

Dataset:

Copernicus Climate Change Service: c3s_obs-sl_glo_phy-ssh_my_twosat-l4-duacs-0.25deg_P1D Coastal Economy (Employment Data) by State: <https://coast.noaa.gov/quickreport/#/index.html>
States Latitude & Longitude: https://gist.github.com/jakebathman/719e8416191ba14bb6e700fc2d5fcc5#file-state_boundaries-json

Data Processing:

Sea Level Change by States: Utilize the Copernicus Climate Change Service API to retrieve sea level data for the years 2017 through 2020. Then, integrate this data with a dataset containing the latitude and longitude coordinates of states. Assign each set of sea level data to the respective state based on its geographical location.

Coastal Economy (Employment Data) by State: The dataset comprises employment figures, wage information, and GDP data for various sectors of coastal economies. It has been filtered to include only the states present in the initial dataset.

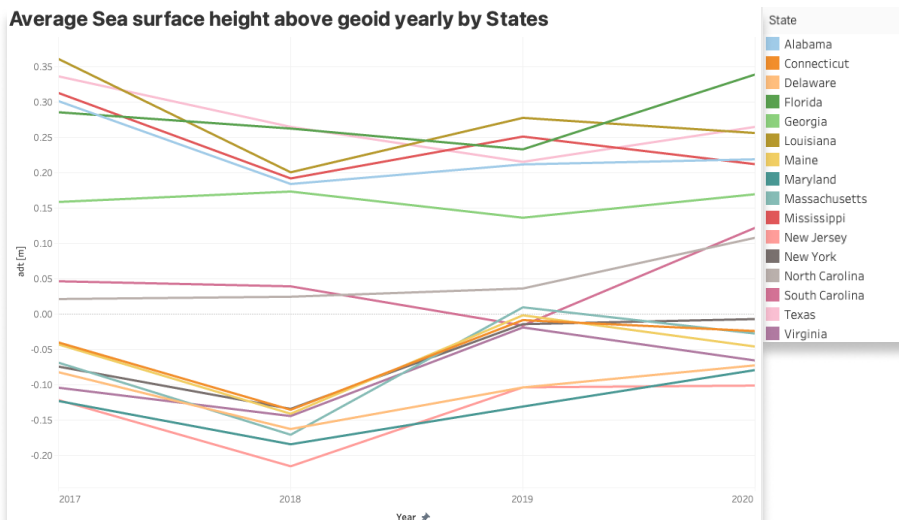
index	time	latitude	longitude	adt	sla	ugos	ugosa	vgos	vgosa	State
0	0	2017-01-01	25.125	-87.625	0.3758	-0.1504	0.1476	0.3723	-0.1148	Florida
1	1	2017-01-01	25.125	-87.375	0.3582	-0.2293	0.1489	0.2841	-0.0870	Florida
2	2	2017-01-01	25.125	-87.125	0.3399	-0.2939	0.2178	0.2529	-0.2079	Florida
3	3	2017-01-01	25.125	-86.875	0.2920	-0.3732	0.2049	0.1575	-0.3433	Florida
4	4	2017-01-01	25.125	-86.625	0.2359	-0.4415	0.0947	-0.0044	-0.3454	Florida
...
4363	4363	2020-01-01	44.375	-67.125	-0.0977	0.0245	0.0989	0.1352	-0.0389	Maine
4364	4364	2020-01-01	44.375	-66.875	-0.1002	0.0289	0.0859	0.1021	0.0449	Maine
4365	4365	2020-01-01	44.625	-67.375	-0.0856	0.0307	-0.0494	-0.0464	-0.3369	Maine
4366	4366	2020-01-01	44.625	-67.125	-0.1077	0.0121	-0.0852	-0.0909	-0.0037	Maine
4367	4367	2020-01-01	44.625	-66.875	-0.1063	0.0187	0.0060	0.0094	0.0350	Maine

geo	geoName	year	sector	establishments	employment	wages	gdp	
0	25000	Massachusetts	2017	Information	3896	84699	9.72390e+09	3.02835e+10
1	25000	Massachusetts	2017	Leisure and Hospitality	16322	302465	8.52759e+09	1.87288e+10
2	25000	Massachusetts	2019	Leisure and Hospitality	16430	311138	9.64411e+09	2.16150e+10
3	25000	Massachusetts	2019	Manufacturing	4842	178225	1.73514e+10	4.32017e+10
4	25000	Massachusetts	2018	Trade Transportation and Utilities	29867	448760	2.26482e+10	4.99386e+10
...
1975	45000	South Carolina	2020	Financial Activities	5153	27525	1.96181e+09	1.43150e+10
1976	45000	South Carolina	2018	Education and Health Services	3908	113327	5.64373e+09	8.92949e+09
1977	45000	South Carolina	2020	Education and Health Services	4808	116723	6.34172e+09	5.10454e+09
1978	45000	South Carolina	2020	Information	918	7460	5.24637e+09	2.44343e+09
1979	45000	South Carolina	2017	Public Administration	405	25269	1.38740e+09	1.08050e+10

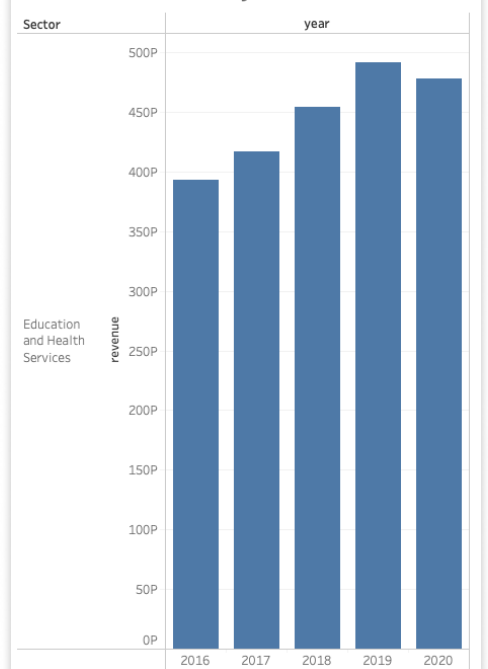
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Visualization

Average Sea surface height above geoid yearly by States



Sector Revenue by Year



Future Plans

