

COVID-19 California County by County Hospital Bed Demand versus Supply

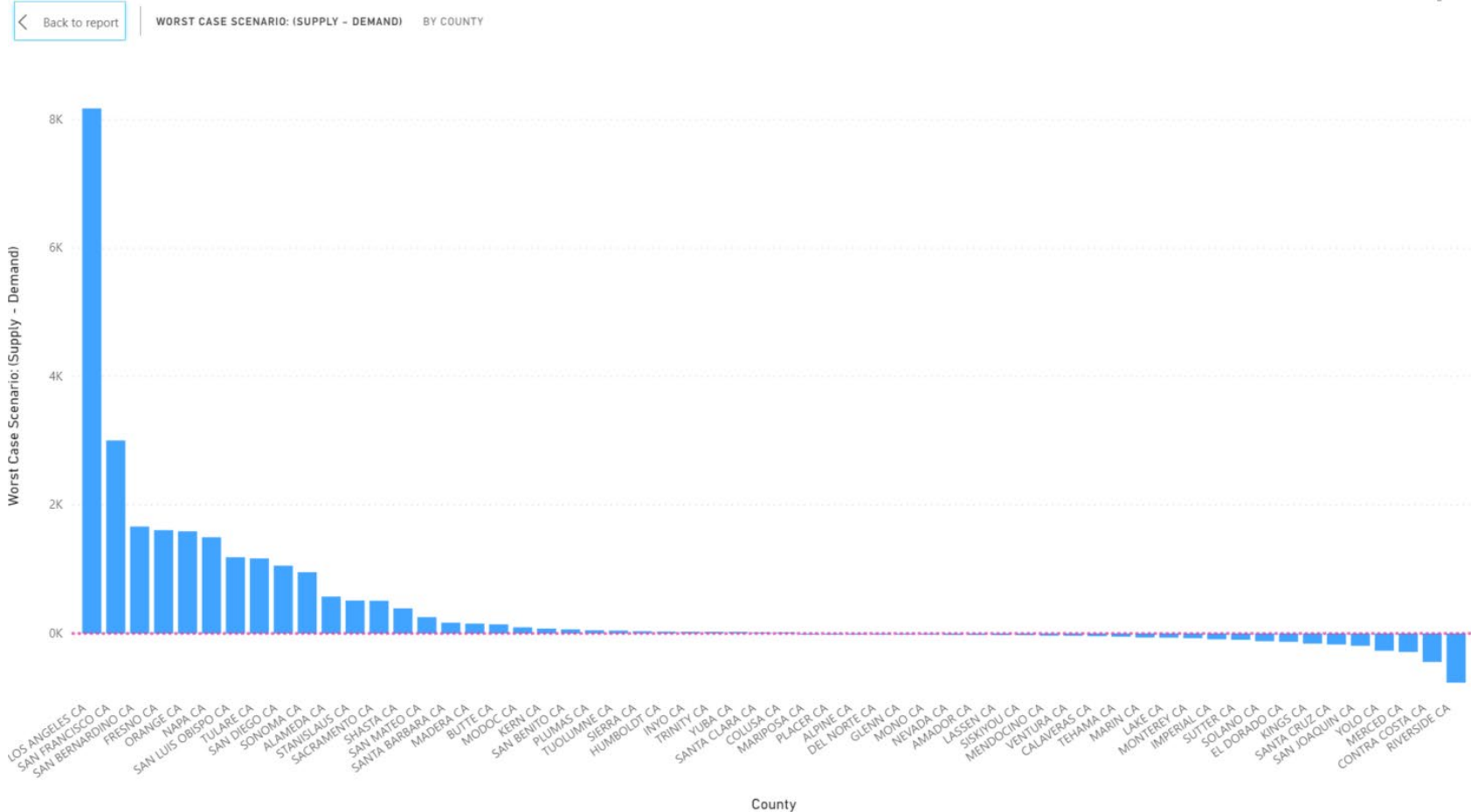


Fig 1: The above figure shows Supply minus Demand at peak using the Imperial-College-COVID19-NPI-modelling-16-03-2020 and the exponential regression model in the article published. All appearing above the red dashed line have capacity even at peak. All Counties that at or falling below the red line are 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.

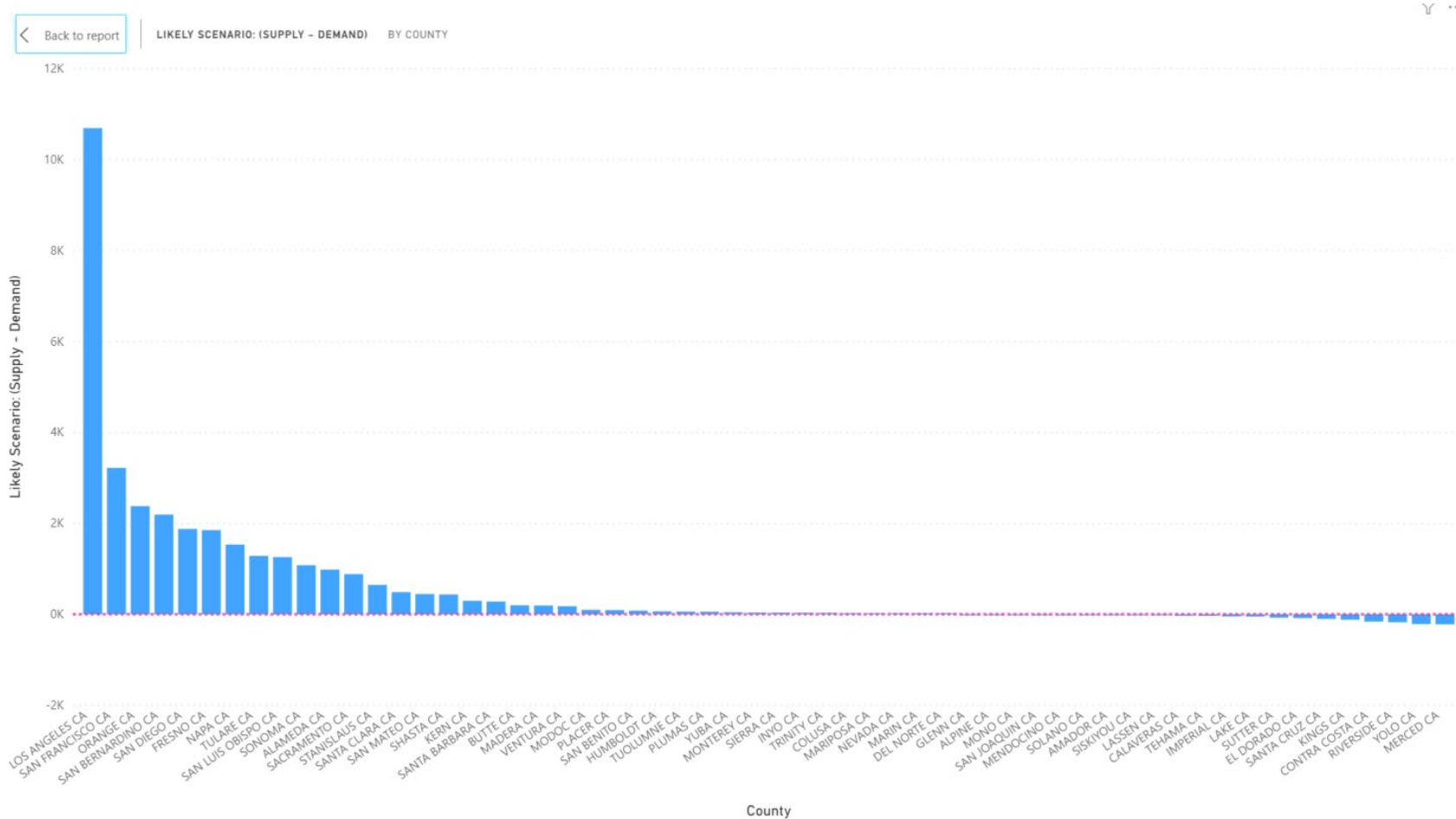


Fig 2: In the more likely scenario where some precautions are taken to flatten the curve, data suggests some Counties will still be unable to meet the needed demand. The peak will hit in early June. Planning for servicing counties that either do not have hospitals or overburdened systems should be made.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

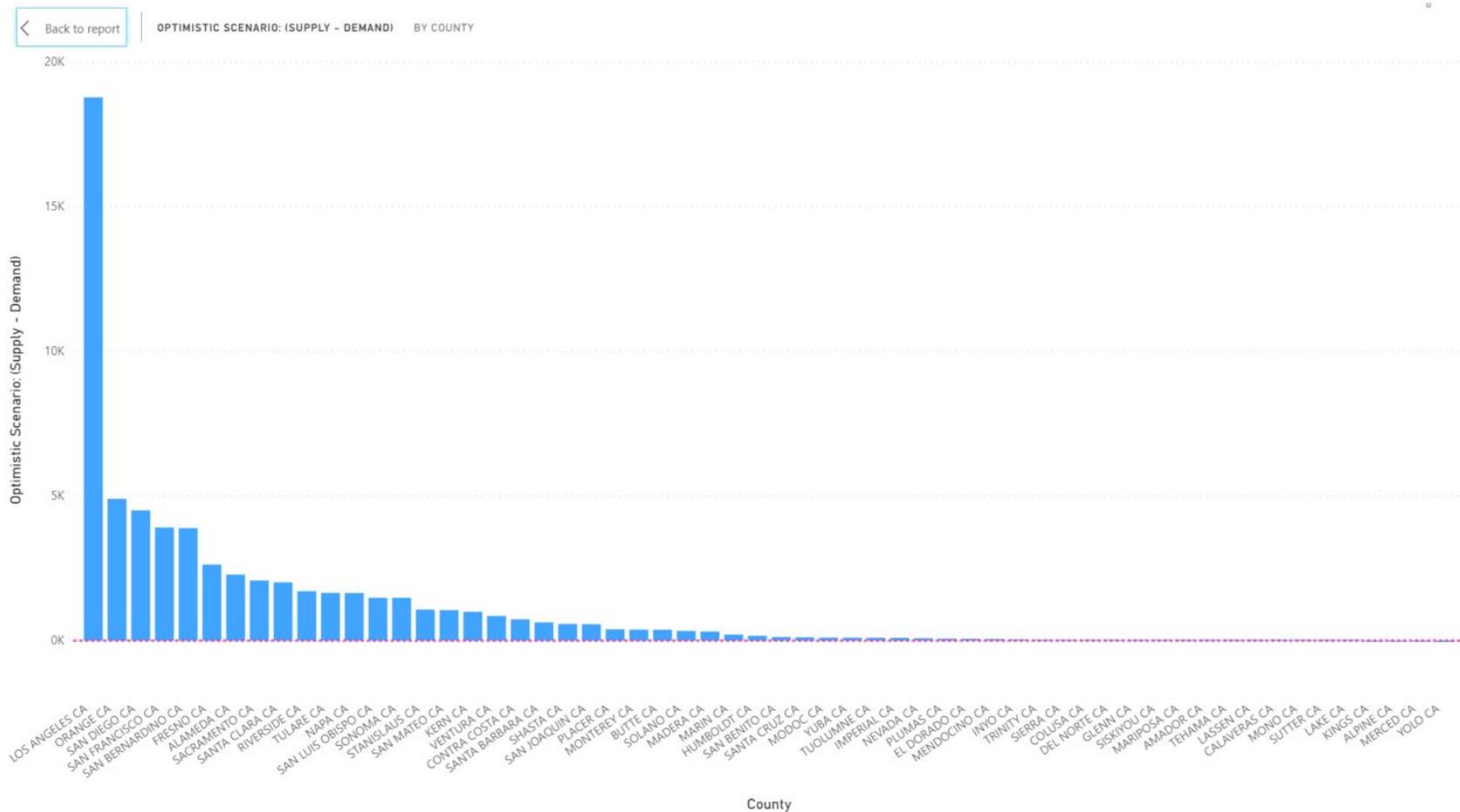


Fig 3: In the scenario where all precautions are taken to flatten the curve, data suggests almost all Counties will be able to meet the needed demand. The peak will hit in June. Planning for servicing counties that either do not have hospitals or overburdened systems should be made. Several Counties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

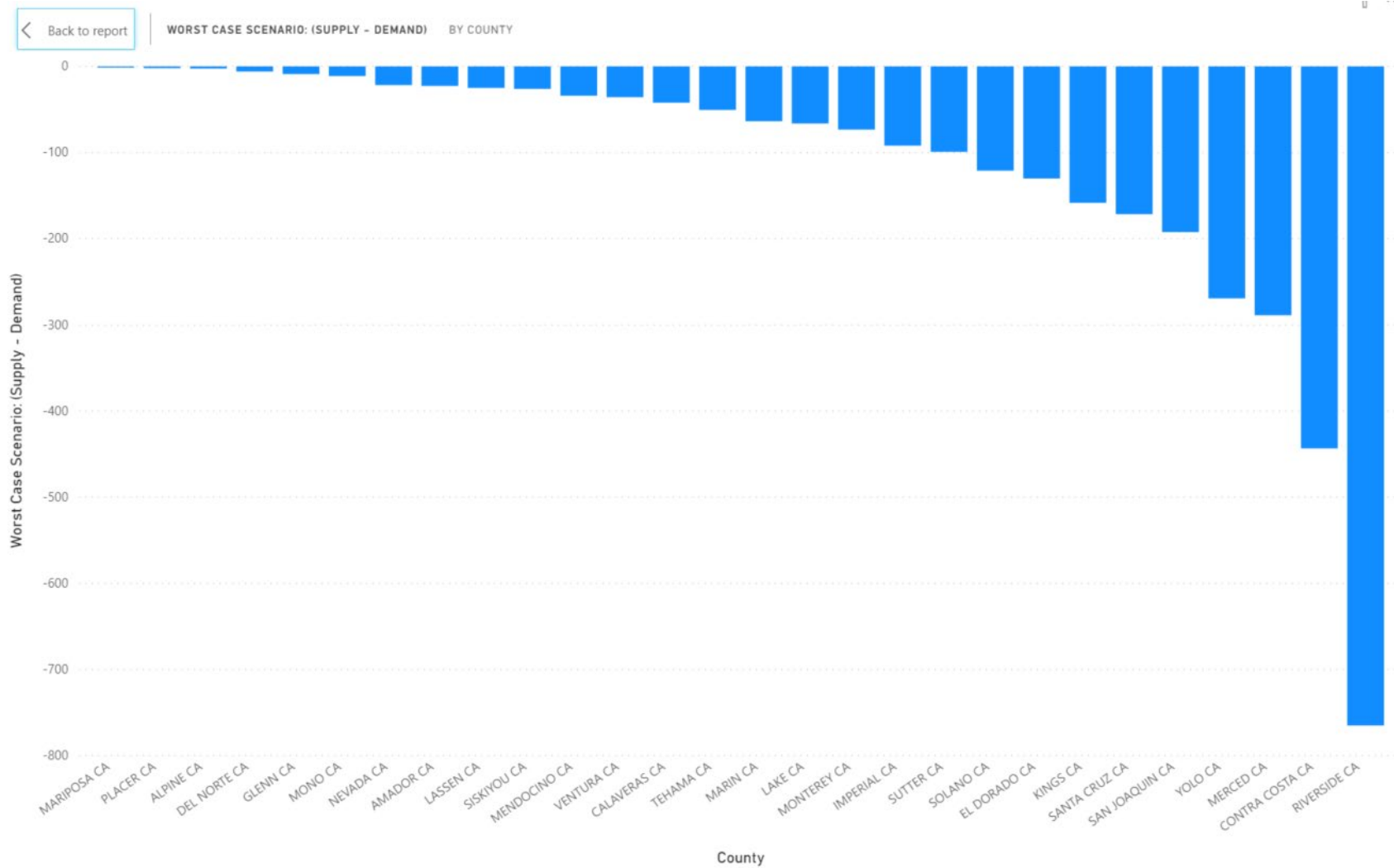


Fig 4: The figure above represents Counties that will run out of beds at peak for the Worst-Case scenario

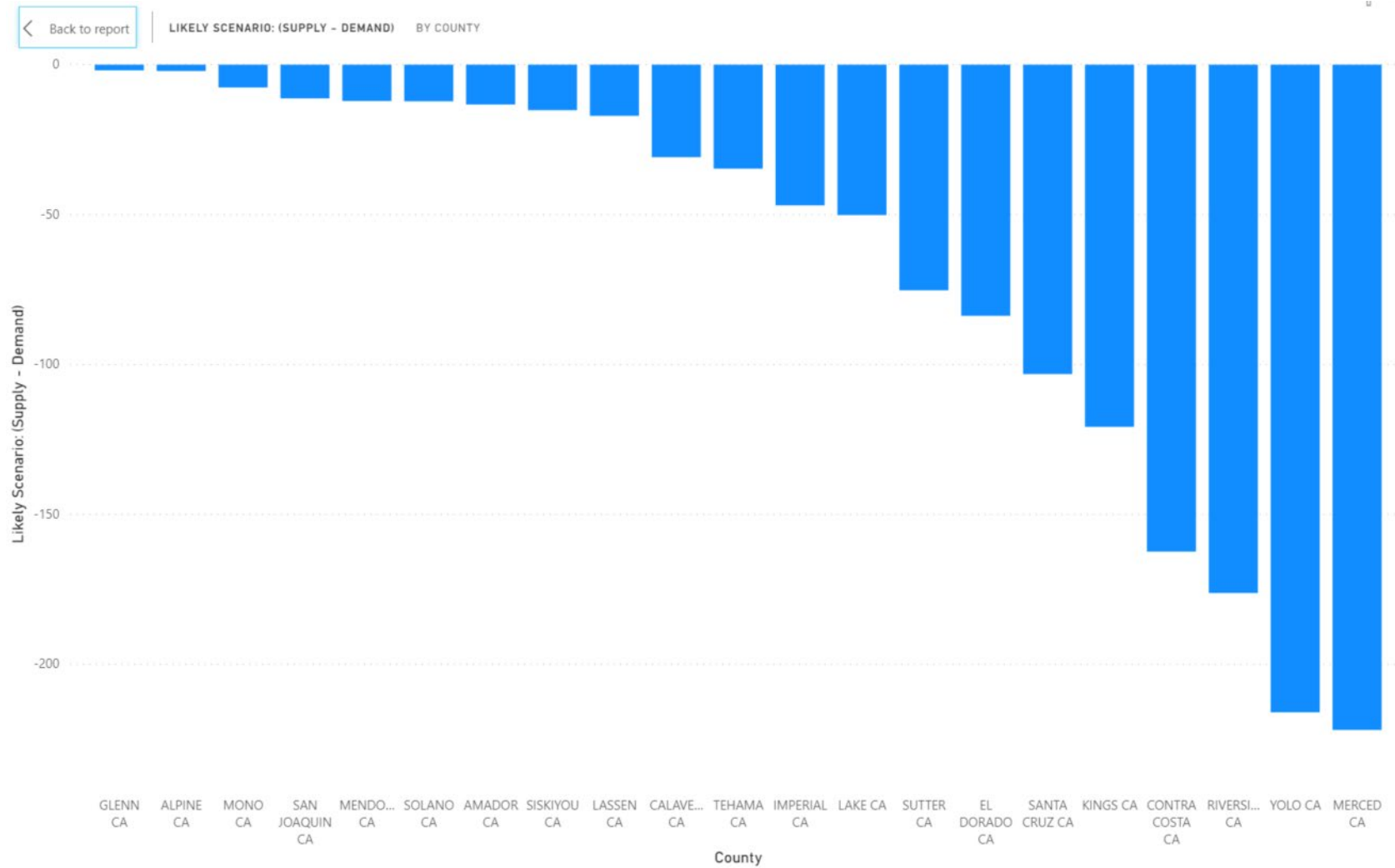


Fig 5: The figure above represents Counties that will run out of beds at peak for the Likely scenario

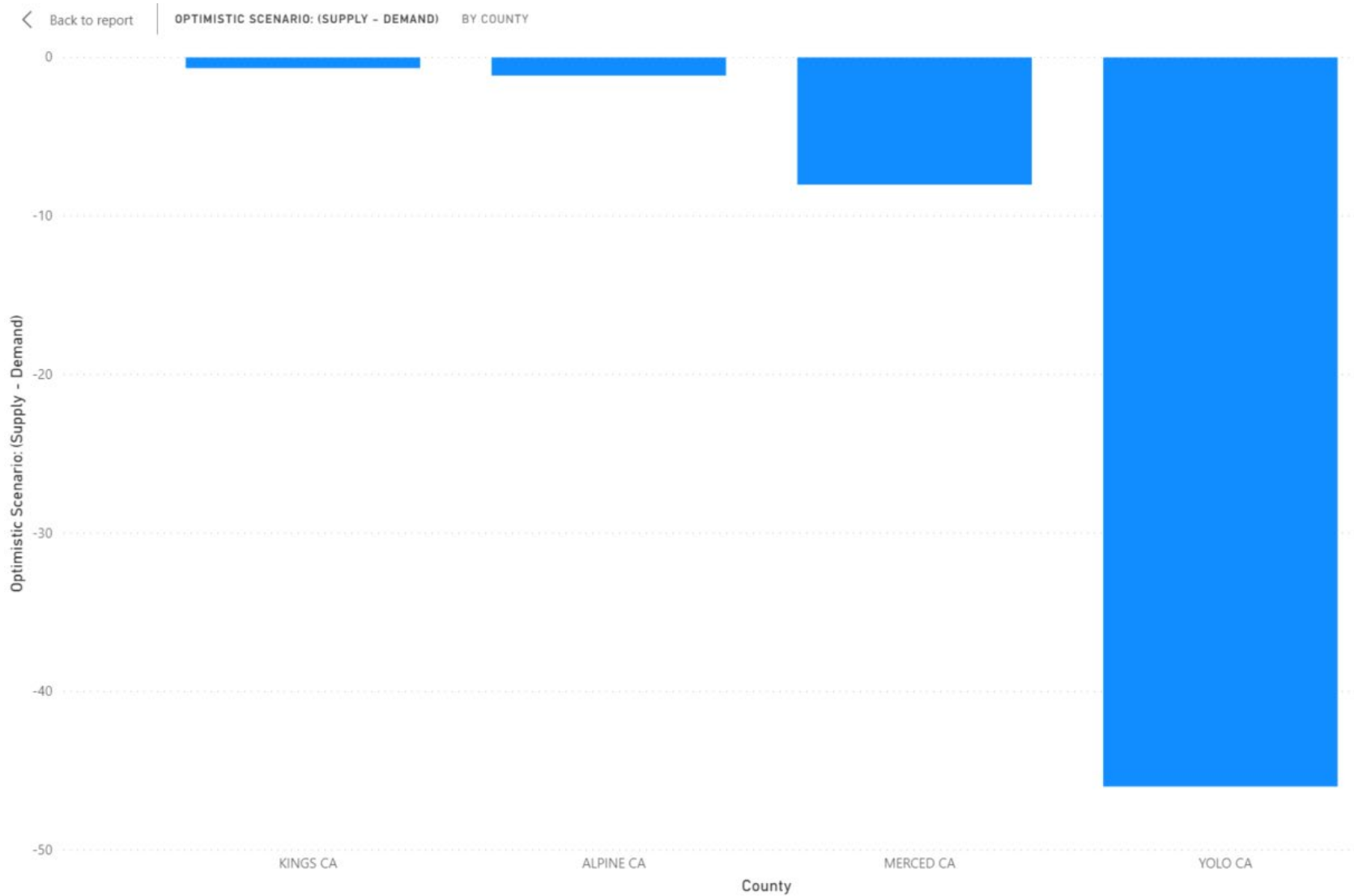


Fig 6: The figure above represents Counties that will run out of beds at peak for the Optimistic scenario

County	State	Total Population	65+ Population	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)		
				Beds	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					
ALAMEDA CA	CA	1629615	272060	3833	163	163	1467	1548	815	163	163	815	2852	815	163	163	1630	4481	3259	244	163				x	
ALPINE CA	CA	1203	401	0	0	0	1	1	1	0	0	1	2	1	0	0	1	3	2	0	0	x				x
AMADOR CA	CA	37306	11695	52	4	4	34	35	19	4	4	19	65	19	4	4	37	103	75	6	4				x	
BUTTE CA	CA	225207	48041	592	23	23	203	214	113	23	23	113	394	113	23	23	225	619	450	34	23				x	
CALAVERAS CA	CA	45057	14713	48	5	5	41	43	23	5	5	23	79	23	5	5	45	124	90	7	5				x	
COLUSA CA	CA	21479	3771	48	2	2	19	20	11	2	2	11	38	11	2	2	21	59	43	3	2				x	
CONTRA COSTA CA	CA	1123678	209509	1804	112	112	1011	1067	562	112	112	562	1966	562	112	112	1124	3090	2247	169	112				x	
DEL NORTE CA	CA	27442	5717	49	3	3	25	26	14	3	3	14	48	14	3	3	27	75	55	4	3				x	
EL DORADO CA	CA	185015	46320	240	19	19	167	176	93	19	19	93	324	93	19	19	185	509	370	28	19				x	
FRESNO CA	CA	971616	142066	3551	97	97	874	923	486	97	97	486	1700	486	97	97	972	2672	1943	146	97				x	
GLENN CA	CA	27935	5551	47	3	3	25	27	14	3	3	14	49	14	3	3	28	77	56	4	3				x	
HUMBOLDT CA	CA	135490	28633	299	14	14	122	129	68	14	14	68	237	68	14	14	135	373	271	20	14				x	
IMPERIAL CA	CA	179957	27907	268	18	18	162	171	90	18	18	90	315	90	18	18	180	495	360	27	18				x	
INYO CA	CA	18195	5040	62	2	2	16	17	9	2	2	9	32	9	2	2	18	50	36	3	2				x	
KERN CA	CA	878744	121137	1833	88	88	791	835	439	88	88	439	1538	439	88	88	879	2417	1757	132	88				x	
KINGS CA	CA	150183	18921	142	15	15	135	143	75	15	15	75	263	75	15	15	150	413	300	23	15	x				x
LAKE CA	CA	64095	17744	62	6	6	58	61	32	6	6	32	112	32	6	6	64	176	128	10	6				x	
LASSEN CA	CA	31470	5483	38	3	3	28	30	16	3	3	16	55	16	3	3	31	87	63	5	3				x	
LOS ANGELES CA	CA	10105722	1622848	28383	1011	1011	9095	9600	5053	1011	1011	5053	17685	5053	1011	1011	10106	27791	20211	1516	1011					
MADERA CA	CA	154440	26249	462	15	15	139	147	77	15	15	77	270	77	15	15	154	425	309	23	15					
MARIN CA	CA	260814	65798	458	26	26	235	248	130	26	26	130	456	130	26	26	261	717	522	39	26				x	
MARIPOSA CA	CA	17658	5992	34	2	2	16	17	9	2	2	9	31	9	2	2	18	49	35	3	2				x	
MENDOCINO CA	CA	87497	22310	141	9	9	79	83	44	9	9	44	153	44	9	9	87	241	175	13	9				x	
MERCED CA	CA	267390	37004	246	27	27	241	254	134	27	27	134	468	134	27	27	267	735	535	40	27	x				x
MODOC CA	CA	9017	2899	113	1	1	8	9	5	1	1	5	16	5	1	1	9	25	18	1	1					x
MONO CA	CA	14058	2608	17	1	1	13	13	7	1	1	7	25	7	1	1	14	39	28	2	1				x	
MONTEREY CA	CA	433168	68396	793	43	43	390	412	217	43	43	217	758	217	43	43	433	1191	866	65	43				x	
NAPA CA	CA	141005	30001	1780	14	14	127	134	71	14	14	71	247	71	14	14	141	388	282	21	14					
NEVADA CA	CA	98838	30566	176	10	10	89	94	49	10	10	49	173	49	10	10	99	272	198	15	10				x	
ORANGE CA	CA	3155816	539862	7902	316	316	2840	2998	1578	316	316	1578	5523	1578	316	316	3156	8678	6312	473	316				x	
PLACER CA	CA	374985	83674	748	37	37	337	356	187	37	37	187	656	187	37	37	375	1031	750	56	37				x	
PLUMAS CA	CA	18724	6402	87	2	2	17	18	9	2	2	9	33	9	2	2	19	51	37	3	2					
RIVERSIDE CA	CA	2355002	398537	3945	236	236	2120	2237	1178	236	236	1178	4121	1178	236	236	2355	6476	4710	353	236				x	
SACRAMENTO CA	CA	1495400	253150	3500	150	150	1346	1421	748	150	150	748	2617	748	150	150	1495	4112	2991	224	150				x	
SAN BENITO CA	CA	58671	9161	181	6	6	53	56	29	6	6	29	103	29	6	6	59	161	117	9	6					
SAN BERNARDINO CA	CA	2121220	305148	5906	212	212	1909	2015	1061	212	212	1061	3712	1061	212	212	2121	5833	4242	318	212					
SAN DIEGO CA	CA	3283665	543904	7623	328	328	2955	3119	1642	328	328	1642	5746	1642	328	328	3284	9030	6567	493	328				x	
SAN FRANCISCO CA	CA	864263	158027	4733	86	86	778	821	432	86	86	432	1512	432	86	86	864	2377	1729	130	86					
SAN JOAQUIN CA	CA	724153	112794	1256	72	72	652	688	362	72	72	362	1267	362	72	72	724	1991	1448	109	72				x	
SAN LUIS OBISPO CA	CA	280119	63824	1747	28	28	252	266	140	28	28	140	490	140	28	28	280	770	560	42	28					
SAN MATEO CA	CA	763450	144403	1781	76	76	687	725	382	76	76	382	1336	382	76	76	763	2099	1527	115	76				x	
SANTA BARBARA CA	CA	442996	76642	1054	44	44	399	421	221	44	44	221	775	221	44	44	443	1218	886	66	44				x	
SANTA CLARA CA	CA	1911226	305579	3831	191	191	1720	1816	956	191	191	956	3345	956	191	191	1911	5256	3822	287	191				x	
SANTA CRUZ CA	CA	273263	52440	375	27	27	246	260	137	27	27	137	478	137	27	27	273	751	547	41	27				x	
SHASTA CA	CA	178919	43677	748	18	18	161	170	89	18	18	89	313	89	18	18	179	492	358	27	18				x	
SIERRA CA	CA	2885	955	39	0	0	3	3	1	0	0	1	5	1	0	0	3	8	6	0	0					
SISKIYOU CA	CA	43530	12793	61	4	4	39	41	22	4	4	22	76	22	4	4	44	120	87	7	4				x	
SOLANO CA	CA	434981	82931	749	43	43	391	413	217	43	43	217	761	217	43	43	435	1196	870	65	43				x	
SONOMA CA	CA	500943	112833	1956	50	50	451	476	250	50	50	250	877	250	50	50	501	1378	1002	75	50					
STANISLAUS CA	CA	535684	84684	1584	54	54	482	509	268	54	54	268	937	268	54	54	536	1473	1071	80	54					
SUTTER CA	CA	95583	17456	92	10	10	86	91	48	10	10	48	167	48	10	10	96	263	191	14	10				x	
TEHAMA CA	CA	63247	14419	76	6	6	57	60	32	6	6	32	111	32	6	6	63	174	126	9	6				x	
TRINITY CA	CA	13037	4454	51	1	1	12	12	7	1	1	7	23	7	1	1	13	36	26	2	1					
TULARE CA	CA	458809	62978	2086	46	46	413	436	229	46	46	229	803	229	46	46	459	1262	918	69	46					
TULLUMNE CA	CA	53899	16394	152	5	5	49	51	27	5	5	27	94	27	5	5	54	148	108	8	5					
VENTURA CA	CA	847834	150811	1660	85	85	763	805	424	85	85	424	1484	424	85	85	848	2332	1696	127	85				x	
YOLO CA	CA	212605	31571	156	21	21	191	202	106	21	21	106	372	106	21	21	213	585	425	32	21	x				x
YUBA CA	CA	74644	11305	173	7	7	67	71	37	7	7	37	131	37	7	7	75	205	149	11	7				x	

Table 1: Table with Data showing all three scenarios