

GEORGIA POLICY LABS



Appendix to:

Opportunities to Improve the Pipeline of Students Into and Through Advanced Placement

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Metro Atlanta Policy Lab for Education

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Appendix Table 1. Summary Statistics, Cohorts 2016–2019

	All students	Students who took	Students who took
	in analysis sample	1 or more AP courses	0 AP courses
Student characteristics			
Female	0.496	0.551	0.431
Asian	0.123	0.185	0.049
Black	0.320	0.252	0.400
Hispanic	0.274	0.230	0.328
White	0.246	0.294	0.187
Other race or ethnicity	0.038	0.039	0.036
Free or reduced-price lunch	0.497	0.402	0.610
Gifted	0.248	0.426	0.035
English learner	0.292	0.279	0.307
AP course history			
Took any course	0.544	1.000	
Number of courses taken	2.635	4.847	
Took any exam	0.462	0.848	
Number of exams taken	2.125	3.906	
Scored 3 or higher on any exam	0.324	0.596	
Number of exam scored 3 or higher	1.352	2.485	
Number of students	46,571	25,320	21,251

Notes. This table reports summary statistics for the main analysis sample. The sample includes all high school students who began Grade 9 in a metro-Atlanta school district between school year (SY) 2015–16 and SY 2018–19 and who remained enrolled for at least four years.

Appendix Table 2. Characteristics of Students Taking Exams without Taking the Course, 2011–2015 Cohorts

	All students	Students taking any exam	Students taking any exam without the course
Female	0.492	0.551	0.520
Asian	0.116	0.182	0.239
Black	0.303	0.222	0.198
Hispanic	0.228	0.185	0.164
White	0.315	0.374	0.361
Other race or ethnicity	0.039	0.038	0.039
Free or reduced-price lunch	0.492	0.380	0.378
Identified as gifted	0.272	0.483	0.616
English learner	0.219	0.195	0.198
Number of students	54,095	27,037	12,321

Notes. This table reports summary statistics for students who took an AP exam without taking the corresponding AP course. The sample includes all high school students who began Grade 9 in a metro-Atlanta school district between school year (SY) 2010–11 and SY 2014–15 and who remained enrolled for at least four years.

Appendix Table 3. Access to AP Courses by Grade 9 Cohort

	2011	2012	2013	2014	2015	2016	2017	2018	2019
AP United States History	1.000	0.999	1.000	0.999	0.999	0.999	0.999	0.998	0.998
AP Art History	0.602	0.598	0.497	0.548	0.572	0.581	0.337	0.445	0.447
AP Drawing	0.769	0.903	0.947	0.983	0.910	0.850	0.909	0.893	0.892
AP 2-D Art and Design	0.709	0.823	0.889	0.892	0.905	0.907	0.916	0.917	0.900
AP 3-D Art and Design	0.409	0.572	0.685	0.695	0.606	0.660	0.668	0.699	0.653
AP Biology	1.000	0.999	1.000	0.999	0.999	0.999	0.999	0.998	0.998
AP Chemistry	1.000	0.999	1.000	0.999	0.999	0.999	0.999	0.998	0.960
AP Computer Science A	0.957	0.955	1.000	0.999	0.999	0.999	0.999	0.998	0.924
AP Computer Science Principles	0.000	0.000	0.000	0.724	0.915	0.954	0.999	0.998	0.810
AP Microeconomics	0.000	0.000	0.000	0.000	0.000	0.100	0.108	0.156	0.265
AP Macroeconomics	0.000	0.070	0.273	0.276	0.272	0.999	0.999	0.998	0.998
AP English Language and Composition	1.000	0.999	1.000	0.999	0.999	0.999	0.999	0.998	0.998
AP English Literature and Composition	1.000	0.999	1.000	0.999	0.999	0.999	0.999	0.998	0.960
AP Environmental Science	0.958	0.999	1.000	0.999	0.999	0.999	0.999	0.998	0.998
AP European History	0.721	0.897	0.899	0.960	0.921	0.761	0.633	0.528	0.530
AP French Language and Culture	0.850	0.801	0.897	0.857	0.811	0.817	0.806	0.691	0.672
AP Human Geography	1.000	0.999	1.000	0.999	0.999	0.999	0.999	0.998	0.955
AP German Language and Culture	0.495	0.541	0.492	0.411	0.400	0.337	0.431	0.491	0.534
AP United States Government and Politics	0.000	0.218	0.422	0.482	0.472	0.964	0.966	0.964	0.960
AP Comparative Government and Politics	0.068	0.070	0.064	0.117	0.120	0.242	0.251	0.195	0.196
AP Latin	0.621	0.673	0.635	0.613	0.551	0.450	0.422	0.494	0.451
AP Calculus AB	1.000	0.999	1.000	0.999	0.999	0.999	0.999	0.998	0.998
AP Calculus BC	0.957	0.999	1.000	0.999	0.999	0.999	0.999	0.998	0.960
AP Music Theory	0.697	0.679	0.704	0.667	0.599	0.540	0.487	0.483	0.430
AP Physics C: Electricity and Magnetism	0.863	0.822	0.825	0.713	0.706	0.749	0.711	0.775	0.793
AP Physics C: Mechanics	0.241	0.246	0.323	0.228	0.221	0.281	0.289	0.337	0.350
AP Physics 1: Algebra-based	0.000	0.916	0.979	0.979	0.982	0.981	0.977	0.975	0.974
AP Physics 2: Algebra-based	0.000	0.063	0.309	0.308	0.403	0.388	0.324	0.384	0.263
AP Psychology	0.960	0.960	1.000	0.999	0.999	0.999	0.999	0.998	0.998
AP Spanish Language and Culture	1.000	0.999	1.000	0.999	0.999	0.999	0.999	0.998	0.998
AP Spanish Literature and Culture	0.156	0.245	0.373	0.425	0.575	0.521	0.479	0.420	0.346
AP Statistics	1.000	0.999	1.000	0.999	0.999	0.999	0.999	0.961	0.961
AP World History: Modern	1.000	0.999	1.000	0.999	0.999	0.999	0.999	0.998	0.998

Notes. This table reports fractions of students with access to each AP Course by students' entering Grade 9 cohort. The sample includes all high school students who began Grade 9 in a metro-Atlanta school district between school year (SY) 2010–11 and SY 2018–19 and who remained enrolled for at least four years.

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

students Female Male White Black Hispanic Asian race or FRPM FRPM FRPM FRPM NON- FRPM NON-	By EL status	itus	ity & FRPM sta	race/ethnici	Ву	1 status	By FRPN		У	y race/ethnicity	В		nder	Ву де		
All students Scored 3 or higher 0.147 0.159 0.136 0.226 0.081 0.065 0.335 0.174 0.076 0.217 0.055 0.117 0.048 0.120 1.006 0.000	EL INO	Hispanic non- FRPM		non-			FRPM	race or	Asian	Hispanic	Black	White	Male	Female		
Scored 3 or higher 0.147 0.159 0.136 0.226 0.081 0.065 0.335 0.174 0.076 0.217 0.055 0.117 0.048 0.120 Took exam 0.242 0.272 0.212 0.323 0.159 0.144 0.505 0.256 0.159 0.323 0.125 0.207 0.122 0.214 Took course 0.275 0.309 0.241 0.350 0.193 0.179 0.548 0.295 0.193 0.356 0.157 0.242 0.155 0.254 Course access 0.998 0.998 0.999 0.997 0.999 0.998 0.999 0.999 0.999 0.999 0.998 1.000 0.999 0.999 0.999 Subsets of students Scored 3 or higher, among non-exam taking course-takers 0.177 0.128 0.238 0.327 0.107 0.076 0.299 0.211 0.085 0.271 0.059 0.168 0.566 0.396 0.127 Took exam, among course-takers 0.875 0.873 0.918 0.820 0.803 0.920 0.862 0.818 0.904 0.787 0.850 0.785 0.838 Predicted to score 3 or higher, among non-course takers 0.099 0.991 0.105 0.214 0.051 0.036 0.234 0.118 0.037 0.175 0.026 0.090 0.091 0.091 0.091 Took course, among students 0.189 0.183 0.195 0.341 0.089 0.065 0.418 0.210 0.074 0.302 0.048 0.146 0.037 0.155 0.254 Predicted to score 3 or higher, among students with access 0.189 0.183 0.195 0.341 0.089 0.065 0.418 0.210 0.074 0.302 0.048 0.146 0.037 0.155 0.254 Predicted to score 3 or higher, among students with 0.189 0.183 0.195 0.341 0.089 0.065 0.418 0.210 0.074 0.302 0.048 0.146 0.037 0.155 0.254 Predicted to score 3 or higher, among students with 0.189 0.183 0.195 0.341 0.089 0.065 0.418 0.210 0.074 0.302 0.048 0.146 0.037 0.155 0.254 Predicted to score 3 or higher, among students with 0.189 0.183 0.195 0.341 0.089 0.065 0.048 0.056 0.048 0.056 0.057 0.058																AP United States History
Took exam 0.242 0.272 0.212 0.323 0.159 0.144 0.505 0.256 0.159 0.323 0.125 0.207 0.122 0.214 1.005 0.																All students
Took course access 0.998 0.998 0.999 0.997 0.999 0.998 0.999	0.101 0.16	0.120	0.048	0.117	0.055	0.217	0.076	0.174	0.335	0.065	0.081	0.226	0.136	0.159	0.147	Scored 3 or higher
Course access 0.998 0.998 0.999 0.997 0.999 0.998 0.999 0.99	0.200 0.25	0.214	0.122	0.207	0.125	0.323	0.159	0.256	0.505	0.144	0.159	0.323	0.212	0.272	0.242	Took exam
Subsets of students Scored 3 or higher, among exam-takers 0.609 0.584 0.640 0.699 0.508 0.455 0.663 0.679 0.477 0.673 0.438 0.566 0.396 0.561 Predicted to score 3 or higher, among non-exam taking course-takers 0.177 0.128 0.238 0.327 0.107 0.076 0.299 0.211 0.085 0.271 0.059 0.168 0.056 0.127 Took exam, among course-takers 0.874 0.875 0.873 0.918 0.820 0.803 0.920 0.862 0.818 0.904 0.787 0.850 0.785 0.838 Predicted to score 3 or higher, among non-course takers with access 0.099 0.091 0.105 0.214 0.051 0.036 0.234 0.118 0.037 0.175 0.026 0.090 0.021 0.091 Predicted to score 3 or higher, among students with access 0.189 0.183 0.195 0.341 0.089 0.065 0.418 0.210 0.074 0.302 0.048 0.146 0.037 0.153 Predicted to score 3 or higher, among students with access 0.189 0.183 0.195 0.341 0.089 0.065 0.418 0.210 0.074 0.302 0.048 0.146 0.037 0.153 AP Art History All students Scored 3 or higher 0.002 0.003 0.001 0.003 0.001 0.002 0.005 0.002 0.007 0.003 0.001 0.001 0.000 0.001 0.000 Took exam 0.003 0.004 0.002 0.005 0.002 0.005 0.002 0.007 0.003 0.001 0.001 0.000 0.001 0.000 Took exam 0.003 0.004 0.002 0.005 0.002 0.005 0.002 0.007 0.003 0.001 0.005 0.002 0.005 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.001 0.000 0.	0.239 0.29	0.254	0.155	0.242	0.157	0.356	0.193	0.295	0.548	0.179	0.193	0.350	0.241	0.309	0.275	Took course
Scored 3 or higher, among exam-takers 0.609 0.584 0.640 0.699 0.508 0.455 0.663 0.679 0.477 0.673 0.438 0.566 0.396 0.566 0.396 0.561 Predicted to score 3 or higher, among non-exam taking course-takers Took exam, among course-takers 0.874 0.875 0.873 0.918 0.820 0.803 0.920 0.803 0.920 0.862 0.818 0.904 0.787 0.850 0.785 0.850 0.785 0.838 Predicted to score 3 or higher, among non-course takers 0.099 0.091 0.105 0.214 0.051 0.036 0.234 0.118 0.037 0.118 0.037 0.175 0.026 0.090 0.021 0.091 0.091 0.105 0.214 0.091 0.105 0.214 0.089 0.089 0.089 0.089 0.089 0.089 0.091 0.105 0.214 0.089	0.999 0.99	0.998	0.999	0.999	1.000	0.998	0.999	0.999	0.999	0.998	0.999	0.997	0.999	0.998	0.998	Course access
Predicted to score 3 or higher, among course-takers 0.874 0.875 0.883 0.495 0.895 0.495 0.683 0.699 0.211 0.085 0.271 0.059 0.168 0.396																Subsets of students
higher, among non-exam taking course-takers 0.177	0.507 0.64	0.561	0.396	0.566	0.438	0.673	0.477	0.679	0.663	0.455	0.508	0.699	0.640	0.584	0.609	
takers 0.8/4 0.8/5 0.8/3 0.918 0.820 0.803 0.920 0.862 0.818 0.904 0.78/ 0.850 0.785 0.838 Predicted to score 3 or higher, among non-course takers with access Took course, among students vith access Took course, among students 0.275 0.310 0.242 0.351 0.193 0.179 0.548 0.295 0.193 0.356 0.157 0.243 0.155 0.254 Predicted to score 3 or higher, among students with 0.189 0.183 0.195 0.341 0.089 0.065 0.418 0.210 0.074 0.302 0.048 0.146 0.037 0.153 AP Art History All students Scored 3 or higher 0.002 0.003 0.001 0.003 0.001 0.001 0.005 0.002 0.001 0.003 0.001 0.001 0.000 0.001 Took exam 0.003 0.004 0.002 0.005 0.002 0.002 0.007 0.003 0.002 0.005 0.002 0.003 0.001 0.000	0.122 0.20	0.127	0.056	0.168	0.059	0.271	0.085	0.211	0.299	0.076	0.107	0.327	0.238	0.128	0.177	higher, among non-exam
higher, among non-course takers with access 0.099	0.836 0.88	0.838	0.785	0.850	0.787	0.904	0.818	0.862	0.920	0.803	0.820	0.918	0.873	0.875	0.874	9
with access 0.2/5 0.310 0.242 0.351 0.193 0.179 0.548 0.295 0.193 0.356 0.157 0.243 0.155 0.254 Predicted to score 3 or higher, among students with 0.189 0.183 0.195 0.341 0.089 0.065 0.418 0.210 0.074 0.302 0.048 0.146 0.037 0.153 access AP Art History All students Scored 3 or higher 0.002 0.003 0.001 0.003 0.001 0.001 0.005 0.002 0.001 0.003 0.001 0.001 0.002 Took exam 0.003 0.004 0.002 0.005 0.002 0.002 0.007 0.003 0.002 0.005 0.002 0.003 0.001 0.002	0.049 0.12	0.091	0.021	0.090	0.026	0.175	0.037	0.118	0.234	0.036	0.051	0.214	0.105	0.091	0.099	higher, among non-course
higher, among students with access 0.189 0.183 0.195 0.341 0.089 0.065 0.418 0.210 0.074 0.302 0.048 0.146 0.037 0.153 AP Art History All students Scored 3 or higher 0.002 0.003 0.001 0.003 0.001 0.001 0.001 0.005 0.002 0.001 0.001 0.002 Took exam 0.003 0.004 0.002 0.005 0.002 0.002 0.003 0.001 0.002	0.239 0.29	0.254	0.155	0.243	0.157	0.356	0.193	0.295	0.548	0.179	0.193	0.351	0.242	0.310	0.275	
All students Scored 3 or higher 0.002 0.003 0.001 0.003 0.001 0.001 0.005 0.002 0.001 0.003 0.001 0.001 0.000 0.001 Took exam 0.003 0.004 0.002 0.005 0.002 0.002 0.007 0.003 0.002 0.005 0.002 0.003 0.001 0.002	0.109 0.22	0.153	0.037	0.146	0.048	0.302	0.074	0.210	0.418	0.065	0.089	0.341	0.195	0.183	0.189	higher, among students with
Scored 3 or higher 0.002 0.003 0.001 0.003 0.001 0.001 0.001 0.005 0.002 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.002 0.001 0.002 0.002 0.002 0.003 0.003 0.003 0.003 0.003 0.003 0.003 0.003 0.003 0.003 0.003 0.003 <td></td> <td>AP Art History</td>																AP Art History
Took exam 0.003 0.004 0.002 0.005 0.002 0.002 0.007 0.003 0.002 0.005 0.002 0.003 0.001 0.002																All students
	0.001 0.00	0.001	0.000	0.001	0.001	0.003	0.001	0.002	0.005	0.001	0.001	0.003	0.001	0.003	0.002	Scored 3 or higher
Took course 0.005 0.006 0.003 0.006 0.004 0.003 0.009 0.004 0.003 0.006 0.003 0.005 0.002 0.004	0.002 0.00	0.002	0.001	0.003	0.002	0.005	0.002	0.003	0.007	0.002	0.002	0.005	0.002	0.004	0.003	Took exam
	0.004 0.00	0.004	0.002	0.005	0.003	0.006	0.003	0.004	0.009	0.003	0.004	0.006	0.003	0.006	0.005	Took course
Course access 0.453 0.451 0.454 0.400 0.438 0.461 0.590 0.418 0.458 0.448 0.440 0.434 0.477 0.411	0.496 0.43	0.411	0.477	0.434	0.440	0.448	0.458	0.418	0.590	0.461	0.438	0.400	0.454	0.451	0.453	Course access
Subsets of students																Subsets of students

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

0.463 0.206 0.547 0.142	Non- FRPM 0.670 0.606 0.763	0.429 0.188 0.467	Black non- FRPM 0.389 0.333	Hispanic FRPM 0.214 0.000 0.583	Hispanic non- FRPM 0.667 0.714	0.406 0.313	Non- EL 0.670 0.431
0.206	0.606	0.188	0.333	0.000			
0.547	0.763				0.714	0.313	0.431
		0.467	0.600	0 583			
0.142				0.505	0.462	0.667	0.693
	0.499	0.106	0.302	0.073	0.294	0.198	0.376
0.007	0.013	0.008	0.011	0.005	0.010	0.007	0.012
0.143	0.501	0.107	0.302	0.073	0.298	0.200	0.379
0.003	0.008	0.001	0.004	0.003	0.006	0.005	0.006
0.003	0.008	0.002	0.005	0.003	0.007	0.006	0.006
0.006	0.012	0.002	0.006	0.005	0.012	0.009	0.009
0.836	0.936	0.879	0.927	0.775	0.905	0.806	0.919
0.948	0.942	0.923	0.931	0.929	0.810	0.933	0.948
0.618	0.906	0.429	0.909	0.417	0.800	0.581	0.887
0.583	0.691	0.650	0.725	0.538	0.583	0.636	0.664
	0.007 0.143 0.003 0.003 0.006 0.836 0.948 0.618	0.007 0.013 0.143 0.501 0.003 0.008 0.003 0.008 0.006 0.012 0.836 0.936 0.948 0.942 0.618 0.906	0.007 0.013 0.008 0.143 0.501 0.107 0.003 0.008 0.001 0.003 0.008 0.002 0.006 0.012 0.002 0.836 0.936 0.879 0.948 0.942 0.923 0.618 0.906 0.429	0.007 0.013 0.008 0.011 0.143 0.501 0.107 0.302 0.003 0.008 0.001 0.004 0.003 0.008 0.002 0.005 0.006 0.012 0.002 0.006 0.836 0.936 0.879 0.927 0.948 0.942 0.923 0.931 0.618 0.906 0.429 0.909	0.007 0.013 0.008 0.011 0.005 0.143 0.501 0.107 0.302 0.073 0.003 0.008 0.001 0.004 0.003 0.003 0.008 0.002 0.005 0.003 0.006 0.012 0.002 0.006 0.005 0.836 0.936 0.879 0.927 0.775 0.948 0.942 0.923 0.931 0.929 0.618 0.906 0.429 0.909 0.417	0.007 0.013 0.008 0.011 0.005 0.010 0.143 0.501 0.107 0.302 0.073 0.298 0.003 0.008 0.001 0.004 0.003 0.006 0.003 0.008 0.002 0.005 0.003 0.007 0.006 0.012 0.002 0.006 0.005 0.012 0.836 0.936 0.879 0.927 0.775 0.905 0.948 0.942 0.923 0.931 0.929 0.810 0.618 0.906 0.429 0.909 0.417 0.800	0.007 0.013 0.008 0.011 0.005 0.010 0.007 0.143 0.501 0.107 0.302 0.073 0.298 0.200 0.003 0.008 0.001 0.004 0.003 0.006 0.005 0.003 0.008 0.002 0.005 0.003 0.007 0.006 0.006 0.012 0.002 0.006 0.005 0.012 0.009 0.836 0.936 0.879 0.927 0.775 0.905 0.806 0.948 0.942 0.923 0.931 0.929 0.810 0.933 0.618 0.906 0.429 0.909 0.417 0.800 0.581

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

-		By ge	nder		Е	By race/ethnicit	у		By FRPI	M status	Ву	race/ethnic	ity & FRPM sta	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among non-course takers with access	0.672	0.677	0.668	0.855	0.558	0.532	0.847	0.749	0.525	0.804	0.473	0.671	0.474	0.690	0.553	0.716
Took course, among students with access	0.010	0.017	0.002	0.013	0.004	0.009	0.020	0.012	0.007	0.013	0.003	0.007	0.007	0.013	0.011	0.010
Predicted to score 3 or higher, among students with access	0.674	0.681	0.668	0.856	0.559	0.533	0.849	0.751	0.526	0.805	0.473	0.673	0.475	0.690	0.555	0.717
AP 2-D Art and Design																
All students																
Scored 3 or higher	0.008	0.013	0.002	0.012	0.004	0.005	0.015	0.009	0.004	0.011	0.004	0.005	0.003	0.009	0.006	0.009
Took exam	0.008	0.014	0.003	0.013	0.005	0.005	0.015	0.010	0.005	0.011	0.004	0.005	0.004	0.010	0.006	0.009
Took course	0.010	0.017	0.004	0.015	0.005	0.008	0.017	0.013	0.007	0.013	0.005	0.006	0.006	0.012	0.008	0.011
Course access	0.910	0.912	0.908	0.974	0.923	0.822	0.933	0.949	0.857	0.962	0.901	0.954	0.791	0.921	0.829	0.943
Subsets of students																
Scored 3 or higher, among exam-takers	0.937	0.956	0.844	0.972	0.913	0.855	0.977	0.882	0.871	0.966	0.892	0.938	0.816	0.903	0.914	0.944
Predicted to score 3 or higher, among non-exam taking course-takers	0.706	0.719	0.667	0.962	0.727	0.414	0.786	0.800	0.463	0.932	0.500	1.000	0.391	0.500	0.455	0.865
Took exam, among course- takers	0.818	0.832	0.753	0.844	0.863	0.704	0.860	0.773	0.739	0.858	0.860	0.865	0.623	0.838	0.711	0.853
Predicted to score 3 or higher, among non-course takers with access	0.695	0.700	0.691	0.890	0.590	0.526	0.869	0.782	0.536	0.836	0.495	0.716	0.458	0.712	0.558	0.745
Took course, among students with access	0.011	0.018	0.004	0.015	0.006	0.009	0.019	0.013	0.008	0.014	0.006	0.006	0.008	0.013	0.010	0.011
Predicted to score 3 or higher, among students with access	0.697	0.703	0.691	0.891	0.591	0.527	0.869	0.782	0.537	0.837	0.496	0.718	0.459	0.714	0.559	0.747

AP 3-D Art and Design

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	ender		E	By race/ethnicit	у		By FRPI	M status	Ву	race/ethnici	ty & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
All students																
Scored 3 or higher	0.002	0.003	0.000	0.003	0.000	0.001	0.002	0.002	0.001	0.002	0.000	0.001	0.001	0.001	0.001	0.002
Took exam	0.002	0.003	0.000	0.003	0.001	0.001	0.002	0.002	0.001	0.003	0.000	0.001	0.001	0.002	0.001	0.002
Took course	0.002	0.004	0.000	0.004	0.001	0.001	0.003	0.002	0.001	0.003	0.000	0.002	0.001	0.002	0.001	0.002
Course access	0.670	0.672	0.668	0.842	0.541	0.623	0.755	0.707	0.567	0.772	0.483	0.622	0.583	0.749	0.624	0.689
Subsets of students																
Scored 3 or higher, among exam-takers	0.897	0.900	0.875	0.949	0.778	0.833	0.857	1.000	1.000	0.871	1.000	0.714	1.000	0.667	1.000	0.873
Predicted to score 3 or higher, among non-exam taking course-takers	0.533	0.615	0.000	0.600	0.750	0.333	0.333		0.333	0.667	0.000	1.000	0.500	0.000	0.250	0.636
Took exam, among course- takers	0.839	0.843	0.800	0.886	0.692	0.800	0.824	1.000	0.727	0.873	0.667	0.700	0.750	0.857	0.789	0.851
Predicted to score 3 or higher, among non-course takers with access	0.551	0.550	0.553	0.666	0.463	0.432	0.673	0.570	0.437	0.634	0.400	0.532	0.410	0.487	0.457	0.586
Took course, among students with access	0.003	0.005	0.001	0.005	0.002	0.002	0.004	0.003	0.002	0.004	0.001	0.003	0.001	0.003	0.002	0.003
Predicted to score 3 or higher, among students with access	0.552	0.551	0.553	0.667	0.464	0.433	0.673	0.571	0.437	0.635	0.400	0.532	0.410	0.487	0.458	0.587
AP Biology																
All students																
Scored 3 or higher	0.074	0.080	0.068	0.094	0.037	0.026	0.234	0.079	0.039	0.109	0.025	0.053	0.017	0.056	0.057	0.081
Took exam	0.099	0.110	0.089	0.113	0.056	0.055	0.283	0.100	0.065	0.132	0.043	0.073	0.046	0.082	0.093	0.102
Took course	0.098	0.108	0.089	0.111	0.059	0.058	0.262	0.100	0.067	0.129	0.045	0.078	0.051	0.081	0.092	0.101
Course access	0.998	0.998	0.999	0.997	0.999	0.998	0.999	0.999	0.999	0.998	1.000	0.999	0.999	0.998	0.999	0.998
Subsets of students																
Scored 3 or higher, among exam-takers	0.744	0.724	0.768	0.829	0.664	0.472	0.832	0.783	0.589	0.820	0.574	0.736	0.353	0.694	0.610	0.793

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	nder		Е	By race/ethnicit	У		By FRP1	M status	Ву	race/ethnici	ty & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among non-exam taking course-takers	0.446	0.429	0.466	0.611	0.336	0.234	0.600	0.722	0.260	0.590	0.259	0.400	0.144	0.516	0.297	0.513
Took exam, among course- takers	0.890	0.892	0.888	0.915	0.855	0.828	0.920	0.897	0.860	0.906	0.853	0.856	0.806	0.874	0.876	0.896
Predicted to score 3 or higher, among non-course takers with access	0.172	0.163	0.181	0.352	0.074	0.066	0.355	0.205	0.063	0.287	0.038	0.126	0.038	0.158	0.089	0.207
Took course, among students with access	0.098	0.108	0.089	0.112	0.059	0.059	0.262	0.100	0.068	0.129	0.045	0.078	0.051	0.081	0.092	0.101
Predicted to score 3 or higher, among students with access	0.215	0.207	0.222	0.391	0.096	0.080	0.462	0.249	0.086	0.341	0.051	0.158	0.046	0.186	0.124	0.252
P Chemistry																
All students																
Scored 3 or higher	0.026	0.026	0.026	0.032	0.007	0.007	0.108	0.026	0.011	0.041	0.005	0.010	0.005	0.014	0.021	0.028
Took exam	0.045	0.047	0.043	0.048	0.019	0.019	0.163	0.048	0.028	0.062	0.015	0.023	0.017	0.026	0.044	0.045
Took course	0.054	0.058	0.050	0.055	0.026	0.027	0.185	0.059	0.035	0.073	0.021	0.032	0.024	0.039	0.054	0.054
Course access	0.989	0.989	0.989	0.981	0.994	0.989	0.993	0.988	0.993	0.985	0.995	0.991	0.991	0.982	0.991	0.988
Subsets of students																
Scored 3 or higher, among exam-takers	0.588	0.560	0.618	0.663	0.402	0.355	0.662	0.554	0.413	0.666	0.348	0.451	0.273	0.519	0.486	0.628
Predicted to score 3 or higher, among non-exam taking course-takers	0.218	0.220	0.215	0.300	0.085	0.140	0.362	0.100	0.099	0.295	0.042	0.121	0.088	0.231	0.219	0.218
Took exam, among course- takers	0.826	0.808	0.846	0.873	0.723	0.693	0.880	0.806	0.788	0.843	0.733	0.713	0.703	0.675	0.802	0.835
Predicted to score 3 or higher, among non-course takers with access	0.076	0.070	0.081	0.166	0.023	0.020	0.180	0.077	0.022	0.132	0.012	0.038	0.009	0.057	0.036	0.092
Took course, among students with access	0.055	0.059	0.051	0.056	0.026	0.028	0.186	0.060	0.035	0.074	0.021	0.033	0.024	0.040	0.055	0.055

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

Predicted to score 3 or higher, among students with access AP Computer Science A All students Scored 3 or higher 0.018 Took exam 0.030 Took course 0.044 Course access 0.980 Subsets of students Scored 3 or higher, among exam-takers 0.605 Predicted to score 3 or	0.088	e Male 0.098	White 0.184	Black 0.026	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
higher, among students with access AP Computer Science A All students Scored 3 or higher 0.018 Took exam 0.030 Took course 0.044 Course access 0.980 Subsets of students Scored 3 or higher, among exam-takers 0.605 Predicted to score 3 or	0.008	0.098	0.184	0.026	0.025										
All students Scored 3 or higher 0.018 Took exam 0.030 Took course 0.044 Course access 0.980 Subsets of students Scored 3 or higher, among exam-takers 0.605 Predicted to score 3 or						0.239	0.094	0.028	0.158	0.013	0.043	0.012	0.065	0.050	0.111
Scored 3 or higher 0.018 Took exam 0.030 Took course 0.044 Course access 0.980 Subsets of students Scored 3 or higher, among exam-takers 0.605 Predicted to score 3 or															
Took exam 0.030 Took course 0.044 Course access 0.980 Subsets of students Scored 3 or higher, among exam-takers 0.605 Predicted to score 3 or															
Took course 0.044 Course access 0.980 Subsets of students Scored 3 or higher, among exam-takers 0.605 Predicted to score 3 or	0.014	0.028	0.022	0.006	0.005	0.071	0.020	0.008	0.028	0.003	0.010	0.004	0.010	0.018	0.018
Course access 0.980 Subsets of students Scored 3 or higher, among exam-takers 0.605 Predicted to score 3 or	0.017	0.046	0.033	0.013	0.012	0.106	0.034	0.018	0.042	0.010	0.018	0.010	0.019	0.032	0.029
Subsets of students Scored 3 or higher, among exam-takers Predicted to score 3 or	0.021	0.066	0.046	0.024	0.021	0.140	0.051	0.029	0.058	0.020	0.031	0.018	0.028	0.047	0.042
Scored 3 or higher, among exam-takers 0.605 Predicted to score 3 or	0.979	0.981	0.992	0.966	0.979	0.992	0.986	0.972	0.988	0.959	0.976	0.977	0.985	0.979	0.980
exam-takers 0.605 Predicted to score 3 or															
	0.606	0.605	0.662	0.443	0.433	0.669	0.583	0.462	0.665	0.318	0.541	0.360	0.561	0.568	0.622
higher, among non-exam 0.253 taking course-takers	0.415	0.194	0.331	0.125	0.135	0.338	0.414	0.159	0.317	0.123	0.127	0.080	0.276	0.198	0.278
Took exam, among course- takers 0.685	0.650	0.697	0.713	0.548	0.602	0.757	0.674	0.613	0.721	0.512	0.580	0.571	0.663	0.688	0.684
Predicted to score 3 or higher, among non-course 0.138 takers with access	0.136	0.140	0.255	0.080	0.062	0.229	0.165	0.063	0.214	0.053	0.117	0.042	0.127	0.074	0.165
Took course, among students with access 0.044	0.022	0.067	0.045	0.025	0.021	0.141	0.052	0.030	0.058	0.020	0.031	0.018	0.028	0.048	0.043
Predicted to score 3 or higher, among students with 0.151 access	0.145	0.157	0.266	0.083	0.065	0.274	0.181	0.068	0.231	0.055	0.122	0.043	0.134	0.088	0.177
AP Computer Science Principles															
All students															
Scored 3 or higher 0.030	0.019	0.041	0.034	0.015	0.013	0.096	0.038	0.018	0.041	0.011	0.019	0.011	0.022	0.029	0.030
Took exam 0.044	0.026	0.061	0.046	0.027	0.025	0.125	0.050	0.031	0.057	0.021	0.036	0.022	0.035	0.045	0.043
Took course 0.063	0.035	0.090	0.059	0.044	0.045	0.159									

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

			ender		- F	By race/ethnicit	V		By FRP1	M status	Bv	race/ethnici	ty & FRPM st	atus	Bv FI	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Course access	0.940	0.940	0.941	0.959	0.916	0.947	0.949	0.941	0.933	0.947	0.907	0.929	0.951	0.933	0.945	0.938
Subsets of students																
Scored 3 or higher, among exam-takers	0.681	0.725	0.662	0.748	0.537	0.528	0.773	0.759	0.600	0.725	0.541	0.534	0.488	0.607	0.641	0.699
Predicted to score 3 or higher, among non-exam taking course-takers	0.217	0.248	0.207	0.367	0.122	0.092	0.369	0.269	0.097	0.339	0.069	0.187	0.059	0.203	0.142	0.262
Took exam, among course- takers	0.698	0.742	0.680	0.767	0.630	0.547	0.781	0.770	0.614	0.752	0.585	0.674	0.507	0.645	0.649	0.721
Predicted to score 3 or higher, among non-course takers with access	0.160	0.155	0.166	0.330	0.065	0.057	0.299	0.188	0.054	0.265	0.033	0.111	0.030	0.145	0.076	0.194
Took course, among students with access	0.067	0.037	0.095	0.062	0.047	0.048	0.166	0.069	0.053	0.079	0.040	0.057	0.045	0.058	0.073	0.064
Predicted to score 3 or higher, among students with access	0.175	0.166	0.185	0.342	0.073	0.063	0.337	0.207	0.063	0.284	0.039	0.121	0.033	0.157	0.092	0.210
AP Microeconomics																
All students																
Scored 3 or higher	0.012	0.011	0.013	0.015	0.006	0.004	0.038	0.013	0.007	0.016	0.005	0.007	0.003	0.006	0.010	0.012
Took exam	0.016	0.016	0.016	0.018	0.008	0.008	0.055	0.016	0.013	0.020	0.007	0.009	0.007	0.008	0.017	0.016
Took course	0.022	0.024	0.021	0.023	0.011	0.011	0.075	0.020	0.017	0.028	0.010	0.014	0.011	0.011	0.024	0.022
Course access	0.157	0.156	0.159	0.132	0.142	0.192	0.175	0.143	0.177	0.137	0.143	0.140	0.202	0.160	0.196	0.141
Subsets of students																
Scored 3 or higher, among exam-takers	0.682	0.626	0.741	0.802	0.658	0.477	0.674	0.792	0.531	0.781	0.607	0.717	0.400	0.696	0.594	0.723
Predicted to score 3 or higher, among non-exam taking course-takers	0.583	0.548	0.631	0.739	0.396	0.340	0.636	1.000	0.394	0.687	0.348	0.433	0.275	0.600	0.473	0.630
Took exam, among course-takers	0.695	0.668	0.725	0.662	0.683	0.638	0.732	0.800	0.716	0.682	0.726	0.639	0.619	0.697	0.706	0.690

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	nder		В	By race/ethnicit	у		By FRP1	M status	Ву	race/ethnic	ity & FRPM sta	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among non-course takers with access	0.206	0.198	0.214	0.401	0.216	0.077	0.246	0.255	0.107	0.348	0.145	0.320	0.047	0.199	0.085	0.278
Took course, among students with access	0.137	0.148	0.127	0.172	0.079	0.056	0.411	0.120	0.094	0.193	0.068	0.096	0.054	0.067	0.116	0.149
Predicted to score 3 or higher, among students with access	0.265	0.255	0.276	0.464	0.241	0.092	0.428	0.320	0.139	0.426	0.170	0.343	0.059	0.224	0.134	0.341
AP Macroeconomics																
All students																
Scored 3 or higher	0.066	0.062	0.069	0.098	0.031	0.023	0.187	0.072	0.032	0.100	0.021	0.045	0.014	0.052	0.048	0.073
Took exam	0.115	0.118	0.111	0.156	0.065	0.059	0.286	0.119	0.071	0.158	0.050	0.085	0.048	0.094	0.099	0.121
Took course	0.172	0.182	0.162	0.203	0.116	0.113	0.385	0.171	0.123	0.220	0.094	0.148	0.100	0.157	0.162	0.176
Course access	0.998	0.998	0.999	0.997	0.999	0.998	0.999	0.999	0.999	0.998	1.000	0.999	0.999	0.998	0.999	0.998
Subsets of students																
Scored 3 or higher, among exam-takers	0.584	0.536	0.633	0.642	0.476	0.405	0.657	0.609	0.458	0.639	0.409	0.531	0.304	0.556	0.502	0.611
Predicted to score 3 or higher, among non-exam taking course-takers	0.228	0.207	0.253	0.339	0.156	0.090	0.371	0.255	0.118	0.315	0.106	0.205	0.059	0.175	0.146	0.265
Took exam, among course- takers	0.627	0.608	0.647	0.716	0.520	0.465	0.718	0.659	0.536	0.677	0.501	0.538	0.418	0.561	0.571	0.648
Predicted to score 3 or higher, among non-course takers with access	0.114	0.110	0.117	0.237	0.051	0.038	0.264	0.139	0.038	0.199	0.023	0.093	0.021	0.096	0.053	0.140
Took course, among students with access	0.172	0.182	0.162	0.204	0.116	0.114	0.386	0.171	0.123	0.220	0.094	0.148	0.100	0.157	0.162	0.176
Predicted to score 3 or higher, among students with access	0.158	0.152	0.163	0.289	0.071	0.051	0.352	0.182	0.058	0.257	0.035	0.123	0.028	0.122	0.085	0.188

AP English Language and Composition

All students

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	nder		В	y race/ethnicit	у		By FRPN	− − − − − − − − − − − − − − − − − − −	Ву	race/ethnici	ity & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Scored 3 or higher	0.110	0.133	0.088	0.168	0.060	0.045	0.267	0.116	0.058	0.162	0.044	0.082	0.033	0.085	0.073	0.125
Took exam	0.167	0.205	0.130	0.218	0.106	0.102	0.365	0.175	0.114	0.220	0.087	0.134	0.091	0.137	0.139	0.179
Took course	0.195	0.239	0.153	0.242	0.135	0.129	0.403	0.207	0.142	0.248	0.114	0.163	0.118	0.166	0.169	0.206
Course access	0.998	0.998	0.999	0.997	0.999	0.998	0.999	0.999	0.999	0.998	1.000	0.999	0.999	0.998	0.999	0.998
Subsets of students																
Scored 3 or higher, among exam-takers	0.659	0.649	0.673	0.769	0.565	0.445	0.731	0.661	0.506	0.736	0.513	0.612	0.363	0.616	0.527	0.701
Predicted to score 3 or higher, among non-exam taking course-takers	0.338	0.281	0.420	0.542	0.197	0.176	0.573	0.518	0.179	0.493	0.098	0.324	0.118	0.344	0.261	0.372
Took exam, among course- takers	0.853	0.856	0.849	0.901	0.785	0.787	0.905	0.846	0.799	0.884	0.754	0.815	0.771	0.823	0.819	0.865
Predicted to score 3 or higher, among non-course takers with access	0.203	0.190	0.214	0.418	0.112	0.079	0.380	0.254	0.083	0.337	0.064	0.183	0.046	0.192	0.099	0.247
Took course, among students with access	0.196	0.239	0.153	0.243	0.135	0.130	0.403	0.207	0.142	0.249	0.114	0.163	0.118	0.166	0.170	0.206
Predicted to score 3 or higher, among students with access	0.266	0.257	0.274	0.485	0.142	0.102	0.498	0.320	0.114	0.416	0.083	0.226	0.059	0.237	0.146	0.315
AP English Literature and Composi	tion															
All students																
Scored 3 or higher	0.047	0.060	0.034	0.071	0.026	0.021	0.104	0.063	0.026	0.068	0.020	0.035	0.015	0.039	0.031	0.053
Took exam	0.077	0.096	0.058	0.095	0.053	0.051	0.152	0.097	0.056	0.097	0.045	0.064	0.046	0.067	0.066	0.081
Took course	0.115	0.142	0.088	0.130	0.086	0.085	0.220	0.133	0.091	0.138	0.076	0.100	0.081	0.099	0.103	0.119
Course access	0.989	0.989	0.989	0.981	0.994	0.989	0.993	0.988	0.993	0.985	0.995	0.991	0.991	0.982	0.991	0.988
Subsets of students																
Scored 3 or higher, among exam-takers	0.610	0.626	0.585	0.752	0.499	0.405	0.681	0.645	0.457	0.697	0.449	0.549	0.324	0.583	0.476	0.655

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	nder		Е	By race/ethnicit	У		By FRP1	M status	Ву	race/ethnici	ity & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among non-exam taking course-takers	0.320	0.283	0.375	0.569	0.162	0.133	0.487	0.238	0.133	0.478	0.087	0.249	0.066	0.357	0.209	0.366
Took exam, among course- takers	0.668	0.677	0.652	0.731	0.614	0.604	0.693	0.728	0.614	0.703	0.595	0.633	0.576	0.675	0.632	0.680
Predicted to score 3 or higher, among non-course takers with access	0.176	0.163	0.188	0.365	0.073	0.065	0.353	0.216	0.063	0.295	0.037	0.125	0.033	0.167	0.088	0.213
Took course, among students with access	0.116	0.143	0.089	0.132	0.086	0.086	0.221	0.134	0.092	0.140	0.076	0.101	0.081	0.100	0.104	0.120
Predicted to score 3 or higher, among students with access	0.203	0.195	0.212	0.403	0.086	0.075	0.391	0.237	0.075	0.331	0.045	0.144	0.038	0.191	0.106	0.244
AP Environmental Science																
All students																
Scored 3 or higher	0.050	0.051	0.048	0.087	0.020	0.020	0.114	0.057	0.022	0.077	0.013	0.030	0.014	0.042	0.032	0.057
Took exam	0.079	0.086	0.073	0.120	0.045	0.042	0.171	0.082	0.048	0.111	0.036	0.057	0.033	0.069	0.064	0.086
Took course	0.110	0.118	0.102	0.145	0.068	0.066	0.245	0.115	0.074	0.145	0.057	0.083	0.056	0.098	0.101	0.114
Course access	0.998	0.998	0.999	0.997	0.999	0.998	0.999	0.999	0.999	0.998	1.000	0.999	0.999	0.998	0.999	0.998
Subsets of students																
Scored 3 or higher, among exam-takers	0.626	0.594	0.663	0.729	0.450	0.489	0.668	0.685	0.457	0.697	0.369	0.523	0.409	0.612	0.502	0.664
Predicted to score 3 or higher, among non-exam taking course-takers	0.296	0.272	0.322	0.379	0.193	0.148	0.441	0.220	0.160	0.400	0.132	0.261	0.078	0.315	0.214	0.341
Took exam, among course- takers	0.718	0.727	0.709	0.821	0.657	0.631	0.695	0.708	0.636	0.760	0.632	0.682	0.596	0.694	0.631	0.750
Predicted to score 3 or higher, among non-course takers with access	0.185	0.175	0.194	0.366	0.087	0.068	0.394	0.226	0.071	0.306	0.046	0.147	0.039	0.162	0.096	0.222
Took course, among students with access	0.110	0.118	0.102	0.146	0.068	0.066	0.246	0.115	0.074	0.146	0.057	0.084	0.056	0.098	0.101	0.114

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	ender		E	By race/ethnicit	у		By FRPI	M status	Ву	race/ethnic	ity & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among students with access	0.220	0.211	0.228	0.411	0.102	0.081	0.443	0.256	0.086	0.352	0.054	0.170	0.047	0.188	0.118	0.261
AP European History																
All students																
Scored 3 or higher	0.010	0.009	0.010	0.018	0.004	0.003	0.020	0.011	0.003	0.016	0.003	0.007	0.001	0.008	0.005	0.011
Took exam	0.011	0.011	0.011	0.020	0.005	0.004	0.023	0.012	0.005	0.017	0.003	0.008	0.002	0.010	0.007	0.012
Took course	0.013	0.013	0.013	0.022	0.007	0.007	0.027	0.012	0.007	0.019	0.005	0.009	0.005	0.013	0.010	0.014
Course access	0.613	0.612	0.613	0.715	0.537	0.564	0.711	0.625	0.535	0.690	0.482	0.613	0.546	0.622	0.591	0.622
Subsets of students																
Scored 3 or higher, among exam-takers	0.869	0.854	0.884	0.928	0.844	0.673	0.854	0.952	0.735	0.903	0.793	0.875	0.478	0.813	0.707	0.909
Predicted to score 3 or higher, among non-exam taking course-takers	0.446	0.423	0.469	0.520	0.350	0.250	0.708		0.260	0.627	0.429	0.167	0.130	0.556	0.279	0.569
Took exam, among course- takers	0.833	0.830	0.837	0.899	0.794	0.632	0.844	1.000	0.671	0.888	0.674	0.889	0.500	0.780	0.697	0.875
Predicted to score 3 or higher, among non-course takers with access	0.360	0.355	0.365	0.562	0.222	0.148	0.597	0.427	0.171	0.507	0.141	0.310	0.090	0.311	0.205	0.421
Took course, among students with access	0.021	0.022	0.021	0.030	0.012	0.012	0.038	0.019	0.012	0.028	0.010	0.014	0.009	0.022	0.018	0.023
Predicted to score 3 or higher, among students with access	0.370	0.365	0.375	0.572	0.228	0.152	0.608	0.435	0.176	0.517	0.147	0.316	0.092	0.321	0.212	0.431
AP French Language and Culture																
All students																
Scored 3 or higher	0.005	0.008	0.003	0.005	0.004	0.006	0.008	0.006	0.004	0.007	0.004	0.004	0.005	0.011	0.006	0.005
Took exam	0.009	0.012	0.005	0.009	0.007	0.010	0.012	0.007	0.007	0.010	0.006	0.007	0.008	0.015	0.010	0.008
Took course	0.012	0.016	0.007	0.011	0.009	0.014	0.015	0.007	0.010	0.013	0.008	0.011	0.012	0.021	0.014	0.011

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge				By race/ethnicit	7		By FRP1	i status	Dy	race/etrinici	ty & FRPM st	atus	Dy LL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Course access	0.746	0.748	0.744	0.820	0.650	0.759	0.821	0.749	0.709	0.783	0.619	0.692	0.751	0.784	0.765	0.739
Subsets of students																
Scored 3 or higher, among exam-takers	0.626	0.648	0.573	0.592	0.594	0.637	0.648	0.917	0.604	0.641	0.635	0.545	0.597	0.702	0.607	0.636
Predicted to score 3 or higher, among non-exam taking course-takers	0.265	0.253	0.283	0.414	0.132	0.269	0.313	0.000	0.233	0.289	0.067	0.174	0.306	0.188	0.245	0.276
Took exam, among course- takers	0.747	0.774	0.688	0.772	0.716	0.705	0.816	0.923	0.732	0.757	0.776	0.657	0.681	0.746	0.741	0.750
Predicted to score 3 or higher, among non-course takers with access	0.275	0.272	0.279	0.360	0.204	0.202	0.401	0.286	0.211	0.333	0.173	0.243	0.190	0.237	0.227	0.296
Took course, among students with access	0.015	0.021	0.010	0.014	0.014	0.018	0.018	0.010	0.014	0.017	0.012	0.016	0.015	0.026	0.018	0.014
Predicted to score 3 or higher, among students with access	0.277	0.274	0.280	0.362	0.204	0.204	0.403	0.288	0.212	0.335	0.173	0.244	0.192	0.239	0.227	0.298
AP Human Geography																
All students																
Scored 3 or higher	0.112	0.124	0.100	0.169	0.065	0.054	0.240	0.134	0.062	0.161	0.046	0.092	0.039	0.101	0.075	0.127
Took exam	0.181	0.205	0.159	0.237	0.127	0.118	0.343	0.208	0.130	0.232	0.104	0.159	0.106	0.157	0.152	0.193
Took course	0.198	0.221	0.176	0.253	0.145	0.136	0.358	0.225	0.149	0.247	0.123	0.175	0.125	0.173	0.170	0.210
Course access	0.988	0.987	0.988	0.989	0.990	0.980	0.994	0.986	0.985	0.990	0.988	0.994	0.978	0.986	0.982	0.990
Subsets of students																
Scored 3 or higher, among exam-takers	0.616	0.604	0.630	0.711	0.514	0.456	0.701	0.636	0.478	0.692	0.443	0.578	0.366	0.648	0.491	0.656
Predicted to score 3 or higher, among non-exam taking course-takers	0.166	0.112	0.218	0.314	0.090	0.087	0.287	0.182	0.094	0.253	0.072	0.119	0.079	0.115	0.112	0.190
Took exam, among course- takers	0.911	0.921	0.898	0.936	0.876	0.861	0.954	0.916	0.870	0.936	0.844	0.907	0.844	0.902	0.888	0.918

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	nder		E	By race/ethnicit	у		By FRPI	M status	Ву	race/ethnic	ity & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among non-course takers with access	0.166	0.155	0.177	0.325	0.081	0.063	0.380	0.208	0.066	0.278	0.043	0.137	0.037	0.151	0.092	0.198
Took course, among students with access	0.200	0.223	0.177	0.255	0.146	0.139	0.359	0.227	0.151	0.249	0.124	0.176	0.127	0.175	0.173	0.211
Predicted to score 3 or higher, among students with access	0.223	0.215	0.231	0.402	0.107	0.087	0.457	0.269	0.092	0.353	0.060	0.171	0.049	0.203	0.129	0.262
AP German Language and Culture																
All students																
Scored 3 or higher	0.002	0.002	0.002	0.006	0.000	0.001	0.002	0.005	0.001	0.004	0.000	0.000	0.001	0.002	0.001	0.003
Took exam	0.003	0.003	0.004	0.008	0.001	0.002	0.004	0.006	0.001	0.006	0.001	0.001	0.001	0.003	0.002	0.004
Took course	0.004	0.004	0.005	0.010	0.001	0.002	0.006	0.007	0.002	0.007	0.001	0.001	0.002	0.004	0.003	0.005
Course access	0.448	0.450	0.447	0.479	0.420	0.387	0.590	0.466	0.397	0.499	0.388	0.465	0.363	0.463	0.424	0.458
Subsets of students																
Scored 3 or higher, among exam-takers	0.654	0.721	0.602	0.711	0.462	0.619	0.524	0.727	0.571	0.672	0.375	0.600	0.583	0.667	0.538	0.677
Predicted to score 3 or higher, among non-exam taking course-takers	0.333	0.304	0.364	0.333	0.143	0.500	0.375	0.000	0.263	0.385	0.250	0.000	0.286	1.000	0.417	0.303
Took exam, among course- takers	0.776	0.747	0.800	0.833	0.650	0.677	0.724	0.846	0.596	0.831	0.667	0.625	0.632	0.750	0.684	0.798
Predicted to score 3 or higher, among non-course takers with access	0.235	0.231	0.239	0.379	0.126	0.093	0.415	0.243	0.112	0.333	0.070	0.191	0.061	0.175	0.146	0.269
Took course, among students with access	0.010	0.009	0.010	0.020	0.003	0.006	0.009	0.016	0.005	0.013	0.004	0.003	0.005	0.008	0.007	0.011
Predicted to score 3 or higher, among students with access	0.237	0.232	0.242	0.381	0.126	0.096	0.415	0.246	0.113	0.335	0.070	0.190	0.062	0.178	0.147	0.272

AP United States Government and Politics

All students

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	nder		В	By race/ethnicit	у		By FRPI	−−−− 1 status	Ву	race/ethnic	ty & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Scored 3 or higher	0.083	0.086	0.080	0.130	0.039	0.030	0.218	0.094	0.040	0.126	0.027	0.056	0.020	0.063	0.055	0.095
Took exam	0.144	0.156	0.133	0.192	0.080	0.079	0.357	0.152	0.090	0.197	0.063	0.103	0.066	0.121	0.123	0.153
Took course	0.196	0.210	0.182	0.230	0.129	0.127	0.450	0.207	0.139	0.252	0.105	0.162	0.112	0.174	0.182	0.201
Course access	0.964	0.964	0.963	0.936	0.978	0.966	0.980	0.954	0.973	0.954	0.981	0.973	0.971	0.950	0.972	0.960
Subsets of students																
Scored 3 or higher, among exam-takers	0.583	0.558	0.611	0.681	0.484	0.403	0.613	0.625	0.450	0.642	0.424	0.537	0.329	0.522	0.461	0.623
Predicted to score 3 or higher, among non-exam taking course-takers	0.196	0.175	0.220	0.342	0.107	0.074	0.308	0.245	0.079	0.292	0.069	0.143	0.030	0.197	0.129	0.228
Took exam, among course- takers	0.682	0.684	0.680	0.774	0.570	0.548	0.754	0.697	0.594	0.730	0.556	0.583	0.504	0.637	0.617	0.706
Predicted to score 3 or higher, among non-course takers with access	0.075	0.070	0.080	0.193	0.025	0.023	0.154	0.078	0.022	0.137	0.012	0.044	0.010	0.067	0.030	0.095
Took course, among students with access	0.203	0.218	0.188	0.245	0.132	0.132	0.459	0.217	0.143	0.263	0.107	0.167	0.116	0.183	0.187	0.209
Predicted to score 3 or higher, among students with access	0.130	0.123	0.136	0.268	0.044	0.038	0.284	0.142	0.043	0.217	0.023	0.074	0.018	0.105	0.066	0.156
AP Comparative Government and	Politics															
All students																
Scored 3 or higher	0.006	0.005	0.007	0.007	0.002	0.002	0.022	0.005	0.003	0.008	0.002	0.003	0.001	0.003	0.005	0.006
Took exam	0.007	0.006	0.008	0.008	0.003	0.002	0.027	0.006	0.004	0.010	0.003	0.004	0.002	0.003	0.006	0.007
Took course	0.008	0.008	0.008	0.009	0.004	0.002	0.031	0.009	0.005	0.011	0.004	0.005	0.002	0.005	0.008	0.009
Course access	0.221	0.219	0.222	0.272	0.194	0.130	0.387	0.233	0.160	0.281	0.164	0.236	0.108	0.199	0.174	0.240
Subsets of students																
Scored 3 or higher, among exam-takers	0.804	0.768	0.834	0.861	0.676	0.778	0.803	0.900	0.706	0.848	0.700	0.647	0.667	1.000	0.778	0.814

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	nder	_	Е	By race/ethnicit	У		By FRPI	M status	Ву	race/ethnici	ity & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among non-exam taking course-takers	0.577	0.559	0.600	0.714	0.478	0.615	0.524	0.800	0.548	0.589	0.583	0.364	0.400	0.750	0.433	0.635
Took exam, among course- takers	0.726	0.679	0.770	0.790	0.617	0.581	0.759	0.667	0.733	0.723	0.625	0.607	0.706	0.429	0.706	0.734
Predicted to score 3 or higher, among non-course takers with access	0.495	0.484	0.505	0.646	0.318	0.289	0.675	0.522	0.281	0.616	0.215	0.417	0.185	0.468	0.376	0.530
Took course, among students with access	0.037	0.036	0.038	0.032	0.021	0.019	0.078	0.037	0.031	0.040	0.023	0.019	0.016	0.023	0.043	0.035
Predicted to score 3 or higher, among students with access	0.506	0.494	0.518	0.653	0.325	0.297	0.686	0.537	0.295	0.625	0.225	0.421	0.194	0.475	0.392	0.540
AP Latin																
All students																
Scored 3 or higher	0.002	0.002	0.001	0.003	0.001	0.000	0.004	0.001	0.000	0.003	0.000	0.002	0.000	0.001	0.001	0.002
Took exam	0.002	0.003	0.002	0.004	0.001	0.001	0.006	0.002	0.001	0.004	0.000	0.002	0.000	0.001	0.001	0.003
Took course	0.005	0.006	0.004	0.008	0.002	0.001	0.013	0.005	0.002	0.007	0.002	0.004	0.001	0.002	0.002	0.006
Course access	0.454	0.455	0.454	0.625	0.407	0.311	0.544	0.495	0.340	0.567	0.353	0.483	0.262	0.466	0.337	0.503
Subsets of students																
Scored 3 or higher, among exam-takers	0.673	0.638	0.727	0.700	0.684	0.571	0.667	0.500	0.476	0.717	0.250	0.800	0.000	1.000	0.583	0.683
Predicted to score 3 or higher, among non-exam taking course-takers	0.120	0.101	0.154	0.095	0.063	0.000	0.179	0.200	0.154	0.110	0.111	0.000	0.000	0.000	0.200	0.102
Took exam, among course- takers	0.511	0.500	0.530	0.543	0.543	0.538	0.458	0.444	0.447	0.529	0.308	0.682	0.429	0.667	0.375	0.534
Predicted to score 3 or higher, among non-course takers with access	0.055	0.051	0.058	0.085	0.020	0.023	0.093	0.052	0.019	0.076	0.009	0.032	0.012	0.043	0.033	0.061
Took course, among students with access	0.010	0.013	0.008	0.013	0.006	0.003	0.023	0.010	0.006	0.013	0.004	0.007	0.003	0.004	0.007	0.011

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		Ву де	ender		I	By race/ethnicit	У		By FRPI	M status	Ву	race/ethnic	ity & FRPM st	atus	By EL	. status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among students with access	0.057	0.054	0.061	0.088	0.022	0.024	0.100	0.055	0.021	0.079	0.009	0.034	0.013	0.046	0.034	0.064
AP Calculus AB																
All students																
Scored 3 or higher	0.051	0.055	0.048	0.082	0.026	0.021	0.122	0.054	0.022	0.080	0.014	0.043	0.014	0.043	0.036	0.058
Took exam	0.092	0.099	0.085	0.126	0.055	0.054	0.202	0.102	0.055	0.128	0.037	0.080	0.046	0.081	0.079	0.097
Took course	0.117	0.125	0.110	0.150	0.075	0.080	0.243	0.131	0.079	0.156	0.054	0.105	0.070	0.108	0.107	0.122
Course access	0.998	0.998	0.999	0.997	0.999	0.998	0.999	0.999	0.999	0.998	1.000	0.999	0.999	0.998	0.999	0.998
Subsets of students																
Scored 3 or higher, among exam-takers	0.557	0.552	0.563	0.650	0.476	0.384	0.607	0.531	0.407	0.622	0.385	0.535	0.299	0.534	0.453	0.593
Predicted to score 3 or higher, among non-exam taking course-takers	0.231	0.218	0.245	0.372	0.146	0.095	0.347	0.300	0.125	0.320	0.113	0.176	0.049	0.226	0.157	0.267
Took exam, among course- takers	0.781	0.789	0.772	0.840	0.730	0.678	0.824	0.782	0.701	0.821	0.694	0.756	0.645	0.746	0.738	0.797
Predicted to score 3 or higher, among non-course takers with access	0.107	0.102	0.113	0.211	0.041	0.030	0.288	0.120	0.034	0.186	0.022	0.070	0.013	0.084	0.056	0.129
Took course, among students with access	0.118	0.125	0.110	0.150	0.075	0.080	0.243	0.131	0.079	0.156	0.054	0.105	0.071	0.108	0.108	0.122
Predicted to score 3 or higher, among students with access	0.140	0.136	0.145	0.256	0.057	0.043	0.339	0.155	0.047	0.233	0.029	0.096	0.020	0.116	0.078	0.166
AP Calculus BC																
All students																
Scored 3 or higher	0.043	0.038	0.049	0.052	0.016	0.011	0.168	0.043	0.020	0.067	0.009	0.025	0.007	0.025	0.037	0.046
Took exam	0.061	0.055	0.066	0.064	0.026	0.026	0.222	0.056	0.037	0.084	0.020	0.036	0.021	0.041	0.061	0.061
Took course	0.065	0.060	0.069	0.066	0.031	0.030	0.230	0.060	0.042	0.087	0.024	0.040	0.026	0.044	0.066	0.064

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		Ву де	ender		E	By race/ethnicit			By FRPI	M status	Ву	race/ethnic	ty & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Course access	0.989	0.988	0.990	0.993	0.987	0.985	0.995	0.993	0.984	0.994	0.983	0.992	0.983	0.991	0.985	0.991
Subsets of students																
Scored 3 or higher, among exam-takers	0.714	0.689	0.735	0.821	0.603	0.429	0.758	0.776	0.523	0.799	0.464	0.710	0.327	0.597	0.607	0.758
Predicted to score 3 or higher, among non-exam taking course-takers	0.423	0.430	0.415	0.700	0.343	0.214	0.500	0.286	0.223	0.625	0.263	0.438	0.109	0.700	0.238	0.522
Took exam, among course- takers	0.920	0.903	0.935	0.934	0.846	0.855	0.956	0.933	0.876	0.941	0.816	0.871	0.817	0.925	0.906	0.926
Predicted to score 3 or higher, among non-course takers with access	0.234	0.228	0.241	0.461	0.109	0.100	0.441	0.308	0.090	0.383	0.055	0.186	0.057	0.237	0.123	0.280
Took course, among students with access	0.066	0.061	0.070	0.067	0.031	0.031	0.231	0.060	0.043	0.088	0.024	0.040	0.026	0.044	0.067	0.065
Predicted to score 3 or higher, among students with access	0.265	0.255	0.275	0.488	0.121	0.109	0.519	0.331	0.105	0.422	0.062	0.203	0.062	0.258	0.152	0.312
AP Music Theory																
All students																
Scored 3 or higher	0.002	0.002	0.002	0.004	0.001	0.001	0.005	0.002	0.000	0.004	0.000	0.001	0.000	0.003	0.001	0.002
Took exam	0.003	0.003	0.003	0.006	0.001	0.001	0.007	0.003	0.001	0.005	0.001	0.002	0.000	0.004	0.002	0.004
Took course	0.005	0.005	0.005	0.009	0.002	0.002	0.012	0.004	0.002	0.008	0.001	0.004	0.002	0.005	0.003	0.006
Course access	0.485	0.486	0.484	0.646	0.414	0.381	0.563	0.545	0.379	0.589	0.362	0.485	0.330	0.542	0.394	0.523
Subsets of students																
Scored 3 or higher, among exam-takers	0.649	0.662	0.638	0.672	0.389	0.667	0.744	0.500	0.455	0.688	0.400	0.385	0.500	0.727	0.700	0.640
Predicted to score 3 or higher, among non-exam taking course-takers	0.455	0.478	0.429	0.485	0.231	0.357	0.577	0.500	0.381	0.478	0.000	0.300	0.455	0.000	0.409	0.470
Took exam, among course-takers	0.604	0.586	0.622	0.637	0.581	0.517	0.600	0.667	0.512	0.626	0.625	0.565	0.267	0.786	0.476	0.633

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

	<u> </u>	By ge	nder		Е	By race/ethnicit	У		By FRPI	M status	Ву	race/ethnic	ity & FRPM sta	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among non-course takers with access	0.240	0.223	0.257	0.377	0.089	0.094	0.443	0.234	0.092	0.335	0.044	0.135	0.051	0.177	0.147	0.269
Took course, among students with access	0.010	0.010	0.010	0.012	0.005	0.006	0.020	0.006	0.005	0.013	0.003	0.008	0.005	0.008	0.008	0.010
Predicted to score 3 or higher, among students with access	0.243	0.226	0.260	0.380	0.090	0.096	0.447	0.237	0.094	0.338	0.045	0.137	0.052	0.179	0.150	0.272
AP Physics C: Electricity and Magne	etism															
All students																
Scored 3 or higher	0.024	0.014	0.034	0.035	0.007	0.004	0.087	0.027	0.009	0.039	0.004	0.012	0.002	0.011	0.018	0.026
Took exam	0.029	0.017	0.040	0.039	0.010	0.007	0.105	0.033	0.013	0.045	0.007	0.015	0.004	0.015	0.024	0.031
Took course	0.035	0.023	0.047	0.045	0.014	0.010	0.123	0.041	0.017	0.053	0.009	0.020	0.007	0.020	0.029	0.037
Course access	0.757	0.756	0.758	0.910	0.689	0.640	0.872	0.813	0.639	0.874	0.617	0.788	0.581	0.825	0.662	0.796
Subsets of students																
Scored 3 or higher, among exam-takers	0.831	0.789	0.849	0.915	0.705	0.609	0.836	0.815	0.710	0.865	0.574	0.789	0.463	0.739	0.777	0.848
Predicted to score 3 or higher, among non-exam taking course-takers	0.657	0.689	0.634	0.773	0.468	0.432	0.743	0.733	0.459	0.741	0.500	0.452	0.276	0.733	0.620	0.670
Took exam, among course- takers	0.823	0.765	0.850	0.854	0.768	0.664	0.850	0.783	0.777	0.837	0.792	0.754	0.586	0.754	0.817	0.825
Predicted to score 3 or higher, among non-course takers with access	0.387	0.393	0.381	0.570	0.262	0.210	0.576	0.432	0.219	0.513	0.183	0.349	0.148	0.349	0.251	0.434
Took course, among students with access	0.046	0.030	0.062	0.049	0.020	0.016	0.140	0.048	0.026	0.060	0.014	0.026	0.012	0.024	0.043	0.047
Predicted to score 3 or higher, among students with access	0.408	0.406	0.409	0.585	0.270	0.216	0.621	0.452	0.231	0.535	0.189	0.359	0.152	0.358	0.274	0.454

AP Physics C: Mechanics

All students

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	ender		E	By race/ethnicit			By FRPI	M status	Ву	race/ethnic	ity & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Scored 3 or higher	0.007	0.003	0.011	0.010	0.001	0.001	0.031	0.009	0.002	0.012	0.001	0.002	0.001	0.001	0.005	0.008
Took exam	0.009	0.004	0.013	0.012	0.002	0.001	0.039	0.010	0.003	0.014	0.001	0.003	0.001	0.001	0.007	0.010
Took course	0.010	0.005	0.016	0.014	0.002	0.001	0.043	0.011	0.004	0.017	0.001	0.004	0.001	0.002	0.008	0.011
Course access	0.314	0.311	0.318	0.466	0.231	0.202	0.466	0.356	0.206	0.421	0.179	0.305	0.158	0.341	0.230	0.349
Subsets of students																
Scored 3 or higher, among exam-takers	0.809	0.796	0.813	0.827	0.786	0.727	0.801	0.875	0.714	0.829	0.800	0.778	0.714	0.750	0.744	0.828
Predicted to score 3 or higher, among non-exam taking course-takers	0.728	0.762	0.717	0.613	0.625	0.500	0.906	0.750	0.500	0.768		0.625	0.000	1.000	0.867	0.697
Took exam, among course- takers	0.831	0.816	0.836	0.804	0.778	0.647	0.871	0.800	0.854	0.826	1.000	0.692	0.700	0.571	0.857	0.824
Predicted to score 3 or higher, among non-course takers with access	0.288	0.289	0.286	0.345	0.181	0.151	0.458	0.294	0.166	0.348	0.122	0.230	0.103	0.222	0.219	0.306
Took course, among students with access	0.033	0.016	0.049	0.030	0.010	0.007	0.093	0.032	0.017	0.040	0.006	0.014	0.007	0.007	0.034	0.032
Predicted to score 3 or higher, among students with access	0.307	0.299	0.315	0.360	0.188	0.155	0.502	0.315	0.178	0.370	0.127	0.238	0.106	0.226	0.242	0.325
AP Physics 1: Algebra-based																
All students																
Scored 3 or higher	0.046	0.034	0.057	0.083	0.016	0.014	0.117	0.053	0.018	0.074	0.009	0.027	0.008	0.032	0.027	0.054
Took exam	0.108	0.100	0.115	0.149	0.057	0.061	0.259	0.115	0.066	0.149	0.043	0.077	0.052	0.087	0.095	0.113
Took course	0.137	0.130	0.144	0.180	0.080	0.087	0.311	0.143	0.091	0.183	0.063	0.104	0.076	0.120	0.127	0.141
Course access	0.977	0.978	0.976	0.981	0.985	0.991	0.915	0.976	0.985	0.968	0.989	0.979	0.992	0.984	0.978	0.976
Subsets of students																
Scored 3 or higher, among exam-takers	0.426	0.343	0.498	0.558	0.286	0.233	0.451	0.462	0.268	0.496	0.201	0.351	0.162	0.370	0.287	0.475

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	nder	_	E	By race/ethnicit	У		By FRPI	M status	Ву	race/ethnici	ity & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among non-exam taking course-takers	0.065	0.067	0.062	0.127	0.021	0.024	0.091	0.040	0.014	0.099	0.012	0.030	0.004	0.068	0.047	0.073
Took exam, among course- takers	0.786	0.771	0.799	0.831	0.716	0.698	0.833	0.799	0.733	0.811	0.684	0.742	0.688	0.720	0.751	0.799
Predicted to score 3 or higher, among non-course takers with access	0.022	0.024	0.020	0.064	0.005	0.005	0.034	0.023	0.004	0.043	0.002	0.010	0.002	0.017	0.005	0.029
Took course, among students with access	0.140	0.133	0.147	0.183	0.081	0.087	0.338	0.146	0.092	0.188	0.064	0.106	0.076	0.122	0.129	0.144
Predicted to score 3 or higher, among students with access	0.045	0.045	0.045	0.103	0.011	0.010	0.099	0.050	0.009	0.081	0.004	0.021	0.004	0.032	0.017	0.056
AP Physics 2: Algebra-based																
All students																
Scored 3 or higher	0.003	0.002	0.003	0.004	0.001	0.001	0.009	0.002	0.002	0.003	0.001	0.000	0.001	0.001	0.003	0.002
Took exam	0.007	0.006	0.009	0.007	0.002	0.006	0.023	0.007	0.007	0.007	0.003	0.002	0.007	0.003	0.010	0.006
Took course	0.011	0.010	0.012	0.009	0.004	0.011	0.033	0.011	0.011	0.011	0.003	0.004	0.012	0.007	0.015	0.009
Course access	0.340	0.338	0.341	0.286	0.277	0.438	0.392	0.330	0.362	0.317	0.271	0.286	0.456	0.382	0.436	0.300
Subsets of students																
Scored 3 or higher, among exam-takers	0.352	0.281	0.396	0.553	0.229	0.190	0.376	0.250	0.242	0.454	0.261	0.167	0.159	0.400	0.275	0.406
Predicted to score 3 or higher, among non-exam taking course-takers	0.047	0.055	0.038	0.031	0.056	0.036	0.071	0.000	0.034	0.063	0.000	0.083	0.045	0.000	0.044	0.050
Took exam, among course- takers	0.665	0.584	0.726	0.704	0.660	0.585	0.704	0.632	0.644	0.685	0.793	0.500	0.611	0.455	0.670	0.661
Predicted to score 3 or higher, among non-course takers with access	0.039	0.041	0.038	0.085	0.012	0.008	0.105	0.043	0.011	0.071	0.004	0.022	0.004	0.026	0.020	0.051
Took course, among students with access	0.032	0.028	0.036	0.033	0.013	0.024	0.084	0.033	0.030	0.034	0.012	0.013	0.026	0.019	0.035	0.030

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		Ву де	ender			By race/ethnicit	У		By FRPI	M status	Ву	race/ethnic	ity & FRPM st	atus	By EL	. status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among students with access	0.041	0.041	0.040	0.086	0.012	0.009	0.105	0.042	0.012	0.073	0.004	0.022	0.005	0.026	0.021	0.052
AP Psychology																
All students																
Scored 3 or higher	0.096	0.120	0.073	0.152	0.050	0.044	0.222	0.098	0.052	0.140	0.035	0.071	0.032	0.083	0.072	0.106
Took exam	0.136	0.174	0.099	0.193	0.080	0.081	0.292	0.138	0.088	0.184	0.063	0.105	0.068	0.122	0.118	0.144
Took course	0.168	0.212	0.125	0.218	0.111	0.111	0.343	0.179	0.119	0.217	0.089	0.141	0.099	0.152	0.155	0.174
Course access	0.998	0.998	0.999	0.997	0.999	0.998	0.999	0.999	0.999	0.998	1.000	0.999	0.999	0.998	0.999	0.998
Subsets of students																
Scored 3 or higher, among exam-takers	0.706	0.691	0.732	0.787	0.620	0.549	0.759	0.707	0.590	0.761	0.550	0.679	0.472	0.684	0.611	0.739
Predicted to score 3 or higher, among non-exam taking course-takers	0.373	0.319	0.454	0.574	0.299	0.176	0.525	0.479	0.189	0.542	0.170	0.431	0.103	0.418	0.251	0.435
Took exam, among course- takers	0.808	0.817	0.794	0.883	0.724	0.724	0.850	0.773	0.738	0.846	0.703	0.743	0.686	0.804	0.759	0.826
Predicted to score 3 or higher, among non-course takers with access	0.325	0.310	0.338	0.596	0.204	0.168	0.549	0.408	0.166	0.501	0.132	0.312	0.115	0.345	0.185	0.384
Took course, among students with access	0.169	0.213	0.125	0.218	0.111	0.112	0.343	0.179	0.119	0.218	0.089	0.141	0.099	0.152	0.156	0.174
Predicted to score 3 or higher, among students with access	0.372	0.364	0.380	0.635	0.230	0.188	0.603	0.450	0.191	0.550	0.147	0.345	0.127	0.383	0.225	0.433
AP Spanish Language and Culture																
All students																
Scored 3 or higher	0.038	0.051	0.027	0.023	0.010	0.079	0.058	0.020	0.037	0.040	0.007	0.015	0.070	0.109	0.063	0.028
Took exam	0.043	0.057	0.030	0.027	0.015	0.084	0.065	0.025	0.041	0.046	0.011	0.020	0.074	0.115	0.069	0.033
Took course	0.055	0.071	0.039	0.031	0.020	0.109	0.076	0.035	0.055	0.054	0.014	0.028	0.100	0.138	0.090	0.040

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By gender B			By race/ethnicity		By FRP1	≤ status	Ву	race/ethnici	ty & FRPM st	atus	By EL	status		
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Course access	0.998	0.998	0.999	0.997	0.999	0.998	0.999	0.999	0.999	0.998	1.000	0.999	0.999	0.998	0.999	0.998
Subsets of students																
Scored 3 or higher, among exam-takers	0.887	0.891	0.879	0.825	0.696	0.946	0.892	0.791	0.894	0.880	0.626	0.746	0.946	0.948	0.918	0.861
Predicted to score 3 or higher, among non-exam taking course-takers	0.735	0.688	0.811	0.905	0.865	0.644	0.919	0.889	0.674	0.829	0.821	0.891	0.636	0.671	0.627	0.876
Took exam, among course- takers	0.790	0.800	0.773	0.882	0.746	0.759	0.857	0.705	0.746	0.834	0.765	0.733	0.735	0.813	0.755	0.823
Predicted to score 3 or higher, among non-course takers with access	0.677	0.680	0.675	0.822	0.559	0.605	0.834	0.743	0.580	0.773	0.498	0.646	0.584	0.676	0.625	0.698
Took course, among students with access	0.055	0.071	0.039	0.031	0.020	0.110	0.076	0.035	0.055	0.054	0.014	0.028	0.100	0.138	0.090	0.040
Predicted to score 3 or higher, among students with access	0.685	0.688	0.682	0.827	0.566	0.617	0.845	0.751	0.589	0.780	0.503	0.654	0.594	0.690	0.631	0.707
AP Spanish Literature and Culture																
All students																
Scored 3 or higher	0.003	0.004	0.001	0.001	0.000	0.008	0.001	0.002	0.003	0.002	0.000	0.000	0.007	0.009	0.006	0.001
Took exam	0.003	0.005	0.002	0.001	0.000	0.009	0.001	0.003	0.004	0.002	0.000	0.000	0.009	0.010	0.007	0.001
Took course	0.005	0.006	0.003	0.001	0.000	0.015	0.001	0.003	0.007	0.003	0.000	0.000	0.015	0.016	0.012	0.002
Course access	0.441	0.442	0.441	0.482	0.342	0.489	0.508	0.459	0.425	0.458	0.321	0.372	0.481	0.512	0.488	0.422
Subsets of students																
Scored 3 or higher, among exam-takers	0.838	0.808	0.921	1.000	1.000	0.826	0.750	0.800	0.800	0.915	1.000	1.000	0.800	0.903	0.798	0.930
Predicted to score 3 or higher, among non-exam taking course-takers	0.632	0.568	0.719	1.000	1.000	0.606	1.000		0.649	0.579	1.000		0.623	0.556	0.557	0.933
Took exam, among course- takers	0.651	0.703	0.543	0.900	0.600	0.630	0.667	1.000	0.625	0.712	0.333	1.000	0.629	0.633	0.619	0.741

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		By ge	nder		E	By race/ethnicit	у		By FRPI	M status	Ву	race/ethnic	ity & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Predicted to score 3 or higher, among non-course takers with access	0.575	0.573	0.577	0.672	0.506	0.439	0.776	0.651	0.470	0.671	0.436	0.590	0.391	0.581	0.479	0.620
Took course, among students with access	0.011	0.014	0.007	0.002	0.001	0.031	0.002	0.006	0.015	0.006	0.001	0.001	0.031	0.031	0.024	0.004
Predicted to score 3 or higher, among students with access	0.576	0.574	0.578	0.672	0.506	0.445	0.777	0.652	0.473	0.671	0.436	0.590	0.399	0.582	0.483	0.621
AP Statistics																
All students																
Scored 3 or higher	0.056	0.060	0.053	0.098	0.022	0.019	0.144	0.059	0.024	0.088	0.014	0.034	0.012	0.043	0.034	0.066
Took exam	0.093	0.101	0.085	0.139	0.051	0.043	0.221	0.092	0.054	0.132	0.039	0.068	0.035	0.070	0.073	0.101
Took course	0.143	0.152	0.135	0.193	0.094	0.084	0.303	0.145	0.097	0.189	0.076	0.119	0.077	0.110	0.121	0.152
Course access	0.980	0.980	0.980	0.994	0.958	0.986	0.995	0.986	0.973	0.987	0.951	0.969	0.985	0.988	0.986	0.978
Subsets of students																
Scored 3 or higher, among exam-takers	0.608	0.591	0.627	0.705	0.440	0.446	0.652	0.636	0.451	0.671	0.365	0.500	0.338	0.615	0.475	0.647
Predicted to score 3 or higher, among non-exam taking course-takers	0.208	0.200	0.216	0.324	0.097	0.103	0.318	0.250	0.101	0.289	0.057	0.137	0.064	0.236	0.137	0.236
Took exam, among course- takers	0.648	0.666	0.628	0.721	0.542	0.507	0.729	0.638	0.552	0.696	0.515	0.566	0.450	0.634	0.597	0.665
Predicted to score 3 or higher, among non-course takers with access	0.126	0.118	0.134	0.270	0.045	0.045	0.282	0.150	0.043	0.216	0.022	0.078	0.025	0.111	0.064	0.153
Took course, among students with access	0.146	0.155	0.137	0.194	0.098	0.086	0.305	0.147	0.100	0.191	0.079	0.123	0.078	0.111	0.123	0.156
Predicted to score 3 or higher, among students with access	0.160	0.152	0.167	0.315	0.055	0.056	0.333	0.184	0.056	0.261	0.028	0.093	0.031	0.135	0.084	0.191

AP World History: Modern

All students

Appendix Table 4. Statistics by AP Course and Student Characteristics, 2016–2019 Grade 9 Cohorts

		Ву де	By gender		E	By race/ethnicit	у		By FRPI	M status	Ву	race/ethnici	ty & FRPM st	atus	By EL	status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non- EL
Scored 3 or higher	0.166	0.182	0.151	0.242	0.093	0.075	0.402	0.191	0.089	0.242	0.064	0.134	0.053	0.144	0.118	0.186
Took exam	0.250	0.283	0.217	0.326	0.163	0.146	0.549	0.279	0.165	0.334	0.126	0.213	0.122	0.219	0.208	0.268
Took course	0.273	0.310	0.237	0.350	0.186	0.168	0.572	0.306	0.187	0.359	0.148	0.239	0.144	0.246	0.230	0.291
Course access	0.998	0.998	0.999	0.997	0.999	0.998	0.999	0.999	0.999	0.998	1.000	0.999	0.999	0.998	0.999	0.998
Subsets of students																
Scored 3 or higher, among exam-takers	0.666	0.643	0.695	0.740	0.574	0.515	0.734	0.683	0.543	0.725	0.505	0.631	0.434	0.660	0.570	0.696
Predicted to score 3 or higher, among non-exam taking course-takers	0.233	0.198	0.282	0.375	0.182	0.102	0.331	0.320	0.136	0.319	0.127	0.250	0.076	0.165	0.128	0.276
Took exam, among course-takers	0.912	0.910	0.915	0.931	0.871	0.863	0.958	0.907	0.879	0.929	0.847	0.892	0.849	0.887	0.898	0.917
Predicted to score 3 or higher, among non-course takers with access	0.125	0.111	0.138	0.287	0.066	0.053	0.223	0.166	0.053	0.216	0.038	0.108	0.036	0.117	0.061	0.154
Took course, among students with access	0.274	0.311	0.237	0.351	0.186	0.168	0.572	0.306	0.187	0.359	0.148	0.239	0.144	0.246	0.231	0.291
Predicted to score 3 or higher, among students with access	0.230	0.220	0.240	0.415	0.115	0.091	0.455	0.277	0.101	0.358	0.069	0.179	0.058	0.197	0.134	0.270

Notes. This table reports fractions of students reaching different points in the AP course/exam pipeline, by each of the 33 AP subjects and reported separately by various student characteristics. The sample includes all high school students who began Grade 9 in a metro-Atlanta school district between school year (SY) 2015–16 and SY 2018–19 and who remained enrolled for at least four years.

Appendix Table 5. AP Pipeline for All Students Averaged across All 33 AP Subjects, 2016–2019 Cohorts

		Ву де	ender		В	By race/ethnic	ity		By FRP	M status	Вуг	ace/ethnicit	ty & FRPM st	atus	By El	L status
	All students	Female	Male	White	Black	Hispanic	Asian	Other race or ethnicity	FRPM	Non- FRPM	Black FRPM	Black non- FRPM	Hispanic FRPM	Hispanic non- FRPM	EL	Non-EL
All students																
Fraction of students scored 3 or higher	0.041	0.044	0.038	0.061	0.020	0.019	0.105	0.045	0.021	0.061	0.014	0.029	0.013	0.035	0.030	0.045
Fraction of students took AP exam	0.064	0.070	0.058	0.084	0.038	0.038	0.152	0.068	0.042	0.086	0.030	0.049	0.033	0.056	0.057	0.068
Fraction of students took AP course	0.080	0.087	0.073	0.097	0.051	0.053	0.178	0.084	0.056	0.103	0.042	0.065	0.047	0.072	0.074	0.082
Fraction of students with AP access	0.778	0.778	0.778	0.811	0.754	0.758	0.818	0.788	0.752	0.803	0.738	0.775	0.748	0.789	0.765	0.783
Subsets of students																
Fraction of students scored 3 or higher, among AP exam-takers	0.636	0.620	0.656	0.723	0.526	0.489	0.693	0.660	0.504	0.700	0.457	0.583	0.415	0.626	0.539	0.670
Fraction of students predicted to score 3 or higher, among non- exam-taking AP course-takers	0.269	0.253	0.288	0.402	0.166	0.153	0.399	0.315	0.150	0.369	0.108	0.227	0.111	0.273	0.198	0.303
Fraction of students took AP exam, among AP course-takers	0.792	0.796	0.788	0.847	0.726	0.705	0.840	0.798	0.731	0.826	0.702	0.748	0.677	0.763	0.752	0.807
Fraction of students predicted to score 3 or higher, among non-AP course-takers with access	0.257	0.252	0.262	0.414	0.165	0.143	0.435	0.297	0.147	0.365	0.119	0.227	0.112	0.240	0.171	0.292
Fraction of students took AP course, among those with access	0.102	0.111	0.094	0.120	0.068	0.070	0.217	0.107	0.075	0.128	0.056	0.083	0.063	0.091	0.096	0.105
Fraction of students predicted to score 3 or higher, among students with AP access	0.278	0.273	0.283	0.437	0.173	0.152	0.467	0.317	0.156	0.391	0.123	0.238	0.116	0.257	0.187	0.315

Notes. This table reports fractions of students reaching different points in the AP course/exam pipeline, averaged across all the 33 AP subjects and reported separately by various student characteristics. The sample includes all high school students who began Grade 9 in a metro-Atlanta school district between school year (SY) 2015–16 and SY 2018–19 and who remained enrolled for at least four years.

Appendix Table 6. Prevalence of Taking Exams without Taking the Course

	2011–2015	cohorts	2016–2019 cohorts
Took exam without taking course	0.012		0.001
Took exam without taking course, among exam-takers	0.187		0.019
All Students	Including non-course-taking exam-takers	Excluding non-course- taking exam-takers	"Excluding (by default) non- course-taking exam-takers"
Fraction of students scored 3 or higher	0.041	0.034	0.041
Fraction of students took AP exam	0.071	0.058	0.064
Fraction of students took AP course	0.068	0.068	0.080
Fraction of students with AP access	0.717	0.717	0.778
Subsets of students			
Fraction of students scored 3 or higher, among AP exam-takers	0.588	0.588	0.636
Fraction of students predicted to score 3 or higher, among non-exam-taking AP course-takers	0.260	0.261	0.269
Fraction of students took AP exam, among AP course-takers	0.849	0.849	0.792
Fraction of students predicted to score 3 or higher, among non-AP course-takers with access	0.258	0.261	0.257
Fraction of students took AP course, among those with access	0.095	0.095	0.102
Fraction of students predicted to score 3 or higher, among students with AP access	0.271	0.274	0.278

Notes. This table reports statistics showing the prevalence of students taking an AP exam without taking the corresponding AP course. Statistics are reported separately for different Grade 9 cohorts. The sample includes all high school students who began Grade 9 in a metro-Atlanta school district between school year (SY) 2010–11 and SY 2018–19 and who remained enrolled for at least four years.

Appendix Table 7. Statistics for All Courses by Cohort

	2011	2012	2013	2014	2015	2016	2017	2018	2019
All students									
Fraction of students scored 3 or higher	0.036	0.040	0.043	0.043	0.045	0.043	0.043	0.039	0.039
Fraction of students took AP exam	0.064	0.070	0.075	0.074	0.074	0.069	0.065	0.060	0.063
Fraction of students took AP course	0.061	0.065	0.072	0.071	0.072	0.082	0.078	0.079	0.081
Fraction of students with AP access	0.637	0.698	0.734	0.754	0.755	0.790	0.779	0.781	0.763
Subsets of students									
Fraction of students scored 3 or higher, among AP Exam-Takers	0.579	0.591	0.578	0.586	0.602	0.617	0.658	0.651	0.622
Fraction of students predicted to score 3 or higher, among non-exam-taking AP course-takers	0.462	0.449	0.397	0.402	0.399	0.494	0.555	0.528	0.489
Fraction of students took AP exam, among AP course-takers	0.841	0.860	0.848	0.849	0.848	0.814	0.811	0.765	0.780
Fraction of students predicted to score 3 or higher, among non-AP course-takers with access	0.267	0.259	0.254	0.257	0.260	0.250	0.286	0.256	0.235
Fraction of students took AP course, among those with access	0.095	0.093	0.098	0.094	0.095	0.103	0.100	0.100	0.106
Fraction of students predicted to score 3 or higher, among students with AP access	0.284	0.274	0.266	0.268	0.271	0.271	0.308	0.278	0.256

Notes. This table reports fractions of students reaching different points in the AP course/exam pipeline, averaged across all the 33 AP subjects and by student's entering Grade 9 cohort. The sample includes all high school students who began Grade 9 in a metro-Atlanta school district between school year (SY) 2010–11 and SY 2018–19 and who remained enrolled for at least four years.

Appendix Table 8. Course-taking by AP Course and Grade 9 Cohort (among Students with Access)

	2011	2012	2013	2014	2015	2016	2017	2018	2019
AP United States History	0.280	0.305	0.273	0.303	0.278	0.276	0.286	0.257	0.282
AP Art History	0.015	0.009	0.017	0.010	0.009	0.009	0.010	0.013	0.009
AP Drawing	800.0	0.009	0.008	0.008	0.012	0.010	0.011	0.010	0.009
AP 2-D Art and Design	0.009	0.007	0.007	0.009	0.011	0.011	0.013	0.011	0.009
AP 3-D Art and Design	0.003	0.003	0.002	0.004	0.003	0.003	0.004	0.002	0.002
AP Biology	0.080	0.086	0.079	0.078	0.057	0.089	0.090	0.103	0.112
AP Chemistry	0.060	0.053	0.060	0.054	0.065	0.054	0.054	0.056	0.055
AP Computer Science A	0.043	0.049	0.043	0.047	0.045	0.047	0.043	0.042	0.045
AP Computer Science Principles	0.042	0.049	0.043	0.018	0.022	0.040	0.056	0.074	0.101
AP Microeconomics				0.018	0.022	0.086	0.130	0.133	0.162
AP Macroeconomics	0.000	0.145	0.055	0.058	0.073	0.187	0.176	0.140	0.186
AP English Language and Composition	0.236	0.237	0.238	0.233	0.235	0.209	0.196	0.189	0.189
AP English Literature and Composition	0.169	0.175	0.169	0.136	0.143	0.131	0.109	0.114	0.109
AP Environmental Science	0.116	0.120	0.132	0.121	0.118	0.126	0.111	0.103	0.101
AP European History	0.025	0.020	0.022	0.018	0.018	0.015	0.019	0.030	0.023
AP French Language and Culture	0.020	0.022	0.019	0.021	0.015	0.016	0.015	0.019	0.011
AP Human Geography	0.159	0.179	0.183	0.211	0.214	0.223	0.201	0.179	0.197
AP German Language and Culture	0.007	0.008	0.012	0.013	0.012	0.012	0.010	0.009	0.008
AP United States Government and Politics	0.000	0.047	0.035	0.034	0.042	0.190	0.194	0.210	0.217
AP Comparative Government and Politics	0.000	0.063	0.086	0.034	0.020	0.023	0.044	0.050	0.032
AP Latin	0.010	0.012	0.016	0.008	0.012	0.013	0.009	0.009	0.011
AP Calculus AB	0.130	0.129	0.145	0.122	0.137	0.116	0.108	0.124	0.122
AP Calculus BC	0.057	0.067	0.064	0.069	0.068	0.070	0.065	0.063	0.065
AP Music Theory	0.010	0.009	0.008	0.011	0.010	0.010	0.008	0.009	0.012
AP Physics C: Electricity and Magnetism	0.040	0.038	0.040	0.043	0.040	0.045	0.047	0.052	0.040

Appendix Table 8. Course-taking by AP Course and Grade 9 Cohort (among Students with Access)

	2011	2012	2013	2014	2015	2016	2017	2018	2019
AP Physics C: Mechanics	0.028	0.029	0.031	0.028	0.034	0.038	0.040	0.032	0.023
AP Physics 1: Algebra-based	0.009	0.007	0.181	0.152	0.152	0.148	0.139	0.139	0.134
AP Physics 2: Algebra-based	0.137	0.000	0.043	0.037	0.031	0.027	0.032	0.024	0.050
AP Psychology	0.160	0.152	0.160	0.180	0.173	0.171	0.166	0.168	0.169
AP Spanish Language and Culture	0.040	0.049	0.053	0.057	0.057	0.059	0.054	0.053	0.051
AP Spanish Literature and Culture	0.001	0.019	0.017	0.010	0.010	0.010	0.011	0.010	0.013
AP Statistics	0.128	0.124	0.121	0.144	0.144	0.142	0.126	0.165	0.153
AP World History: Modern	0.243	0.270	0.294	0.267	0.299	0.292	0.264	0.270	0.269

Notes. This table reports fractions of students taking each AP course (among those with course access) by students' entering Grade 9 cohort. The sample includes all high school students who began Grade 9 in a metro-Atlanta school district between school year (SY) 2010–11 and SY 2018–19 and who remained enrolled for at least four years.

Appendix Table 9. Exam-taking by AP Course and Grade 9 Cohort (among Course-takers)

			, -		•				
	2011	2012	2013	2014	2015	2016	2017	2018	2019
AP United States History	0.874	0.873	0.924	0.898	0.903	0.908	0.886	0.880	0.823
AP Art History	0.696	0.714	0.800	0.770	0.839	0.690	0.800	0.529	0.813
AP Drawing	0.597	0.691	0.613	0.602	0.672	0.500	0.712	0.619	0.809
AP 2-D Art and Design	0.569	0.783	0.781	0.773	0.782	0.737	0.837	0.791	0.919
AP 3-D Art and Design	0.571	0.800	0.688	0.857	0.750	0.840	0.839	0.737	0.944
AP Biology	0.911	0.936	0.915	0.919	0.946	0.914	0.924	0.857	0.875
AP Chemistry	0.860	0.888	0.849	0.856	0.841	0.837	0.844	0.800	0.821
AP Computer Science A	0.617	0.608	0.617	0.636	0.627	0.658	0.658	0.687	0.743
AP Computer Science Principles	0.617	0.608	0.617	0.599	0.600	0.688	0.657	0.712	0.717
AP Microeconomics				0.599	0.600	0.740	0.840	0.562	0.703
AP Macroeconomics		0.933	0.821	0.927	0.938	0.695	0.607	0.560	0.627
AP English Language and Composition	0.873	0.895	0.895	0.886	0.907	0.881	0.869	0.839	0.821
AP English Literature and Composition	0.725	0.733	0.705	0.694	0.656	0.653	0.705	0.628	0.691
AP Environmental Science	0.695	0.753	0.736	0.709	0.747	0.667	0.788	0.674	0.751
AP European History	0.891	0.877	0.800	0.863	0.884	0.868	0.823	0.827	0.819
AP French Language and Culture	0.746	0.835	0.768	0.783	0.844	0.734	0.752	0.727	0.795
AP Human Geography	0.925	0.890	0.924	0.913	0.940	0.913	0.913	0.929	0.889
AP German Language and Culture	0.735	0.727	0.770	0.871	0.582	0.792	0.833	0.750	0.736
AP United States Government and Politics	0.735	0.923	0.888	0.912	0.907	0.719	0.711	0.644	0.660
AP Comparative Government and Politics		0.778	0.847	0.822	0.963	0.545	0.813	0.628	0.890
AP Latin	0.810	0.940	0.849	0.926	0.875	0.638	0.512	0.377	0.482
AP Calculus AB	0.876	0.870	0.830	0.833	0.823	0.839	0.785	0.743	0.761
AP Calculus BC	0.944	0.965	0.947	0.947	0.951	0.946	0.937	0.886	0.909
AP Music Theory	0.667	0.738	0.544	0.446	0.552	0.492	0.652	0.558	0.729
AP Physics C: Electricity and Magnetism	0.875	0.866	0.815	0.850	0.854	0.867	0.873	0.704	0.876
AP Physics C: Mechanics	0.857	0.778	0.821	0.930	0.930	0.919	0.873	0.648	0.896
AP Physics 1: Algebra-based	0.667	0.803	0.845	0.833	0.826	0.837	0.774	0.816	0.710
AP Physics 2: Algebra-based	0.742	0.802	0.688	0.635	0.636	0.639	0.633	0.704	0.682

Appendix Table 9. Exam-taking by AP Course and Grade 9 Cohort (among Course-takers)

	2011	2012	2013	2014	2015	2016	2017	2018	2019
AP Psychology	0.793	0.847	0.825	0.826	0.844	0.840	0.830	0.765	0.798
AP Spanish Language and Culture	0.793	0.897	0.904	0.869	0.829	0.826	0.790	0.732	0.809
AP Spanish Literature and Culture	0.000	0.936	0.955	0.750	0.657	0.621	0.738	0.660	0.577
AP Statistics	0.759	0.826	0.779	0.780	0.714	0.664	0.684	0.540	0.719
AP World History: Modern	0.942	0.931	0.897	0.942	0.932	0.916	0.937	0.917	0.878

Notes. This table reports fractions of students taking each AP exam (among those who took the corresponding course) by students' entering Grade 9 cohort. The sample includes all high school students who began Grade 9 in a metro-Atlanta school district between school year (SY) 2010–11 and SY 2018–19 and who remained enrolled for at least four years.

Appendix Table 10. Pass Rate (Scoring 3 or Higher) by AP Course and Cohort (among Exam-takers)

	2011	2012	2013	2014	2015	2016	2017	2018	2019
AP United States History	0.542	0.557	0.535	0.515	0.569	0.584	0.645	0.686	0.522
AP Art History	0.297	0.400	0.403	0.574	0.574	0.775	0.469	0.500	0.667
AP Drawing	0.925	0.929	0.980	0.920	0.913	0.902	0.949	0.954	0.958
AP 2-D Art and Design	0.865	0.809	0.920	0.897	0.907	0.885	0.947	0.945	0.967
AP 3-D Art and Design	0.875	0.833	0.818	0.833	0.778	0.762	0.962	0.857	1.000
AP Biology	0.504	0.587	0.582	0.602	0.572	0.645	0.724	0.809	0.783
AP Chemistry	0.547	0.590	0.582	0.635	0.579	0.638	0.600	0.612	0.498
AP Computer Science A	0.445	0.488	0.535	0.457	0.472	0.583	0.621	0.624	0.595
AP Computer Science Principles	0.445	0.488	0.535	0.625	0.570	0.604	0.655	0.705	0.711
AP Microeconomics				0.625	0.570	0.662	0.669	0.632	0.711
AP Macroeconomics		0.794	0.692	0.789	0.810	0.643	0.648	0.387	0.592
AP English Language and Composition	0.595	0.597	0.617	0.628	0.645	0.656	0.662	0.673	0.644
AP English Literature and Composition	0.531	0.592	0.572	0.605	0.498	0.493	0.649	0.504	0.810
AP Environmental Science	0.440	0.513	0.551	0.559	0.590	0.597	0.641	0.638	0.630
AP European History	0.732	0.835	0.536	0.824	0.786	0.898	0.888	0.869	0.822
AP French Language and Culture	0.667	0.605	0.563	0.654	0.667	0.611	0.736	0.580	0.557
AP Human Geography	0.527	0.533	0.528	0.516	0.560	0.564	0.579	0.696	0.638
AP German Language and Culture	0.840	0.625	0.532	0.556	0.813	0.684	0.850	0.538	0.538
AP United States Government and Politics	0.840	0.604	0.563	0.618	0.451	0.608	0.634	0.568	0.524
AP Comparative Government and Politics		0.771	0.620	0.703	0.769	0.750	0.808	0.831	0.800
AP Latin	0.588	0.577	0.533	0.660	0.778	0.705	0.727	0.700	0.556
AP Calculus AB	0.613	0.559	0.576	0.613	0.574	0.558	0.599	0.573	0.503
AP Calculus BC	0.769	0.730	0.762	0.733	0.672	0.703	0.724	0.748	0.683
AP Music Theory	0.413	0.511	0.645	0.703	0.568	0.594	0.567	0.759	0.674
AP Physics C: Electricity and Magnetism	0.860	0.888	0.876	0.893	0.883	0.929	0.866	0.782	0.742
AP Physics C: Mechanics	0.850	0.732	0.816	0.894	0.750	0.851	0.897	0.741	0.698
AP Physics 1: Algebra-based	0.413	0.264	0.345	0.373	0.445	0.423	0.471	0.463	0.335
AP Physics 2: Algebra-based	0.546	0.518	0.475	0.275	0.393	0.436	0.276	0.368	0.333

Appendix Table 10. Pass Rate (Scoring 3 or Higher) by AP Course and Cohort (among Exam-takers)

	2011	2012	2013	2014	2015	2016	2017	2018	2019
AP Psychology	0.631	0.643	0.659	0.655	0.708	0.734	0.735	0.709	0.646
AP Spanish Language and Culture	0.834	0.900	0.911	0.890	0.872	0.909	0.918	0.853	0.862
AP Spanish Literature and Culture		0.409	0.469	0.472	0.682	0.889	0.889	0.774	0.767
AP Statistics	0.564	0.555	0.545	0.537	0.620	0.614	0.649	0.615	0.564
AP World History: Modern	0.579	0.548	0.599	0.581	0.588	0.593	0.674	0.697	0.706

Notes. This table reports fractions of students scoring a 3 or higher on each AP exam (among those who took the exam) by students' entering Grade 9 cohort. The sample includes all high school students who began Grade 9 in a metro-Atlanta school district between school year (SY) 2010–11 and SY 2018–19 and who remained enrolled for at least four years.