

## The Nation's Charter Report Card:

*First-ever state ranking of charter student performance on the same test*

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# National Assessment of Educational Progress (NAEP)

- The nation's report card

- Administered under the direction of the U. S. Department of Education.

  - Provides information on public student performance in math and reading every 2 years for representative samples of students in each state

    - Students tested in other subjects less frequently

  - Sampled school districts and charter schools expected to participate

  - Sample of students is smaller for charter than district students, as only 7% of all students attend charters

  - State proficiency tests administered to all students in every state, but each state designs its own tests, making cross-state comparisons questionable.

# Our Ranking is based upon:

- 24 NAEP surveys: grade 4 and 8 math and reading (2009-2019)
- Approximately 145,730 tests for charter students
  - (2,430 Alaska charter students).
- 
- NAEP is representative by state and for the country as a whole

# Results adjusted for student background

- Adjustments made for students' ethnicity, gender, free and reduced-price lunch status, locale, special education, English Language Learner status, age on February 1 of testing year, computer availability in the home, the number of books in the home, and levels of parental education (only for grade 8)
- Also, we standardized scores within years, subject, and grades and for age of charter school

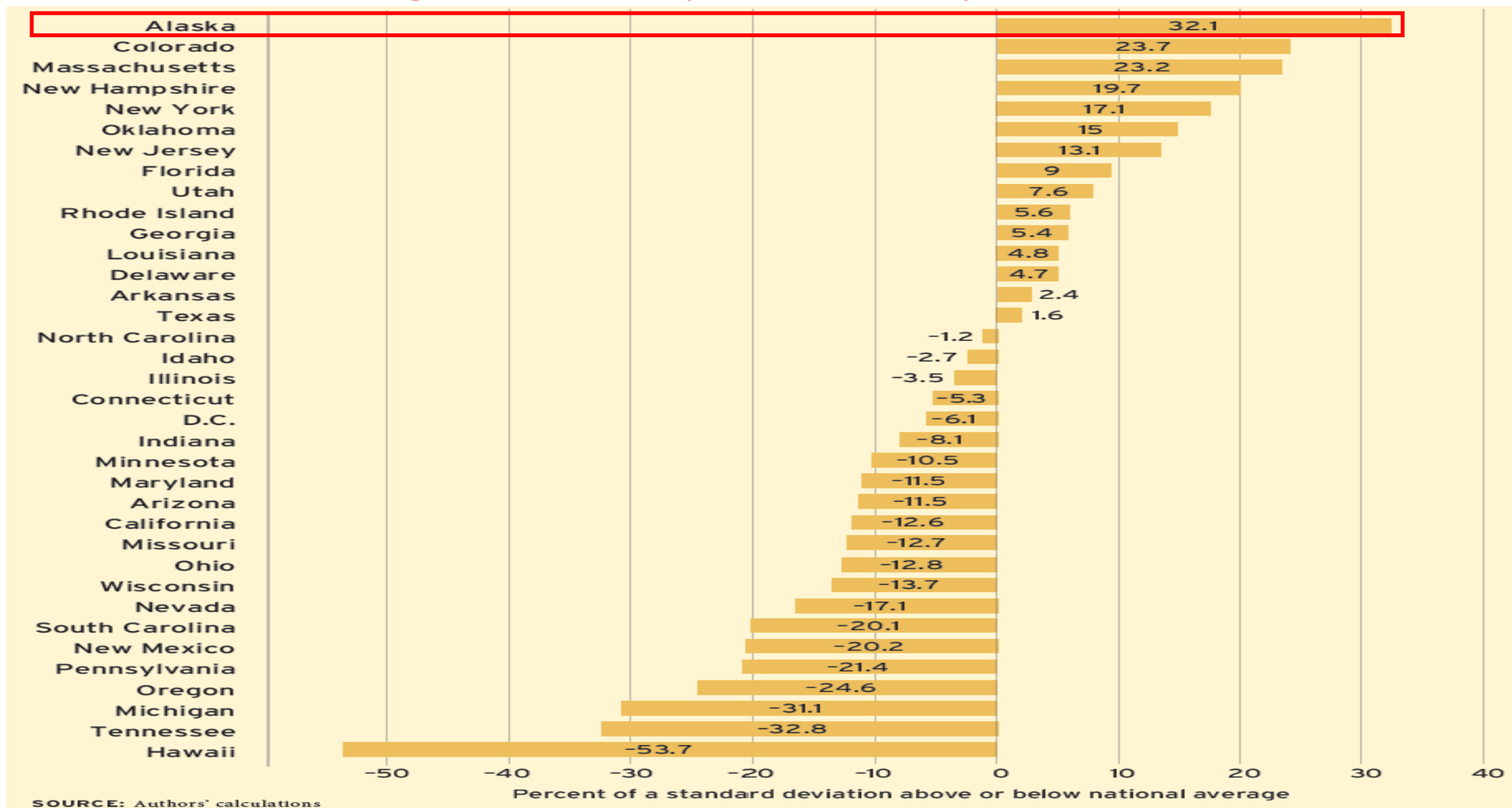
# Ranking and interpretation

- State ranks based on the adjusted scores for charter students from 2009 to 2019 as compared to the scores of charter students nationwide.
- Rankings do not compare charters to district schools within a state; instead they compare charter schools in one state to those in other states.
- Measure is in standard deviations (sd)
- 0.31 standard deviations equals **one** years' worth of learning
- 1.04sd equals **four** years of learning (difference between 4<sup>th</sup> and 8<sup>th</sup> grade scores on same test).

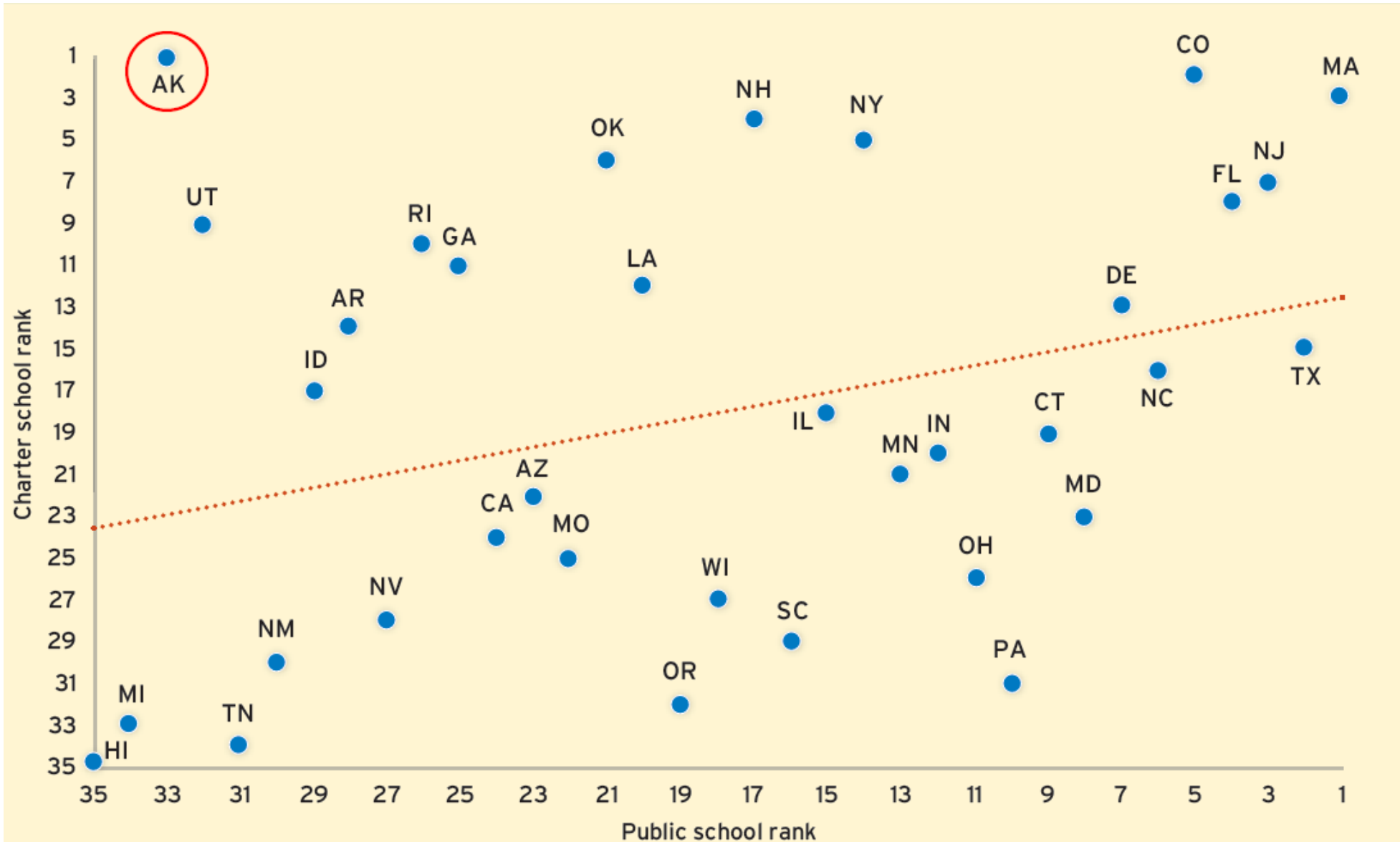
# Limitations

- We are not able to track year-by-year trends in charter student performance within states (too few observations)
- We have no information on student performance at virtual charters (excluded in NAEP)
- Only 4th and 8th grade data. No information on high school (insufficient observations).
- Data end in 2019, before Covid pandemic

# Ranking states by charter performance



## Charter school ranking weakly related to ranking of all public schools



**SOURCE:** Authors' calculations based on data used for PEPG rankings in Figure 1 (Charter school rank) and rankings of states by the Urban Institute based on NAEP data (Public school rank). NAEP data is from the National Center for Education Statistics.



# Ranking of states on raw 4th and 8th grade performances of charter students on NAEP, 2009–2019

Rank	State	Coefficient	SE	Rank	State	Coefficient	SE
1	New Hampshire	0.658	0.080	19	Minnesota	−0.067	0.016
2	Idaho	0.515	0.031	20	Wisconsin	−0.075	0.020
3	Colorado	0.386	0.012	21	Hawaii	−0.076	0.036
4	Massachusetts	0.353	0.017	22	South Carolina	−0.087	0.029
5	North Carolina	0.286	0.013	23	New Mexico	−0.104	0.028
6	Utah	0.243	0.016	24	Oklahoma	−0.118	0.040
7	Alaska	0.224	0.049	25	Texas	−0.142	0.008
8	Florida	0.222	0.007	26	Indiana	−0.216	0.023
9	Delaware	0.200	0.032	27	Connecticut	−0.244	0.041
10	Arizona	0.128	0.010	28	Maryland	−0.256	0.025
11	Oregon	0.113	0.025	29	Illinois	−0.344	0.018
12	Nevada	0.060	0.025	30	Louisiana	−0.354	0.016
13	Arkansas	0.059	0.035	31	DC	−0.373	0.022
14	New Jersey	0.018	0.018	32	Michigan	−0.379	0.009
15	Georgia	0.005	0.017	33	Pennsylvania	−0.409	0.012
16	Rhode Island	−0.038	0.048	34	Missouri	−0.435	0.028
17	California	−0.051	0.006	35	Ohio	−0.445	0.012
18	New York	−0.062	0.013	36	Tennessee	−0.708	0.027

# Ranking of states on **adjusted** 4th and 8th grade performances of charter students **in math**

Math			
Rank	State	Coefficient	SE
1	Alaska	0.398	0.059
2	Massachusetts	0.245	0.021
3	Colorado	0.224	0.017
4	New York	0.184	0.016
5	Oklahoma	0.161	0.048
6	New Jersey	0.123	0.022
7	Texas	0.099	0.010
8	New Hampshire	0.077	0.093
9	Utah	0.059	0.021
10	Louisiana	0.037	0.019
11	Georgia	0.022	0.020
12	Florida	0.020	0.009
13	Delaware	0.019	0.037
14	Rhode Island	0.018	0.055
15	Arkansas	0.007	0.040
16	Illinois	0.000	0.021
17	North Carolina	-0.034	0.016
18	Idaho	-0.036	0.036

Math			
Rank	State	Coefficient	SE
19	DC	-0.040	0.026
20	Minnesota	-0.048	0.020
21	Connecticut	-0.076	0.047
22	Wisconsin	-0.088	0.024
23	Arizona	-0.101	0.013
24	Indiana	-0.120	0.027
25	Maryland	-0.128	0.029
26	Ohio	-0.138	0.015
27	California	-0.142	0.009
28	Nevada	-0.192	0.029
29	Missouri	-0.194	0.033
30	New Mexico	-0.239	0.033
31	Pennsylvania	-0.285	0.014
32	South Carolina	-0.303	0.034
33	Oregon	-0.322	0.029
34	Tennessee	-0.375	0.031
35	Michigan	-0.392	0.012
36	Hawaii	-0.599	0.043

# Ranking of states on adjusted 4th and 8th grade performances of charter students in math and in reading

Math				Reading			
Rank	State	Coefficient	SE	Rank	State	Coefficient	SE
1	Alaska	0.398	0.059	1	New Hampshire	0.313	0.092
2	Massachusetts	0.245	0.021	2	Colorado	0.250	0.017
3	Colorado	0.224	0.017	3	Alaska	0.239	0.059
4	New York	0.184	0.016	4	Massachusetts	0.226	0.021
5	Oklahoma	0.161	0.048	5	Florida	0.160	0.009
6	New Jersey	0.123	0.022	6	New York	0.159	0.016
7	Texas	0.099	0.010	7	Oklahoma	0.153	0.045
8	New Hampshire	0.077	0.093	8	New Jersey	0.139	0.021
9	Utah	0.059	0.021	9	Rhode Island	0.094	0.056
10	Louisiana	0.037	0.019	10	Utah	0.092	0.022
11	Georgia	0.022	0.020	11	Georgia	0.083	0.020
12	Florida	0.020	0.009	12	Delaware	0.074	0.037
13	Delaware	0.019	0.037	13	Louisiana	0.063	0.019
14	Rhode Island	0.018	0.055	14	Arkansas	0.041	0.040
15	Arkansas	0.007	0.040	15	North Carolina	0.011	0.016
16	Illinois	0.000	0.021	16	Idaho	-0.019	0.035
17	North Carolina	-0.034	0.016	17	Connecticut	-0.025	0.047
18	Idaho	-0.036	0.036	18	Indiana	-0.037	0.027

Math				Reading			
Rank	State	Coefficient	SE	Rank	State	Coefficient	SE
19	DC	-0.040	0.026	19	Missouri	-0.055	0.033
20	Minnesota	-0.048	0.020	20	Texas	-0.064	0.010
21	Connecticut	-0.076	0.047	21	Illinois	-0.072	0.021
22	Wisconsin	-0.088	0.024	22	DC	-0.082	0.025
23	Arizona	-0.101	0.013	23	South Carolina	-0.101	0.033
24	Indiana	-0.120	0.027	24	Maryland	-0.103	0.029
25	Maryland	-0.128	0.029	25	California	-0.114	0.009
26	Ohio	-0.138	0.015	26	Ohio	-0.117	0.015
27	California	-0.142	0.009	27	Arizona	-0.131	0.013
28	Nevada	-0.192	0.029	28	Nevada	-0.145	0.029
29	Missouri	-0.194	0.033	29	Pennsylvania	-0.146	0.014
30	New Mexico	-0.239	0.033	30	Minnesota	-0.158	0.019
31	Pennsylvania	-0.285	0.014	31	New Mexico	-0.164	0.032
32	South Carolina	-0.303	0.034	32	Oregon	-0.172	0.029
33	Oregon	-0.322	0.029	33	Wisconsin	-0.186	0.023
34	Tennessee	-0.375	0.031	34	Michigan	-0.232	0.012
35	Michigan	-0.392	0.012	35	Tennessee	-0.271	0.031
36	Hawaii	-0.599	0.043	36	Hawaii	-0.479	0.042

## Ranking of states on adjusted 4th and 8th grade performances of lower-income charter students

Rank	State	Coefficient	SE	Rank	State	Coefficient	SE
1	Alaska	0.068	0.085	19	Indiana	-0.350	0.024
2	Massachusetts	0.030	0.022	20	Arkansas	-0.351	0.037
3	Colorado	-0.053	0.021	21	DC	-0.387	0.021
4	New York	-0.086	0.013	22	California	-0.421	0.009
5	Oklahoma	-0.096	0.037	23	Ohio	-0.431	0.011
6	Florida	-0.123	0.010	24	Minnesota	-0.443	0.019
7	Utah	-0.124	0.027	25	Missouri	-0.445	0.026
8	New Jersey	-0.136	0.018	26	Maryland	-0.454	0.028
9	North Carolina	-0.190	0.022	27	Arizona	-0.461	0.014
10	Rhode Island	-0.196	0.046	28	Wisconsin	-0.467	0.022
11	Idaho	-0.228	0.049	29	New Mexico	-0.489	0.032
12	Louisiana	-0.241	0.016	30	Pennsylvania	-0.527	0.012
13	Texas	-0.256	0.008	31	South Carolina	-0.531	0.035
14	Delaware	-0.259	0.045	32	Oregon	-0.596	0.032
15	Illinois	-0.266	0.017	33	Tennessee	-0.599	0.026
16	Georgia	-0.278	0.018	34	Michigan	-0.643	0.010
17	Connecticut	-0.298	0.039	35	Hawaii	-0.959	0.046
18	Nevada	-0.342	0.039				



# Ranking of states on adjusted 4th and 8th grade performances of charter students from higher-income households

Rank	State	Coefficient	SE	Rank	State	Coefficient	SE
1	Massachusetts	0.585	0.022	19	Texas	0.335	0.015
2	Colorado	0.563	0.015	20	Wisconsin	0.325	0.026
3	Alaska	0.561	0.048	21	Maryland	0.318	0.030
4	Georgia	0.512	0.024	22	Ohio	0.317	0.028
5	Arkansas	0.491	0.044	23	Missouri	0.316	0.052
6	Delaware	0.476	0.032	24	Indiana	0.301	0.033
7	Louisiana	0.470	0.026	25	California	0.269	0.010
8	New Jersey	0.468	0.030	26	Arizona	0.259	0.016
9	New York	0.466	0.025	27	Connecticut	0.242	0.063
10	New Hampshire	0.438	0.089	28	Pennsylvania	0.242	0.021
11	Florida	0.432	0.009	29	South Carolina	0.239	0.033
12	Oklahoma	0.405	0.073	30	Michigan	0.198	0.015
13	DC	0.403	0.038	31	Oregon	0.197	0.027
14	Rhode Island	0.386	0.075	32	New Mexico	0.193	0.034
15	Utah	0.386	0.020	33	Nevada	0.170	0.025
16	North Carolina	0.361	0.015	34	Illinois	0.075	0.037
17	Idaho	0.340	0.033	35	Hawaii	-0.019	0.043
18	Minnesota	0.340	0.021	36	Tennessee	-0.022	0.041

Note. Estimates are adjusted for covariates displayed in Table 1. Table displays predicted coefficient and standard error (SE) for each state. Scores standardized to place all tests on a common scale. Positive score indicates above average state performance. Negative score indicates below average state performance. Estimates use survey weights. Imprecise estimates with standard error >0.099 for Alabama, Iowa, Kansas, Maine, North Dakota, Virginia, and Wyoming have been excluded. Very similar results are obtained when fixed effects for charter school's opening year is excluded from the estimating equation (correlation between two rankings = 0.99). We do not control for the variable used to classify the specific subgroup in question.

# Ranking of states on adjusted 4th and 8th grade performances of white charter students, 2009–2019

Rank	State	Coefficient	SE
1	DC	0.703	0.090
2	Massachusetts	0.695	0.028
3	Alaska	0.590	0.054
4	New Jersey	0.580	0.054
5	Colorado	0.578	0.017
6	Delaware	0.576	0.042
7	New Hampshire	0.570	0.078
8	Rhode Island	0.532	0.098
9	Arkansas	0.497	0.043
10	Georgia	0.489	0.026
11	Missouri	0.473	0.069
12	New York	0.470	0.053
13	Maryland	0.467	0.053
14	Louisiana	0.466	0.029
15	Florida	0.446	0.011
16	North Carolina	0.429	0.016
17	Idaho	0.421	0.028

Rank	State	Coefficient	SE
18	Minnesota	0.417	0.023
19	Indiana	0.401	0.037
20	Utah	0.401	0.019
21	Wisconsin	0.379	0.027
22	Hawaii	0.366	0.058
23	Oklahoma	0.354	0.080
24	Pennsylvania	0.332	0.021
25	Arizona	0.321	0.015
26	Ohio	0.312	0.023
27	California	0.308	0.013
28	Texas	0.302	0.025
29	New Mexico	0.300	0.041
30	Illinois	0.259	0.095
31	Nevada	0.239	0.033
32	Michigan	0.237	0.016
33	South Carolina	0.233	0.034
34	Oregon	0.219	0.025

Note. Estimates are adjusted for covariates displayed in Table 1. Table displays predicted coefficient and standard error (SE) for each state. Scores standardized to place all tests on a common scale. Positive score indicates above average state performance. Negative score indicates below average state performance. Estimates use survey weights. Imprecise estimates with standard error >0.099 for Alabama, Iowa, Kansas, Maine, North Dakota, Virginia, and Wyoming have been excluded. Very similar results are obtained when fixed effects for charter school's opening year is excluded from the estimating equation (correlation between two rankings = 0.99). We do not control for the variable used to classify the specific subgroup in question. Imprecise estimates for Connecticut and Tennessee are excluded.

# Ranking of states on average adjusted 4th and 8th grade performances of charter students tested in cities

Rank	State	Coefficient	SE	Rank	State	Coefficient	SE
1	Alaska	0.195	0.068	19	DC	-0.199	0.017
2	New York	0.092	0.011	20	Delaware	-0.204	0.042
3	Colorado	0.087	0.017	21	Ohio	-0.231	0.012
4	Massachusetts	0.073	0.022	22	Minnesota	-0.239	0.018
5	New Jersey	0.067	0.018	23	California	-0.245	0.008
6	Oklahoma	0.038	0.031	24	Indiana	-0.245	0.021
7	Louisiana	-0.022	0.015	25	Missouri	-0.265	0.022
8	Florida	-0.043	0.012	26	Maryland	-0.281	0.024
9	Georgia	-0.080	0.017	27	Oregon	-0.281	0.034
10	Idaho	-0.081	0.049	28	Arizona	-0.284	0.012
11	Arkansas	-0.082	0.038	29	Wisconsin	-0.301	0.018
12	Rhode Island	-0.091	0.055	30	New Mexico	-0.333	0.032
13	Texas	-0.112	0.008	31	Nevada	-0.342	0.026
14	North Carolina	-0.133	0.018	32	Pennsylvania	-0.371	0.011
15	Utah	-0.145	0.032	33	Hawaii	-0.415	0.070
16	Connecticut	-0.169	0.033	34	Tennessee	-0.472	0.021
17	Illinois	-0.171	0.014	35	Michigan	-0.515	0.011
18	South Carolina	-0.184	0.042				

Note. Estimates are adjusted for covariates displayed in Table 1. Table displays predicted coefficient and standard error (SE) for each state. Scores standardized to place all tests on a common scale. Positive score indicates above average state performance. Negative score indicates below average state performance. Estimates use survey weights. Imprecise estimates with standard error >0.099 for Alabama, Iowa, Kansas, Maine, North Dakota, Virginia, and Wyoming have been excluded. Very similar results are obtained when fixed effects for charter school's opening year is excluded from the estimating equation (correlation between two rankings = 0.99). We do not control for the variable used to classify the specific subgroup in question. Imprecise estimate for New Hampshire is excluded.

# Ranking of states on adjusted 4th and 8th grade performances of charter students tested in suburbs, towns, and rural areas

Rank	State	Coefficient	SE	Rank	State	Coefficient	SE
1	Alaska	0.445	0.057	16	Idaho	0.132	0.032
2	Colorado	0.422	0.017	17	Indiana	0.128	0.046
3	Massachusetts	0.396	0.023	18	Arizona	0.108	0.015
4	New Hampshire	0.289	0.092	19	Louisiana	0.074	0.030
5	Delaware	0.255	0.036	20	Minnesota	0.063	0.023
6	Florida	0.253	0.009	21	Pennsylvania	0.049	0.024
7	Utah	0.235	0.020	22	Nevada	0.035	0.036
8	Georgia	0.221	0.025	23	California	0.028	0.010
9	Rhode Island	0.220	0.059	24	New York	-0.016	0.039
10	New Jersey	0.192	0.029	25	South Carolina	-0.049	0.032
11	Arkansas	0.174	0.045	26	New Mexico	-0.052	0.035
12	North Carolina	0.157	0.016	27	Ohio	-0.068	0.022
13	Wisconsin	0.146	0.036	28	Michigan	-0.081	0.014
14	Texas	0.140	0.018	29	Oregon	-0.128	0.027
15	Maryland	0.135	0.039	30	Hawaii	-0.417	0.037

Note. Estimates are adjusted for covariates displayed in Table 1. Table displays predicted coefficient and standard error (SE) for each state. Scores standardized to place all tests on a common scale. Positive score indicates above average state performance. Negative score indicates below average state performance. Estimates use survey weights. Imprecise estimates with standard error >0.099 for Alabama, Iowa, Kansas, Maine, North Dakota, Virginia, and Wyoming have been excluded. Very similar results are obtained when fixed effects for charter school's opening year is excluded from the estimating equation (correlation between two rankings = 0.99). We do not control for the variable used to classify the specific subgroup in question. Imprecise estimates for Connecticut, DC, Illinois, Missouri, Oklahoma, and Tennessee excluded.



# Ranking of states on average adjusted 4th and 8th grade performances of **boys** at charter schools

Rank	State	Coefficient	SE	Rank	State	Coefficient	SE
1	Alaska	0.303	0.060	19	Connecticut	-0.103	0.050
2	New Hampshire	0.226	0.093	20	DC	-0.117	0.027
3	Colorado	0.219	0.017	21	Ohio	-0.146	0.015
4	Massachusetts	0.209	0.022	22	Indiana	-0.148	0.028
5	Oklahoma	0.167	0.049	23	Arizona	-0.154	0.014
6	New York	0.154	0.017	24	California	-0.156	0.009
7	New Jersey	0.103	0.023	25	Maryland	-0.164	0.030
8	Rhode Island	0.058	0.057	26	Missouri	-0.177	0.036
9	Florida	0.050	0.010	27	Wisconsin	-0.178	0.024
10	Utah	0.044	0.022	28	Minnesota	-0.188	0.020
11	Delaware	0.020	0.039	29	Nevada	-0.223	0.030
12	Louisiana	0.003	0.020	30	New Mexico	-0.252	0.034
13	Georgia	0.001	0.021	31	Pennsylvania	-0.258	0.015
14	Arkansas	-0.049	0.042	32	South Carolina	-0.275	0.034
15	Texas	-0.053	0.010	33	Oregon	-0.330	0.030
16	Idaho	-0.060	0.037	34	Michigan	-0.344	0.012
17	Illinois	-0.088	0.022	35	Tennessee	-0.412	0.033
18	North Carolina	-0.093	0.017	36	Hawaii	-0.622	0.043

Note. Estimates are adjusted for covariates displayed in Table 1. Table displays predicted coefficient and standard error (SE) for each state. Scores standardized to place all tests on a common scale. Positive score indicates above average state performance. Negative score indicates below average state performance. Estimates use survey weights. Imprecise estimates with standard error >0.099 for Alabama, Iowa, Kansas, Maine, North Dakota, Virginia, and Wyoming have been excluded. Very similar results are obtained when fixed effects for charter school's opening year is excluded from the estimating equation (correlation between two rankings = 0.99).

# Ranking of states on average adjusted 4th and 8th grade performances of girls at charter schools

Rank	State	Coefficient	SE	Rank	State	Coefficient	SE
1	Alaska	0.333	0.058	19	DC	-0.007	0.024
2	Massachusetts	0.260	0.021	20	Connecticut	-0.011	0.044
3	Colorado	0.259	0.016	21	Indiana	-0.016	0.026
4	New York	0.184	0.015	22	Minnesota	-0.017	0.019
5	New Hampshire	0.165	0.092	23	Maryland	-0.067	0.028
6	New Jersey	0.159	0.020	24	Arizona	-0.076	0.013
7	Oklahoma	0.147	0.044	25	Missouri	-0.078	0.031
8	Florida	0.128	0.009	26	Wisconsin	-0.095	0.023
9	Utah	0.110	0.021	27	California	-0.099	0.009
10	Georgia	0.106	0.019	28	Ohio	-0.110	0.014
11	Louisiana	0.097	0.018	29	Nevada	-0.114	0.028
12	Arkansas	0.094	0.039	30	South Carolina	-0.129	0.033
13	Texas	0.085	0.010	31	New Mexico	-0.158	0.032
14	Delaware	0.079	0.035	32	Oregon	-0.159	0.028
15	North Carolina	0.071	0.016	33	Pennsylvania	-0.173	0.014
16	Rhode Island	0.053	0.054	34	Tennessee	-0.250	0.029
17	Illinois	0.016	0.020	35	Michigan	-0.280	0.011
18	Idaho	0.005	0.034	36	Hawaii	-0.451	0.042

Note. Estimates are adjusted for covariates displayed in Table 1. Table displays predicted coefficient and standard error (SE) for each state. Scores standardized to place all tests on a common scale. Positive score indicates above average state performance. Negative score indicates below average state performance. Estimates use survey weights. Imprecise estimates with standard error >0.099 for Alabama, Iowa, Kansas, Maine, North Dakota, Virginia, and Wyoming have been excluded. Very similar results are obtained when fixed effects for charter school's opening year is excluded from the estimating equation (correlation between two rankings = 0.99).

# Additional findings

- Charters authorized by state agencies (board or department) outperform charters authorized by other entities
- Charters authorized by higher education institutions show lower performances
- Standalone and for-profit charters do not perform as well as those in non-profit charter school networks.
- Specialized charters outperform those with generic objectives
- No effects of funding level, or the percentage of charter students in state

# Take-aways

- Charter student performance varies widely by state even after adjusting for student background.
- Alaska stands first in overall rankings and for many subgroups.
- Alaska stands first in math and third (tied for second) in reading performances
- Charter performance is highest in schools authorized by state agency.
- Student performance is higher at specialized charter schools.

Thank you

# Correlations among performances of all students and subgroups

Category	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Overall (1)	1.00											
White (2)	0.84	1.00										
Black (3)	0.92	0.74	1.00									
Hispanic (4)	0.77	0.62	0.64	1.00								
Male (5)	0.99	0.84	0.93	0.75	1.00							
Female (6)	0.99	0.83	0.89	0.76	0.96	1.00						
FRL eligible (7)	0.95	0.75	0.91	0.73	0.94	0.94	1.00					
FRL ineligible (8)	0.92	0.90	0.78	0.75	0.90	0.91	0.79	1.00				
First gen. (9)	0.92	0.75	0.86	0.80	0.90	0.93	0.88	0.85	1.00			
Par. With coll. degree (10)	0.93	0.78	0.85	0.76	0.91	0.92	0.82	0.90	0.90	1.00		
City (11)	0.97	0.76	0.90	0.78	0.95	0.96	0.92	0.88	0.91	0.93	1.00	
Sub Town Rural (12)	0.74	0.79	0.67	0.46	0.72	0.75	0.69	0.73	0.61	0.62	0.60	1.00