



Health Profession Opportunity Grants

OFFICE OF FAMILY ASSISTANCE

The HPOG 2.0 National Evaluation: Local Impacts

David Judkins, Abt Associates

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Acknowledgements



- Study Team (Abt Associates):
 - Jacob Klerman, Co-Principal Investigator
 - David Judkins, Director of Analysis
 - Stas Kolenikov, Principal Scientist
 - Sarah Prenovitz, Deputy Director of Analysis
 - Gretchen Locke, Project Director
- Disclaimer:
 - The views expressed in this presentation do not necessarily reflect the views or policies of OPRE, ACF, or HHS

Agenda



- Short-term impact report:
 - To be published later this year
 - Will include estimated impacts of each local program
- Today:
 - Preview these local impacts
 - Answer immediate grantee questions
- August (prior to publication):
 - Memo to each grantee w/tables of local impacts
 - Office hours w/ small groups of grantees to discuss these impacts in detail and associated methodology

Plan for Talk



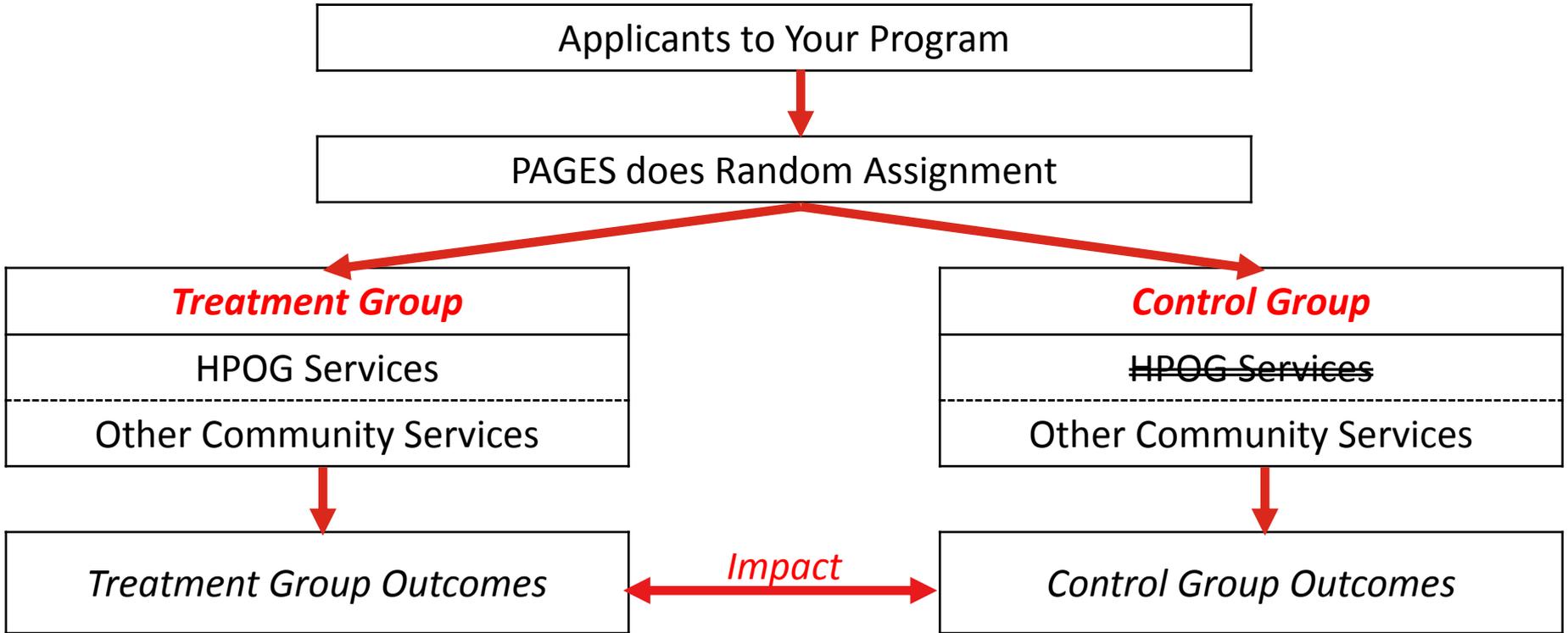
- Methods notes
- Review national findings
- Challenge of estimating local impacts
- Local impacts by outcome
- Uses
- Questions from grantees

Plan for Talk



- ***Methods notes***
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Defining the Local Impact



Impact depends on both HPOG and competing services.

Three Caveats



- 1. *This is an early look:***
- 2. *Prospective inference:***
- 3. *Alternative training services:***

Three Caveats



1. *This is an early look:*

- Will repeat with longer follow-up in 2023 and 2025

2. *Prospective inference:*

3. *Alternative training services:*

Three Caveats



1. *This is an early look:*

2. ***Prospective inference***: i.e., outcomes for future cohorts

- Some interest in outcomes for current cohort
- More policy interest in outcomes for future cohorts

3. *Alternative training services:*

Three Caveats



1. *This is an early look:*
2. *Prospective inference:*
3. **Alternative training services:** Places with good training alternatives will have smaller impacts; so small impacts ...
 - Might be due to strong training alternatives (not in your control)
 - Or might be due to design and/or implementation of your program (in your control)
 - Our methods cannot distinguish

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National Findings



- Increased educational progress
- Increased health care employment
- No impact on earnings through Q5

Plan for Talk



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- ***Challenge of estimating local impacts***
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The Challenge of Estimating Local Impacts

- Identified 38 distinct programs (among 27 non-tribal grantees)
 - “Distinct program” = locally designed set of services, training courses, and personnel
 - e.g., Kansas Department of Commerce created 5 distinct programs, each run by a different local workforce investment board
- But, some programs have very small sample sizes

The Challenge of Estimating Local Impacts

- Need 500 survey respondents at a program (combined treatment & control) to produce reasonably accurate local impacts
- But, only 5 programs have 500+ survey respondents
 - 11 have fewer than 100 and one program has only 25 survey respondents
- Simply comparing estimated outcomes for each program—considered alone—would yield wildly unreliable estimates of local impacts

Bayesian Methods



- Our “Bayesian” methods yield more reliable estimates of local impacts for prospective inferences
 - Blend data across programs and “shrink” extreme estimates to levels that are more plausibly replicable, particularly for programs with small sample sizes
 - Provide error bands that include the true impact with 95 percent probability
- Methods are complex

Range Correction



- Direct estimates of local impacts exaggerate the range of true cross-program variation in effectiveness
 - Ranges need to be shrunk
- Bayesian estimates shrink the ranges too much
- Range-corrected estimates strike a compromise
 - Just the right amount of shrinkage

Plan for Talk



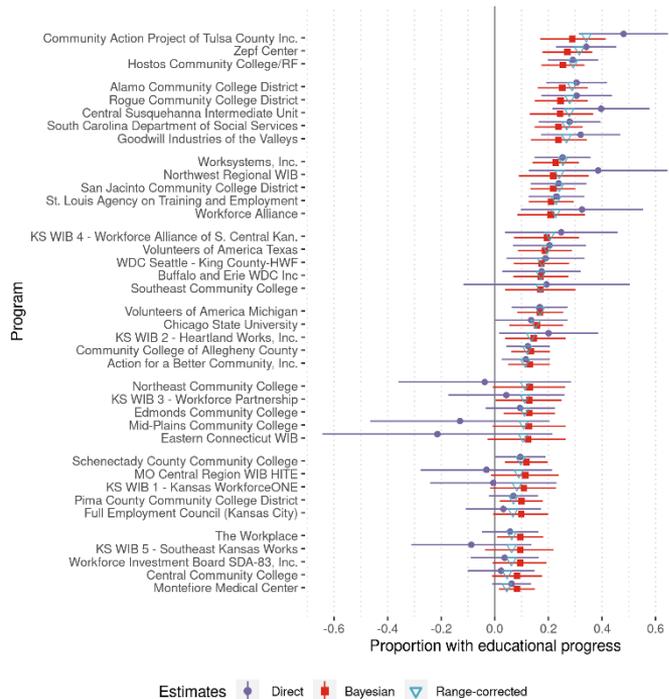
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Local Impacts



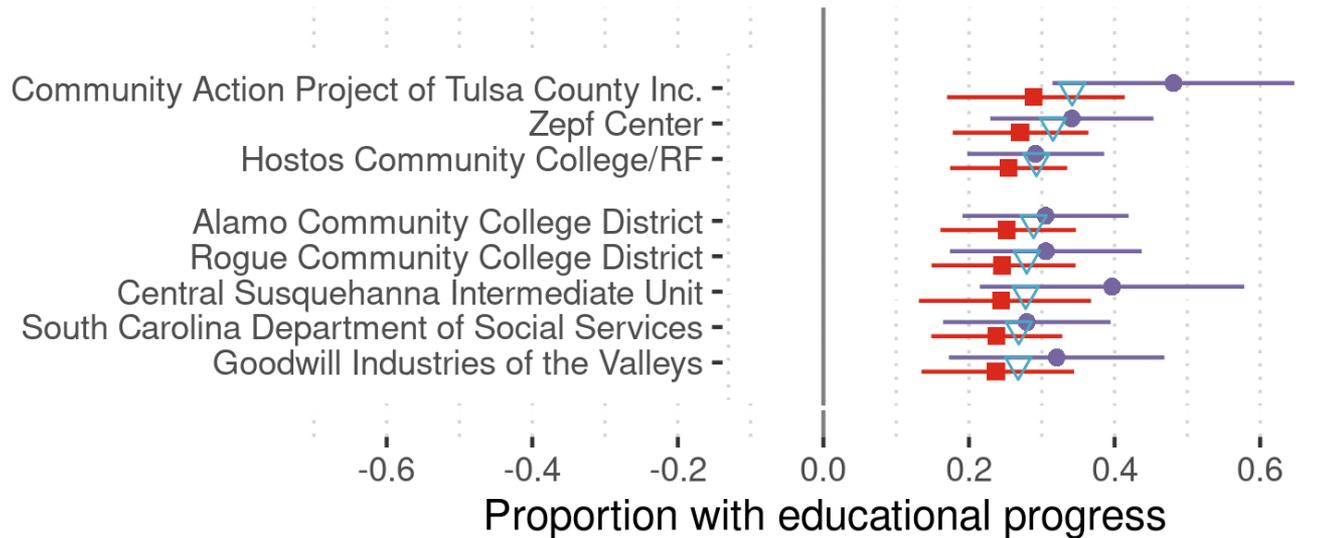
- Focus on 5 outcomes (5 more in report):
 - Educational progress (earned a credential or is still in training with no dropout since starting training)
 - Earned an exam-based certification or license
 - Cumulative months of training
 - Perceived progress towards career goals
 - Q5 earnings
- Report presents results in “caterpillar” plots

Local Impacts on Educational Progress



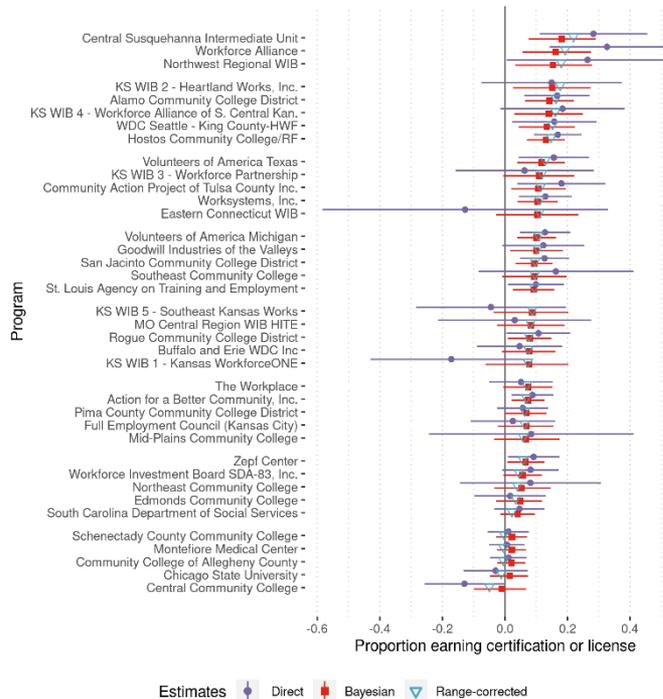
- “Caterpillar” plots
- Too small to read –will zoom in on next slide
- Red squares are body of the caterpillar
- Red lines are the legs
- Other symbols for alternate estimates

Educational Progress: Top 8 Rows



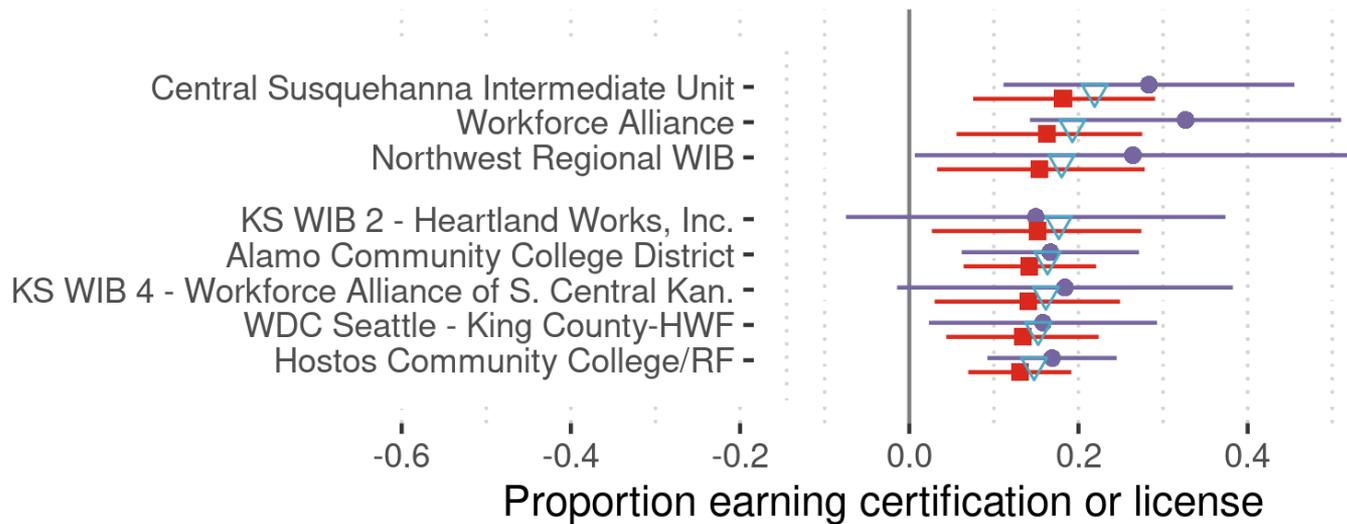
Estimates Direct Bayesian Range-corrected

Local Impacts on Certifications & Licenses



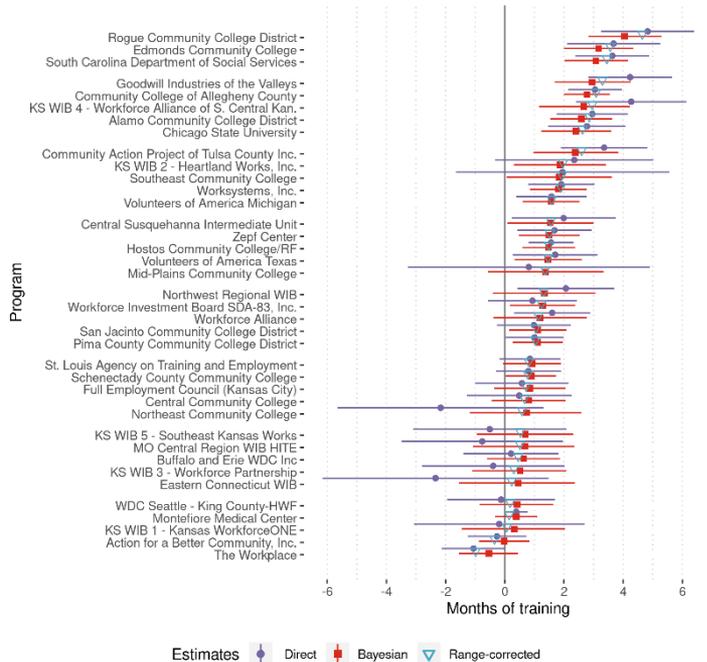
- 19 of 38 have statistically significant impacts
- One program likely has negative impact
- More likely than not, other 18 had positive impacts

Certifications & Licenses: Top 8 Rows



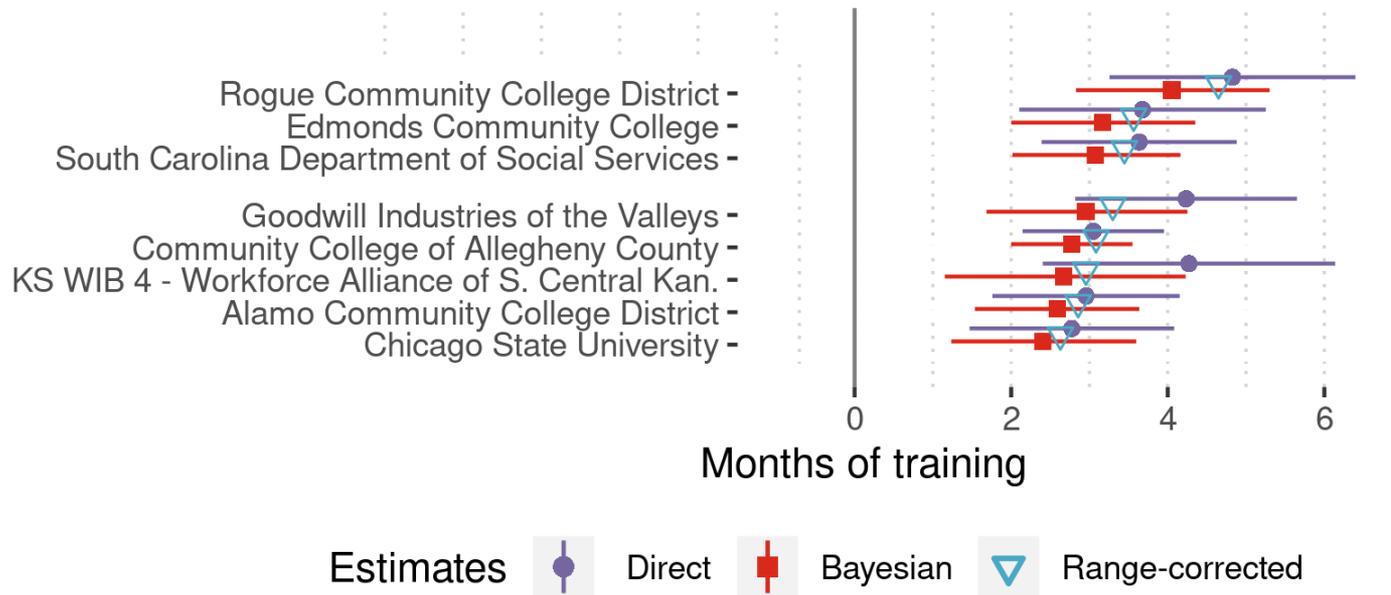
Estimates Direct Bayesian Range-corrected

Local Impacts on Months of Training

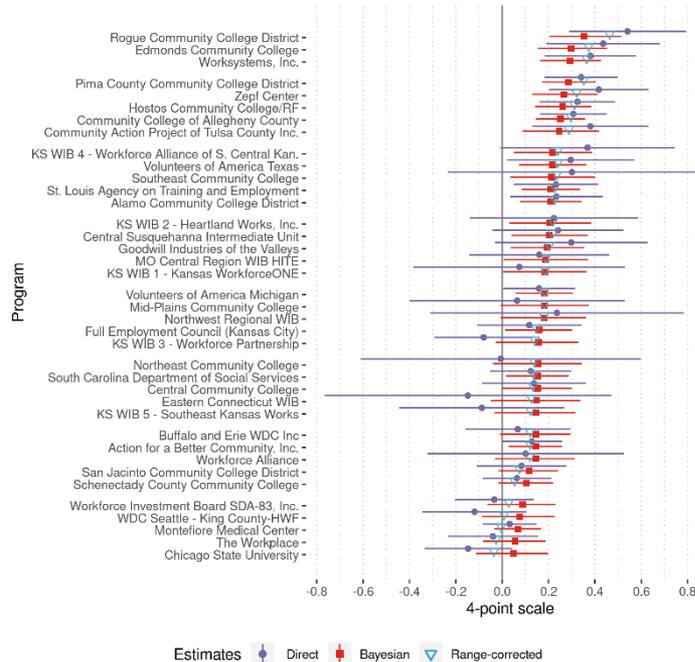


- 21 of 38 have statistically significant impacts
- Two programs likely have negative impacts
- More likely than not, other 15 had positive impacts

Months of Training: Top 8 Rows

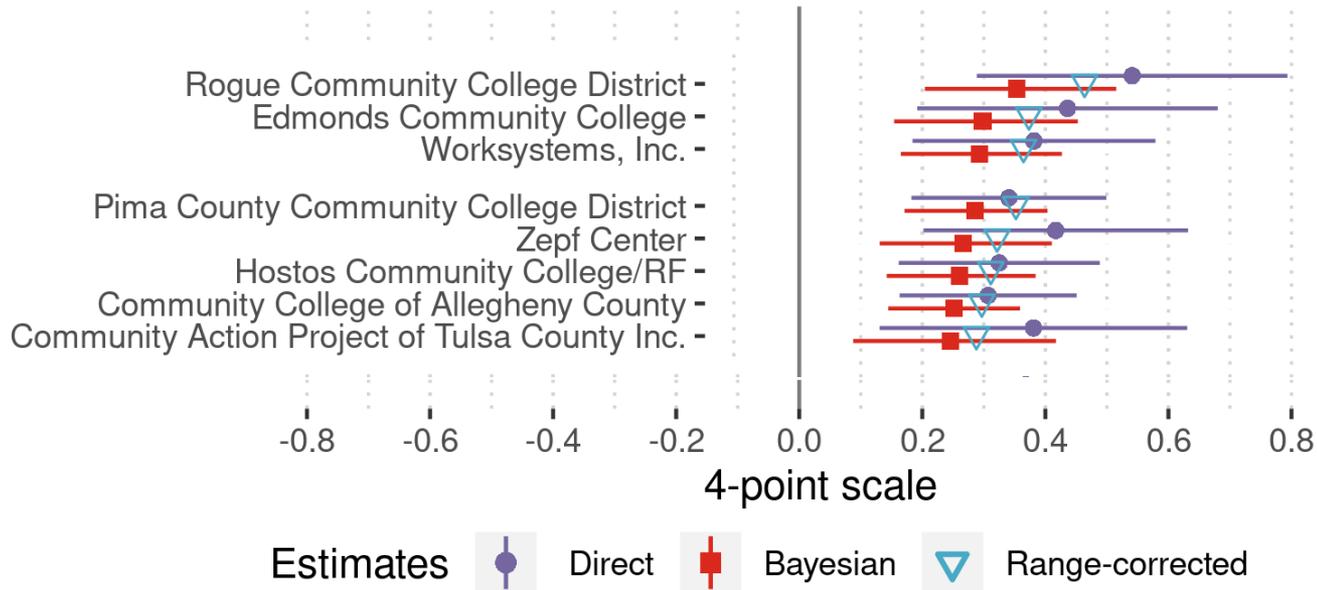


Local Impacts on Perceived Progress

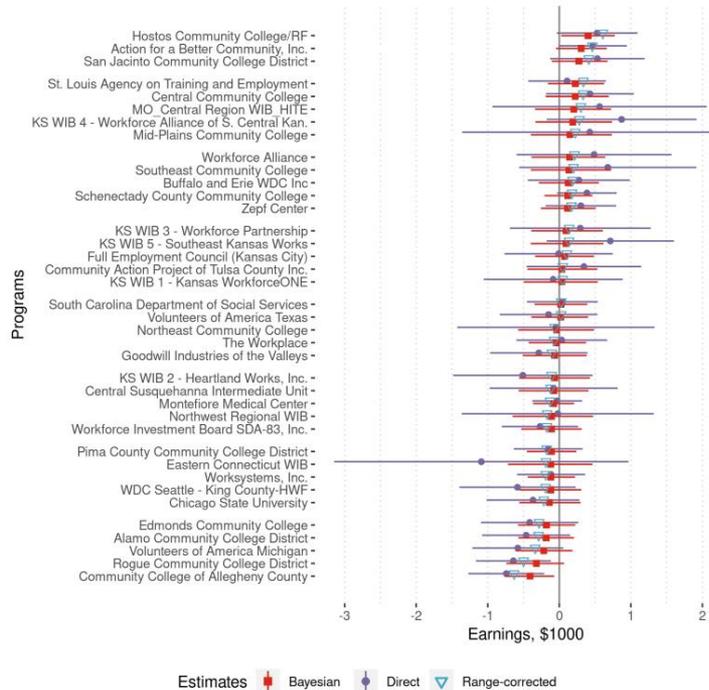


- 23 of 38 have statistically significant impacts
- More likely than not, other 15 had positive impacts

Perceived Progress: Top 8 Rows

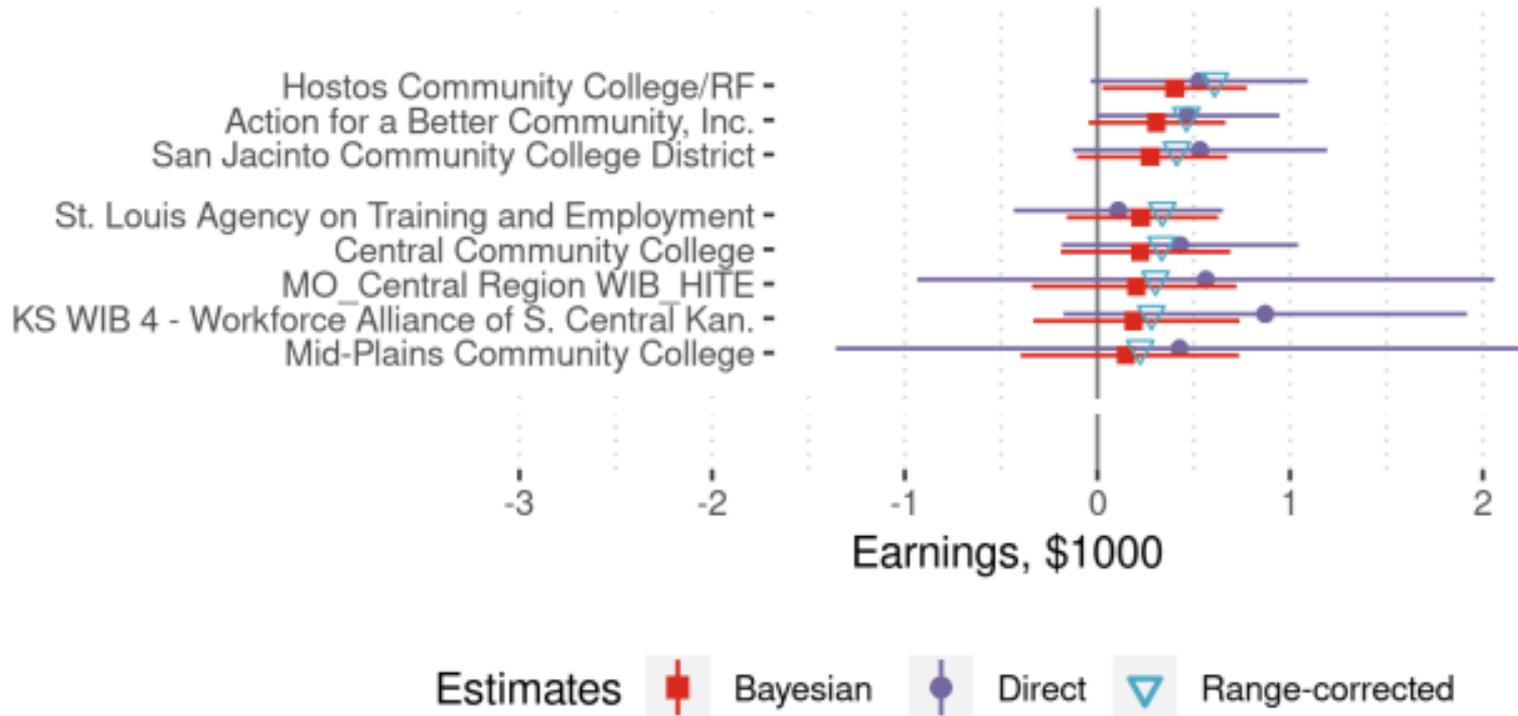


Local Impacts on Q5 Earnings



- Impacts in \$1,000s
- Bottom of caterpillar is in negative territory, suggesting that some programs actually reduced earnings

Q5 Earnings: Top 8 Rows



Local Impacts



- Caterpillars are great for one outcome at a time
- ... What about programs with multi-dimensional impacts?
- Deeper look at 4 local programs that have a large estimated impact on two outcomes
 - Even if the impacts are not statistically significant

Local Impacts



Program	Educational Progress		Quarterly Earnings	
	Impact (p.p.)	Plausible Range	Impact (\$)	Plausible Range
Community Action Project of Tulsa	29*	(17-> 41)	36	(-446-> 533)
Hostos Community College/RF	25*	(17-> 33)	403*	(25-> 775)
San Jacinto Community College	22*	(13-> 30)	274	(-106-> 675)
St. Louis Agency on Training and Emp.	21*	(12-> 29)	225	(-159-> 627)

* Statistically significant positive impact

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Appropriate Uses of Bayesian Estimates



- In informational materials for prospective students
- To support and/or judge funding requests
 - “External evaluators project that the students who are given the opportunity to enroll in this program will experience a 15-percentage point increase in educational progress through 15 months relative to seeking training on their own”

Questionable Uses of Bayesian Estimates

- Even though program funding will have consequences for local staff, it is of questionable fairness to assign personal blame or praise
 - If director of a small program achieved either amazing or dreadful results, Bayesian estimate will be shrunk toward average impact across programs with similar student bodies
 - Direct estimates are more appropriate for this purpose, but are unreliable except at a handful of the largest programs

Stretch Uses of Bayesian Estimates



- To stimulate conjectures about causes of variation in impact; however:
 - As you all well know, HPOG programs have many components
 - With more components per program than programs to study, many competing narratives can be weakly supported
 - Without knowing which components are more effective, seems difficult to use these results to refine program design or operations
 - Perhaps emulate the programs at the top in ways that seem compatible with the local theory of change

Future Research



- Explorations of common causes
 - Do programs that provide a strong level of service X have larger impacts? (Planned for ITIR in 2023)

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Nicole Constance

Project Officer, ACF/OPRE

nicole.constance@acf.hhs.gov

Lisa Zingman

Project Officer, ACF/OPRE

lisa.zingman@acf.hhs.gov



Gretchen Locke

Project Director

Abt Associates

gretchen_locke@abtassoc.com