

## COVID-19 South Carolina County by County Hospital Bed Demand versus Supply

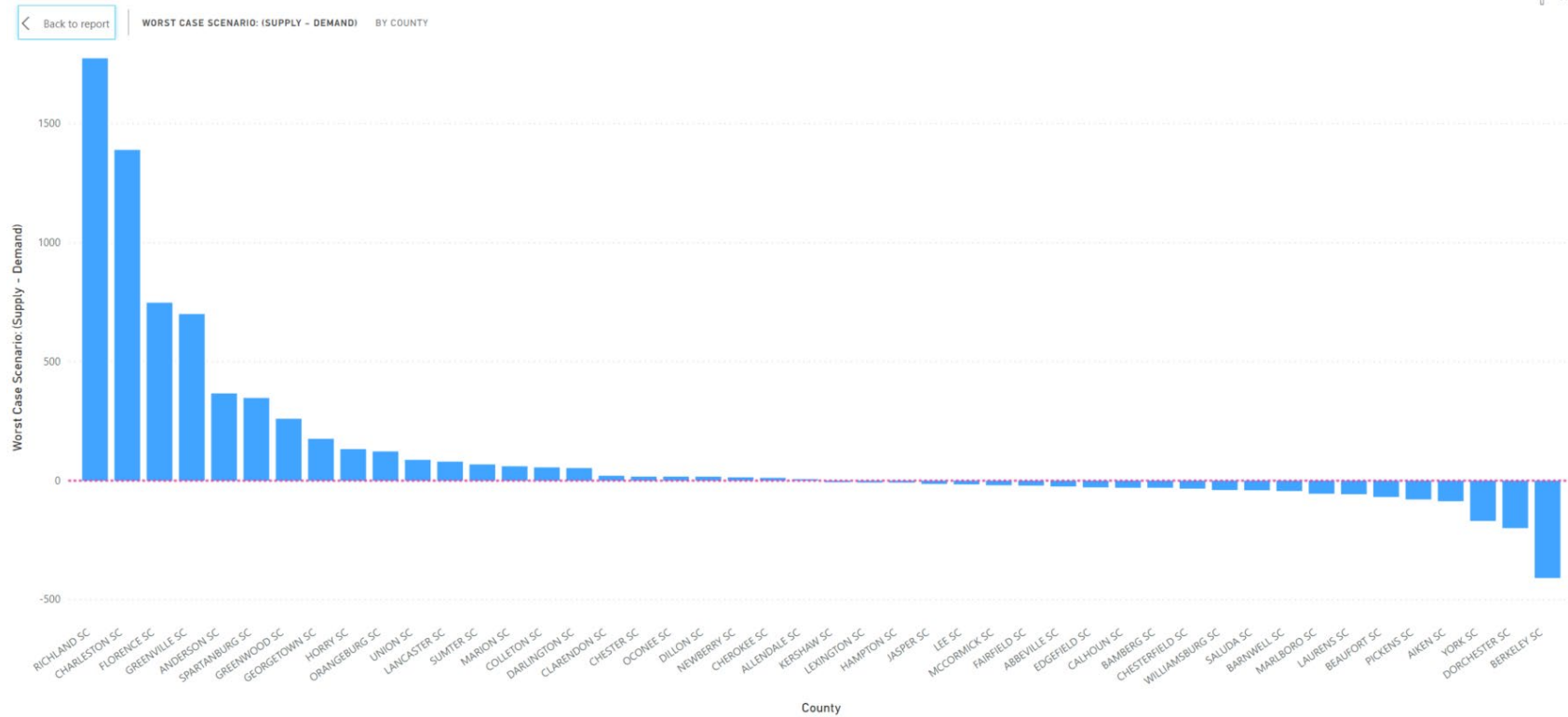


Fig 1: The above figure shows Supply minus Demand at peak using the Imperial-College-COVID19-NPI-modelling-16-03-2020 and the exponential regression model in the article published. All appearing above the red dashed line have capacity even at peak. All Counties that at or falling below the red line are will not be able to meet demand. In this scenario, peak will hit mid-May. Planning for servicing counties that either do not have hospitals or overburdened systems should be made. Some Counties will have capacity to redirect to needed areas.

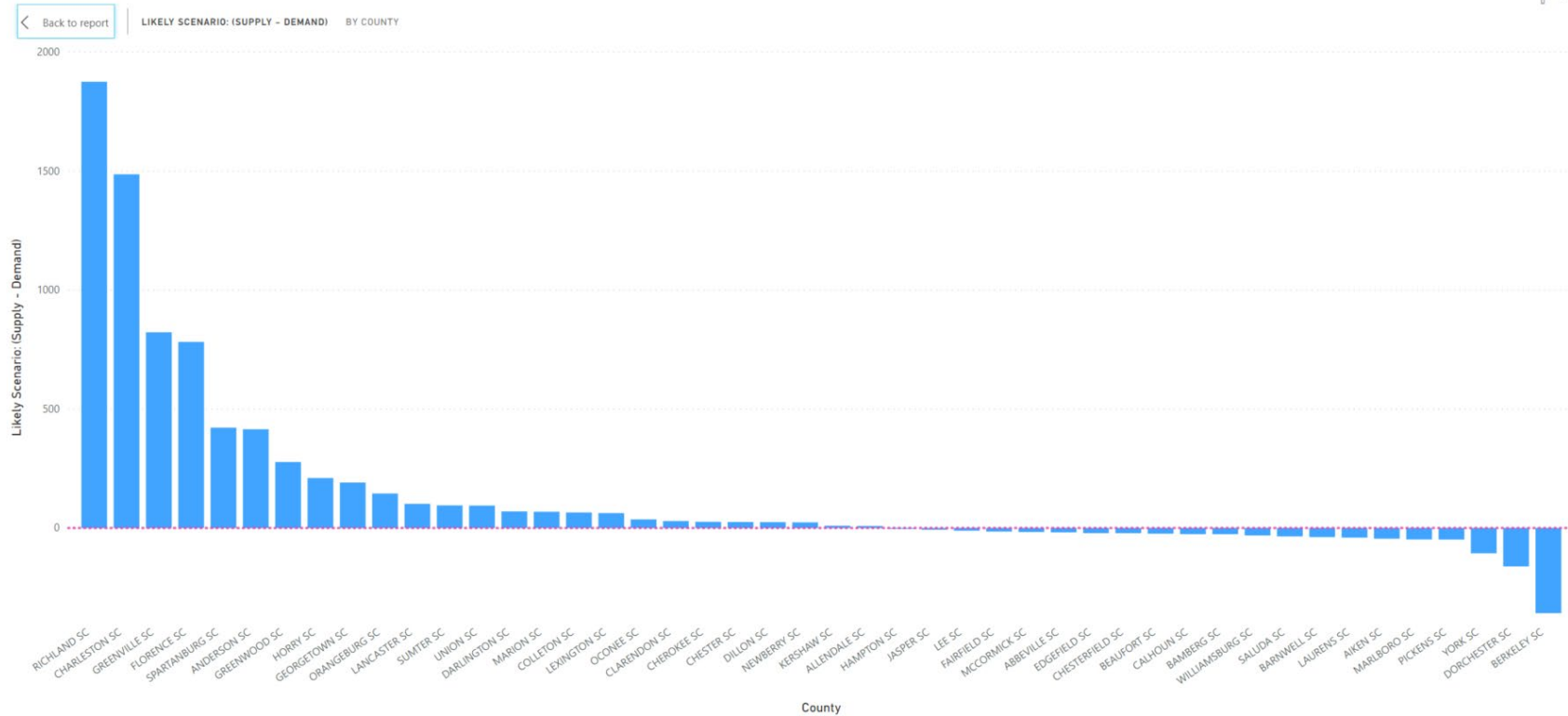


Fig 2: In the more likely scenario where some precautions are taken to flatten the curve, data suggests some Counties will still be unable to meet the needed demand. The peak will hit in early June. Planning for servicing counties that either do not have hospitals or overburdened systems should be made. Some Counties will have capacity to redirect to needed areas.

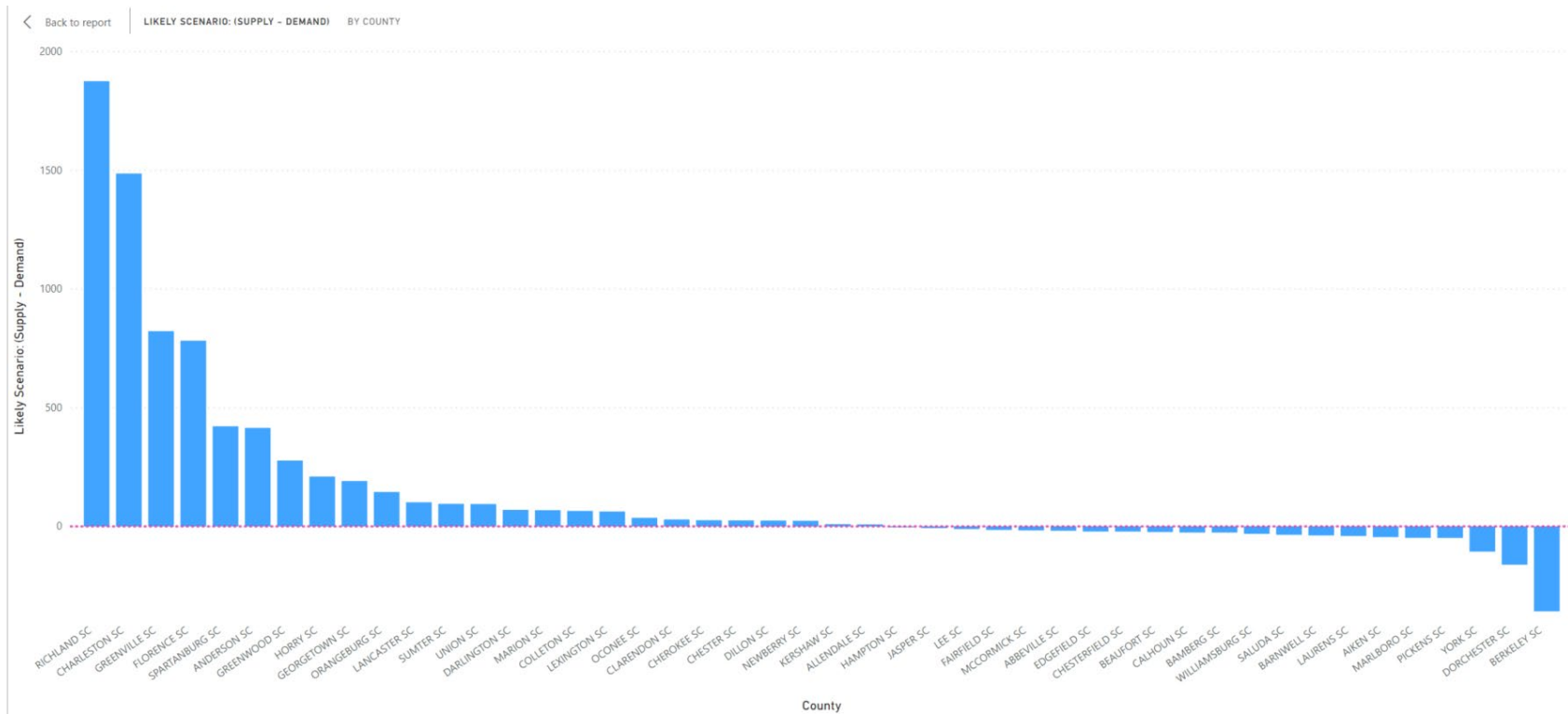


Fig 3: In the scenario where all precautions are taken to flatten the curve, data suggests almost all Counties will be able to meet the needed demand. The peak will hit in June. Planning for servicing counties that either do not have hospitals or overburdened systems should be made. Several Counties will have capacity to redirect to needed areas.

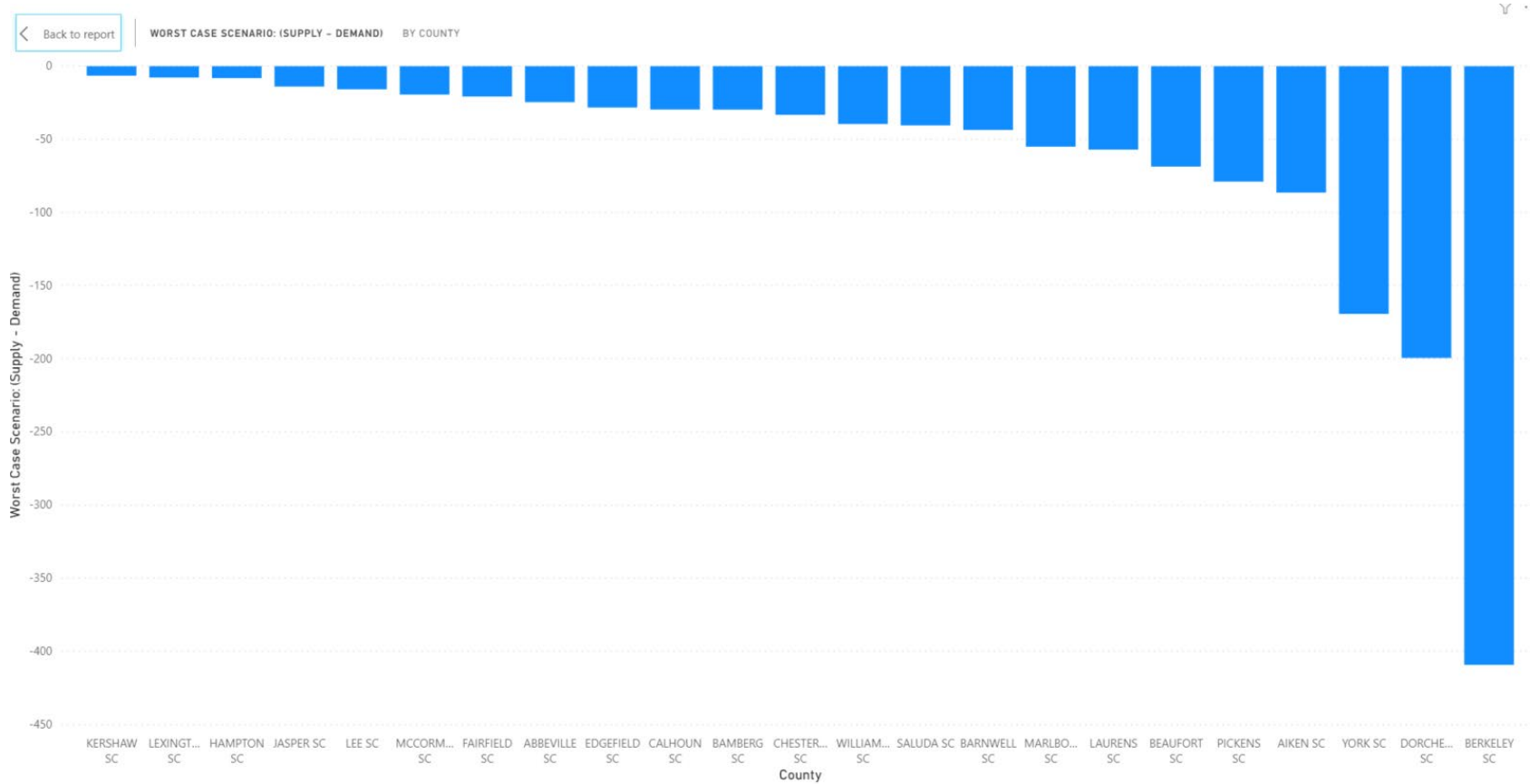


Fig 4: The figure above represents Counties that will run out of beds at peak for the Worst-Case scenario

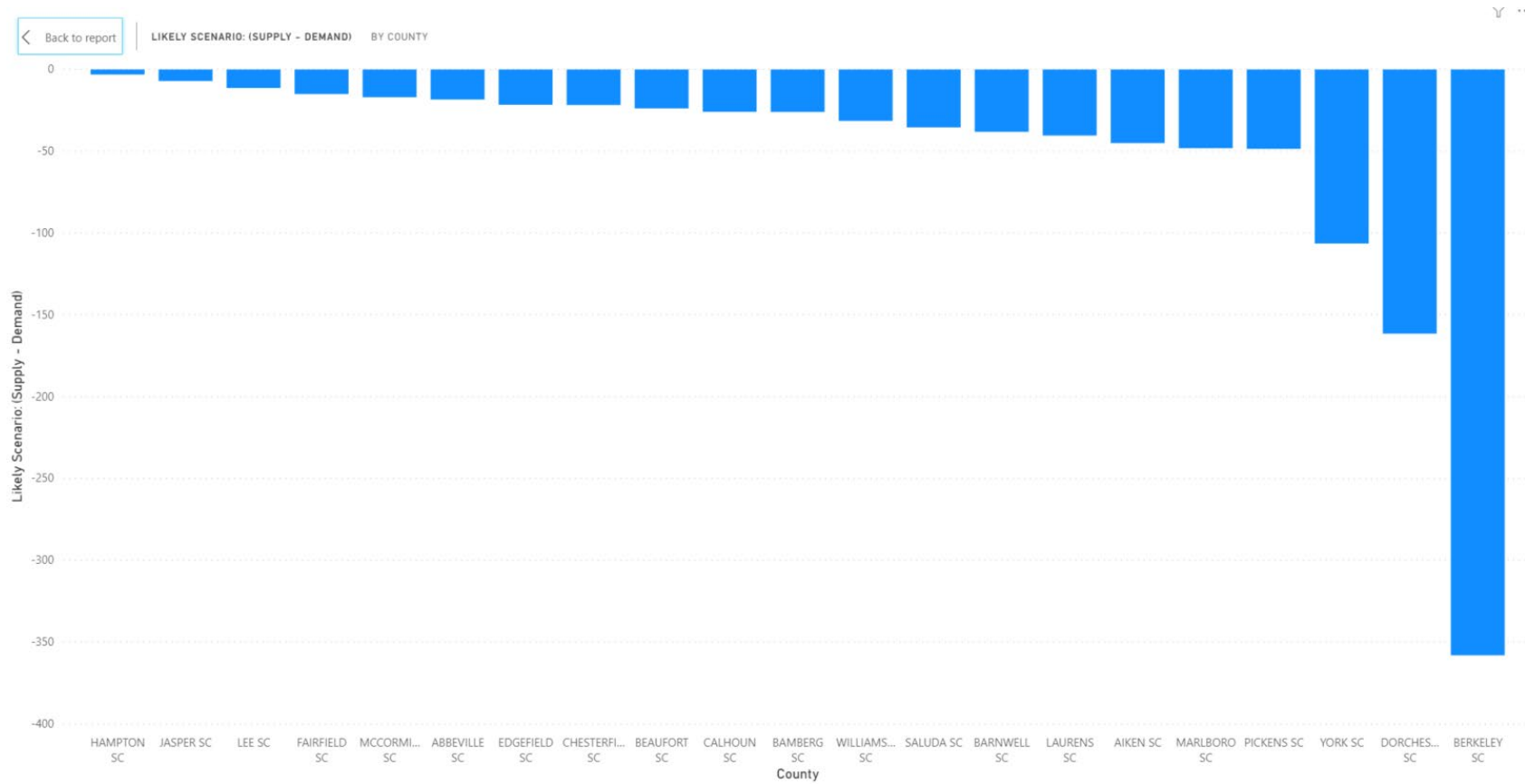


Fig 5: The figure above represents Counties that will run out of beds at peak for the Likely scenario

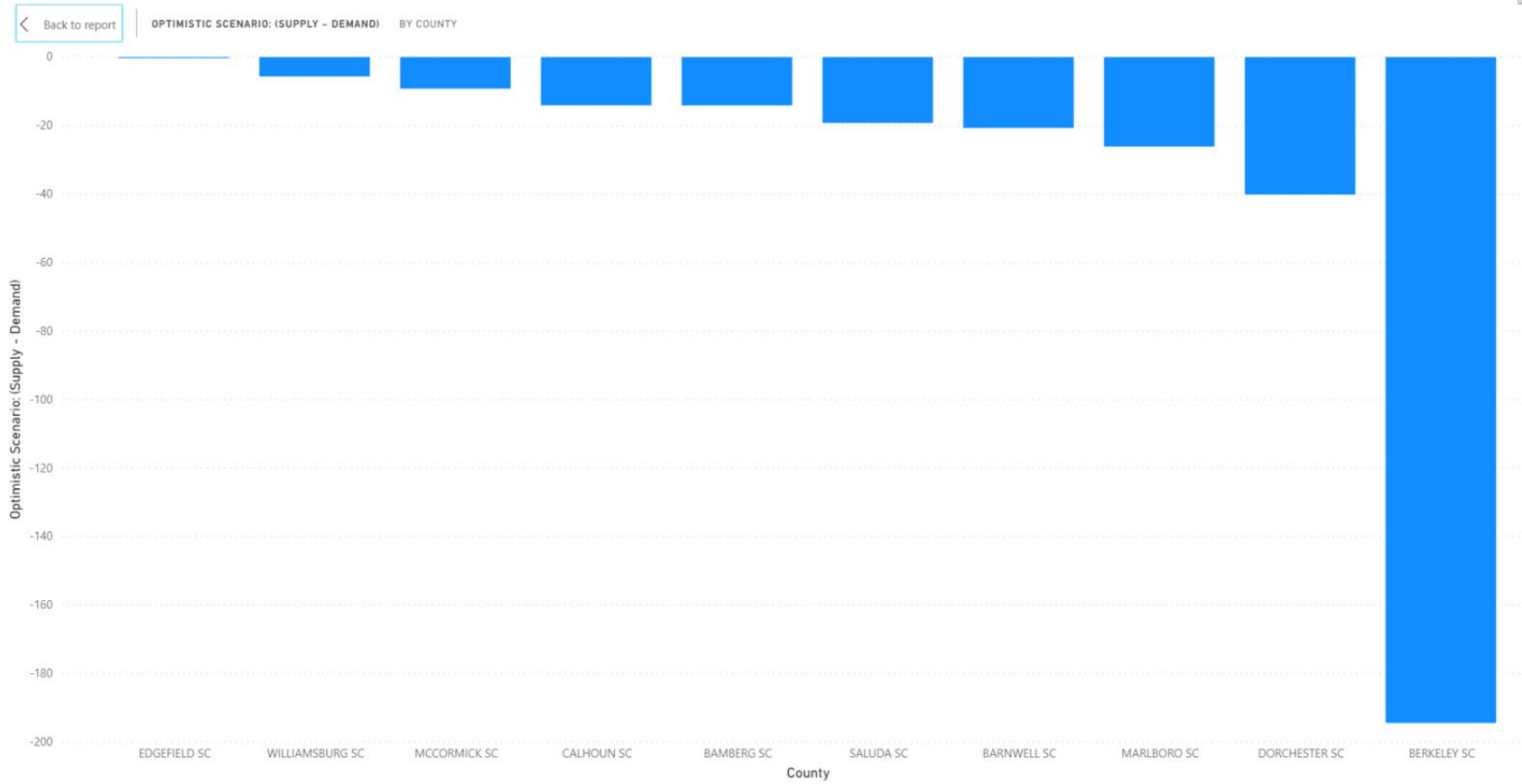


Fig 6: The figure above represents Counties that will run out of beds or do not have a hospital at peak for the Optimistic scenario

County	State	Total Population	65+ Population	Beds	With Full Precautions - Optimistic Scenario of needed Demand for Hospital Beds								With Some Precautions - Likely Scenario of needed Demand for Hospital Beds				With No Precautions - Worst Case Scenario of needed Demand for Hospital Beds				Counties to run out of beds (all precautions - Optimistic)	Counties to run out of beds (some precautions - Likely)	Counties to run out of beds (no precautions - Worstcase)				
					O-April	O-May	O-June	O-Mid-June	O-July	O-August	L-Apr	L-May	L-June	L-July	L-August	W-April	W-May	Mid-May	W-June	W-July				W-August			
ABBEVILLE SC	SC	24788	6438	25	2	2	2	22	24	12	2	2	12	43	12	2	2	25	68	50	4	2			x		x
AIKEN SC	SC	165707	37611	245	17	17	149	157	83	17	17	83	290	83	17	17	166	456	331	25	17			x		x	
ALLENDALE SC	SC	9402	2255	25	1	1	8	9	5	1	1	5	16	5	1	1	9	26	19	1	1					x	
ANDERSON SC	SC	194174	42221	755	19	19	175	184	97	19	19	97	340	97	19	19	194	534	388	29	19						
BAMBERG SC	SC	14842	3689	0	1	1	13	14	7	1	1	7	26	7	1	1	15	41	30	2	1	x		x		x	
BARNWELL SC	SC	21788	4557	0	2	2	20	21	11	2	2	11	38	11	2	2	22	60	44	3	2	x		x		x	
BEAUFORT SC	SC	179316	52382	290	18	18	161	170	90	18	18	90	314	90	18	18	179	493	359	27	18			x		x	
BERKELEY SC	SC	204632	34834	0	20	20	184	194	102	20	20	102	358	102	20	20	205	563	409	31	20	x		x		x	
CALHOUN SC	SC	14808	4052	0	1	1	13	14	7	1	1	7	26	7	1	1	15	41	30	2	1	x		x		x	
CHARLESTON SC	SC	387847	75162	2166	39	39	349	368	194	39	39	194	679	194	39	39	388	1067	776	58	39						
CHEROKEE SC	SC	56549	11242	125	6	6	51	54	28	6	6	28	99	28	6	6	57	156	113	8	6					x	
CHESTER SC	SC	32424	7107	82	3	3	29	31	16	3	3	16	57	16	3	3	32	89	65	5	3					x	
CHESTERFIELD SC	SC	46127	9995	59	5	5	42	44	23	5	5	23	81	23	5	5	46	127	92	7	5			x		x	
CLARENDON SC	SC	34156	9620	89	3	3	31	32	17	3	3	17	60	17	3	3	34	94	68	5	3					x	
COLLETON SC	SC	37581	9081	131	4	4	34	36	19	4	4	19	66	19	4	4	38	103	75	6	4						
DARLINGTON SC	SC	67572	15033	188	7	7	61	64	34	7	7	34	118	34	7	7	68	186	135	10	7						
DILLON SC	SC	31073	6061	79	3	3	28	30	16	3	3	16	54	16	3	3	31	85	62	5	3					x	
DORCHESTER SC	SC	151716	26316	104	15	15	137	144	76	15	15	76	266	76	15	15	152	417	303	23	15	x		x		x	
EDGEFIELD SC	SC	26620	6246	25	3	3	24	25	13	3	3	13	47	13	3	3	27	73	53	4	3	x		x		x	
FAIRFIELD SC	SC	22868	5940	25	2	2	21	22	11	2	2	11	40	11	2	2	23	63	46	3	2			x		x	
FLORENCE SC	SC	138537	28094	1025	14	14	125	132	69	14	14	69	242	69	14	14	139	381	277	21	14						
GEORGETOWN SC	SC	61065	19101	298	6	6	55	58	31	6	6	31	107	31	6	6	61	168	122	9	6						
GREENVILLE SC	SC	490332	92588	1681	49	49	441	466	245	49	49	245	858	245	49	49	490	1348	981	74	49						
GREENWOOD SC	SC	69981	14537	400	7	7	63	66	35	7	7	35	122	35	7	7	70	192	140	10	7						
HAMPTON SC	SC	20066	4477	32	2	2	18	19	10	2	2	10	35	10	2	2	20	55	40	3	2			x		x	
HORRY SC	SC	310186	85002	753	31	31	279	295	155	31	31	155	543	155	31	31	310	853	620	47	31					x	
JASPER SC	SC	27465	5731	41	3	3	25	26	14	3	3	14	48	14	3	3	27	76	55	4	3			x		x	
KERSHAW SC	SC	63734	14485	121	6	6	57	61	32	6	6	32	112	32	6	6	64	175	127	10	6					x	
LANCASTER SC	SC	86544	21065	253	9	9	78	82	43	9	9	43	151	43	9	9	87	238	173	13	9						
LAURENS SC	SC	66508	14421	76	7	7	60	63	33	7	7	33	116	33	7	7	67	183	133	10	7			x		x	
LEE SC	SC	17897	3818	20	2	2	16	17	9	2	2	9	31	9	2	2	18	49	36	3	2			x		x	
LEXINGTON SC	SC	281870	54688	556	28	28	254	268	141	28	28	141	493	141	28	28	282	775	564	42	28					x	
MCCORMICK SC	SC	9694	3784	0	1	1	9	9	5	1	1	5	17	5	1	1	10	27	19	1	1	x		x		x	
MARION SC	SC	31765	7962	124	3	3	29	30	16	3	3	16	56	16	3	3	32	87	64	5	3					x	
MARLBORO SC	SC	27505	6054	0	3	3	25	26	14	3	3	14	48	14	3	3	28	76	55	4	3	x		x		x	
NEWBERRY SC	SC	37914	8493	90	4	4	34	36	19	4	4	19	66	19	4	4	38	104	76	6	4					x	
OCCONEE SC	SC	75926	21046	169	8	8	68	72	38	8	8	38	133	38	8	8	76	209	152	11	8					x	
ORANGEBURG SC	SC	89116	20485	301	9	9	80	85	45	9	9	45	156	45	9	9	89	245	178	13	9						
PICKENS SC	SC	121449	23705	164	12	12	109	115	61	12	12	61	213	61	12	12	121	334	243	18	12			x		x	
RICHLAND SC	SC	404869	63933	2585	40	40	364	385	202	40	40	202	709	202	40	40	405	1113	810	61	40						
SALUDA SC	SC	20228	4506	0	2	2	18	19	10	2	2	10	35	10	2	2	20	56	40	3	2	x		x		x	
SPARTANBURG SC	SC	297732	58046	943	30	30	268	283	149	30	30	149	521	149	30	30	298	819	595	45	30						
SUMTER SC	SC	107379	21001	283	11	11	97	102	54	11	11	54	188	54	11	11	107	295	215	16	11					x	
UNION SC	SC	27772	6959	143	3	3	25	26	14	3	3	14	49	14	3	3	28	76	56	4	3						
WILLIAMSBURG SC	SC	32256	7622	25	3	3	29	31	16	3	3	16	56	16	3	3	32	89	65	5	3	x		x		x	
YORK SC	SC	251664	45887	334	25	25	226	239	126	25	25	126	440	126	25	25	252	692	503	38	25			x		x	

Table 1: Table with Data showing all three scenarios