



Final Impact Report for Accelerating Opportunity

Executive Summary

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June 2017

For most workers, a high school diploma or credential is not sufficient to succeed in the modern economy. Earnings have stagnated for those whose highest level of education is a high school degree. As of 2017, workers with only a high school degree earned 44 percent less than workers with some college education or four-year degrees.¹

Moreover, even adults who have high school credentials frequently come to college underprepared, with below-college-level skills. By one estimate, community colleges referred approximately 60 percent of first-time enrolling students to at least one developmental math class and about 33 percent to at least one developmental reading class (Bailey, Jeong, and Cho 2010).

The Accelerating Opportunity (AO) initiative was developed to address these issues by giving underprepared students and adults without high school credentials an opportunity to enroll in integrated career pathway programs at community and technical colleges. AO was based on Washington State's Integrated Basic Education and Skills Training (I-BEST) model and lessons from the Breaking Through initiative.² AO allowed students scoring in the 6th- through 12th-grade National Reporting System (NRS) educational functioning levels to enter career and technical education (CTE) courses concurrently with high school equivalency (HSE) completion programs through adult education or other skill-building courses. The pathways offered efficient course offerings with paths to multiple stackable, industry-recognized credentials within about 12 credit hours. To promote students' postsecondary success, colleges participating in AO provided team teaching in at least 25 percent of their classes, where a CTE instructor worked alongside an adult education instructor in the classroom, as well as contextualized instruction, accelerated learning, supportive navigation services, and

connections with employers and workforce agencies to help students complete their coursework and transition from AO pathways to the workforce.

With support from several foundations, notably the Bill & Melinda Gates Foundation, Jobs for the Future (JFF) partnered with national technical assistance providers to administer AO and provide technical assistance to seven participating states.³ JFF also specified program elements and performance outcomes. The Urban Institute and its partners at the Aspen Institute and the George Washington University led a rigorous evaluation of AO in four states to inform policymakers and practitioners on the model's potential to improve postsecondary education and employment outcomes for adults with low basic skills.

Impact Evaluation

This final report from the AO impact evaluation presents estimates of how AO career pathway programs affected the educational and employment outcomes of participants in Illinois, Kansas, Kentucky, and Louisiana. The impact analysis examined four key educational outcomes of AO: the number of credits earned, earning at least 12 academic credits, earning any credential offered by a community college, and the number of credentials earned. The analysis also estimated impacts on two labor-market outcomes: the probability of being employed after enrollment (measured each quarter) and the quarterly earnings of AO participants. These outcomes reflect the principal goal in AO's theory of change: to improve the educational and employment trajectories of underprepared adult learners and thereby increase their employment and earnings (see appendix A in the report).

Using matched comparison groups in each state, the research team conducted a rigorous propensity score matching analysis. This approach matched AO students with a comparison group of non-AO students that were similar in almost every measurable way (including prior labor-market activity, test scores, education history, demographics, and timing of college enrollment) except for their participation in AO. This comparison group provides an estimate of how AO students would have fared in the absence of AO. The difference between the outcomes of AO participants and the outcomes of the comparison group provides an estimate of how much better students fared due to AO enrollment: the impact of AO on the outcomes of interest. The research team tracked students for 2 to 11 semesters after AO enrollment to measure education outcomes and for 3 to 12 quarters after AO enrollment to measure labor-market outcomes, depending on the availability of data. Earlier cohorts of AO students have longer observed follow-up periods than later cohorts.

In Illinois and Louisiana, colleges recruited overwhelmingly from the adult education population, as was envisioned when the AO initiative was developed. In Kansas and Kentucky, colleges recruited both from adult education and from an additional college source: current CTE students in Kansas and developmental education students in Kentucky. The matching analysis was completed separately by recruitment source to account for unmeasured differences among those groups, and the results are reported for each subgroup of students and overall for the state.

This impact analysis presents results for a total of 4,361 students who appeared in college records as having enrolled in at least one credit-bearing course, were not English-language learners, had a valid Social Security Number, and were retained in the matching procedures utilized for the analysis. This represents 63 percent of the 6,946 students flagged as AO participants in the states' administrative records. Many students were excluded from the analysis because they did not take a credit-bearing course and therefore did not have college records, often because of enrollment in noncredit AO programs, which were especially common in Louisiana.

Findings

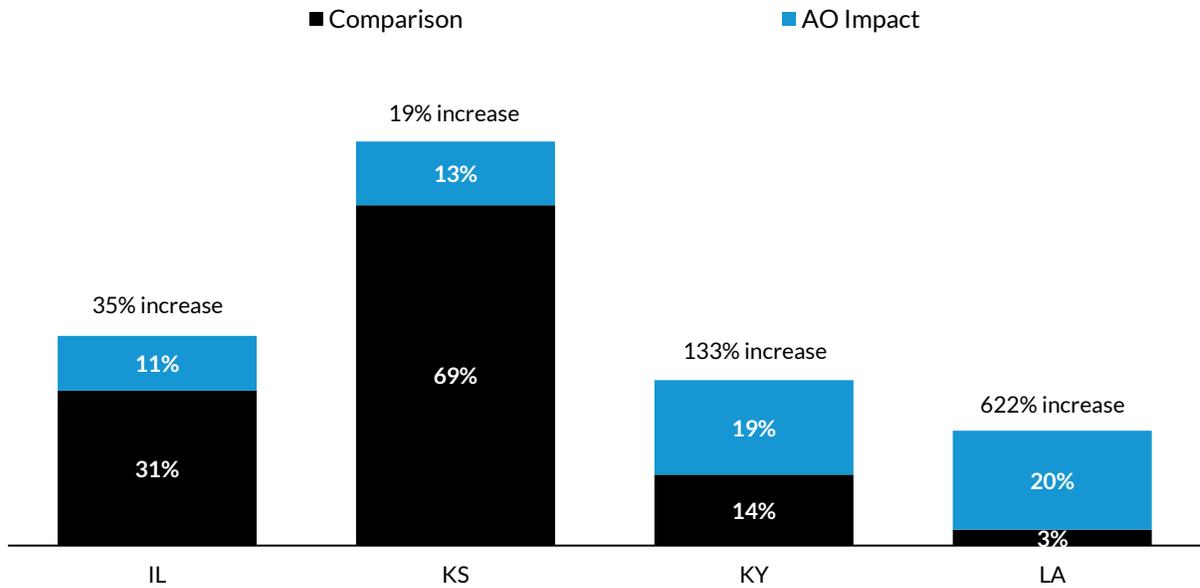
Based on survey data, Anderson and colleagues (2016) reported that colleges counted a total of 8,287 students enrolled in AO in the four states in the first three years of the initiative, which covered calendar years 2012 through 2014 in Illinois, Kansas, and Kentucky and fall 2012 through summer 2015 in Louisiana. The survey results indicated that AO students enrolled in 154 integrated career pathways, primarily in health care and manufacturing.

The college administrative records included over 4,500 AO students with data. For these students, AO colleges awarded over 79,000 credits and nearly 6,800 credentials, producing an average of over 17 credits and 1.5 credentials per AO participant. Examples of credentials included college-awarded certificates for certified nurse aides (CNAs), computer numerical control (CNC) operators, welding technicians, and automotive technicians. One key outcome that JFF specified for each state was that AO participants earn an aggregate of 3,600 occupational credentials through AO pathways.

Based on quasi-experimental propensity score matching analysis on the 4,361 students retained in the sample, the evaluation found that AO had a positive impact on the number of college-awarded credentials earned by almost all students. In most cases, AO students earned more credentials while taking fewer credits, possibly indicating more efficient course-taking and accelerated learning. Figure 1 and figure 2 summarize the credential attainment gains by state. The percent increases, noted above each bar, were much larger in states where the matched comparison group had low credential attainment, particularly Louisiana. In Louisiana, the 20 percentage-point impact of AO on the likelihood of earning any credential relative to the comparison group's average of 3 percent likelihood results in a 622 percent increase. Because the comparison group earned zero credentials on average, the percent increase for number of credentials earned is undefinable. In Kansas, the comparison group had a very high rate of credential attainment. Though they had similar absolute gains to Illinois and Kentucky (a 13 percentage-point gain in likelihood of earning a credential and a 0.6 credential gain in number of credentials earned), the relative increases were smaller.

FIGURE 1

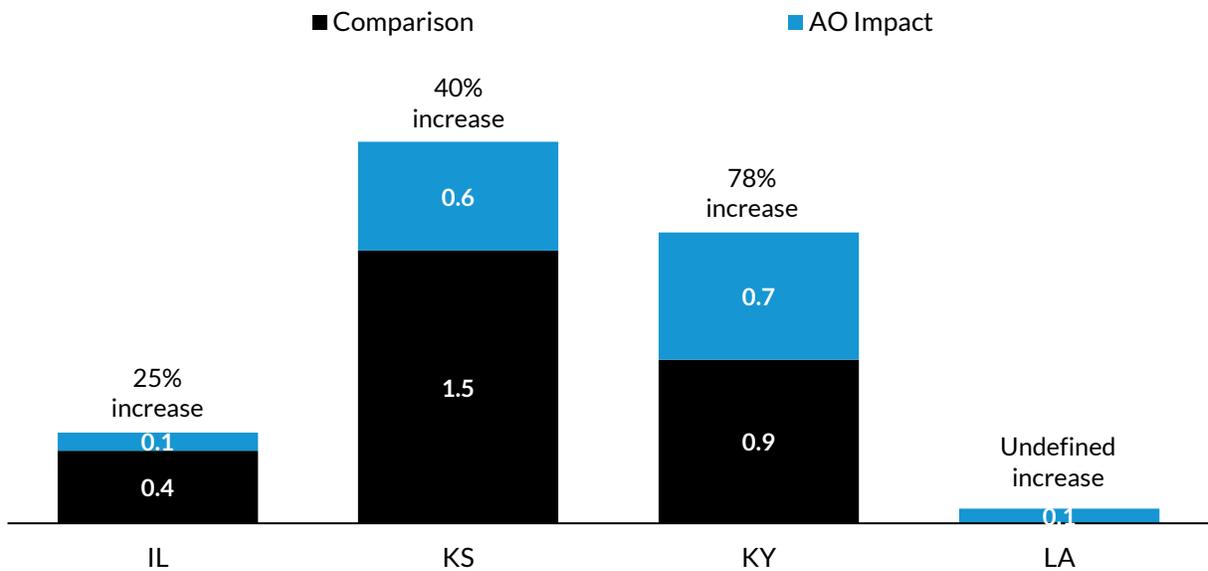
Likelihood that Accelerating Opportunity Students Earned Any Credential, Relative to Matched Comparison Group, by State



Note: This summary figure does not separate the Kansas and Kentucky results by recruitment source.

FIGURE 2

Average Number of Credentials Earned by Accelerating Opportunity Students, Relative to Matched Comparison Group, by State



Note: This summary figure does not separate the Kansas and Kentucky results by recruitment source.

The positive outcomes for credential attainment are notable, though they did not always translate into labor market gains in the observed timeframe. AO had strong and sustained positive impacts on earnings for two subgroups: AO students recruited from adult education in Kentucky and AO students recruited from CTE in Kansas. Adult education students from Illinois, Kansas, and Louisiana and developmental education students from Kentucky did not achieve positive, statistically significant, or enduring gains in earnings during the follow-up period. Table 1 highlights the overall patterns of impact in each state.

The state-by-state results summarize the levels, impact, and percent change in key outcomes and the levels of those outcomes for the treatment and comparison groups. The percent change is measured relative to the comparison group, so comparison groups with very low levels have higher percent changes for the same AO impact. Full results appear in the report body and in appendix C of the report.

TABLE 1
Summary of Accelerating Opportunity Impact Findings from
Quasi-Experimental Analysis, by Recruitment Source

	Illinois	Kansas		Kentucky		Louisiana
	Adult ed.	Adult ed.	CTE	Adult ed.	Dev. ed.	Adult ed.
Education						
Credential attainment	+	-	+	+	+	+
Credit attainment (persistence)	◇	-	-	+	+	-
Labor Market						
Short-term employment	-	•	+	-	+	+
Mid-term employment	+	•	+	+	+	◇
Long-term employment	+	N/A	N/A	+	+	◇
Short-term earnings	-	+	+	-	◇	+
Mid-term earnings	+	•	+	+	•	◇
Long-term earnings	•	N/A	N/A	+	◇	-
Accelerating Opportunity sample size	867	459	1,239	122	1,234	440

Notes:

+ = significant positive impacts, • = no significant impacts, - = significant negative impacts, ◇ = both positive and negative significant impacts; short-term = quarters 1-3, mid-term = quarters 4-8, long-term = quarter 9 through final observations; N/A = not applicable. Kansas does not have long-term impacts because students are only observed for eight quarters following enrollment. The short-term impacts largely reflect the in-program period, when it may be reasonable to expect negative labor-market impacts because many in training may not be working.

Illinois

Key AO recruitment source: Primarily adult education students.

- AO students earned 25 percent **more credentials** than the comparison group and were 35 percent **more likely to earn any credential** than the comparison group. As shown in figure 1 and figure 2, the comparison group's credential attainment rate was fairly high, but the average number of credentials earned was quite low.
- AO students earned **fewer college credits**, suggesting acceleration. They were **more likely to persist beyond 12 credits**.
- AO students had somewhat **higher employment rates** than the comparison group beginning in the 3rd quarter, peaking at a 15 percent gain over the comparison group rate of 54 percent in the 12th quarter after AO enrollment (impact of 8 percentage points).
- AO students had **medium-term earnings gains** in the fifth quarter after enrollment of up to 14 percent over the comparison group average earnings of \$2,035 (impact of \$293), though these positive impacts **faded out** by the sixth quarter after enrollment.

Kansas

Key AO recruitment source: Primarily CTE students, but also a relatively low-barrier subset of adult education students.

- AO students from both adult education and the CTE recruitment earned **more credentials** than their matched comparison groups. AO students from CTE earned 57 percent more credentials than the comparison group. The gain for AO students from adult education was positive but not significantly different from zero. **AO students recruited from CTE were also more likely to earn any credential** than their matched comparison group, but **AO adult education students were not**.
- AO students from both the adult education and the CTE groups attained more credentials while taking **fewer college credits**, suggesting acceleration.
- The **CTE group experienced large, positive, and persistent impacts on employment and earnings**. The employment gains in the eighth quarter after enrollment were 33 percent higher than the comparison group average earnings of \$3,606 (impact of \$1,188).
- The **adult education group experienced close to zero impacts on both labor-market measures**. However, it should be noted that this was a particularly low-barrier subset of the adult education population that would likely have had strong labor-market outcomes in the absence of AO (as demonstrated by the comparison group).

Kentucky

Key AO recruitment source: Primarily developmental education students, but also adult education students.

- AO students recruited from both adult education and developmental education experienced **relatively large increases in the number of credentials earned and the probability of earning any credential**. AO students recruited from adult education were over six times more likely to earn any credential. AO students recruited from developmental education earned 80 percent more credentials and were more than twice as likely to earn any credential. These large gains reflect the low levels of credential attainment among the comparison groups.
- AO students recruited from both adult education and developmental education also earned **more credits** and were **more likely to earn 12 credits** than their respective comparison groups. On average, AO adult education students earned additional credits equating to about two more classes, and developmental education students earned credit equating to about 1.5 more classes.
- Students from both recruitment sources experienced **positive impacts on employment rates, with larger impacts among AO students recruited from adult education**. Only **AO students from adult education experienced earnings gains** over the comparison group, reaching a gain of 43 percent over the average comparison group earnings of \$1,984 in the ninth quarter after enrollment (impact of \$855). For AO students from adult education, substantial gains persisted through the end of the observed period. Modest but significant positive gains appeared only in the 12th observed quarter for students recruited from developmental education.

Louisiana

Key AO recruitment source: Primarily adult education students; program also offered many noncredit pathways that are excluded from the analysis.

- AO students in Louisiana saw **gains in the number of credentials earned**. They also saw **large gains in the likelihood of earning any credential**, with AO students 20 percentage points more likely to earn a credential than the matched comparison group, a 622-percent increase.
- Meanwhile, AO students earned **fewer credits**, equating to more than one fewer classes taken. They were **less likely to persist for 12 credits**, suggesting acceleration.
- AO students saw **gains in employment and earnings through the sixth quarter** after enrollment of up to 38 percent more than the comparison group average of \$1,868 (impact of \$710), after which they **fell behind** the comparison group on earnings, displaying negative impacts. That may have occurred because of the various similar programs and services available to the comparison group in Louisiana during AO implementation, which would weaken the distinct effect of the AO treatment over what was otherwise available.

Overall, AO helped participants with low academic skills earn more credentials from community college programs than similar non-AO students. AO students often increased their credential attainment while taking fewer credits. Depending on the value of the certificates, this pattern may represent a cost savings in terms of tuition and time dedicated to earning credentials. Labor-market gains for AO participants were mixed. Most AO students were not able to translate added certificates into consistent employment and earnings gains in the observed period. For Kansas CTE students and Kentucky adult education students, however, the earnings impacts were positive and persistent.

Limitations

The analysis did not take into account potential benefits to students, such as self-esteem, family stability, health, or other aspects of personal well-being. In addition, many states and colleges used AO as an opportunity to implement systemic changes to improve opportunities for adult education and other low-skilled students. Elements of systems change are not captured in this analysis, though some aspects are described in the implementation report (Anderson et al. 2016).

In addition, the AO population is a subset of students that may not represent the broader populations in their states of those in adult education, CTE, and developmental education. For example, the Kansas AO adult education group appears to be particularly advantaged as measured by educational attainment, prior employment, NRS educational functioning levels, and the earnings of the comparison group. The unique characteristics of AO students may limit the generalizability of the findings across larger groups.

Other analysis limitations are discussed in the Methodology section of the report.

Policy Implications of AO Impact Results

AO is a promising approach to help low-skilled adults attain more credentials, potentially more quickly than they would otherwise. But AO alone may be insufficient for generating consistent, positive effects on earnings. Policymakers and administrators considering replication of AO should look closely at how best to translate increases in credential attainment into long-term earnings gains. The evaluation's implementation research (Anderson et al. 2016) indicates that strengthening linkages with employers may be a critical component that was not fully developed in the early implementation period. In addition, further development of the model to improve labor-market outcomes might focus on helping students advance their careers beyond the jobs associated with entry-level credentials.

Notes

1. Bureau of Labor Statistics, “Usual Weekly Earnings of Wage and Salary Workers First Quarter 2017,” news release, April 18, 2017, <https://www.bls.gov/news.release/pdf/wkyeng.pdf>.
2. For more detail, see Anderson et al. (2014); JFF’s Breaking Through website, “Breaking Through,” accessed May 23, 2017, <http://www.jff.org/initiatives/breaking-through>; and the Washington State Board of Community and Technical College’s I-BEST website, “I-BEST,” accessed May 23, 2017, <https://www.sbctc.edu/colleges-staff/programs-services/i-best/>.
3. The foundations that supported AO included the Bill & Melinda Gates Foundation, the Joyce Foundation, the W. K. Kellogg Foundation, the Kresge Foundation, the Open Society Foundations, the Arthur M. Blank Family Foundation, the Robert W. Woodruff Foundation, the Annie E. Casey Foundation, and the University of Phoenix Foundation. The national technical assistance providers included the National College Transition Network, the National Council for Workforce Education, and the State Board for Community and Technical Colleges in Washington State. The evaluation states were Illinois, Kansas, Kentucky, and Louisiana. The affiliate states were Arkansas, Georgia, and Mississippi.

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Acknowledgments

The report this executive summary draws from was funded by the Bill & Melinda Gates Foundation, the Joyce Foundation, the W. K. Kellogg Foundation, the Kresge Foundation, the Open Society Foundations, the Arthur M. Blank Family Foundation, the Robert W. Woodruff Foundation, the Annie E. Casey Foundation, and the University of Phoenix Foundation. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute's funding principles is available at www.urban.org/support.

The research team would like to thank the funders and management of the Accelerating Opportunity initiative for supporting its rigorous and comprehensive evaluation. The Accelerating Opportunity grants were administered by Jobs for the Future in partnership with the National College Transition Network, the National Council for Workforce Education, and the State Board for Community and Technical Colleges in Washington State.

The research team would also like to thank the state agencies that provided data for the impact analysis: Illinois Community College Board, the Illinois Department of Employment Security, the Kansas Board of Regents, the Kansas Department of Labor, the Kentucky Community and Technical College System, the Kentucky Center for Education and Workforce Statistics, the Louisiana Community and Technical College System, and the Louisiana Workforce Commission. A special thanks to the state data managers and programmers who pulled data and helped interpret the information from administrative systems. We also thank the state offices and colleges that helped inform the implementation research.

Thomas Callan, Stephanie Owen, and Nathan Sick provided valuable research assistance for this report. The Aspen Institute's Economics Opportunities Program provided implementation data collection and analysis for this evaluation effort and aided in interpreting the findings from the impact analysis. In addition, the research team is grateful to Demetra Nightingale for comments on earlier versions of this report



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