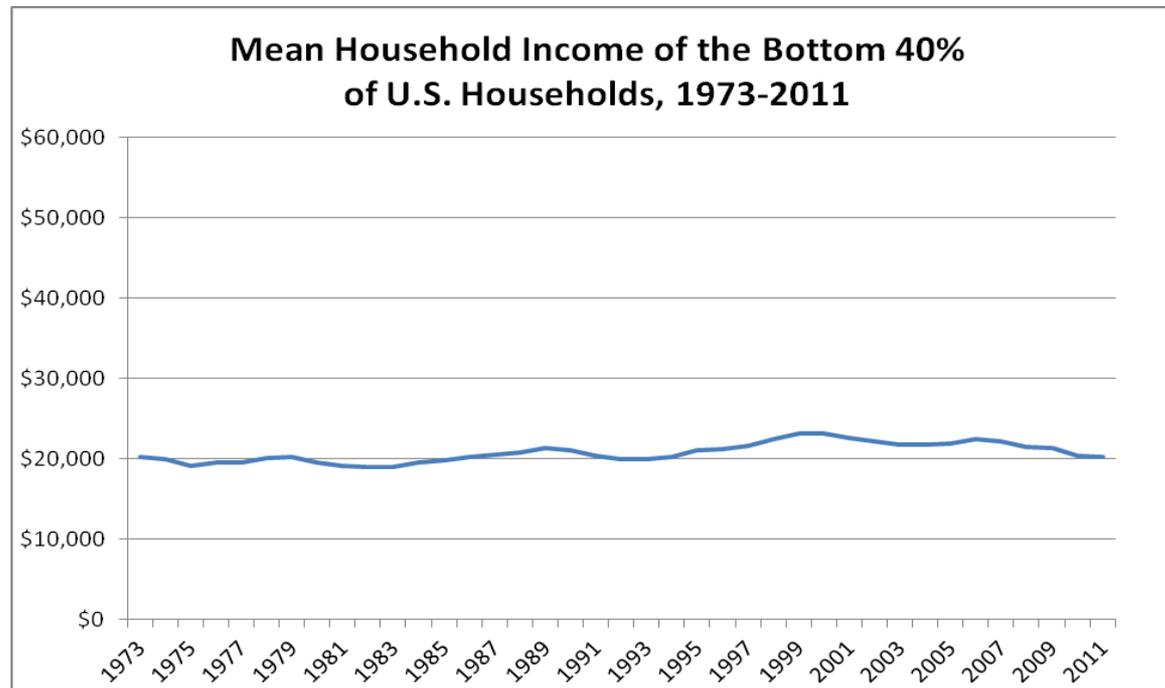


Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1973–2012 Long-Term Trend Reading and Math Assessments.

Little progress

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- Average yearly income of the bottom 40% of U.S. households has changed little since 1970s, after adjusting for inflation (now at \$21,100).



2011 dollars. Source: U.S. Census Bureau, Current Population Survey.

Example:

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- Vouchers for disadvantaged workers, to subsidize their employment

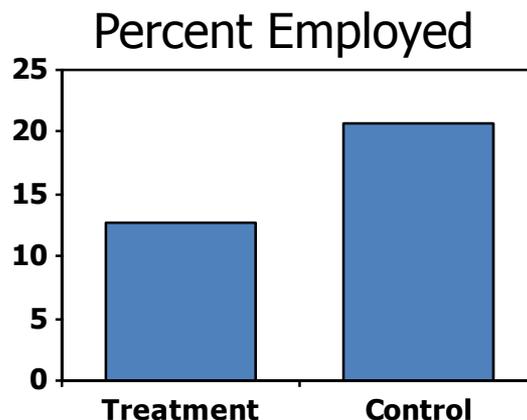
*Gary Burtless. "Are Targeted Wage Subsidies Harmful? Evidence from a Wage Voucher Experiment." **Industrial and Labor Relations Review**, 1985, vol. 39, no. 1, pp. 105-114.*

Rigorous evaluations have identified interventions that are ineffective/harmful:

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- Vouchers for disadvantaged workers, to subsidize their employment

Well-conducted randomized trial found large negative effects on employment.



Gary Burtless. "Are Targeted Wage Subsidies Harmful? Evidence from a Wage Voucher Experiment." Industrial and Labor Relations Review, 1985, vol. 39, no. 1, pp. 105-114.

Rigorous evaluations have identified interventions that are ineffective/harmful:

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- Drug Abuse Resistance Education (DARE)

Ineffective in preventing substance use, according to well-conducted randomized trials.

Rigorous evaluations have identified a few highly-effective social interventions:

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- Reemployment & Eligibility Assessment Program
 - to review UI claimants' eligibility for UI, and provide personalized reemployment assistance. At the 18-26 month follow-up in Nevada:
 - Produced net government savings of \$715 per claimant (in 2013 dollars);
 - Increased earnings by approximately \$2,800 (18%) per claimant.

Michaelides, M., E. Poe Yamagata, J. Benus. "Impact of the Reemployment Eligibility Initiative in Nevada." Impaq International, January 2012.

Rigorous evaluations have identified a few highly-effective social interventions:

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- H&R Block College Financial Aid Application Assistance

4 years later, increased college enrollment for low & moderate income students by 29%, versus a control group.

*Bettinger, E., B. Long, P. Oreopoulos, and L. Sanbonmatsu.
“The Role of Application Assistance and Information in College
Decisions: Results from the H&R Block FAFSA Experiment.”
Quarterly Journal of Economics, August 2012, vol. 127, no. 3.*

In the field of medicine ...

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- A drug or medical device backed by strong evidence is put into widespread use because the system rewards strong evidence.



- In social policy, by contrast, scientific evidence plays little role in allocating resources.

Evidence-based policy seeks to incorporate two main reforms into social programs:

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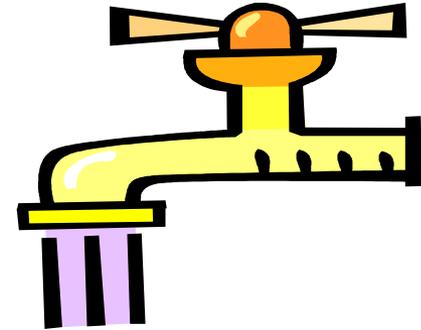
1. Increased funding for rigorous evaluations, to grow the number of research-proven interventions.
2. Strong incentives & assistance for program grantees to adopt the research-proven interventions.

2. Recent Developments in Congress and the Federal Agencies

Problem: U.S. Social Programs Often Do Not Produce the Desired Results

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- Most federal and state social programs do not award funds based on evidence of effectiveness.
- Instead, most programs use a “faucet” approach to allocate funding.



Enacted Evidence-Based Initiatives

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- Evidence-Based Home Visitation Program for at-risk families with young children (HHS, \$1.5 billion over 2010-2014);
- Evidence-Based Teen Pregnancy Prevention program (HHS, \$109 million in FY14);
- Investing in Innovation Fund, to fund development & scale-up of evidence-based K-12 educational strategies (DoEd, \$142 million in FY 14);
- First in the World Initiative, to fund, development & scale-up of evidence-based interventions in post-secondary education (DoED, \$75 million in FY 14).

Enacted Initiatives (continued)

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- Trade Adjustment Assistance Community College and Career Training Grants Program, to fund development and scale-up of evidence-based education and career training programs for dislocated workers (DOL, \$2 billion over 2011-2014);
- Workforce Innovation Fund, to fund development & scale-up of evidence-based strategies to improve education/workforce outcomes of U.S. workers (DOL, \$47 million in FY14);
- Social Innovation Fund, to support public/private investment in evidence-based programs in low-income communities (CNCS, \$70 million in FY14);



Tiered Funding Structure, Investing in Innovation (i³) Fund

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Scale-Up Grants: Programs backed by strong evidence

Validation Grants: Programs backed by moderate evidence

Development Grants: Programs based on preliminary research or reasonable hypotheses

Recently-Proposed Evidence-Based Initiatives

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- Legislation to create new evidence-based program in K-12 education
- Legislation to establish federal Evidence-Based Policy Commission
- Social impact bond legislation with strong evidence and evaluation provisions

3. What Kinds of Evidence Are Needed to Increase Government Effectiveness?

We believe many types of research/evaluation are needed:

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- Implementation studies.
- Well-matched comparison-group studies, and small randomized trials (RCTs), to identify promising programs that merit more rigorous evaluation.
- We generally advocate large demonstration projects that use RCT methods only when program has been shown (i) well-implemented, and (ii) highly promising.



Well-conducted randomized controlled trials (RCTs)

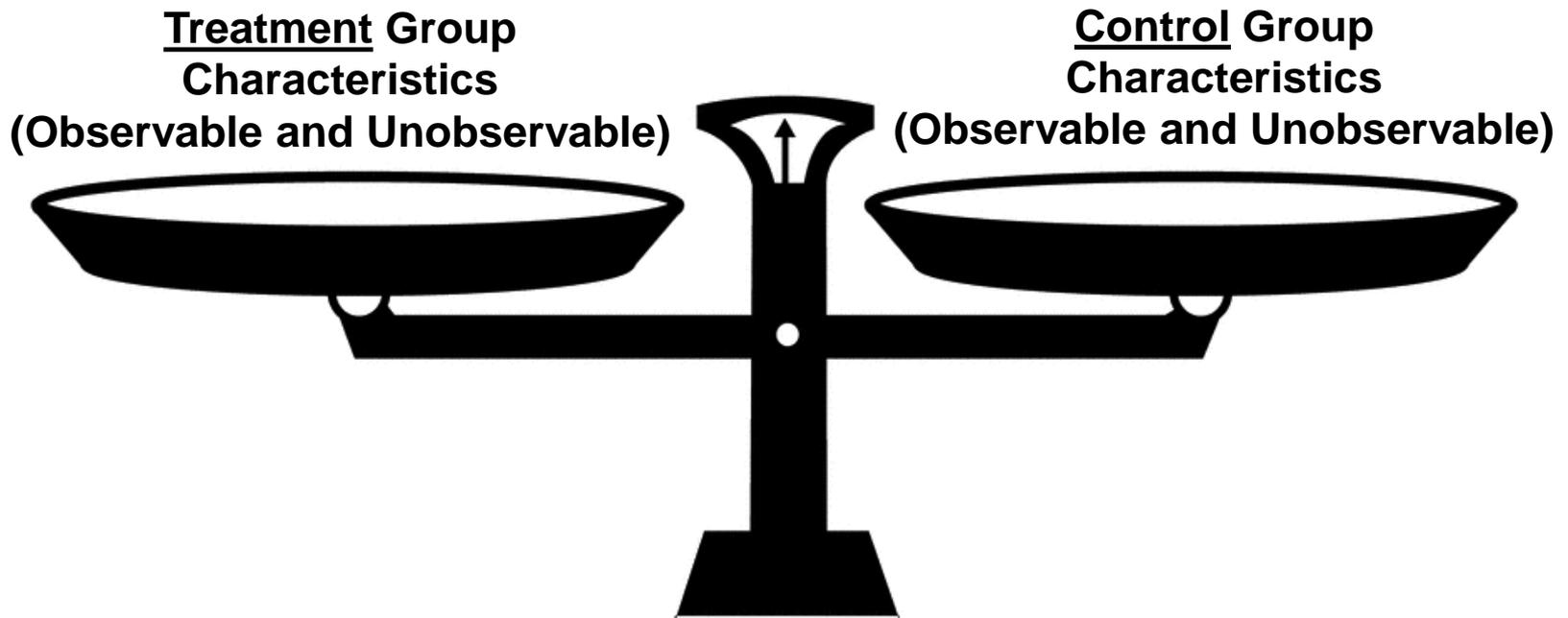
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Where feasible, they are considered the strongest method of evaluating program impact, per evidence standards articulated by –

- Institute of Education Sciences
- National Science Foundation
- National Academy of Sciences
- Congressional Budget Office
- Food and Drug Administration

The Unique Advantage of Random Assignment: Equivalence

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Second-Best When Random Assignment Is Not Possible:

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- Studies that compare program participants to an *observably-equivalent* group of non-participants.
- Often called well-matched “comparison-group” or “quasi-experimental” studies.

Second-Best When Random Assignment Is Not Possible:

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The two groups should be:

1. Highly similar in observable characteristics.
2. Not formed through self-selection or other methods likely to create differences in motivation or other traits.
3. Preferably, chosen prospectively (i.e., before the intervention is administered).

Central Ingredient Needed for Rigor:

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Equivalence

Less Rigorous Study Designs Include:

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- Randomized trials with key limitations (e.g., small samples, only short-term follow-up);
- Comparison-group studies in which the groups are *not equivalent* in key characteristics;
- Pre-post studies; and
- Outcome metrics (without reference to a control or comparison group).

Such designs can be valuable for identifying promising interventions that merit more rigorous evaluation, BUT:



Promising Findings in Less Rigorous Studies Are Often Not Confirmed in Later, More Definitive RCTs

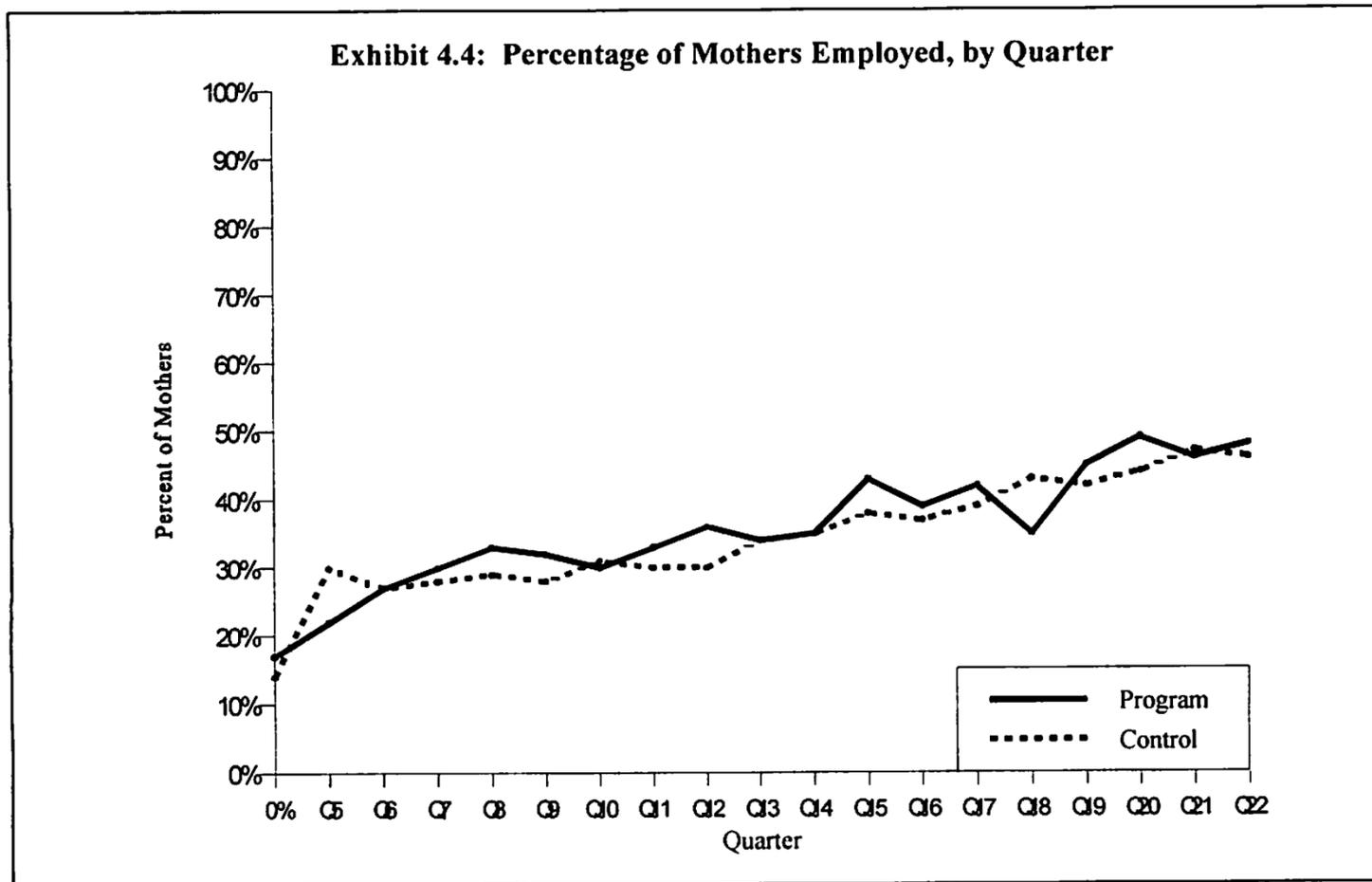
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- In medicine: 50-80% of interventions found promising in phase II (nonrandomized studies or small efficacy trials) are found ineffective in phase III (sizable RCTs).
- In K-12 education: Of 115 interventions evaluated in large, convincing RCTs funded by Institute of Education Sciences 2003-2012, ~90% had weak or no effects.
- Similar pattern occurs in other areas (e.g., workforce development, crime, int'l development assistance, business).



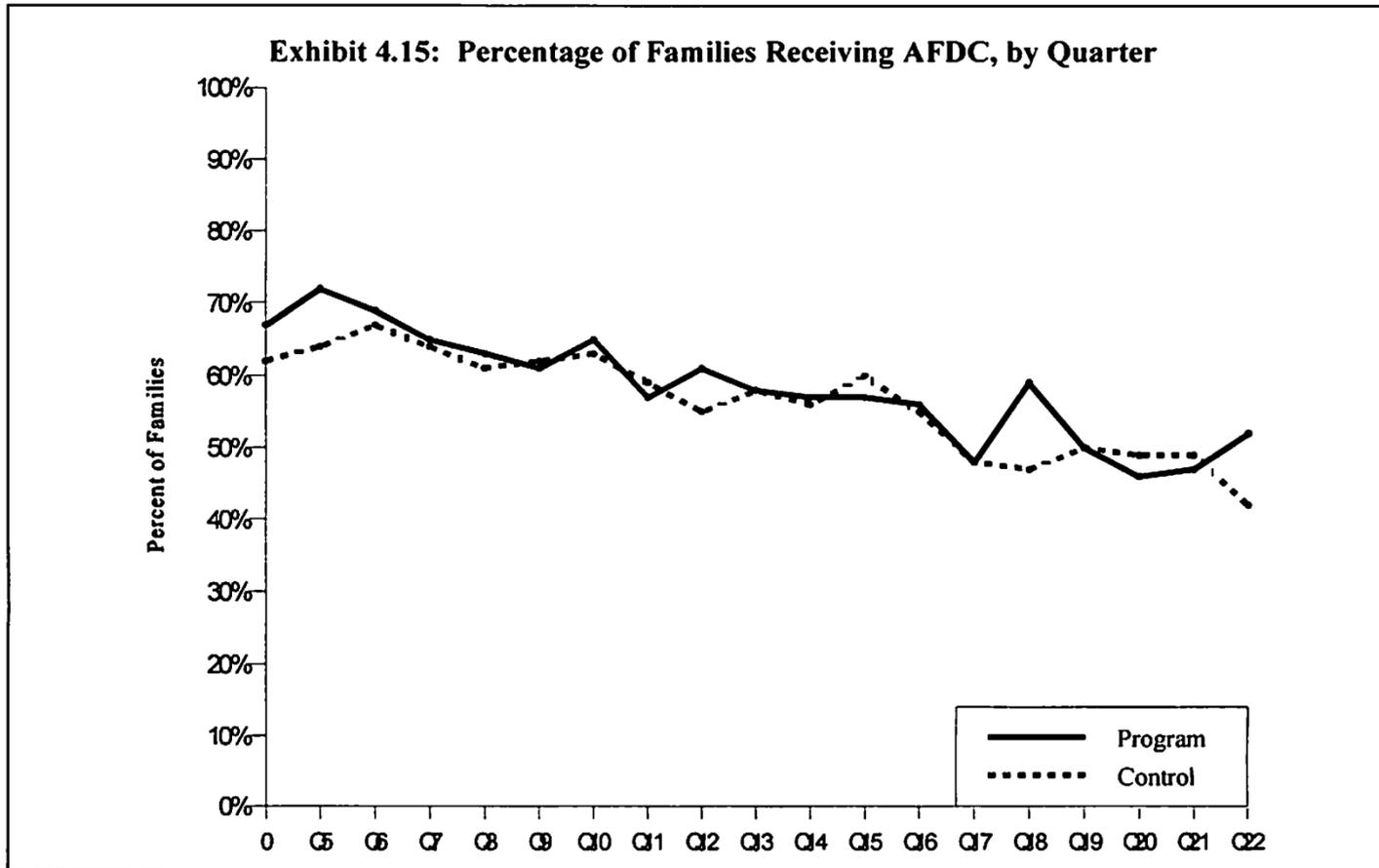
Comprehensive Child Development Program: Impact on Mothers' Employment Rate

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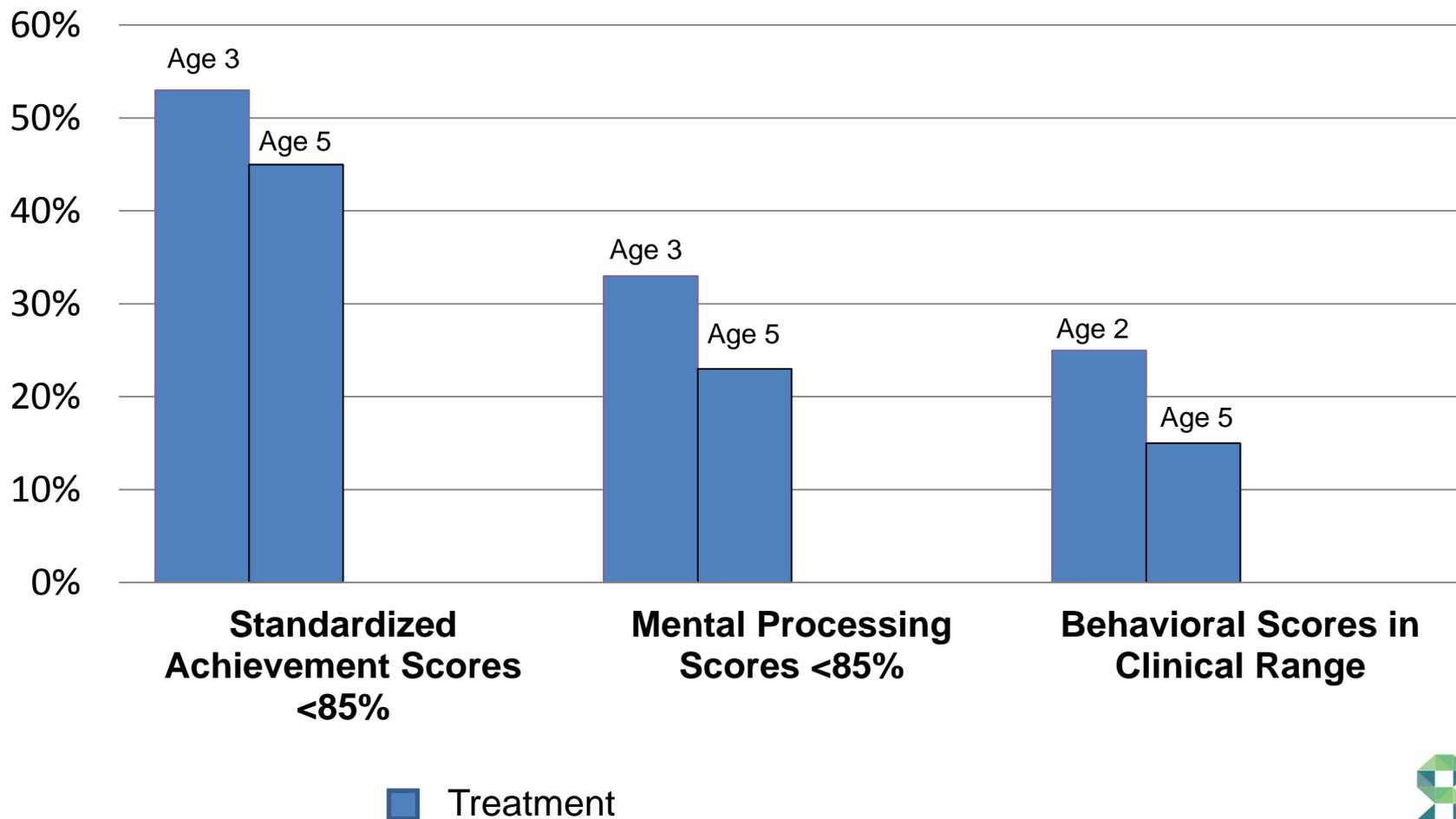
Impact on Family Welfare Receipt

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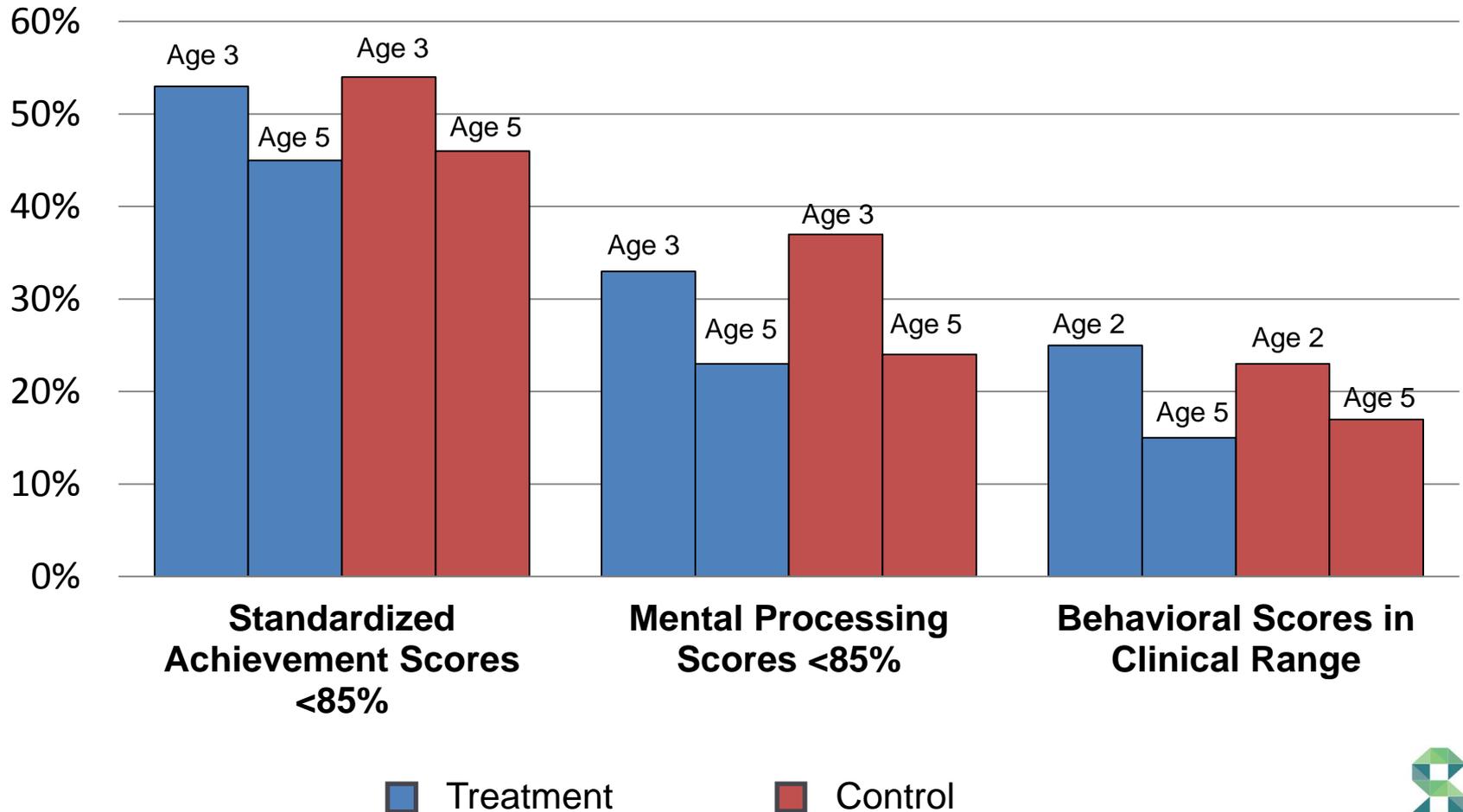
Impact on Percent of Children “At Risk” in Cognitive Development & Behavior

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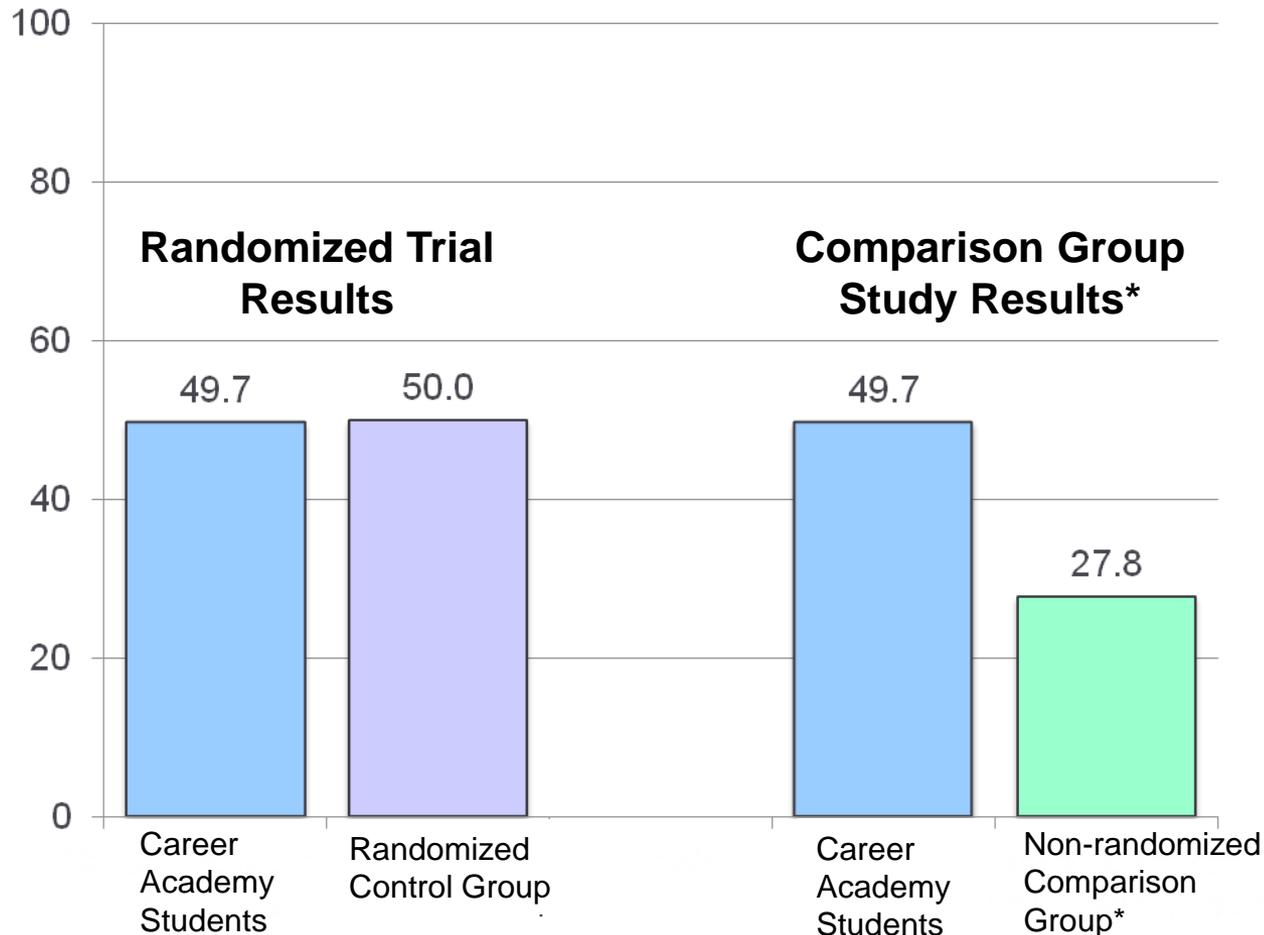
Impact on Percent of Children “At Risk” in Cognitive Development & Behavior

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Impact of Career Academies on Completion of a Postsecondary Credential

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*The comparison group consists of similar students in similar schools nationwide. Their estimated rates of postsecondary completion are statistically adjusted to control for observed differences between their background characteristics and those of the Career Academy group.

Source: Data provided by James Kemple, MDRC Inc.

4. Suggestions for a strategic approach to building and using rigorous evidence of effectiveness.

Overall Goals of Evidence-Based Policy

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1. Increase the number of programs and strategies that are backed by rigorous evidence of effectiveness.
2. Increasingly reward programs that have made the effort to build such evidence.

Step 1: Identify the problems you most want to solve & the questions you most want to answer

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Key questions to be asked at this step include:

- What problems would we most like to address and how will we know if we've been successful?
- What information/knowledge are we missing that could help us operate more efficiently and/or achieve better outcomes?

Step 2: Determine what research has already been done on these questions

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Key questions to be asked at this stage include:

- Are there existing programs or strategies designed to address the problems/information gaps you've identified?
- If so, what evidence is available to support their effectiveness?

Potential sources of evidence-based programs

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- Top Tier Evidence
www.toptierevidence.org
- Social Programs that Work
www.evidencebasedprograms.org
- Blueprints for Violence Prevention
www.colorado.edu/cspv/blueprints/index.html
- What Works Clearinghouse (K-12 Education)
www.ies.ed.gov/ncee/wwc
- Best Evidence Encyclopedia (K-12 Education)
www.bestevidence.org

Step 3: Identify programs/strategies that are good candidates for rigorous evaluation

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These could include programs that are:

- Backed by promising prior evidence suggesting they could produce sizable impacts on important outcomes;
- Widely implemented with significant taxpayer investment but have never been evaluated; or
- Low-cost and could readily be implemented on a large scale if found effective.

Low-Cost Randomized Controlled Trials: An Under-Utilized Tool for Building Evidence

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- Costs are reduced by measuring outcomes using administrative data already collected for other purposes.

- Examples:
 - State test scores, high school and college graduation
 - Child maltreatment
 - Foster care placement
 - Hospitalizations and emergency room use
 - Workforce earnings
 - Government benefit payments

Example: Low-Cost RCT of Recovery Coaches for Substance-Abusing Parents

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- Large, well-conducted RCT (sample of 2,763 substance abusing parents in Illinois)
- Key finding: Significant reductions in time to (i) child reunification with parent and (ii) foster care case resolution. Resulted in net savings to state of \$2,400 per parent with no increase in child maltreatment
- Evaluation cost: \$100,000. All outcomes were measured over 3-5 year follow-up with administrative data(e.g., foster care data).

To Do a Low-Cost RCT, Certain Conditions Must Exist:

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- Low-cost access to administrative data of reasonable quality on key study outcomes.
- A sizable number of individuals (or groups) available to participate in the study without special recruitment.
- Approval of key policy or program officials to do a randomized study.



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