The 14-Year Effects of CUNY ASAP on Educational and Labor Market Outcomes

SUPPLEMENTAL APPENDIX

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AUGUST 2026

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A

Supplementary CUNY ASAP Academic and Labor Market Outcome Tables

Appendix Table A.1. Enrollment at Any College

Measure	Program Group		Control Group		Estimated Effect	SE	P-Value	90% CI	
	Sample Size	Enrolled (%)	Sample Size	Enrolled (%)				Lower	Upper
Semester 1	451	95.2	445	91.4	3.8 **	1.668	0.022	1.1	6.5
Semester 2	451	91.5	445	82.6	8.9 ***	2.237	0.000	5.2	12.5
Semester 3	451	78.8	445	73.0	5.8 **	2.883	0.045	1.1	10.5
Semester 4	451	72.8	445	66.6	6.2 **	3.107	0.047	1.1	11.2
Semester 5	451	63.0	445	56.8	6.2 *	3.318	0.061	0.8	11.6
Semester 6	451	55.1	445	49.6	5.5	3.360	0.103	0.0	10.9
Semester 7	451	40.3	445	42.3	-1.9	3.309	0.559	-7.3	3.5
Semester 8	451	40.0	445	44.9	-4.9	3.335	0.144	-10.3	0.6
Semester 9	451	33.4	445	39.0	-5.6 *	3.253	0.088	-10.9	-0.2
Semester 10	451	33.4	445	36.2	-2.8	3.241	0.388	-8.1	2.5
Semester 11	451	27.2	445	32.9	-5.7 *	3.126	0.070	-10.7	-0.6
Semester 12	451	24.0	445	26.2	-2.1	2.940	0.467	-6.9	2.6
Semester 13	451	22.2	445	23.8	-1.5	2.884	0.598	-6.2	3.1
Semester 14	451	19.9	445	22.7	-2.8	2.793	0.324	-7.3	1.8
Semester 15	451	18.2	445	16.9	1.3	2.587	0.612	-2.9	5.5
Semester 16	451	17.7	445	15.6	2.1	2.536	0.403	-2.0	6.2
Semester 17	451	15.3	445	15.5	-0.2	2.461	0.926	-4.2	3.8
Semester 18	451	13.6	445	14.9	-1.3	2.382	0.587	-5.2	2.6
Semester 19	451	11.7	445	13.5	-1.8	2.262	0.420	-5.5	1.8
Semester 20	451	11.9	445	13.8	-1.8	2.306	0.427	-5.5	1.9
Semester 21	451	10.8	445	11.5	-0.6	2.166	0.770	-4.1	2.8
Semester 22	451	9.3	445	11.7	-2.3	2.105	0.271	-5.7	1.0
Semester 23	451	10.4	445	10.3	0.1	2.089	0.953	-3.2	3.5
Semester 24	451	8.0	445	8.7	-0.7	1.902	0.719	-3.7	2.4
Semester 25	451	7.2	445	7.7	-0.5	1.795	0.794	-3.4	2.4
Semester 26	451	7.4	445	7.6	-0.2	1.805	0.890	-3.2	2.7
Semester 27	451	7.4	445	7.8	-0.4	1.791	0.842	-3.3	2.6
Semester 28	451	8.8	445	6.8	1.9	1.829	0.291	-1.0	4.9

SOURCE: Data obtained from the National Student Clearinghouse.

NOTES: CI = Confidence interval. SE = Standard error. Means are regression adjusted. Includes enrollment at any college in the United States.

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

Appendix Table A.2. Enrollment at Two-Year Colleges

	Program Group		Control Group					90% CI	
Measure	Sample Size	Enrolled (%)	Sample Size	Enrolled (%)	Estimated Effect	SE	P-Value	Lower	Upper
Semester 1	451	94.7	445	90.7	4.0 **	1.729	0.021	1.2	6.8
Semester 2	451	90.8	445	82.2	8.6 ***	2.286	0.000	4.9	12.3
Semester 3	451	77.4	445	71.4	6.0 **	2.935	0.042	1.2	10.8
Semester 4	451	68.9	445	62.5	6.4 **	3.219	0.046	1.2	11.7
Semester 5	451	48.2	445	45.8	2.4	3.369	0.469	-3.0	7.9
Semester 6	451	32.1	445	32.9	-0.8	3.166	0.803	-5.9	4.3
Semester 7	451	13.7	445	19.6	-6.0 **	2.508	0.017	-10.1	-1.9
Semester 8	451	12.0	445	18.6	-6.6 ***	2.422	0.006	-10.6	-2.7
Semester 9	451	8.2	445	12.5	-4.3 **	2.064	0.037	-7.7	-0.9
Semester 10	451	6.6	445	9.4	-2.8	1.856	0.131	-5.8	0.2
Semester 11	451	6.9	445	6.9	0.0	1.728	0.999	-2.8	2.8
Semester 12	451	5.7	445	5.2	0.6	1.559	0.720	-2.0	3.1
Semester 13	451	3.7	445	5.2	-1.5	1.418	0.302	-3.8	0.8
Semester 14	451	3.7	445	5.3	-1.6	1.383	0.240	-3.9	0.7
Semester 15	451	3.5	445	4.8	-1.3	1.314	0.324	-3.5	0.9
Semester 16	451	2.9	445	3.3	-0.4	1.162	0.717	-2.3	1.5
Semester 17	451	1.5	445	3.9	-2.4 **	1.125	0.033	-4.2	-0.6
Semester 18	451	2.8	445	5.0	-2.2 *	1.320	0.098	-4.3	-0.1
Semester 19	451	2.5	445	3.5	-0.9	1.189	0.433	-2.8	1.0
Semester 20	451	2.1	445	2.8	-0.6	1.075	0.551	-2.4	1.1
Semester 21	451	2.0	445	2.0	0.1	0.965	0.958	-1.5	1.6
Semester 22	451	2.6	445	2.3	0.3	1.092	0.791	-1.4	2.0
Semester 23	451	2.8	445	2.1	0.6	1.071	0.560	-1.1	2.3
Semester 24	451	1.5	445	2.8	-1.3	1.005	0.198	-2.9	0.3
Semester 25	451	0.6	445	1.8	-1.2 *	0.735	0.096	-2.4	0.0
Semester 26	451	0.4	445	2.3	-1.9 **	0.799	0.017	-3.2	-0.6
Semester 27	451	0.6	445	2.5	-1.9 **	0.848	0.025	-3.3	-0.5
Semester 28	451	1.0	445	1.4	-0.4	0.746	0.607	-1.6	0.8

SOURCE: Data obtained from the National Student Clearinghouse.

NOTES: CI = Confidence interval. SE = Standard error. Means are regression adjusted. Includes enrollment at any college in the United States.

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

Appendix Table A.3. Enrollment at Four-Year Colleges

	Program Group		Control Group					90% CI	
Measure	Sample Size	Enrolled (%)	Sample Size	Enrolled (%)	Estimated Effect	SE	P-Value	Lower	Upper
Semester 1	451	0.5	445	0.6	-0.2	0.542	0.762	-1.0	0.7
Semester 2	451	0.9	445	0.9	0.1	0.667	0.906	-1.0	1.1
Semester 3	451	1.6	445	1.6	0.0	0.830	0.994	-1.4	1.4
Semester 4	451	5.0	445	5.3	-0.4	1.487	0.812	-2.8	2.1
Semester 5	451	16.3	445	11.8	4.5 *	2.305	0.050	0.8	8.3
Semester 6	451	24.3	445	18.1	6.2 **	2.738	0.023	1.8	10.7
Semester 7	451	27.3	445	22.9	4.4	2.917	0.132	-0.3	9.1
Semester 8	451	28.4	445	26.5	1.9	2.996	0.520	-2.9	6.8
Semester 9	451	26.0	445	26.9	-0.9	2.983	0.763	-5.8	4.0
Semester 10	451	26.8	445	27.0	-0.2	3.019	0.944	-5.1	4.7
Semester 11	451	20.5	445	26.0	-5.5 *	2.892	0.059	-10.2	-0.8
Semester 12	451	18.5	445	21.0	-2.5	2.697	0.354	-6.9	1.9
Semester 13	451	18.7	445	18.8	-0.1	2.652	0.966	-4.4	4.2
Semester 14	451	16.5	445	17.7	-1.2	2.577	0.639	-5.4	2.9
Semester 15	451	14.9	445	12.1	2.9	2.352	0.224	-0.9	6.6
Semester 16	451	15.0	445	12.5	2.5	2.360	0.282	-1.3	6.3
Semester 17	451	13.8	445	11.6	2.2	2.272	0.339	-1.5	5.9
Semester 18	451	10.8	445	10.4	0.5	2.098	0.821	-2.9	3.9
Semester 19	451	9.2	445	10.0	-0.9	2.003	0.656	-4.2	2.4
Semester 20	451	9.7	445	11.0	-1.3	2.107	0.547	-4.7	2.1
Semester 21	451	8.6	445	9.5	-0.9	1.982	0.639	-4.1	2.2
Semester 22	451	6.7	445	9.3	-2.6	1.865	0.162	-5.6	0.4
Semester 23	451	8.1	445	8.4	-0.3	1.906	0.865	-3.3	2.7
Semester 24	451	6.8	445	5.9	0.9	1.685	0.611	-1.8	3.5
Semester 25	451	6.6	445	5.9	0.8	1.663	0.650	-1.9	3.4
Semester 26	451	7.0	445	5.3	1.7	1.643	0.311	-1.0	4.3
Semester 27	451	6.8	445	5.2	1.5	1.616	0.339	-1.1	4.2
Semester 28	451	7.7	445	5.4	2.3	1.694	0.172	-0.4	5.1

SOURCE: Data obtained from the National Student Clearinghouse.

NOTES: CI = Confidence interval. SE = Standard error. Means are regression adjusted. Includes enrollment at any college in the United States.

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

Appendix Table A.4. Degree Completion (Any Type), by Semester

	Program Group		Control Group					90% CI	
Measure	Sample Size	Completed Degree (%)	Sample Size	Completed Degree (%)	Estimated Effect	SE	P-Value	Lower	Upper
Semester 1	451	0.0	445	0.0	0.0	0.000		0.0	0.0
Semester 2	451	0.4	445	0.0	0.4	0.318	0.169	-0.1	1.0
Semester 3	451	3.0	445	1.2	1.9 *	1.029	0.069	0.3	3.5
Semester 4	451	14.3	445	9.1	5.2 **	2.150	0.015	1.7	8.7
Semester 5	451	28.9	445	15.9	13.0 ***	2.757	0.000	8.5	17.5
Semester 6	451	39.5	445	22.4	17.1 ***	3.083	0.000	12.1	22.1
Semester 7	451	41.8	445	26.8	15.0 ***	3.170	0.000	9.9	20.2
Semester 8	451	44.9	445	30.0	14.8 ***	3.228	0.000	9.6	20.1
Semester 9	451	46.3	445	32.4	13.9 ***	3.284	0.000	8.5	19.2
Semester 10	451	47.6	445	36.3	11.3 ***	3.331	0.001	5.9	16.7
Semester 11	451	49.2	445	38.2	11.0 ***	3.341	0.001	5.6	16.4
Semester 12	451	50.2	445	40.3	9.9 ***	3.353	0.003	4.5	15.3
Semester 13	451	50.7	445	41.2	9.5 ***	3.359	0.005	4.0	14.9
Semester 14	451	51.8	445	42.1	9.7 ***	3.359	0.004	4.3	15.2
Semester 15	451	52.7	445	43.0	9.7 ***	3.365	0.004	4.3	15.2
Semester 16	451	53.4	445	43.6	9.8 ***	3.363	0.004	4.3	15.2
Semester 17	451	53.3	445	44.8	8.5 **	3.376	0.012	3.1	14.0
Semester 18	451	54.3	445	45.0	9.3 ***	3.370	0.006	3.8	14.7
Semester 19	451	55.1	445	45.9	9.2 ***	3.372	0.006	3.8	14.7
Semester 20	451	55.4	445	47.0	8.3 **	3.368	0.013	2.9	13.8
Semester 21	451	55.8	445	47.5	8.3 **	3.365	0.014	2.8	13.7
Semester 22	451	56.0	445	48.2	7.8 **	3.363	0.020	2.4	13.3
Semester 23	451	56.9	445	48.4	8.5 **	3.352	0.011	3.1	14.0
Semester 24	451	57.6	445	48.6	8.9 ***	3.348	0.008	3.5	14.3
Semester 25	451	57.5	445	49.1	8.4 **	3.349	0.012	3.0	13.9
Semester 26	451	57.5	445	49.3	8.2 **	3.349	0.015	2.8	13.6
Semester 27	451	57.5	445	49.8	7.7 **	3.348	0.022	2.3	13.1
Semester 28	451	57.7	445	50.0	7.7 **	3.349	0.022	2.3	13.1

SOURCES: Data obtained from the National Student Clearinghouse and the City University of New York's Office of Institutional Research and Assessment.

NOTES: CI = Confidence interval. SE = Standard error. Means are regression adjusted. Includes degrees earned at any college in the United States.

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

Appendix Table A.5. Certificate Completion, by Semester

Measure	Program Group		Control Group					90% CI	
	Sample Size	Completed Certificate (%)	Sample Size	Completed Certificate (%)	Estimated Effect	SE	P-Value	Lower	Upper
Semester 1	451	0.0	445	0.0	0.0	0.000		0.0	0.0
Semester 2	451	0.0	445	0.0	0.0	0.000		0.0	0.0
Semester 3	451	0.0	445	0.0	0.0	0.000		0.0	0.0
Semester 4	451	0.0	445	0.0	0.0	0.000		0.0	0.0
Semester 5	451	0.0	445	0.0	0.0	0.000		0.0	0.0
Semester 6	451	0.0	445	0.0	0.0	0.000		0.0	0.0
Semester 7	451	0.0	445	0.0	0.0	0.000		0.0	0.0
Semester 8	451	0.0	445	0.0	0.0	0.000		0.0	0.0
Semester 9	451	0.0	445	0.0	0.0	0.000		0.0	0.0
Semester 10	451	0.2	445	0.0	0.2	0.236	0.322	-0.1	0.6
Semester 11	451	0.2	445	0.0	0.2	0.236	0.322	-0.1	0.6
Semester 12	451	0.2	445	0.0	0.2	0.236	0.322	-0.1	0.6
Semester 13	451	0.2	445	0.0	0.2	0.236	0.322	-0.1	0.6
Semester 14	451	0.2	445	0.0	0.2	0.236	0.322	-0.1	0.6
Semester 15	451	0.2	445	0.0	0.2	0.236	0.322	-0.1	0.6
Semester 16	451	0.2	445	0.2	0.0	0.326	0.978	-0.5	0.5
Semester 17	451	0.2	445	0.2	0.0	0.326	0.978	-0.5	0.5
Semester 18	451	0.2	445	0.2	0.0	0.326	0.978	-0.5	0.5
Semester 19	451	0.4	445	0.5	0.0	0.487	0.957	-0.8	0.7
Semester 20	451	0.4	445	0.5	0.0	0.487	0.957	-0.8	0.7
Semester 21	451	0.7	445	0.4	0.2	0.551	0.679	-0.6	1.1
Semester 22	451	1.1	445	0.4	0.7	0.638	0.284	-0.3	1.7
Semester 23	451	1.1	445	0.4	0.7	0.638	0.284	-0.3	1.7
Semester 24	451	1.1	445	0.7	0.4	0.688	0.527	-0.6	1.5
Semester 25	451	1.1	445	0.9	0.2	0.721	0.764	-0.9	1.3
Semester 26	451	1.1	445	0.9	0.2	0.721	0.764	-0.9	1.3
Semester 27	451	1.1	445	0.9	0.2	0.721	0.764	-0.9	1.3
Semester 28	451	1.4	445	0.9	0.5	0.771	0.520	-0.7	1.7

SOURCES: Data obtained from the National Student Clearinghouse and the City University of New York's Office of Institutional Research and Assessment.

NOTES: CI = Confidence interval. SE = Standard error. Means are regression adjusted. Includes certificates earned at any college in the United States.

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

Appendix Table A.6. Associate's Degree Completion, by Semester

Measure	Program Group		Control Group		Estimated Effect	SE	P-Value	90% CI	
	Sample Size	Completed Degree (%)	Sample Size	Completed Degree (%)				Lower	Upper
Semester 1	451	0.0	445	0.0	0.0	0.000		0.0	0.0
Semester 2	451	0.2	445	0.0	0.2	0.187	0.326	-0.2	0.6
Semester 3	451	2.8	445	1.2	1.6	0.997	0.105	0.1	3.2
Semester 4	451	14.1	445	9.1	5.0 **	2.141	0.020	1.5	8.5
Semester 5	451	28.6	445	15.9	12.7 ***	2.751	0.000	8.3	17.2
Semester 6	451	39.3	445	22.4	16.9 ***	3.079	0.000	11.9	21.9
Semester 7	451	41.4	445	26.8	14.6 ***	3.166	0.000	9.5	19.8
Semester 8	451	44.0	445	30.0	14.0 ***	3.227	0.000	8.8	19.3
Semester 9	451	45.4	445	32.1	13.3 ***	3.279	0.000	8.0	18.6
Semester 10	451	46.1	445	35.1	11.0 ***	3.318	0.001	5.6	16.4
Semester 11	451	47.5	445	36.1	11.4 ***	3.328	0.001	6.0	16.8
Semester 12	451	48.6	445	37.3	11.3 ***	3.337	0.001	5.9	16.7
Semester 13	451	49.0	445	38.2	10.8 ***	3.346	0.001	5.4	16.3
Semester 14	451	50.1	445	38.9	11.2 ***	3.344	0.001	5.8	16.6
Semester 15	451	50.8	445	39.3	11.4 ***	3.349	0.001	6.0	16.9
Semester 16	451	51.2	445	40.0	11.2 ***	3.351	0.001	5.8	16.7
Semester 17	451	51.2	445	41.0	10.2 ***	3.368	0.003	4.8	15.7
Semester 18	451	51.7	445	40.9	10.7 ***	3.362	0.001	5.3	16.2
Semester 19	451	52.5	445	41.6	10.9 ***	3.369	0.001	5.5	16.4
Semester 20	451	52.5	445	42.5	10.0 ***	3.367	0.003	4.6	15.5
Semester 21	451	52.5	445	43.0	9.6 ***	3.367	0.005	4.1	15.0
Semester 22	451	52.7	445	43.2	9.5 ***	3.366	0.005	4.1	15.0
Semester 23	451	53.6	445	43.4	10.2 ***	3.359	0.002	4.8	15.7
Semester 24	451	53.8	445	43.6	10.2 ***	3.357	0.002	4.8	15.6
Semester 25	451	53.8	445	43.6	10.2 ***	3.357	0.002	4.8	15.6
Semester 26	451	53.8	445	43.6	10.2 ***	3.357	0.002	4.8	15.6
Semester 27	451	53.8	445	44.1	9.7 ***	3.359	0.004	4.2	15.1
Semester 28	451	53.8	445	44.1	9.7 ***	3.359	0.004	4.2	15.1

SOURCES: Data obtained from the National Student Clearinghouse and the City University of New York's Office of Institutional Research and Assessment.

NOTES: CI = Confidence interval. SE = Standard error. Means are regression adjusted. Includes degrees earned at any college in the United States.

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

Appendix Table A.7. Bachelor's Degree Completion, by Semester

	Program Group		Control Group					90% CI	
Measure	Sample Size	Completed Degree (%)	Sample Size	Completed Degree (%)	Estimated Effect	SE	P-Value	Lower	Upper
Semester 1	451	0.0	445	0.0	0.0	0.000	0.000	0.0	0.0
Semester 2	451	0.2	445	0.0	0.3	0.257	0.323	-0.1	0.6
Semester 3	451	0.2	445	0.0	0.3	0.257	0.323	-0.1	0.6
Semester 4	451	0.2	445	0.0	0.3	0.257	0.323	-0.1	0.6
Semester 5	451	0.4	445	0.0	0.4	0.318	0.169	-0.1	1.0
Semester 6	451	0.9	445	0.0	0.9 **	0.457	0.050	0.2	1.6
Semester 7	451	1.4	445	0.8	0.6	0.734	0.387	-0.5	1.8
Semester 8	451	4.3	445	2.2	2.1 *	1.194	0.085	0.1	4.0
Semester 9	451	7.0	445	4.2	2.8 *	1.534	0.064	0.3	5.4
Semester 10	451	11.9	445	8.4	3.5 *	2.052	0.086	0.2	6.8
Semester 11	451	14.8	445	13.1	1.8	2.361	0.449	-2.0	5.6
Semester 12	451	17.3	445	16.9	0.4	2.542	0.862	-3.7	4.6
Semester 13	451	19.1	445	18.6	0.5	2.643	0.864	-3.8	4.7
Semester 14	451	21.7	445	20.9	0.8	2.749	0.772	-3.7	5.3
Semester 15	451	22.6	445	22.7	-0.1	2.829	0.969	-4.7	4.5
Semester 16	451	24.4	445	24.2	0.2	2.903	0.947	-4.5	4.9
Semester 17	451	25.3	445	25.6	-0.3	2.955	0.916	-5.1	4.5
Semester 18	451	27.3	445	26.5	0.7	3.007	0.810	-4.1	5.6
Semester 19	451	27.9	445	27.0	0.9	3.017	0.770	-4.0	5.8
Semester 20	451	28.8	445	28.6	0.2	3.057	0.959	-4.8	5.1
Semester 21	451	29.6	445	29.5	0.1	3.089	0.971	-4.9	5.1
Semester 22	451	29.7	445	30.6	-1.0	3.100	0.755	-6.0	4.1
Semester 23	451	30.3	445	31.1	-0.8	3.109	0.796	-5.8	4.2
Semester 24	451	30.7	445	31.8	-1.1	3.118	0.720	-6.2	3.9
Semester 25	451	30.7	445	32.7	-2.1	3.124	0.510	-7.1	3.0
Semester 26	451	30.9	445	33.6	-2.7	3.138	0.395	-7.8	2.4
Semester 27	451	31.3	445	33.9	-2.5	3.145	0.423	-7.6	2.6
Semester 28	451	32.0	445	34.5	-2.5	3.167	0.428	-7.7	2.6

SOURCES: Data obtained from the National Student Clearinghouse and the City University of New York's Office of Institutional Research and Assessment.

NOTES: CI = Confidence interval. SE = Standard error. Means are regression adjusted. Includes degrees earned at any college in the United States.

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

Appendix Table A.8. Employment, by Quarter

Measure	Program Group		Control Group		Estimated Effect	SE	P-Value	90% CI	
	Sample Size	Mean	Sample Size	Mean				Lower	Upper
Employment rate (%)									
Year 1, Q1	449	43.0	437	44.7	-1.7	2.818	0.546	-6.3	2.9
Year 1, Q2	449	43.4	437	43.5	0.0	2.942	0.987	-4.8	4.7
Year 1, Q3	449	44.9	437	46.6	-1.7	3.110	0.576	-6.8	3.3
Year 1, Q4	449	47.3	437	49.8	-2.5	3.158	0.424	-7.7	2.6
Year 2, Q1	449	49.9	437	49.4	0.5	3.240	0.877	-4.7	5.7
Year 2, Q2	449	53.1	437	51.4	1.7	3.291	0.596	-3.6	7.1
Year 2, Q3	449	54.7	437	53.2	1.5	3.237	0.637	-3.8	6.8
Year 2, Q4	449	55.7	437	53.1	2.6	3.244	0.416	-2.6	7.9
Year 3, Q1	449	55.4	437	56.8	-1.4	3.265	0.669	-6.7	3.9
Year 3, Q2	449	56.4	437	55.8	0.6	3.252	0.861	-4.7	5.9
Year 3, Q3	449	54.8	437	56.3	-1.5	3.253	0.641	-6.8	3.8
Year 3, Q4	449	57.4	437	59.8	-2.4	3.242	0.461	-7.7	2.9
Year 4, Q1	449	60.2	437	61.1	-0.9	3.213	0.779	-6.1	4.3
Year 4, Q2	449	58.3	437	59.8	-1.4	3.221	0.654	-6.7	3.8
Year 4, Q3	449	60.0	437	61.5	-1.5	3.205	0.632	-6.8	3.7
Year 4, Q4	449	59.4	437	63.9	-4.5	3.202	0.163	-9.7	0.7
Year 5, Q1	449	61.2	437	65.5	-4.4	3.174	0.170	-9.5	0.8
Year 5, Q2	449	60.2	437	64.0	-3.8	3.236	0.242	-9.1	1.5
Year 5, Q3	449	60.2	437	64.7	-4.4	3.230	0.172	-9.7	0.8
Year 5, Q4	449	60.4	437	67.3	-6.9 **	3.233	0.033	-12.2	-1.7
Year 6, Q1	449	61.7	437	67.9	-6.2 *	3.184	0.053	-11.3	-1.0
Year 6, Q2	449	62.5	437	67.4	-4.9	3.200	0.128	-10.0	0.3
Year 6, Q3	449	64.7	437	67.8	-3.1	3.173	0.322	-8.3	2.0
Year 6, Q4	449	62.3	437	68.5	-6.2 *	3.200	0.052	-11.4	-1.0
Year 7, Q1	449	63.6	437	68.8	-5.2	3.207	0.109	-10.3	0.0
Year 7, Q2	449	63.3	437	68.6	-5.3 *	3.230	0.098	-10.5	-0.1
Year 7, Q3	449	64.0	437	68.6	-4.5	3.214	0.158	-9.7	0.7
Year 7, Q4	449	62.2	437	68.4	-6.2 *	3.242	0.056	-11.4	-1.0
Year 8, Q1	449	65.0	437	69.8	-4.8	3.181	0.131	-9.9	0.3
Year 8, Q2	449	64.1	437	68.2	-4.1	3.203	0.201	-9.3	1.1
Year 8, Q3	449	64.0	437	66.9	-2.9	3.241	0.372	-8.1	2.3
Year 8, Q4	449	65.2	437	67.3	-2.1	3.224	0.506	-7.3	3.0

(continued)

Appendix Table A.8 (continued)

Measure	Program Group		Control Group					90% CI	
	Sample Size	Mean	Sample Size	Mean	Estimated Effect	SE	P-Value	Lower	Upper
Year 9, Q1	449	66.3	437	66.2	0.1	3.226	0.972	-5.1	5.3
Year 9, Q2	449	65.8	437	66.5	-0.7	3.218	0.831	-5.9	4.5
Year 9, Q3	449	65.5	437	67.5	-2.0	3.209	0.540	-7.2	3.2
Year 9, Q4	449	65.9	437	67.7	-1.8	3.178	0.575	-6.9	3.4
Year 10, Q1	449	65.7	437	68.4	-2.6	3.170	0.406	-7.8	2.5
Year 10, Q2	449	64.8	437	68.0	-3.2	3.202	0.315	-8.4	2.0
Year 10, Q3	449	57.4	437	60.9	-3.5	3.341	0.289	-9.0	1.9
Year 10, Q4	449	56.1	437	56.1	-0.1	3.392	0.987	-5.6	5.4
Year 11, Q1	449	55.9	437	55.6	0.3	3.400	0.921	-5.2	5.8
Year 11, Q2	449	53.0	437	56.8	-3.8	3.407	0.270	-9.3	1.8
Year 11, Q3	449	55.0	437	59.2	-4.2	3.368	0.213	-9.7	1.3
Year 11, Q4	449	57.7	437	58.8	-1.0	3.383	0.759	-6.5	4.4
Year 12, Q1	449	57.6	437	58.7	-1.1	3.397	0.743	-6.6	4.4
Year 12, Q2	449	57.1	437	59.7	-2.6	3.373	0.437	-8.1	2.8
Year 12, Q3	449	58.7	437	60.5	-1.7	3.361	0.606	-7.2	3.7
Year 12, Q4	449	59.5	437	60.7	-1.2	3.344	0.719	-6.6	4.2
Year 13, Q1	449	59.5	437	60.8	-1.3	3.348	0.689	-6.8	4.1
Year 13, Q2	449	60.3	437	61.4	-1.1	3.342	0.747	-6.5	4.3
Year 13, Q3	449	60.1	437	62.3	-2.2	3.335	0.511	-7.6	3.2
Year 13, Q4	449	61.9	437	60.7	1.2	3.351	0.717	-4.2	6.6
Year 14, Q1	449	60.8	437	60.5	0.3	3.371	0.928	-5.1	5.7
Year 14, Q2	449	59.8	437	62.1	-2.3	3.380	0.502	-7.7	3.2

SOURCE: Data obtained from the New York State unemployment insurance system.

NOTES: CI = Confidence interval. SE = Standard error. Means are regression adjusted. Employment is defined as having any earnings reported to the New York State unemployment insurance system during the relevant quarter after random assignment, derived from New York State unemployment insurance records.

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

Appendix Table A.9. Marginal Earnings, by Quarter

Measure	Program Group		Control Group					90% CI	
	Sample Size	Mean	Sample Size	Mean	Estimated Effect	SE	P-Value	Lower	Upper
Marginal earnings ($)									
Year 1, Q1	449	1,570	437	1,768	-198	133	0.137	-411	14
Year 1, Q2	449	1,637	437	1,783	-146	152	0.340	-387	95
Year 1, Q3	449	1,701	437	1,898	-197	156	0.206	-447	53
Year 1, Q4	449	1,830	437	2,144	-314 *	188	0.095	-624	-5
Year 2, Q1	449	2,111	437	2,185	-74	201	0.714	-410	263
Year 2, Q2	449	2,078	437	2,192	-114	211	0.589	-454	226
Year 2, Q3	449	2,217	437	2,450	-233	301	0.439	-637	171
Year 2, Q4	449	2,345	437	2,360	-15	214	0.943	-360	329
Year 3, Q1	449	2,662	437	2,664	-2	228	0.991	-381	376
Year 3, Q2	449	2,727	437	2,581	146	230	0.525	-229	521
Year 3, Q3	449	2,650	437	2,752	-102	240	0.670	-491	287
Year 3, Q4	449	2,844	437	2,989	-144	257	0.574	-558	270
Year 4, Q1	449	3,108	437	3,264	-156	272	0.566	-601	289
Year 4, Q2	449	3,162	437	3,357	-195	277	0.481	-641	251
Year 4, Q3	449	3,406	437	3,744	-338	274	0.218	-788	112
Year 4, Q4	449	3,448	437	3,977	-529 *	294	0.072	-1,004	-54
Year 5, Q1	449	3,765	437	4,159	-394	314	0.210	-906	118
Year 5, Q2	449	3,794	437	4,158	-365	322	0.257	-885	155
Year 5, Q3	449	4,050	437	4,763	-713 **	341	0.037	-1,261	-164
Year 5, Q4	449	4,314	437	4,955	-641 *	382	0.093	-1,260	-22
Year 6, Q1	449	4,698	437	5,436	-738 *	381	0.053	-1,349	-127
Year 6, Q2	449	4,562	437	5,222	-660 *	372	0.076	-1,252	-68
Year 6, Q3	449	5,118	437	6,105	-987 **	402	0.014	-1,638	-336
Year 6, Q4	449	5,103	437	6,202	-1,099 ***	420	0.009	-1,772	-426
Year 7, Q1	449	5,540	437	6,786	-1,245 ***	453	0.006	-1,966	-525
Year 7, Q2	449	5,406	437	6,539	-1,133 ***	437	0.010	-1,843	-423
Year 7, Q3	449	5,874	437	7,184	-1,310 ***	470	0.005	-2,065	-554
Year 7, Q4	449	5,866	437	6,951	-1,085 **	468	0.021	-1,830	-341
Year 8, Q1	449	6,504	437	7,685	-1,180 **	519	0.023	-2,009	-352
Year 8, Q2	449	6,454	437	7,362	-908 *	492	0.065	-1,699	-118
Year 8, Q3	449	6,857	437	7,679	-821	510	0.108	-1,635	-7
Year 8, Q4	449	6,594	437	7,191	-597	491	0.224	-1,381	186

(continued)

Appendix Table A.9 (continued)

Measure	Program Group		Control Group		Estimated Effect	SE	P-Value	90% CI	
	Sample Size	Mean	Sample Size	Mean				Lower	Upper
Year 9, Q1	449	7,383	437	7,928	-545	519	0.294	-1,389	299
Year 9, Q2	449	7,566	437	8,264	-699	563	0.215	-1,607	210
Year 9, Q3	449	8,036	437	8,644	-608	621	0.328	-1,583	368
Year 9, Q4	449	7,805	437	8,455	-650	596	0.276	-1,587	287
Year 10, Q1	449	8,292	437	9,191	-899	671	0.181	-1,940	142
Year 10, Q2	449	8,065	437	8,852	-787	680	0.247	-1,840	265
Year 10, Q3	449	7,463	437	8,261	-798	675	0.238	-1,867	271
Year 10, Q4	449	7,097	437	7,925	-829	661	0.210	-1,877	220
Year 11, Q1	449	7,466	437	8,286	-821	737	0.266	-1,974	333
Year 11, Q2	449	7,215	437	7,727	-512	710	0.471	-1,617	592
Year 11, Q3	449	7,729	437	8,812	-1,084	734	0.140	-2,235	68
Year 11, Q4	449	7,575	437	8,682	-1,108	677	0.102	-2,185	-31
Year 12, Q1	449	8,420	437	9,233	-813	796	0.307	-2,065	438
Year 12, Q2	449	7,882	437	8,790	-908	784	0.247	-2,141	324
Year 12, Q3	449	8,603	437	9,818	-1,215	842	0.149	-2,562	131
Year 12, Q4	449	8,589	437	9,350	-761	752	0.312	-1,951	429
Year 13, Q1	449	9,111	437	9,186	-75	741	0.919	-1,267	1,116
Year 13, Q2	449	9,177	437	9,360	-183	782	0.816	-1,432	1,067
Year 13, Q3	449	8,641	437	9,277	-636	726	0.381	-1,804	532
Year 13, Q4	449	9,347	437	9,886	-539	877	0.539	-1,951	873
Year 14, Q1	449	9,126	437	9,247	-120	741	0.871	-1,312	1,071
Year 14, Q2	449	9,483	437	9,975	-492	865	0.570	-1,868	884

SOURCE: Data obtained from the New York State Unemployment Insurance (UI) system.

NOTE: CI = Confidence Interval. SE = Standard Error. Means are regression adjusted.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

Appendix Table A.10. Cumulative Earnings, by Year

Measure	Program Group		Control Group		Estimated Effect	SE	P-Value	90% CI	
	Sample Size	Mean	Sample Size	Mean				Lower	Upper
Cumulative earnings ($)									
Year 1	449	6,345	437	6,916	-571	440	0.194	-1,268	125
Year 2	449	14,582	437	15,888	-1,306	1,110	0.240	-3,053	441
Year 3	449	24,965	437	26,245	-1,280	1,746	0.464	-4,087	1,528
Year 4	449	37,486	437	39,599	-2,114	2,502	0.399	-6,145	1,918
Year 5	449	52,543	437	56,657	-4,114	3,353	0.220	-9,501	1,273
Year 6	449	71,234	437	78,375	-7,140	4,377	0.103	-14,142	-138
Year 7	449	93,157	437	105,084	-11,927 **	5,502	0.030	-20,743	-3,111
Year 8	449	118,838	437	134,761	-15,922 **	6,804	0.019	-26,809	-5,036
Year 9	449	148,418	437	166,789	-18,371 **	8,281	0.027	-31,638	-5,104
Year 10	449	180,043	437	201,548	-21,505 **	10,122	0.034	-37,655	-5,355
Year 11	449	209,549	437	234,298	-24,750 **	12,155	0.042	-44,060	-5,440
Year 12	449	242,027	437	270,822	-28,794 **	14,480	0.047	-51,738	-5,850
Year 13	449	277,545	437	307,995	-30,449 *	16,659	0.068	-56,908	-3,991

SOURCE: Data obtained from the New York State unemployment insurance system.

NOTES: CI = Confidence interval. SE = Standard error. Means are regression adjusted.
Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent.

APPENDIX

B

Technical Notes on Analyses by Highest Degree Type and Field of Study

SUMMARY

The City University of New York's (CUNY) Accelerated Study in Associate Programs (ASAP) increased degree completion: 57.7 percent of students offered ASAP completed a degree within 14 years, compared with 50.0 percent of students in the control group — an impact of 7.7 percentage points. However, the program had no discernable effect on long-term earnings in New York State. The estimated effects on earnings are negative and statistically insignificant, which is a somewhat unexpected finding.

To better understand these results, this appendix examines which types of degrees ASAP affected and how those degrees relate to student earnings. Most of ASAP's impact on degree completion came from students graduating in fields of study that, historically within CUNY, lead to relatively low earnings compared with graduates in other fields of study. This pattern may help explain the lack of detectable effects on study participants' earnings. ASAP increased the likelihood that students graduated, but this gain came from moving students from not completing a degree to completing degrees in fields with relatively low earnings among CUNY graduates.

To be clear, these "degrees in fields with relatively low earnings" refer to differences in earnings across fields of study among degree completers, not to comparisons between degree completers and non-completers. That is, graduates in these fields earn less, on average, than graduates in other fields, not necessarily less than individuals who do not complete a degree at all. Degrees in these low-earning fields may still generate positive labor market returns relative to no degree. If so, the finding of no discernible impact on earnings, with suggestive evidence of negative effects, remains unexpected.

This raises the question: Might the average earnings of students who complete certain types of degrees be lower than the earnings of students who do not complete any degree? If so, this could more fully explain the findings.

This appendix first describes why and how the research team classified degrees completed by individuals in the evaluation sample into historically low-, medium-, and high-earning types using CUNY's Wage Dashboard. Next, long-run earnings patterns for the ASAP evaluation sample by students' highest degree type and field of study are presented.

Across the analyses, the main finding is:

- **Students who complete a degree — even if the degree is in a field that historically leads to relatively low earnings — tend to earn more than students who do not complete a degree.**

These findings do not support the hypothesis that ASAP's lack of positive effects on earnings in New York State were a result of the program causing students to complete degrees associated with lower earnings than what they would have earned had they not completed any degree. The study's findings with respect to earnings remain puzzling. Details are provided below.

WHY CLASSIFY DEGREES BY EARNINGS LEVELS?

ASAP had positive effects on degree completion. However, ASAP had no discernable effect on long-term earnings in New York State. The estimated effect on earnings during the final two years of the follow-up period was -$2,011 (a 5 percent reduction), although not statistically significant. The estimated effect on cumulative earnings through 13.5 years was -$30,000 and statistically significant at the 10 percent level. These findings are unexpected given broad research findings that completing a college degree causes people, on average, to earn more money. There is also evidence that the labor market return to degree completion varies by the level of degree completed and field of study. This leads to two questions:

1. Which degrees did ASAP affect, and to what extent were its impacts concentrated in degrees that historically lead to lower earnings compared with other degrees?

2. Might ASAP have caused students to earn degrees that have no or a negative earnings premium, compared with not completing a degree, helping to explain the labor market findings?

To examine these questions, each degree completed by study sample members was classified as low-, medium-, or high-earning based on the historical earnings of CUNY graduates completing a degree in the same level and field of study (for example, an associate's degree in liberal arts or a bachelor's degree in psychology).

CLASSIFYING DEGREES

CUNY's Wage Dashboard provides the historical median earnings of all employed CUNY graduates in New York State 10 years after graduation, reported by degree level and field of study. Using data from the Wage Dashboard, students in the ASAP evaluation were each categorized in one of four mutually exclusive groups based on their highest degree type after 14 years of follow-up:[1]

1. Did not complete a degree

Completed a degree with median 10-year earnings that are historically relatively:

2. Low-earning degrees

3. Medium-earning degrees

4. High-earning degrees

1. Some degrees could not be matched to the Wage Dashboard and are classified as "unknown."

These categories are based on the earnings of all CUNY graduates who completed each degree from 2002 through 2015. They are not based on the earnings of ASAP evaluation sample members themselves. The purpose of using historical data for classification is to assess whether ASAP's impacts on degree completion were concentrated in degrees that, within the broader CUNY system, typically are associated with lower or higher wages. Using long-term median earnings for all CUNY graduates provides a consistent, external benchmark that reflects typical earnings outcomes for each degree, rather than earnings patterns that are specific to this study sample.

CLASSIFICATION PROCESS

Step 1: Identify all degrees completed by the ASAP evaluation sample members.

All degrees completed by sample members in the evaluation were identified, including each degree's level (associate's, bachelor's, or master's) and field of study (for example, accounting or liberal arts and sciences). In total, sample members completed 694 degrees, earned by 447 unique individuals. Many students completed more than one degree.

Across the sample, 126 unique degrees were observed, as defined by the combination of degree level and field of study. Most degrees were completed by multiple students. For example, more than 100 students completed an associate's degree in liberal arts and sciences/liberal studies.

Step 2: Determine typical earnings for each degree using CUNY's Wage Dashboard.

Each degree identified in Step 1 was matched to its corresponding 10-year median earnings value in the Wage Dashboard.

Step 3: Group degrees into low-, medium-, and high-earning categories.

The 694 degrees completed by sample members were sorted from lowest to highest earnings based on the 10-year median earnings associated with the degree level and field of study. This sorted list included many degrees of the same level and field of study and thus the same historical earnings. The sorted degrees were then divided into three groups: relatively low-, medium-, or high-earning.

At the cutoff between the low- and medium-earnings categories, a specific degree level and field of study — an associate's degree in liberal arts and sciences/liberal studies — fell on either side of the cutoff. This degree was assigned to the earnings category containing the

most people earning that degree. Specifically, over 100 people earned associate's degrees in liberal arts and sciences/liberal studies and in the sorted list of 694 degrees completed, this degree appeared below and above the threshold between the low- and medium-earning groups. Because most of these degrees were in the bottom third of the sorted distribution, this degree was classified as low earning.

Note that the CUNY Wage Dashboard reports median earnings only for employed graduates who completed a degree. Accordingly, the low, medium, and high classifications are relative to other degree types and do not reflect comparisons with students who did not complete a degree or with unemployed individuals. A later section of this appendix reports average earnings for the evaluation sample, which include $0 for those not employed; as a result, those averages are not directly comparable to the Dashboard medians.

ASAP'S EFFECT ON HIGHEST DEGREE COMPLETED

Appendix Table B.1 summarizes ASAP's effects on students' highest degree completed. ASAP reduced the share of students who did not complete a degree by 7.7 percentage points. The largest shift was an 8.1 percentage point increase in completing degrees where CUNY degree-completers historically have had relatively low earnings.

Appendix Table B.1. Degree Category, by Median Wages Among CUNY Graduates 10 Years After Graduation

Highest Degree Category	Program Group (%)	Control Group (%)	Estimated Effect
No degree completed	42.3	50.0	-7.7
Highest degree completed has median 10-year earnings that are historically relatively:			
Low	18.2	10.1	8.1
Medium	11.3	11.2	0.1
High	20.3	18.3	2.1
Unknown	7.9	10.5	-2.6
Sample size	451	445	

SOURCES: Data obtained from the City University of New York's (CUNY) Wage Dashboard and the CUNY Office of Institutional Research and Assessment.

NOTES: Means are regression adjusted.

The "Unknown" category includes a total of 82 students, or about 9.2 percent of the total sample. Of these 82 students, 36 are students who earned a degree at a non-CUNY institution and therefore could not be classified using the CUNY Wage Dashboard data. The remaining 46 students earned a CUNY degree in a field that was not able to be matched to the Wage Dashboard data.

(continued)

Appendix Table B.1 (continued)

The two most common degrees in the "Low" category are liberal arts associate's degrees, meant for transfer to a four-year institution, and human services associate's degrees.

The three most common degrees in the "Medium" category are associate's degrees in business administration and accounting, and bachelor's degrees in sociology.

The two most common degrees in the "High" category are bachelor's degrees in psychology and criminal justice.

The two most common degrees in the "Unknown" category are associate's degrees in social sciences and criminal justice.

Before presenting the observed average earnings of program and control group students who did not complete a degree and those who completed degrees with historically low, medium, and high earnings (see Appendix Table B.2), a note of caution is necessary.

Appendix Table B.2. Average Yearly Earnings in the Last Two Years of Follow-Up, by Degree Category and Research Group

Highest Degree Category	Program Group ($)	Control Group ($)	Difference ($)	Sample Size
No degree completed	26,112	31,969	-5,857	407
Highest degree completed has median 10-year earnings that are historically relatively:				
Low	36,922	39,293	-2,372	127
Medium	39,017	42,047	-3,029	102
High	51,410	51,611	-202	172
Sample size	449	437		

SOURCES: Degree category data obtained from the City University of New York's Wage Dashboard and earnings data obtained from the New York State unemployment insurance database.

NOTES: Means are regression adjusted.

The two most common degrees in the "Low" category are liberal arts associate's degrees, meant for transfer to a four-year institution, and human services associate's degrees.

The three most common degrees in the "Medium" category are associate's degrees in business administration and accounting, and bachelor's degrees in sociology.

The two most common degrees in the "High" category are bachelor's degrees in psychology and criminal justice. Average annual earnings are in 2023 dollars and calculated from the last two years of available data, spanning the third quarter of Year 12 to the second quarter of Year 14.

A Note of Caution

Random assignment creates a program group and a control group that are not systematically different from each other at the outset of an evaluation. As a result, differences in

later outcomes (for example, graduation rates or earnings) between the two groups are an unbiased estimate of the program's effect on the outcome. This is true when analyses are conducted on all program and control group members, or subsamples that are defined based on characteristics that are not influenced by the program (for example, students' gender or age when they joined the study).

In the case of "highest degree completed," Appendix Table B.1 shows that ASAP influenced which students ended up in each degree category. As a result, program and control group members with the same degree category may be compositionally different. Therefore,

- **Differences in outcomes between program and control group members within a degree category should not be interpreted as causal effects of ASAP.**

Moreover, sample sizes within categories are small — sometimes under 50 students per group — limiting precision. These two caveats are important to keep in mind when examining the findings.

AVERAGE EARNINGS IN THE FINAL TWO FOLLOW-UP YEARS

Appendix Table B.2 shows average annual earnings in the last two years of the follow-up period (the primary labor market outcome in this study), by highest degree category and research group. First, notice that earnings rise with degree category. Within the program and control groups, the average earnings ordering is:

No degree < Low-earning degree type < Medium-earning degree type < High-earning degree type

Students in the ASAP evaluation who completed a degree where CUNY graduates tend to have low earnings still outearned students in the evaluation who did not complete a degree. This does not support the hypothesis that ASAP's overall lack of effects on earnings resulted from causing students to complete degrees where earnings are lower than not completing a degree.

This pattern alone does not provide strong evidence of positive returns to completing a CUNY degree in a low-earning field. The higher earnings of students completing degrees in low-earning fields may be due to the value of those degrees or the types of students completing those degrees. Recent research that aims to account for the types of students completing those degrees finds that CUNY degrees of various types and fields of study all have positive labor market returns.[2]

2. Minaya, Scott-Clayton, and Thomas (2026).

Second, control group members who did not complete a degree earn more than program group members who did not complete a degree. A naïve interpretation of this fact would be that ASAP reduced the average earnings of students who did not complete a degree. However, recall that ASAP changed the composition of students in the no-degree subpopulation, moving around 15 percent of them into the degree-completer subpopulations (calculated as 7.7 divided by 50.0). It is plausible that the students that ASAP caused to earn a degree were higher skilled than those in the program group who did not earn a degree, even with ASAP support. Thus, the program group's no-degree subpopulation may be a more negatively selected group than the control group's no-degree subpopulation. If this is the case, then the lower average earnings of program group members with no degree may not be surprising and should not necessarily be interpreted as a negative effect of ASAP.

Third, control group members who completed a degree in a low-earning field earn more than program group members who completed a degree in a low-earning field. Again, ASAP changed the composition of students completing a degree where earnings are typically low, increasing its size by 80 percent (calculated as 8.1 divided by 10.1). The students who ASAP caused to complete a degree in a low-earning field, who would otherwise not have completed any degree, may have had weaker labor market prospects either way. So, lower earnings for the program group in this category are consistent with compositional changes and again do not necessarily imply harmful program effects.

Fourth, control group members who completed a degree in a medium-earning field earn more than program group members who completed a degree in a medium-earning field. Interpreting this finding is also challenging — ASAP had no effect on the percentage of students earning degrees in medium-earning fields. It is possible that program and control group students with this degree status are compositionally similar, but this is unknown — the similar rates could be due to some people moving up categories and others moving down, and still others moving from the unknown category. Similar interpretation complications arise when considering the high-earnings group.

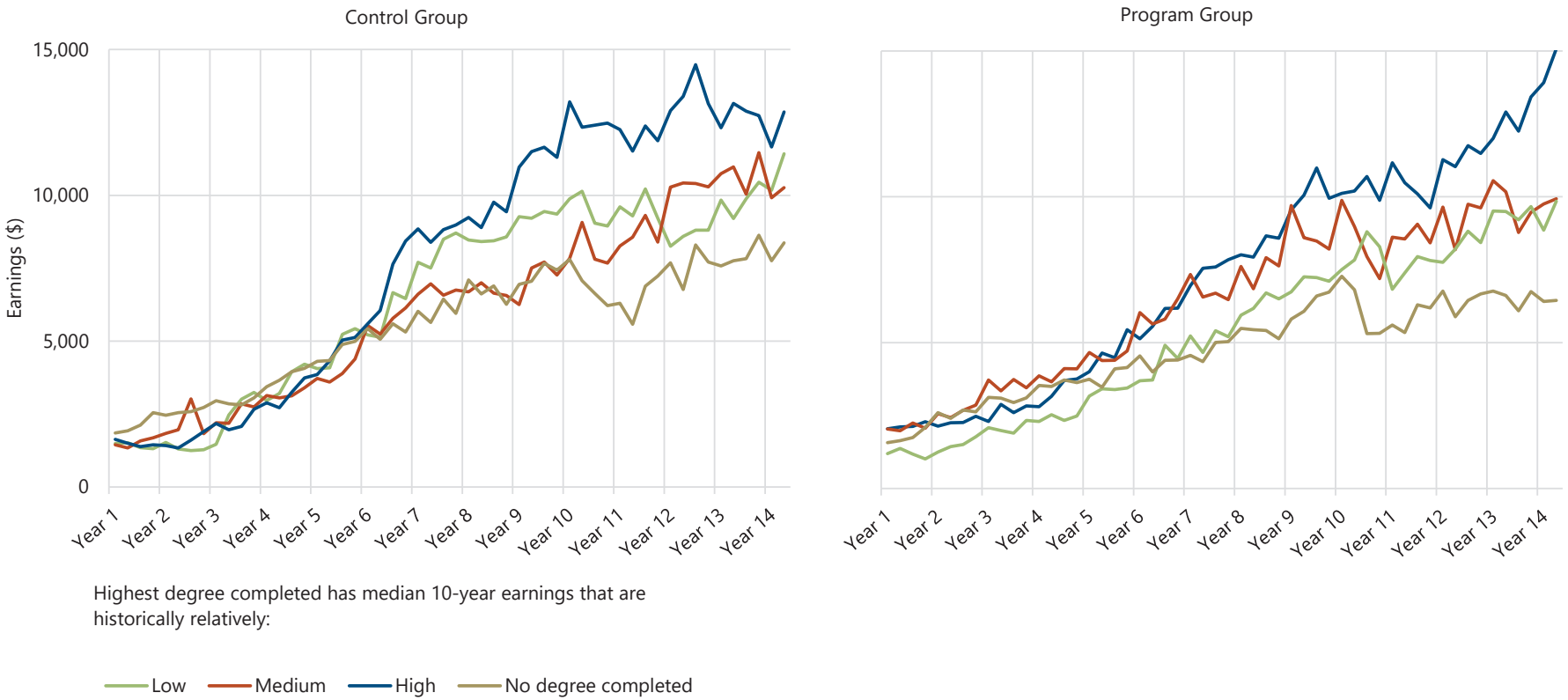
EARNINGS TRAJECTORIES OVER TIME

The above findings can be further examined by looking at earnings trajectories over the entire follow-up period, rather than focusing on the final two years of follow-up.

Appendix Figure B.1 plots quarterly earnings over 14 years for the program group (right panel) and the control group (left panel) for each of the degree categories.3 By approxi-

3. Much like the other findings, Appendix Figure B.1 is descriptively interesting, but requires nuanced interpretation. In order to present consistent samples over time, the lines in the figure categorize students based on their degree status at the end of the follow-up period. Consequently, individuals who take six or seven years to transfer and complete a bachelor's degree in a high-earning field may have earnings patterns that resemble (or even fall below) students who earn degrees in lower-earning fields while they are still enrolled and progressing. Thus, it is not surprising that the groups with higher earnings change over time.

Appendix Figure B.1. Average Quarterly Earnings, by Highest Degree Status



SOURCES: Degree category data obtained from the City University of New York's (CUNY) Wage Dashboard and earnings data obtained from the New York State unemployment insurance database.

NOTES: Means are regression adjusted.

The two most common degrees in the "Low" category are liberal arts associate's degrees, meant for transfer to a four-year institution, and human services associate's degrees.

The three most common degrees in the "Medium" category are associate's degrees in business administration and accounting, and bachelor's degrees in sociology.

The two most common degrees in the "High" category are bachelor's degrees in psychology and criminal justice.

mately Years 6 and 7, earnings for the low-earning degree group surpass the earnings of the no-degree group in both the program and control groups. Findings from Year 7 onward remain consistent with the findings from the average yearly earnings during the last two years of the follow-up period.

These descriptive analyses indicate that students in the ASAP evaluation who completed any degree — including degree types with historically lower earnings — ultimately earned more than students who did not complete a degree. Differences between program and control group members within each degree-type category should be interpreted with caution, as ASAP changed the composition of these groups.