

## From Learning to Earning

### Eight-Year Findings from the ASAP Ohio Demonstration



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Supplementary Table S.1. Baseline Characteristics

Characteristic	Program Group	Control Group	Difference	P-Value
Gender (%)				
Female	62.3	66.0	-3.7	0.145
Male	37.7	34.0	3.7	0.145
Age (%)				
19 years or younger	46.9	47.8	-0.9	0.730
20 to 23 years	22.4	21.4	1.0	0.639
24 years or older	30.7	30.8	-0.1	0.951
Average age (years)	23.0	23.3	-0.3	0.414
Race/ethnicity (%)				
Hispanic <sup>a</sup>	8.8	10.6	-1.8	0.243
White	46.9	44.9	2.0	0.411
Black	35.5	34.0	1.5	0.516
Asian or Pacific Islander	0.7	1.6	-0.8	0.126
American Indian or Alaska Native	2.3	2.9	-0.6	0.494
More than one race	6.6	7.5	-0.9	0.526
Other	1.2	1.1	0.1	0.856
Nontraditional student <sup>b</sup> (%)	46.1	47.9	-1.8	0.487
Marital status (%)				
Married and lives with spouse	7.1	6.6	0.4	0.756
Married and does not live with spouse	2.4	1.1	1.2 *	0.081
Unmarried and lives with partner	14.1	16.3	-2.2	0.262
Unmarried and does not live with partner	76.5	76.0	0.5	0.818

(continued)

Supplementary Table S.1 (continued)

Characteristic	Program Group	Control Group	Difference	P-Value
Lives with parents (%)	58.7	56.8	1.9	0.454
Parents pay more than half of expenses (%)	29.0	25.0	4.0 *	0.079
Missing data	7.6	7.2	0.5	0.735
Number of children (%)				
0	73.6	72.1	1.4	0.538
1	10.9	12.5	-1.6	0.354
2	8.1	7.5	0.6	0.678
3 or more	7.5	7.9	-0.5	0.742
Mode of transportation to campus (%)				
Drives	72.3	68.5	3.7	0.115
Carpools	1.9	1.8	0.1	0.877
Takes public transportation	14.5	16.0	-1.5	0.400
Is dropped off by family member or friend	9.5	11.9	-2.4	0.146
Bikes or walks	1.8	1.7	0.1	0.941
Currently employed (%)	57.6	61.7	-4.1	0.115
Among those currently employed, hours worked per week (%)				
1-34	74.2	74.0	0.2	0.957
35 or more	25.8	26.0	-0.2	0.957
Highest grade completed (%)				
10th or lower	4.2	5.0	-0.8	0.473
11th	5.5	4.0	1.4	0.203
12th <sup>c</sup>	90.3	90.9	-0.6	0.686
Diploma or credentials earned <sup>d</sup> (%)				
High school diploma	87.4	86.9	0.5	0.789
GED certificate	12.3	11.9	0.5	0.784
Occupational/technical certificate	9.7	13.0	-3.3 *	0.051
Other	2.3	1.4	0.9	0.222
Among those with a high school diploma, date of graduation or equivalency receipt (%)				
Within the past two years	57.4	58.6	-1.1	0.676
More than two years ago	42.6	41.4	1.1	0.676
Has no developmental education requirements (%)	25.9	24.9	1.0	0.649
Highest degree student plans to attain (%)				
Associate	19.4	19.5	-0.1	0.952
Bachelor's	42.3	39.9	2.5	0.358
Master's	25.7	27.2	-1.5	0.521
Professional or doctorate	12.6	13.4	-0.8	0.662

(continued)

**Supplementary Table S.1 (continued)**

<b>Characteristic</b>	<b>Program Group</b>	<b>Control Group</b>	<b>Difference</b>	<b>P-Value</b>
First person in family to attend college (%)	34.8	33.0	1.8	0.475
Language other than English spoken regularly in the home (%)	8.5	8.9	-0.4	0.782
Sample size (total = 1,501)	806	695		

SOURCES: MDRC calculations using baseline information form data and placement test data from the study colleges.

NOTES: Rounding may cause slight discrepancies in sums and differences.

Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

For characteristics with more than 6 percent of the full sample missing, the percentage of the sample with missing values is displayed in the table.

To analyze whether program and control group survey respondents differed from each other on average, an omnibus F-test was performed that yielded a p-value of 0.407. This finding suggests that, relative to the baseline characteristics shown above, program and control group survey respondents do not differ from one another.

<sup>a</sup>Respondents who said they were Hispanic and chose a race are included only in the “Hispanic” category.

<sup>b</sup>Nontraditional students are defined as those who were 24 years or older, worked 35 or more hours per week, had children, or had not received a high school diploma and were not enrolled in high school at the time of random assignment. Students are listed as nontraditional if they fit any of these characteristics. Students are considered to be missing data in the “Nontraditional” category if they were missing data on two or more of these variables and have no other nontraditional characteristic; however, since less than 6 percent of the study sample is missing data, this percentage is not listed in the table.

<sup>c</sup>This category includes students who were enrolled in high school at the time of random assignment.

<sup>d</sup>Distributions may not add to 100 percent because categories are not mutually exclusive.

**Supplementary Table S.2. Academic Outcomes, by Semester**

Outcome (%)	Program Group	Control Group	Difference	Standard Error	P-Value
<b>Enrollment</b>					
Enrolled at any institution					
Semester 1	94.8	90.3	4.5 ***	1.4	0.001
Semester 2	80.5	68.4	12.1 ***	2.3	0.000
Semester 3	68.3	57.2	11.1 ***	2.5	0.000
Semester 4	61.0	49.8	11.2 ***	2.6	0.000
Semester 5	50.2	45.1	5.0 *	2.6	0.056
Semester 6	43.1	37.6	5.4 **	2.6	0.035
Semester 7	38.2	32.6	5.6 **	2.5	0.027
Semester 8	32.8	27.9	4.9 **	2.4	0.042
Semester 9	30.2	24.5	5.6 **	2.3	0.016
Semester 10	24.0	22.4	1.6	2.2	0.462
Semester 11	20.5	19.9	0.6	2.1	0.766
Semester 12	21.1	16.5	4.6 **	2.1	0.026
Semester 13	15.9	14.8	1.1	1.9	0.567
Semester 14	14.7	14.0	0.7	1.9	0.706
Semester 15	12.6	13.3	-0.7	1.8	0.698
Semester 16	12.4	12.1	0.4	1.8	0.840
Any time during Year 8	16.5	15.9	0.6	2.0	0.767
Enrolled at a two-year institution					
Semester 1	94.4	89.9	4.6 ***	1.5	0.002
Semester 2	78.7	66.2	12.5 ***	2.3	0.000
Semester 3	64.7	53.3	11.4 ***	2.6	0.000
Semester 4	54.3	43.3	10.9 ***	2.6	0.000
Semester 5	39.0	36.3	2.7	2.5	0.290
Semester 6	27.5	27.8	-0.2	2.3	0.929
Semester 7	21.0	20.7	0.3	2.1	0.898
Semester 8	16.7	15.4	1.3	1.9	0.514
Semester 9	14.2	13.5	0.7	1.8	0.680
Semester 10	11.3	12.2	-0.9	1.7	0.598
Semester 11	8.5	10.5	-2.0	1.6	0.200
Semester 12	9.5	7.6	1.9	1.5	0.188
Semester 13	6.7	7.1	-0.4	1.3	0.779
Semester 14	6.9	6.9	-0.1	1.4	0.967
Semester 15	5.9	7.1	-1.2	1.3	0.376
Semester 16	5.0	5.3	-0.2	1.2	0.864
Any time during Year 8	7.9	8.3	-0.4	1.5	0.797
Enrolled at a four-year institution					
Semester 1	0.6	0.5	0.1	0.4	0.759
Semester 2	1.9	2.9	-1.0	0.8	0.250
Semester 3	4.2	4.6	-0.4	1.1	0.733
Semester 4	7.9	7.7	0.2	1.4	0.901
Semester 5	13.3	10.6	2.7	1.7	0.115
Semester 6	17.1	11.9	5.2 ***	1.8	0.005

(continued)

Supplementary Table S.2 (continued)

Outcome (%)	Program Group	Control Group	Difference	Standard Error	P-Value
Semester 7	19.0	13.5	5.4 ***	1.9	0.005
Semester 8	17.7	13.2	4.5 **	1.9	0.018
Semester 9	16.7	12.3	4.4 **	1.9	0.018
Semester 10	13.7	11.2	2.5	1.7	0.148
Semester 11	13.0	9.9	3.1 *	1.7	0.071
Semester 12	12.5	9.3	3.2 *	1.6	0.053
Semester 13	9.4	8.5	1.0	1.5	0.524
Semester 14	8.6	7.2	1.4	1.4	0.339
Semester 15	7.1	6.5	0.5	1.4	0.690
Semester 16	7.5	6.8	0.7	1.4	0.624
Any time during Year 8	9.3	8.4	0.9	1.5	0.563
<b>Degrees</b>					
Earned any degree					
Semester 1	0.1	0.0	0.1	0.1	0.321
Semester 2	1.3	0.4	0.8 *	0.5	0.086
Semester 3	6.7	2.2	4.6 ***	1.0	0.000
Semester 4	17.6	7.0	10.6 ***	1.7	0.000
Semester 5	26.2	11.7	14.5 ***	2.0	0.000
Semester 6	33.6	17.3	16.3 ***	2.2	0.000
Semester 7	36.1	19.9	16.2 ***	2.3	0.000
Semester 8	38.2	23.2	15.1 ***	2.4	0.000
Semester 9	40.3	25.4	14.9 ***	2.4	0.000
Semester 10	43.0	27.1	15.9 ***	2.4	0.000
Semester 11	43.5	28.0	15.4 ***	2.5	0.000
Semester 12	43.9	29.0	14.8 ***	2.5	0.000
Semester 13	44.5	29.7	14.8 ***	2.5	0.000
Semester 14	45.2	30.3	14.9 ***	2.5	0.000
Semester 15	45.6	30.9	14.7 ***	2.5	0.000
Semester 16	46.2	31.3	15.0 ***	2.5	0.000
Earned an associate degree					
Semester 1	0.1	0.0	0.1	0.1	0.321
Semester 2	1.3	0.4	0.8 *	0.5	0.086
Semester 3	6.7	2.2	4.6 ***	1.0	0.000
Semester 4	17.6	7.0	10.6 ***	1.7	0.000
Semester 5	26.2	11.7	14.5 ***	2.0	0.000
Semester 6	33.4	16.9	16.5 ***	2.2	0.000
Semester 7	35.5	19.4	16.1 ***	2.3	0.000
Semester 8	37.0	21.6	15.5 ***	2.3	0.000
Semester 9	38.8	23.5	15.4 ***	2.4	0.000
Semester 10	41.1	24.9	16.1 ***	2.4	0.000
Semester 11	41.6	25.8	15.8 ***	2.4	0.000
Semester 12	42.0	26.5	15.4 ***	2.5	0.000
Semester 13	42.3	27.1	15.2 ***	2.5	0.000
Semester 14	42.8	27.5	15.3 ***	2.5	0.000
Semester 15	43.0	28.0	15.0 ***	2.5	0.000
Semester 16	43.4	28.4	15.0 ***	2.5	0.000

(continued)

Supplementary Table S.2 (continued)

Outcome (%)	Program Group	Control Group	Difference	Standard Error	P-Value
Earned a bachelor's degree <sup>a</sup>					
Semester 1	0	0	0	0	
Semester 2	0	0	0	0	
Semester 3	0	0	0	0	
Semester 4	0	0	0	0	
Semester 5	0	0	0	0	
Semester 6	0.2	0.4	-0.2	0.3	0.417
Semester 7	2.4	1.1	1.3 *	0.7	0.055
Semester 8	4.9	3.2	1.8 *	1.0	0.087
Semester 9	8.1	4.3	3.8 ***	1.2	0.002
Semester 10	10.3	6.1	4.2 ***	1.4	0.003
Semester 11	11.5	7.4	4.1 ***	1.5	0.007
Semester 12	13.6	8.9	4.7 ***	1.6	0.004
Semester 13	14.5	9.2	5.4 ***	1.7	0.001
Semester 14	15.9	10.2	5.7 ***	1.7	0.001
Semester 15	16.7	10.6	6.2 ***	1.8	0.000
Semester 16	17.6	11.4	6.2 ***	1.8	0.001
Highest degree earned is an associate degree					
Semester 1	0.1	0.0	0.1	0.1	0.321
Semester 2	1.3	0.4	0.8 *	0.5	0.086
Semester 3	6.7	2.2	4.6 ***	1.0	0.000
Semester 4	17.6	7.0	10.6 ***	1.7	0.000
Semester 5	26.2	11.7	14.5 ***	2.0	0.000
Semester 6	33.4	16.9	16.5 ***	2.2	0.000
Semester 7	33.7	18.8	14.9 ***	2.3	0.000
Semester 8	33.3	20.0	13.3 ***	2.3	0.000
Semester 9	32.3	21.2	11.1 ***	2.3	0.000
Semester 10	32.6	20.9	11.7 ***	2.3	0.000
Semester 11	32.0	20.6	11.3 ***	2.3	0.000
Semester 12	30.3	20.1	10.1 ***	2.3	0.000
Semester 13	30.0	20.5	9.4 ***	2.3	0.000
Semester 14	29.3	20.1	9.1 ***	2.3	0.000
Semester 15	28.9	20.3	8.5 ***	2.3	0.000
Semester 16	28.6	19.8	8.8 ***	2.3	0.000
Highest degree earned is a bachelor's degree <sup>a</sup>					
Semester 1	0	0	0	0	
Semester 2	0	0	0	0	
Semester 3	0	0	0	0	
Semester 4	0	0	0	0	
Semester 5	0	0	0	0	
Semester 6	0.2	0.4	-0.2	0.3	0.417
Semester 7	2.4	1.1	1.3 *	0.7	0.055
Semester 8	4.9	3.2	1.8 *	1.0	0.087
Semester 9	8.0	4.2	3.7 ***	1.2	0.003
Semester 10	10.0	5.8	4.2 ***	1.4	0.003

(continued)

Supplementary Table S.2 (continued)

Outcome (%)	Program Group	Control Group	Difference	Standard Error	P-Value
Semester 11	11.0	6.8	4.2 ***	1.5	0.005
Semester 12	12.8	8.3	4.4 ***	1.6	0.006
Semester 13	13.4	8.6	4.8 ***	1.6	0.003
Semester 14	14.8	9.4	5.3 ***	1.7	0.002
Semester 15	15.5	9.7	5.7 ***	1.7	0.001
Semester 16	16.0	10.5	5.5 ***	1.8	0.002
Sample size (total = 1,501)	806	695			

SOURCE: Data obtained from the National Student Clearinghouse.

NOTES: Estimates are adjusted by gender, race/ethnicity, age, parental status, weekly hours worked, financial dependence on parents, receipt of high school diploma, first-generation college student status, planned enrollment intensity at time of random assignment, number of developmental education requirements, institution of random assignment, cohort, and earnings in the two quarters before random assignment.

Rounding may cause slight discrepancies in sums and differences

Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

The p-value indicates the likelihood that the estimated impact (or larger) would have been generated by a program with zero true impact.

<sup>a</sup>For semesters in which no students earned a bachelor's degree, it is not possible to calculate a p-value.

**Supplementary Table S.3. Earnings and Employment Outcomes, by Relative Quarter**

Outcome	Program Group		Control Group		Difference	Standard Error	P-Value
	Outcome	SD	Outcome	SD			
Annual and quarterly earnings (\$)							
Year 1	8,241	8,861	8,635	8,882	-394	304	0.195
Year 1, Q1	1,800	2,202	1,832	2,176	-32	65	0.620
Year 1, Q2	2,021	2,486	2,168	2,503	-147	95	0.123
Year 1, Q3	2,055	2,398	2,188	2,477	-133	98	0.173
Year 1, Q4	2,365	2,630	2,447	2,679	-82	112	0.463
Year 2	10,513	10,313	11,577	11,115	-1,064 **	472	0.024
Year 2, Q1	2,461	2,682	2,674	2,883	-213 *	121	0.079
Year 2, Q2	2,631	2,798	2,888	3,015	-257 *	132	0.053
Year 2, Q3	2,590	2,791	2,912	2,990	-322 **	136	0.018
Year 2, Q4	2,830	3,155	3,103	3,205	-273 *	148	0.066
Year 3	13,096	12,815	13,181	12,541	-85	613	0.889
Year 3, Q1	2,925	3,104	3,121	3,307	-197	155	0.206
Year 3, Q2	3,162	3,392	3,388	3,473	-226	168	0.180
Year 3, Q3	3,307	3,509	3,222	3,284	85	168	0.613
Year 3, Q4	3,702	3,858	3,450	3,531	252	186	0.175
Year 4	15,503	15,018	15,411	14,466	92	747	0.902
Year 4, Q1	3,661	3,767	3,575	3,840	87	192	0.652
Year 4, Q2	3,887	4,091	3,929	3,916	-42	203	0.835
Year 4, Q3	3,800	3,883	3,788	3,791	12	196	0.952
Year 4, Q4	4,155	4,383	4,119	4,169	36	220	0.872
Year 5	17,088	17,083	15,975	16,022	1,113	838	0.185
Year 5, Q1	4,229	4,381	4,066	4,151	163	216	0.450
Year 5, Q2	4,150	4,615	4,031	4,440	119	231	0.605
Year 5, Q3	4,234	4,508	3,912	4,195	322	224	0.150
Year 5, Q4	4,475	5,124	3,967	4,591	508 **	248	0.041
Year 6	19,676	20,289	17,631	18,507	2,045 **	996	0.040
Year 6, Q1	4,395	4,951	3,857	4,487	538 **	241	0.026
Year 6, Q2	4,992	5,415	4,462	5,046	530 *	271	0.050
Year 6, Q3	4,863	5,294	4,401	4,842	462 *	262	0.078
Year 6, Q4	5,427	5,814	4,911	5,570	516 *	294	0.079
Year 7	24,242	23,994	21,414	21,951	2,828 **	1,185	0.017
Year 7, Q1	5,348	5,658	4,854	5,488	493 *	289	0.088
Year 7, Q2	6,149	6,509	5,364	5,988	785 **	324	0.016
Year 7, Q3	6,084	6,481	5,350	5,874	735 **	321	0.022
Year 7, Q4	6,661	7,193	5,846	6,272	816 **	349	0.020
Year 8	27,934	27,255	24,596	24,152	3,337 **	1,336	0.013
Year 8, Q1	6,988	7,250	6,143	6,676	845 **	365	0.021
Year 8, Q2	6,928	7,078	5,932	6,138	996 ***	342	0.004
Year 8, Q3	7,079	7,470	6,255	6,448	824 **	365	0.024
Year 8, Q4	6,939	7,261	6,266	6,329	673 *	354	0.057

(continued)



Supplementary Table S.3 (continued)

Outcome	Program Group		Control Group		Difference	Standard Error	P-Value
	Outcome	SD	Outcome	SD			
Annual and quarterly employment (%) <sup>a</sup>							
Year 1	78.2	41.3	78.4	41.0	-0.3	2.0	0.890
Year 1, Q1	62.5	48.5	60.9	48.6	1.6	1.9	0.405
Year 1, Q2	62.9	48.3	63.1	48.3	-0.1	2.2	0.950
Year 1, Q3	64.7	47.7	64.9	47.8	-0.2	2.3	0.943
Year 1, Q4	66.7	47.1	69.0	46.3	-2.4	2.3	0.298
Year 2	79.0	40.8	79.9	40.1	-0.9	2.0	0.658
Year 2, Q1	66.8	47.1	69.4	46.1	-2.5	2.3	0.264
Year 2, Q2	68.5	46.5	68.4	46.5	0.1	2.3	0.960
Year 2, Q3	67.1	46.9	69.5	45.9	-2.4	2.3	0.307
Year 2, Q4	69.7	46.0	70.6	45.6	-0.9	2.3	0.698
Year 3	79.7	40.1	78.8	40.7	0.9	2.1	0.655
Year 3, Q1	69.6	46.0	70.0	45.7	-0.4	2.4	0.858
Year 3, Q2	70.3	45.8	69.7	46.0	0.6	2.4	0.797
Year 3, Q3	69.6	46.0	67.7	46.8	2.0	2.4	0.412
Year 3, Q4	70.2	45.7	69.1	46.2	1.1	2.4	0.644
Year 4	78.3	41.2	77.4	41.6	0.9	2.2	0.672
Year 4, Q1	70.1	45.7	68.7	46.4	1.5	2.4	0.544
Year 4, Q2	69.6	45.9	70.1	45.7	-0.5	2.4	0.831
Year 4, Q3	67.5	46.7	69.7	45.9	-2.1	2.4	0.386
Year 4, Q4	66.7	47.0	69.6	46.0	-2.9	2.5	0.241
Year 5	75.9	42.6	76.5	42.4	-0.7	2.3	0.771
Year 5, Q1	68.9	46.2	69.7	46.0	-0.8	2.5	0.760
Year 5, Q2	65.8	47.4	65.8	47.3	-0.1	2.5	0.972
Year 5, Q3	64.6	47.8	65.0	47.6	-0.5	2.5	0.855
Year 5, Q4	64.5	47.9	60.7	48.8	3.8	2.6	0.139
Year 6	70.6	45.5	70.9	45.3	-0.3	2.4	0.890
Year 6, Q1	62.8	48.3	60.5	48.8	2.3	2.6	0.361
Year 6, Q2	62.8	48.3	60.7	48.8	2.1	2.6	0.416
Year 6, Q3	62.7	48.3	62.5	48.5	0.2	2.6	0.938
Year 6, Q4	63.8	48.0	61.7	48.6	2.1	2.6	0.410
Year 7	73.3	44.2	71.4	45.1	1.9	2.4	0.419
Year 7, Q1	64.2	47.9	61.3	48.6	2.9	2.6	0.265
Year 7, Q2	66.6	47.2	61.3	48.7	5.2 **	2.6	0.041
Year 7, Q3	65.4	47.6	61.4	48.7	4.0	2.6	0.117
Year 7, Q4	65.1	47.7	63.9	48.1	1.1	2.5	0.658

(continued)

Supplementary Table S.3 (continued)

Outcome	Program Group		Control Group		Difference	Standard Error	P-Value
	Outcome	SD	Outcome	SD			
Year 8	73.1	44.4	70.9	45.4	2.2	2.4	0.359
Year 8, Q1	66.6	47.2	63.3	48.3	3.2	2.5	0.204
Year 8, Q2	66.4	47.3	64.3	48.0	2.1	2.5	0.417
Year 8, Q3	64.1	48.0	64.9	47.8	-0.8	2.6	0.759
Year 8, Q4	64.6	47.9	64.7	47.8	-0.1	2.6	0.980
Sample size (total = 1,482)	795		687				

SOURCE: Ohio unemployment insurance wage records.

NOTES: Estimates are adjusted by gender, race/ethnicity, age, parental status, weekly hours worked, financial dependence on parents, receipt of high school diploma, first-generation college student status, planned enrollment intensity at time of random assignment, number of developmental education requirements, institution of random assignment, cohort, and earnings in the two quarters before random assignment.

SD = standard deviation.

Rounding may cause slight discrepancies in sums and differences.

Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

The p-value indicates the likelihood that the estimated impact (or larger) would have been generated by a program with zero true impact.

Out of 1,501 students in the analysis, 19 did not provide a Social Security number, and therefore were not included in the wage records request. These students have missing data for all labor market outcomes.

<sup>a</sup>Yearly employment rates are calculated as the percentage of participants who were employed for at least one quarter during that year.

**Supplementary Table S.4. Annual Earnings Among Participants Who Were Employed, by Year**

Year After Random Assignment	Program Group		Control Group		Difference
	Average Earnings (\$)	Sample Size	Average Earnings (\$)	Sample Size	
Year 1	10,603	622	10,933	540	-330
Year 2	13,333	628	14,446	549	-1,113
Year 3	16,480	635	16,663	543	-183
Year 4	19,813	623	19,904	534	-91
Year 5	22,574	606	20,798	526	1,776
Year 6	27,818	563	24,902	490	2,916
Year 7	33,039	583	30,048	492	2,991
Year 8	38,180	581	34,730	488	3,450

SOURCE: Ohio unemployment insurance wage records.

NOTES: Estimates are adjusted by gender, race/ethnicity, age, parental status, weekly hours worked, financial dependence on parents, receipt of high school diploma, first-generation college student status, planned enrollment intensity at time of random assignment, number of developmental education requirements, institution of random assignment, cohort, and earnings in the two quarters before random assignment.

Rounding may cause slight discrepancies in sums and differences.

These outcomes are calculated for a subsample of the analytic sample (that is, people who were employed in a given year), and are therefore considered nonexperimental.

**Supplementary Table S.5. Degree Receipt Eight Years After Random Assignment, by Subgroup**

Baseline characteristic	Sample Size	Program Group (%)	Control Group (%)	Difference	Standard Error	P-Value	P-Value for Differential Estimated Impacts
College at the time of random assignment							0.242
College 1	521	52.2	32.8	19.4 ***	4.1	0.000	
College 2	467	41.0	31.4	9.6 **	4.2	0.025	
College 3	513	44.1	30.4	13.6 ***	4.2	0.001	
Developmental education needs							0.172
Has developmental education needs	1,060	43.4	26.6	16.8 ***	2.8	0.000	
Does not have developmental education needs	366	54.7	46.2	8.5	5.4	0.115	
Gender							0.038 ††
Male	534	40.2	32.2	8.0 **	4.0	0.047	
Female	945	49.7	31.2	18.4 ***	3.1	0.000	
Race/ethnicity							0.739
Black	507	36.6	24.2	12.3 ***	4.0	0.002	
Hispanic <sup>a</sup>	139	47.2	36.4	10.8	8.1	0.187	
White	667	54.1	36.3	17.8 ***	3.7	0.000	
Other	142	42.7	27.5	15.2 *	8.3	0.068	
Age							0.320
19 years or younger	705	49.6	32.1	17.5 ***	3.5	0.000	
20 to 23 years	324	41.8	33.3	8.5 *	5.1	0.093	
24 years or older	461	42.5	30.1	12.4 ***	4.3	0.004	
High school diploma or equivalency							0.272
High school equivalency	163	39.2	16.8	22.4 ***	7.0	0.002	
High school diploma	1,268	47.0	32.7	14.2 ***	2.7	0.000	
Traditional or nontraditional student <sup>b</sup>							0.846
Traditional	789	48.1	33.4	14.8 ***	3.3	0.000	
Nontraditional	698	44.3	28.6	15.7 ***	3.5	0.000	

(continued)

**Supplementary Table S.5 (continued)**

SOURCE: Data obtained from the National Student Clearinghouse.

NOTES: Estimates are adjusted by gender, race/ethnicity, age, parental status, weekly hours worked, financial dependence on parents, receipt of high school diploma, first-generation college student status, planned enrollment intensity at time of random assignment, number of developmental education requirements, institution of random assignment, cohort, and earnings in the two quarters before random assignment.

Rounding may cause slight discrepancies in sums and differences.

Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Statistical significance levels for differential estimated impacts are indicated as: ††† = 1 percent; †† = 5 percent; † = 10 percent.

The p-value indicates the likelihood that the estimated impact (or larger) would have been generated by a program with zero true impact.

Out of 1,501 students in the analysis, 19 did not provide a Social Security number, and therefore were not included in the wage records request. These students have missing data for all labor market outcomes.

<sup>a</sup>Respondents who said they were Hispanic and chose a race are included only in the “Hispanic” category.

<sup>b</sup>Nontraditional students are defined as those who were 24 years or older, worked 35 or more hours per week, had children, or had not received a high school diploma and were not enrolled in high school at the time of random assignment. Students are listed as nontraditional if they fit any of these characteristics.

Supplementary Table S.6. Annual Earnings Eight Years After Random Assignment, by Subgroup

Baseline characteristic	Sample Size	Program Group (\$)		Control Group (\$)		Difference	Standard Error	P-Value	P-Value for Differential Estimated Effects
		Outcome	SD	Outcome	SD				
College at the time of random assignment									0.888
College 1	519	28,853	28,167	26,412	24,951	2,441	2,235.1	0.275	
College 2	467	25,561	28,096	22,260	23,663	3,301	2,339.8	0.159	
College 3	496	29,002	25,604	25,029	23,443	3,972 *	2,219.5	0.074	
Developmental education needs									0.025 ††
Has developmental education needs	1,050	26,367	25,648	24,496	23,575	1,871	1,500.6	0.213	
Does not have developmental education needs	360	34,232	31,491	24,902	26,518	9,330 ***	2,973.5	0.002	
Gender									0.040 ††
Male	522	31,401	29,897	23,804	26,204	7,597 ***	2,402.4	0.002	
Female	938	26,434	25,650	24,714	22,995	1,720	1,549.9	0.267	
Race/ethnicity									0.652
Black	505	24,293	25,696	22,537	22,534	1,757	2,125.1	0.409	
Hispanic <sup>a</sup>	136	34,294	32,156	27,888	25,275	6,406	4,636.9	0.170	
White	656	30,984	27,980	26,464	24,939	4,520 **	1,990.9	0.024	
Other	139	23,406	24,598	22,027	24,083	1,379	3,611.3	0.703	
Age category									0.147
19 years or younger	686	27,371	25,392	25,959	22,962	1,412	1,778.2	0.427	
20 to 23 years	324	32,533	29,805	24,457	25,800	8,076 ***	2,947.1	0.007	
24 years or older	461	25,444	27,904	23,067	24,564	2,377	2,387.8	0.320	
High school diploma or equivalency									0.108
High school equivalency	163	28,625	31,462	18,302	22,206	10,323 **	4,387.3	0.020	
High school diploma	1,250	28,050	26,649	25,131	24,156	2,920 **	1,399.6	0.037	
Traditional or nontraditional student <sup>b</sup>									0.759
Traditional	773	27,504	25,004	24,564	23,539	2,940 *	1,710.0	0.086	
Nontraditional	695	28,523	29,788	24,783	24,734	3,740 *	1,973.2	0.058	

(continued)

**Supplementary Table S.6 (continued)**

SOURCE: Ohio unemployment insurance wage records.

NOTES: Estimates are adjusted by gender, race/ethnicity, age, parental status, weekly hours worked, financial dependence on parents, receipt of high school diploma, first-generation college student status, planned enrollment intensity at time of random assignment, number of developmental education requirements, institution of random assignment, cohort, and earnings in the two quarters before random assignment.

SD = standard deviation.

Rounding may cause slight discrepancies in sums and differences.

Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

Statistical significance levels for differential estimated impacts are indicated as: ††† = 1 percent; †† = 5 percent; † = 10 percent.

The p-value indicates the likelihood that the estimated impact (or larger) would have been generated by a program with zero true impact.

Out of 1,501 students in the analysis, 19 did not provide a Social Security number, and therefore were not included in the wage records request. These students have missing data for all labor market outcomes.

<sup>a</sup>Respondents who said they were Hispanic and chose a race are included only in the “Hispanic” category.

<sup>b</sup>Nontraditional students are defined as those who were 24 years or older, worked 35 or more hours per week, had children, or had not received a high school diploma and were not enrolled in high school at the time of random assignment. Students are listed as nontraditional if they fit any of these characteristics.

**Supplementary Table S.7. Eight-Year Impacts on Confirmatory and Exploratory Outcomes with Westfall-Young Adjusted P-Values**

Outcome	Sample Size	Program Group	Control Group	Difference	P-Value	Adjusted P-Value
Confirmatory outcomes						
Ever earned a degree (%)	1,501	46.2	31.3	15.0 ***	0.000	0.000
Annual earnings (\$)	1,482	27,934	24,596	3,337 **	0.013	0.024
Exploratory outcomes (%)						
Ever earned an associate degree	1,501	43.4	28.4	15.0 ***	0.000	
Ever earned a bachelor's degree	1,501	17.6	11.4	6.2 ***	0.001	
Ever employed in Year 8	1,482	73.1	70.9	2.2	0.359	

SOURCES: MDRC calculations using Ohio unemployment insurance wage records and National Student Clearinghouse data.

NOTES: Estimates are adjusted by gender, race/ethnicity, age, parental status, weekly hours worked, financial dependence on parents, receipt of high school diploma, first-generation college student status, planned enrollment intensity at time of random assignment, number of developmental education requirements, institution of random assignment, cohort, and earnings in the two quarters before random assignment.

Rounding may cause slight discrepancies in sums and differences.

Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

The p-value indicates the likelihood that the estimated impact (or larger) would have been generated by a program with zero true impact.

The adjusted p-value was calculated using the Westfall-Young method. See Peter H. Westfall, Randall D. Tobias, and Russell D. Wolfinger, *Multiple Comparisons and Multiple Tests Using SAS*, 2nd ed. (SAS Institute, 2011).

Out of 1,501 students in the analysis, 19 did not provide a Social Security number, and therefore were not included in the wage records request. These students have missing data for all labor market outcomes.



**Supplementary Table S.8. Employment Rates Eight Years after Random Assignment, by Subgroup**

Baseline characteristic	Sample Size	Program Group (%)	Control Group (%)	Difference	Standard Error	P-Value	P-Value for Differential Estimated Impacts
College at the time of random assignment							0.178
College 1	519	71.8	75.4	-3.5	3.8	0.354	
College 2	467	67.7	65.8	1.9	4.4	0.669	
College 3	496	78.5	71.8	6.7 *	4.0	0.093	
Developmental education needs							0.432
Has developmental education needs	1,050	73.1	71.6	1.5	2.8	0.605	
Does not have developmental education needs	360	72.6	66.9	5.7	4.7	0.221	
Gender							0.066 †
Male	522	73.5	65.4	8.1 **	4.1	0.049	
Female	938	72.9	74.0	-1.1	2.9	0.699	
Race/ethnicity							0.856
Black	505	70.9	70.0	1.0	4.1	0.813	
Hispanic <sup>a</sup>	136	78.7	73.0	5.7	7.0	0.419	
White	656	73.8	73.8	0.0	3.4	0.991	
Other	139	71.5	66.6	4.9	7.7	0.521	
Age category							0.090 †
19 years or younger	686	74.1	74.6	-0.6	3.4	0.865	
20 to 23 years	324	80.4	69.7	10.7 **	4.7	0.023	
24 years or older	461	65.6	67.7	-2.1	4.5	0.649	
High school diploma or equivalency							0.496
High school equivalency	163	68.9	62.3	6.6	7.1	0.353	
High school diploma	1,250	73.7	72.2	1.5	2.5	0.562	
Traditional or nontraditional student <sup>b</sup>							0.324
Traditional	773	75.0	71.1	3.9	3.2	0.227	
Nontraditional	695	70.7	71.5	-0.7	3.4	0.833	

(continued)

**Supplementary Table S.8 (continued)**

SOURCE: Ohio unemployment insurance wage records.

NOTES: Estimates are adjusted by gender, race/ethnicity, age, parental status, weekly hours worked, financial dependence on parents, receipt of high school diploma, first-generation college student status, planned enrollment intensity at time of random assignment, number of developmental education requirements, institution of random assignment, cohort, and earnings in the two quarters before random assignment.

Rounding may cause slight discrepancies in sums and differences.

Statistical significance levels are indicated as: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

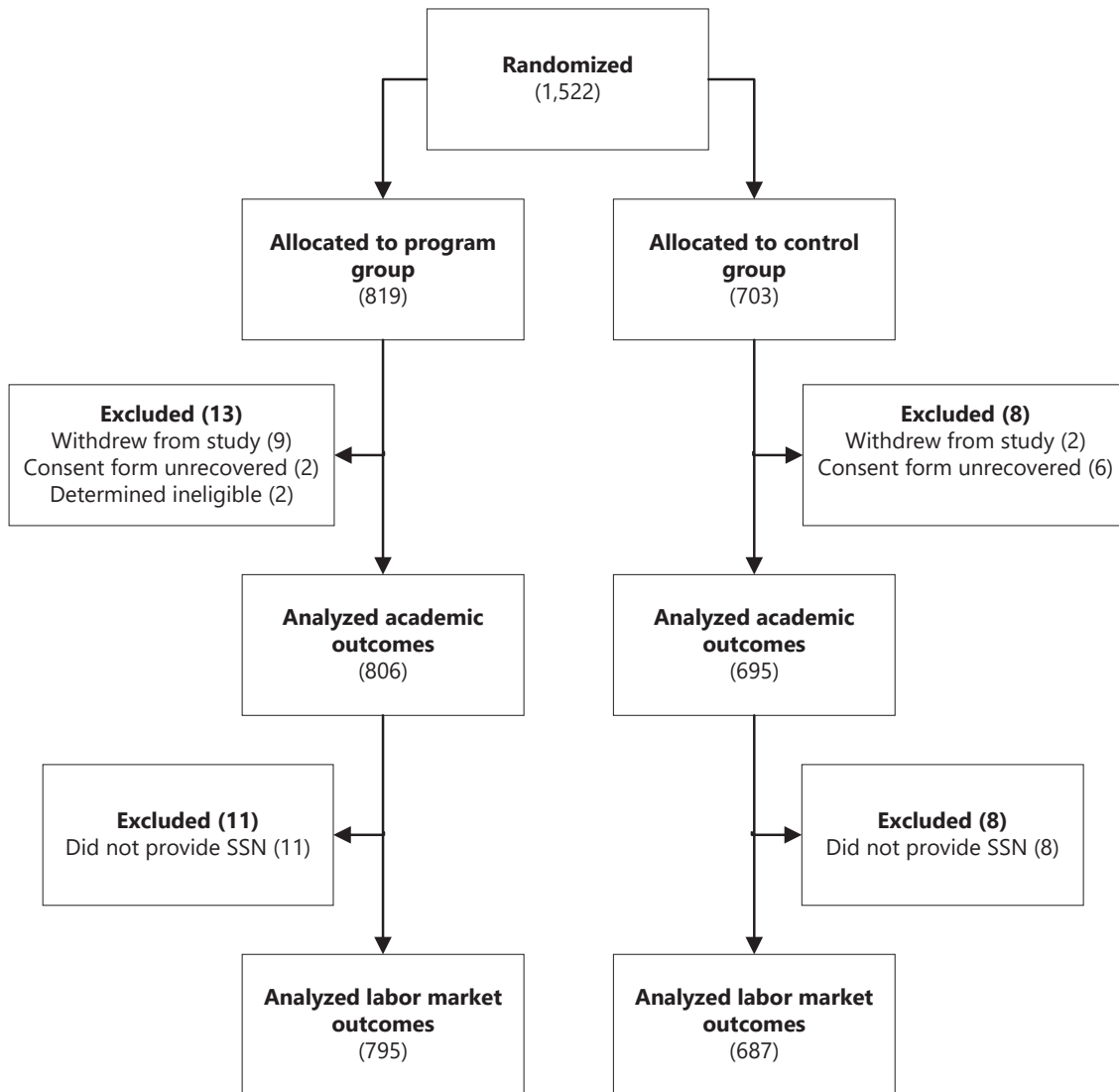
Statistical significance levels for differential estimated impacts are indicated as: ††† = 1 percent; †† = 5 percent; † = 10 percent.

The p-value indicates the likelihood that the estimated impact (or larger) would have been generated by a program with zero true impact.

<sup>a</sup>Respondents who said they were Hispanic and chose a race are included only in the “Hispanic” category.

<sup>b</sup>Nontraditional students are defined as those who were 24 years or older, worked 35 or more hours per week, had children, or had not received a high school diploma and were not enrolled in high school at the time of random assignment. Students are listed as nontraditional if they fit any of these characteristics.

Supplementary Figure S.1. ASAP Ohio Evaluation Participant Counts



NOTE: For academic outcomes, overall attrition is 1.4 percent. Differential attrition is 0.4 percentage points. For labor outcomes, overall attrition is 2.6 percent. Differential attrition is 0.7 percentage points. Overall attrition is the total rate of participants leaving the evaluation, while differential attrition refers to the difference in the rate of participants leaving the evaluation between research groups.

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