The Effect of Industry Changes On SAT and ACT Participation

Methodology

Data Cleaning

Summary Statistics

Visualization

	Contractions Secured 1 (Secured															
participation_act_17	1	-0.84	-0.86	-0.87	-0.3	-0.86	-0.84				0.92	-0.78	-0.76	0.52	0.56	0.55
english_act_17	-0.84		0.97	0.99	0.4	0.99	0.69		-0.42		-0.8	0.93		-0.35	-0.37	-0.36
math_act_17	-0.86	0.97		0.98	0.41	0.99	0.71		-0.42		-0.82	0.93		-0.36	-0.34	-0.35
reading_act_17	-0.87	0.99	0.98	1	0.4	1	0.71				-0.82	0.93		-0.36	-0.37	-0.37
science_act_17	-0.3	0.4	0.41	0.4		0.41	0.25	-0.14	-0.11	-0.12	-0.31	0.45	0.25	-0.12	-0.11	-0.12
composite_act_17	-0.86	0.99	0.99		0.41		0.69		-0.42		-0.81	0.94		-0.35	-0.35	-0.36
participation_sat_17	-0.84				0.25		1	-0.87	-0.86	-0.87	-0.79		0.87		-0.69	-0.68
evidence-based_reading_and_writing_sat_17	0.72				-0.14		-0.87		0.99				-0.82		0.87	
math_sat_17	0.68	-0.42	-0.42		-0.11	-0.42	-0.86	0.99				-0.39	-0.79			
total_sat_17	0.7				-0.12		-0.87					-0.42	-0.81		0.88	
participation_act_18	0.92	-0.8	-0.82	-0.82	-0.31	-0.81	-0.79					-0.86	-0.87			
composite_act_18	-0.78	0.93	0.93	0.93	0.45	0.94	0.64		-0.39	-0.42	-0.86			-0.41	-0.41	-0.41
participation_sat_18	-0.76				0.25		0.87	-0.82	-0.79	-0.81	-0.87	0.76		-0.76	-0.79	-0.79
evidence-based_reading_and_writing_sat_18	0.52	-0.35	-0.36	-0.36	-0.12	-0.35	-0.67					-0.41	-0.76		0.95	0.99
math_sat_18	0.56	-0.37	-0.34	-0.37	-0.11	-0.35	-0.69		0.88	0.88		-0.41	-0.79	0.95		0.99
total_sat_18	0.55	-0.36	-0.35	-0.37	-0.12	-0.36	-0.68			0.85		-0.41	-0.79	0.99	0.99	
	participation_act_17 -	english_act_17 -	math_act_17 -	reading_act_17 -	science_act_17 -	composite_act_17 -	participation_sat_17 -	dence-based_reading_and_writing_sat_ 1 7 -	math_sat_17 -	total_sat_17 -	participation_act_18 -	composite_act_18 -	participation_sat_18 -	dence-based_reading_and_writing_sat_18 -	math_sat_18 -	total_sat_18 -

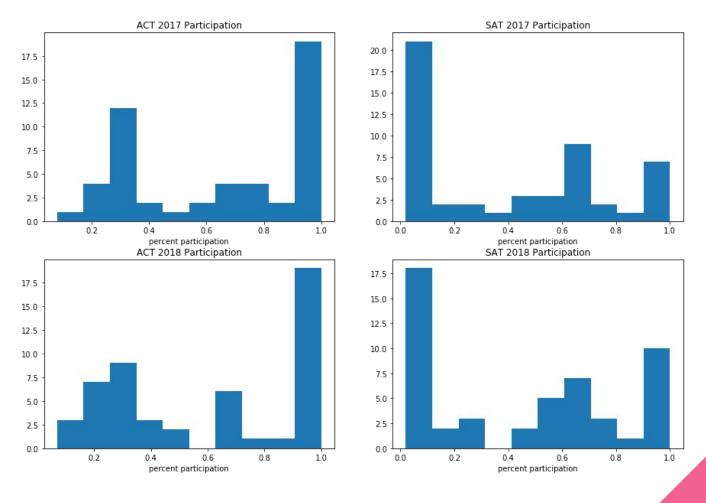
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- 0.4

- 0.0

-0.4

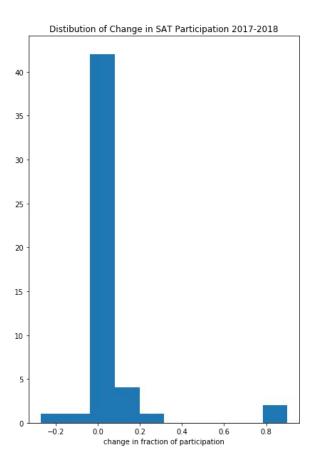
- -0.8

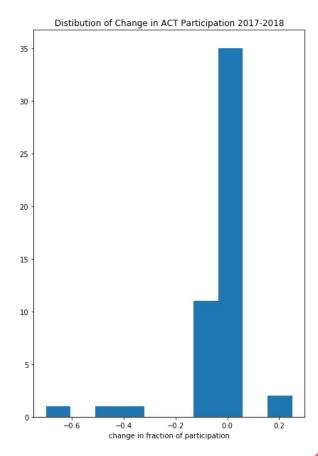


Choosing States

Largest Change in Participation Rates

Didn't require SAT or ACT for graduation





Economic Factors Behind Test Participation

 Hypothesis: States where the number of jobs that require college degrees are growing will see increased participation in the ACT or/and the SAT

Tested with Data from The U.S. Bureau of Labor Statistics

Alaska

- Lost 32% participation in the ACT
- Gained 9.5 jobs out of 1000 jobs that require college degrees
- Lost 8.9 jobs out of 1000 jobs that don't require college degrees

West Virginia

- Gained 14% participation in the SAT
- Lost .7 jobs out of 1000 jobs that require college degrees
- Gained 1.7 jobs out of 1000 jobs that don't require college degrees

Nebraska

- Gained 16% participation on the ACT
- Lost .8 jobs out of 1000 jobs that require college degrees
- Gained 1.4 jobs out of 1000 jobs that don't require college degrees

Conclusions and Recommendations

- Intuition proved wrong
- Use resources on states in which jobs with degree requirements are becoming rarer

References

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