

Research Brief Supplement \ March 2022

Supplement to Interim Findings from the Dana Center Mathematics Pathways Long-Term Follow-Up Study

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this brief was supported by



Building momentum for postsecondary success

Supplement Table S.1 Impacts on Math Completion

Outcome	Program Group		Control Group		Estimated Effects			
	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Standard Error	P-Value	
Passed first college-level math course (%)								
First semester	0.9	9.3	0.8	9.0	0.0	0.6	0.9503	
Second semester	15.3	36.1	4.4	20.4	10.9	2.0	0.0000	***
Third semester	19.8	39.9	11.5	31.8	8.3	2.4	0.0007	***
Fourth semester	22.3	41.7	15.6	36.2	6.6	2.6	0.0115	**
Fifth semester	24.2	42.9	17.6	37.9	6.6	2.7	0.0156	**
Sixth semester	25.8	43.9	19.8	39.7	6.0	2.8	0.0309	**
Passed second college-level math course ^a (%)								
First semester	0.0	0.0	0.0	0.0	0.0	0.0		
Second semester	1.3	11.7	0.3	5.2	1.0	0.6	0.1108	
Third semester	2.6	15.9	0.6	7.4	2.0	0.9	0.0247	**
Fourth semester	3.6	18.7	1.7	12.7	1.9	1.1	0.0816	*
Fifth semester	4.8	21.5	2.5	15.4	2.3	1.3	0.0689	*
Sixth semester	5.5	22.9	3.3	17.8	2.2	1.4	0.1215	
Total college-level math credits attempted								
First semester	0.04	0.33	0.04	0.35	0.00	0.02	0.8466	
Second semester	0.80	1.38	0.22	0.90	0.58	0.08	0.0000	***
Third semester	1.08	1.74	0.55	1.35	0.54	0.11	0.0000	***
Fourth semester	1.26	1.94	0.82	1.75	0.44	0.12	0.0004	***
Fifth semester	1.40	2.14	1.00	1.98	0.39	0.14	0.0042	***
Sixth semester	1.53	2.34	1.22	2.36	0.31	0.16	0.0456	**
Total college-level math credits earned								
First semester	0.03	0.28	0.02	0.27	0.00	0.02	0.9503	
Second semester	0.48	1.15	0.14	0.67	0.34	0.07	0.0000	***
Third semester	0.65	1.37	0.36	1.02	0.29	0.08	0.0004	***
Fourth semester	0.76	1.49	0.53	1.30	0.23	0.09	0.0143	**
Fifth semester	0.86	1.64	0.62	1.46	0.24	0.10	0.0205	**
Sixth semester	0.95	1.78	0.74	1.68	0.22	0.12	0.0602	*

continued

Supplement Table S.1 (continued)

Outcome	Program Group		Control Group		Estimated Effects			
	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Standard Error	P-Value	
Total college-level non-math credits attempted								
First semester	5.29	4.56	5.52	4.35	-0.24	0.28	0.3911	
Second semester	10.66	9.01	10.53	8.27	0.13	0.55	0.8108	
Third semester	14.37	12.63	14.35	12.00	0.01	0.80	0.9853	
Fourth semester	17.94	16.79	18.28	16.22	-0.34	1.09	0.7545	
Fifth semester	20.26	18.99	20.80	18.63	-0.55	1.24	0.6608	
Sixth semester	21.99	20.82	22.39	20.31	-0.41	1.36	0.7660	
Total college-level non-math credits earned								
First semester	3.41	4.04	3.44	3.98	-0.03	0.26	0.9159	
Second semester	7.13	8.36	6.75	7.56	0.38	0.53	0.4753	
Third semester	9.91	11.78	9.62	10.99	0.28	0.76	0.7106	
Fourth semester	12.82	15.69	12.71	14.83	0.10	1.02	0.9204	
Fifth semester	14.53	17.67	14.58	16.95	-0.05	1.15	0.9656	
Sixth semester	15.80	19.09	15.84	18.45	-0.05	1.25	0.9700	
Ever enrolled in a college-level math course (%)	36.7	48.3	27.4	44.5	9.3	3.1	0.0027	***
Ever enrolled in a second college-level math course (%)	12.2	32.8	8.2	27.4	4.0	2.0	0.0528	*
Sample size (total = 949)	580		369					

SOURCE: Data provided by Dallas County Community College District (Brookhaven and Eastfield) and Trinity Valley Community College.

NOTES: El Paso Community College did not provide data for all semesters, so the college was not included in these analyses.

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 an intervention with zero true effect.

^aEnrollment in and passing a second college-level math class is calculated as students who enrolled in or earned more than three credits in college-level math.

Supplement Table S.2 Impacts on Academic Progress: Total College-Level Credits Attempted and Earned

Outcome	Program Group		Control Group		Estimated Effects		
	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Standard Error	P-Value
Total college-level credits earned							
First semester	3.43	4.07	3.46	4.02	-0.03	0.26	0.9202
Second semester	7.61	8.85	6.90	7.74	0.72	0.55	0.1963
Third semester	10.56	12.48	9.99	11.48	0.57	0.80	0.4751
Fourth semester	13.57	16.58	13.24	15.58	0.33	1.07	0.7568
Fifth semester	15.39	18.69	15.19	17.83	0.19	1.22	0.8748
Sixth semester	16.75	20.21	16.58	19.51	0.17	1.32	0.8977
Total college-level credits attempted							
First semester	5.32	4.58	5.57	4.40	-0.24	0.28	0.3868
Second semester	11.46	9.55	10.75	8.48	0.71	0.58	0.2236
Third semester	15.45	13.45	14.90	12.59	0.55	0.85	0.5197
Fourth semester	19.20	17.85	19.10	17.19	0.10	1.15	0.9312
Fifth semester	21.66	20.20	21.81	19.81	-0.15	1.32	0.9090
Sixth semester	23.52	22.18	23.61	21.79	-0.10	1.46	0.9477
Sample size (total = 949)	580		369				

SOURCE: Data provided by Dallas County Community College District (Brookhaven and Eastfield) and Trinity Valley Community College.

NOTES: El Paso Community College did not provide data for all semesters, so the college was not included in these analyses.

Rounding may cause slight discrepancies in sums and differences.

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Supplement Table S.3 Impacts on Academic Progress: Enrollment

Outcome	Program Group		Control Group		Estimated Effects		
	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Standard Error	P-Value
Enrolled in any college (%)							
First semester	90.7	28.1	91.4	29.4	-0.7	1.4	0.5946
Second semester	69.5	45.9	71.1	45.7	-1.6	2.4	0.5097
Third semester	56.2	49.6	55.8	49.7	0.5	2.7	0.8627
Fourth semester	48.5	50.0	50.1	50.0	-1.6	2.7	0.5517
Fifth semester	40.8	49.2	44.0	49.7	-3.2	2.7	0.2395
Sixth semester	36.0	48.1	38.8	48.7	-2.8	2.6	0.2875
Number of semesters enrolled	3.42	1.97	3.51	1.97	-0.09	0.11	0.3680
Sample size (total = 1,411)	856		555				

SOURCE: Data provided by Dallas County Community College District (Brookhaven and Eastfield), Trinity Valley Community College, El Paso Community College, and the National Student Clearinghouse.

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

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

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Supplement Table S.4 Impacts on Academic Success

Outcome	Program Group		Control Group		Estimated Effects		
	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Standard Error	P-Value
Ever earned a credential or currently enrolled in a four-year college (%)							
First semester	1.2	10.8	1.0	10.4	0.2	0.6	0.7376
Second semester	3.8	19.3	3.1	17.2	0.7	1.0	0.4625
Third semester	7.2	25.9	6.9	25.3	0.3	1.4	0.8330
Fourth semester	13.2	33.9	12.1	32.6	1.0	1.8	0.5735
Fifth semester	17.2	37.8	16.3	36.9	1.0	2.0	0.6407
Sixth semester	22.2	41.7	22.4	41.6	-0.2	2.3	0.9418
Enrolled in a four-year college (%)							
First semester	0.8	9.0	0.7	8.5	0.2	0.5	0.7391
Second semester	2.3	15.1	1.6	12.6	0.7	0.8	0.3527
Third semester	4.1	19.8	4.1	19.9	-0.1	1.1	0.9562
Fourth semester	6.7	25.0	7.4	26.2	-0.8	1.4	0.5842
Fifth semester	9.7	29.6	9.8	29.7	-0.1	1.6	0.9622
Sixth semester	10.4	30.7	12.5	32.8	-2.1	1.7	0.2318
Ever enrolled in a four-year college (%)	14.6	35.4	16.3	36.9	-1.8	1.9	0.3625
Ever received a certificate or degree (%)							
First semester	0.4	5.9	0.3	6.0	0.0	0.3	0.9161
Second semester	1.7	13.1	1.5	11.9	0.3	0.7	0.7176
Third semester	4.0	19.8	3.5	18.2	0.5	1.0	0.6135
Fourth semester	8.9	28.6	7.1	25.6	1.8	1.5	0.2226
Fifth semester	12.1	32.7	10.7	30.9	1.5	1.7	0.4005
Sixth semester	17.8	38.3	16.0	36.6	1.8	2.0	0.3707
Sample size (total = 1,411)	856		555				

SOURCE: Data provided by Dallas County Community College District (Brookhaven and Eastfield), Trinity Valley Community College, El Paso Community College, and the National Student Clearinghouse.

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

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Supplement Table S.5 Completion of First College-Level Math Course, by Subgroup, Three Years After Random Assignment

Subgroup (%)	Sample	Program Group		Control Group		Estimated Effects			P-Value Difference in Effects		
		Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Standard Error	P-Value			
Race/ethnicity										0.9329	
Black	174	23.6	43.1	19.8	38.9	3.9	6.9	0.5777			
Hispanic	383	30.7	46.3	24.1	42.8	6.7	4.7	0.1576			
White	164	24.2	43.2	17.2	37.6	7.0	6.7	0.2964			
Gender										0.1414	
Female	511	32.6	46.9	22.1	41.8	10.5	4.1	0.0108	**		
Male	351	21.7	41.1	20.1	40.5	1.6	4.5	0.7194			
Planned enrollment prior to random assignment										0.2586	
Full time	549	28.0	44.9	23.2	42.5	4.8	3.9	0.2176			
Part time	354	23.7	42.7	12.3	32.8	11.4	4.4	0.0091	***		
Time between high school and college										0.6860	
Six months or less	552	31.3	46.5	24.7	43.1	6.5	4.0	0.0996	*		
More than six months	380	17.7	38.4	13.5	34.1	4.3	3.9	0.2735			
Placement level										0.0205	††
College ready or one level below	140	33.3	47.6	45.1	50.2	-11.8	8.6	0.1738			
Two or more levels below college ready ^a	809	24.6	43.2	15.3	36.0	9.3	2.9	0.0015	***		
Sample size (total = 949)		580		369							

SOURCE: Data provided by Dallas County Community College District (Brookhaven and Eastfield) and Trinity Valley Community College.

NOTES: El Paso Community College did not provide data for all semesters, so the college was not included in these analyses.

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Distributions may not add to 100 percent because categories are not mutually exclusive.

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 an intervention with zero true effect.

Differential statistical significance levels are indicated as ††† = 1 percent, †† = 5 percent, † = 10 percent.

^aEl Paso Community College was the only college with three levels below college ready.

Supplement Table S.6 College-Level Credits Earned, by Subgroup, Three Years After Random Assignment

Subgroup	Program Group			Control Group		Estimated Effects			P-Value Difference in Effects	
	Sample	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Standard Error	P-Value		
Race/ethnicity									0.5365	
Black	174	14.38	19.49	18.03	19.38	-3.66	3.18	0.2520		
Hispanic	383	19.63	20.87	19.54	20.60	0.09	2.18	0.9663		
White	164	15.50	20.31	14.61	18.13	0.88	3.15	0.7800		
Gender									0.3576	
Female	511	19.48	21.26	18.63	20.63	0.85	1.93	0.6584		
Male	351	15.55	19.20	17.31	18.65	-1.76	2.08	0.3994		
Planned enrollment prior to random assignment									0.8966	
Full time	549	18.77	20.95	18.60	19.95	0.16	1.82	0.9287		
Part time	354	13.51	18.38	13.70	17.82	-0.19	2.02	0.9250		
Time between high school and college									0.8969	
Six months or less	552	19.54	20.98	19.68	20.19	-0.14	1.81	0.9372		
More than six months	380	12.61	18.37	12.41	17.78	0.20	1.94	0.9175		
Placement level									0.0368	††
College ready or one level below	140	18.49	19.86	25.07	20.22	-6.57	3.59	0.0692	*	
Two or more levels below college ready ^a	809	16.51	20.28	15.03	19.05	1.48	1.42	0.2975		
Sample size (total = 949)		580		369						

SOURCE: Data provided by Dallas County Community College District (Brookhaven and Eastfield) and Trinity Valley Community College.

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

Differential statistical significance levels are indicated as ††† = 1 percent, †† = 5 percent, † = 10 percent.

^aEl Paso Community College was the only college with three levels below college ready.

Supplement Table S.7 Degree Attainment or Transfer to Four-Year College, by Subgroup, Three Years After Random Assignment

Subgroup (%)	Sample	Program Group		Control Group		Estimated Effects			
		Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Standard Error	P-Value	P-Value Difference in Effects
Race/ethnicity									0.3186
Black	178	26.0	44.0	16.8	38.1	9.2	6.8	0.1817	
Hispanic	764	25.5	43.6	23.9	42.8	1.6	3.2	0.6261	
White	193	16.4	36.9	20.9	41.2	-4.6	6.0	0.4463	
Gender									0.7712
Female	866	24.5	43.0	23.9	42.7	0.5	3.0	0.8630	
Male	432	22.1	41.3	23.1	42.6	-1.0	4.1	0.8150	
Planned enrollment prior to random assignment									0.1469
Full time	826	25.2	43.4	28.0	45.0	-2.8	3.2	0.3692	
Part time	524	18.7	39.4	14.9	35.0	3.9	3.4	0.2525	
Time between high school and college									0.8404
Six months or less	820	24.7	43.3	25.7	43.6	-1.0	3.1	0.7543	
More than six months	568	18.1	38.7	18.2	38.4	-0.1	3.3	0.9832	
Placement level									0.1228
College ready or one level below	223	27.9	45.1	36.4	48.3	-8.5	6.3	0.1794	
Two or more levels below college ready ^a	1,188	21.3	41.0	19.4	39.6	1.9	2.4	0.4236	
Sample size (total = 1,411)		856		555					

SOURCE: Data provided by Dallas County Community College District (Brookhaven and Eastfield), Trinity Valley Community College, El Paso Community College, and the National Student Clearinghouse.

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

Differential statistical significance levels are indicated as + + + = 1 percent, + + = 5 percent, + = 10 percent.

^aEl Paso Community College was the only college with three levels below college ready.