### Increasing the Effectiveness of Social Spending Through Rigorous Evidence About "What Works"

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Coalition for Evidence-Based Policy
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### Coalition for Evidence-Based Policy

- A nonprofit, nonpartisan organization.
- <u>Mission</u>: To increase government effectiveness through rigorous evidence about "what works."
- <u>Coalition has no affiliation with any programs or program models</u> thus serves as an objective, independent resource on evidence-based programs.
- <u>Funded independently</u>, by national philanthropic foundations (e.g., MacArthur, William T. Grant).



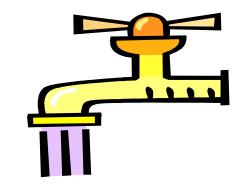


### 1. Rationale for Evidence-Based Policy

### <u>Problem</u>: Social Spending Programs Often Do Not Produce the Desired Results

 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.







### <u>Problem</u>: U.S. Social Programs Often Do Not Produce the Desired Results

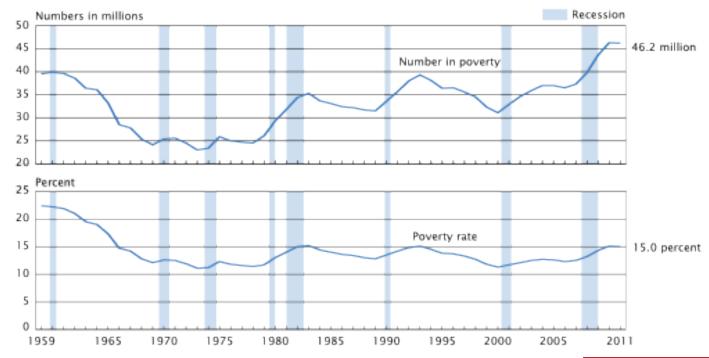
- Of the 11 whole federal programs rigorously evaluated over 1995-2011 (e.g., Head Start, Job Training Partnership Act), 10 produced small or no positive effects.
- Only 1 program Early Head Start (a sister program to Head Start, for younger children) – was found to produce meaningful, though modest,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



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

 No overall progress in reducing U.S. poverty since mid-1970s (rate today is 15%).

#### Number in Poverty and Poverty Rate: 1959 to 2011



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

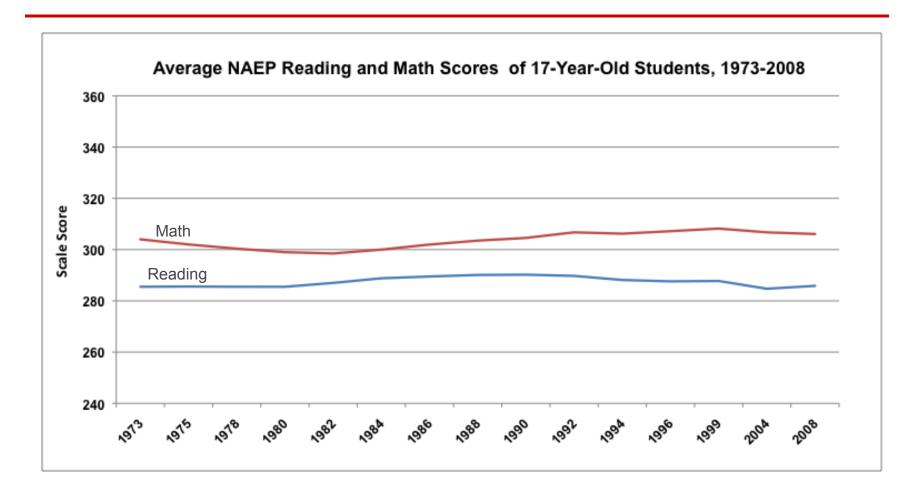


### Little progress

 Reading and math achievement of 17 year-olds – the end product of our K-12 education system – is virtually unchanged over 40 years, despite a 90% increase in public spending per student (adjusted for inflation).



### Little progress



Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1973–2008 Long-Term Trend Reading and Math Assessments.



### Example:

 Vouchers for disadvantaged workers, to subsidize their employment

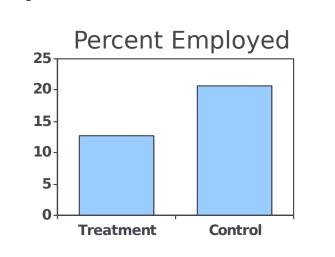


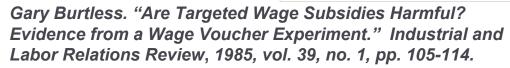
### Rigorous evaluations have identified interventions that are ineffective/harmful:

 Vouchers for disadvantaged workers, to subsidize their <u>employment</u>

Well-conducted randomized trial found large negative

effects on employment.







## Rigorous evaluations have identified interventions that are ineffective/harmful:

Drug Abuse Resistance Education (DARE)

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



### Rigorous evaluations have identified a <u>few</u> highlyeffective social interventions:

- Certain work-focused welfare reform strategies (Riverside, L.A., Portland) -- Increased participants' employment and earnings 20-50%; produces net government savings of \$1,700 to \$6,000 per person.
- Nurse-Family Partnership -- Reduced child maltreatment and injuries 20-50% over 2-15 years; for the most at-risk children, produced sizable educational gains (e.g. 8% higher GPA).



### In the field of medicine ...

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



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



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

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





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

# We believe many types research/evaluation are needed:

- 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.\_

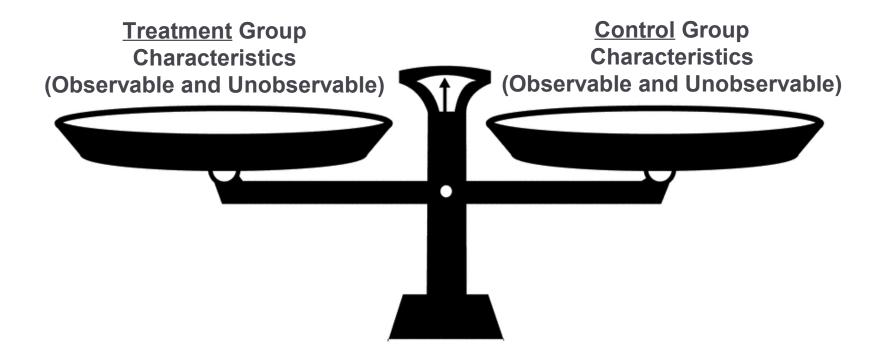


# Recommendation of a Recent National Academy of Sciences Report:

... is that evidence of effectiveness generally "cannot be considered definitive" unless ultimately confirmed in well-conducted RCTs, "even if based on the next strongest designs."



### The Unique Advantage of Random Assignment: Equivalence





# Second-Best When Random Assignment Is Not Possible:

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



### Central Ingredient Needed for Rigor:

## Equivalence



### Less Rigorous Study Designs Include:

- 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
- <u>Outcome metrics</u> (without reference to a control or comparison group).

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

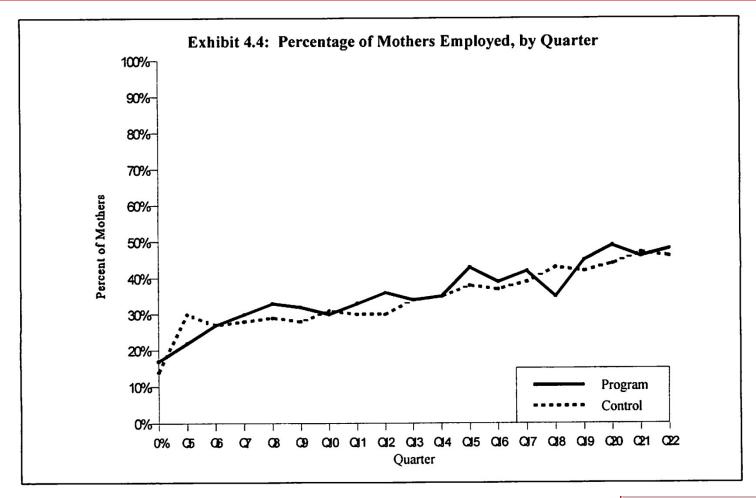


# Too Often, Promising Findings in Less Rigorous Studies Are Not Confirmed in Subsequent, More Definitive RCTs

- <u>In medicine</u>: 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 90 interventions evaluated in large, convincing RCTs funded by Institute of Education Sciences 2002-2013, ~90% had weak or no effects.
  - <u>Similar pattern occurs in other areas</u> (e.g., workforce development, crime, int'l development assistance).

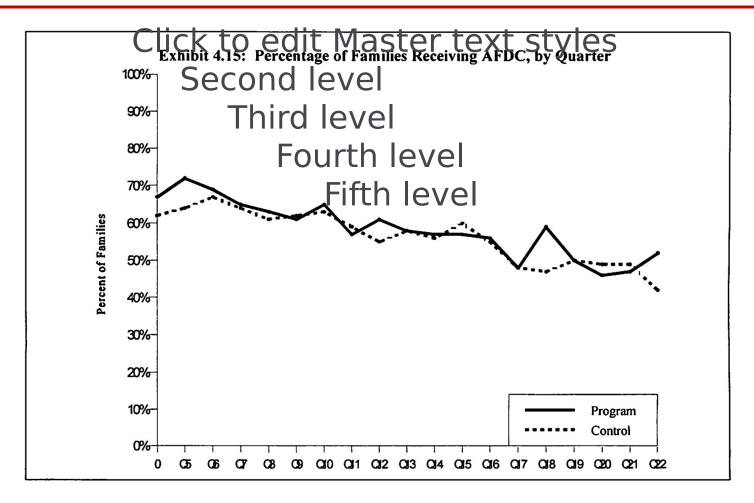


### Comprehensive Child Development Program: Impact on Mothers' Employment Rate



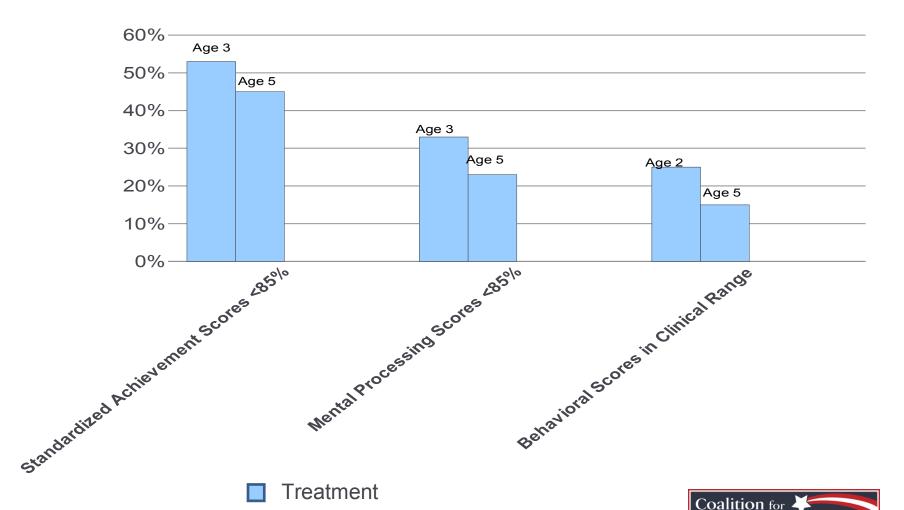


### Impact on Family Welfare Receipt

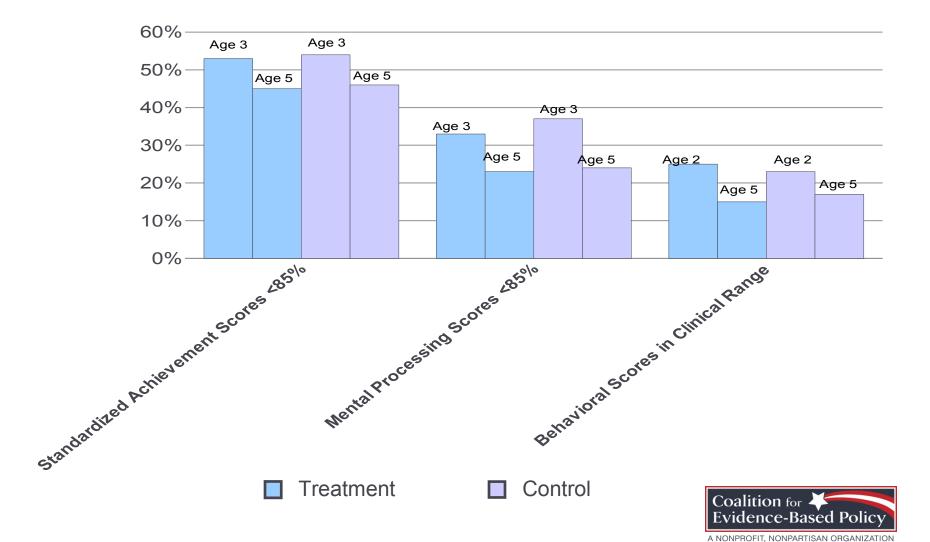




# Impact on Percent of Children "At Risk" in Cognitive Development & Behavior



# Impact on Percent of Children "At Risk" in Cognitive Development & Behavior



### Possible Next Steps:

- Greater use of the tiered-evidence approach in social spending programs.
- Greater use of *low-cost* RCTs, to accelerate the building of credible evidence about what works.



# Tiered Funding Structure, Investing in Innovation (i3) Fund

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



#### Low-Cost RCTs

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

#### • Examples:

- NY City Teacher Incentive Program in lowperforming schools (RCT cost = \$50,000 over 3 years).
- Subsidized Guardianship as alternative to foster care (RCT cost = \$100,000 over 10 years).
- Other examples: RCT costs range from \$50K-\$320K.



### Coalition for Evidence-Based Policy www.coalition4evidence.org

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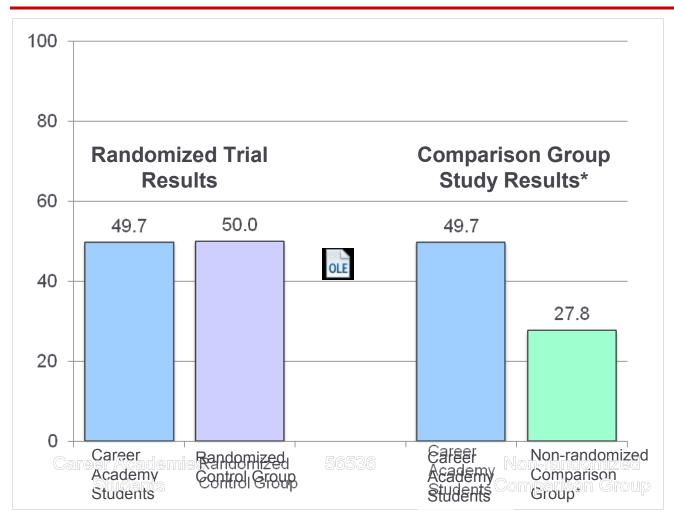


# Websites that identify evidence-based programs

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



## Impact of Career Academies on Completion of a Postsecondary Credential



\*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.

