

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

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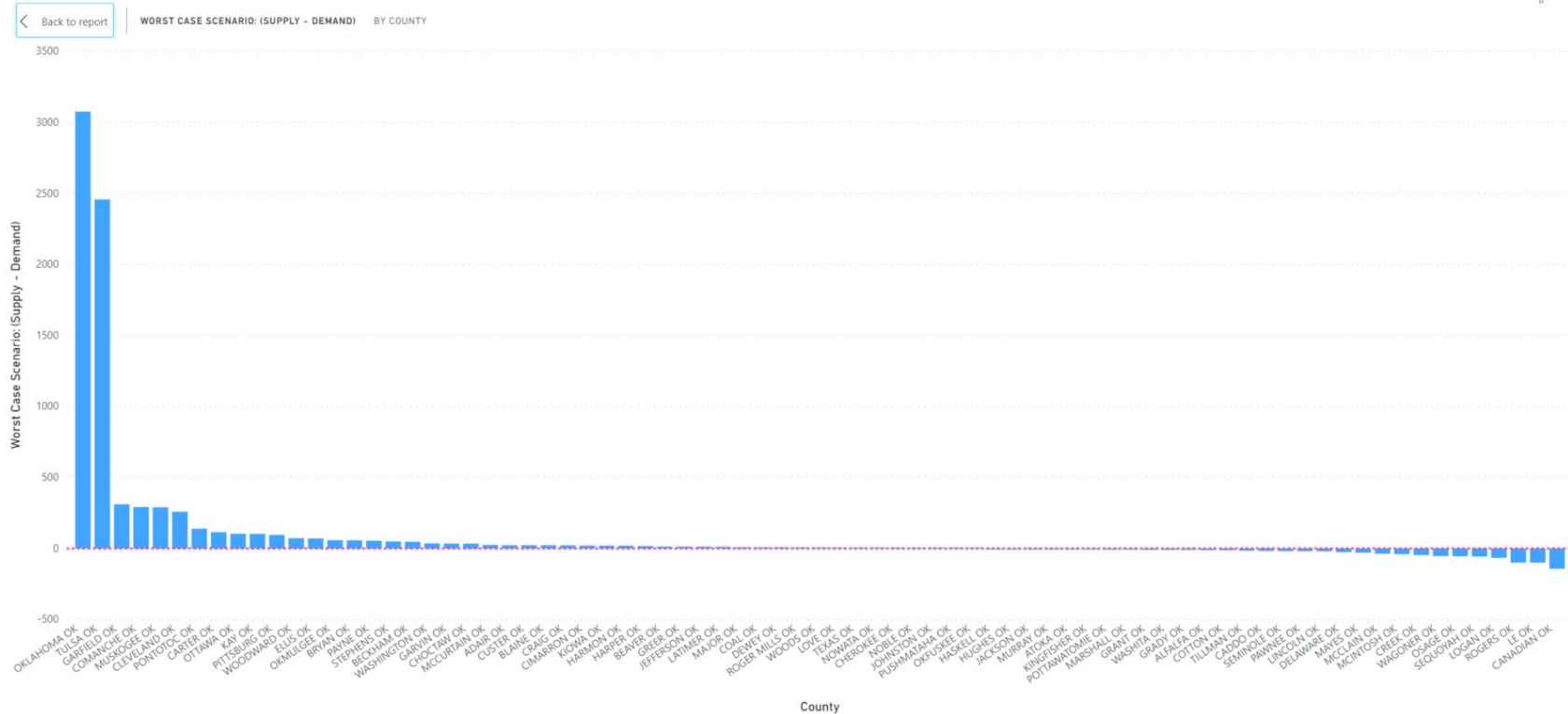


Fig 1: The above figure shows Supply minus Demand at peak using the Imperial-College-COVID19-NPI-modelling-16-03-2020 and the exponential regression model in the article published. All appearing above the red dashed line have capacity even at peak. All Counties that at or falling below the red line are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

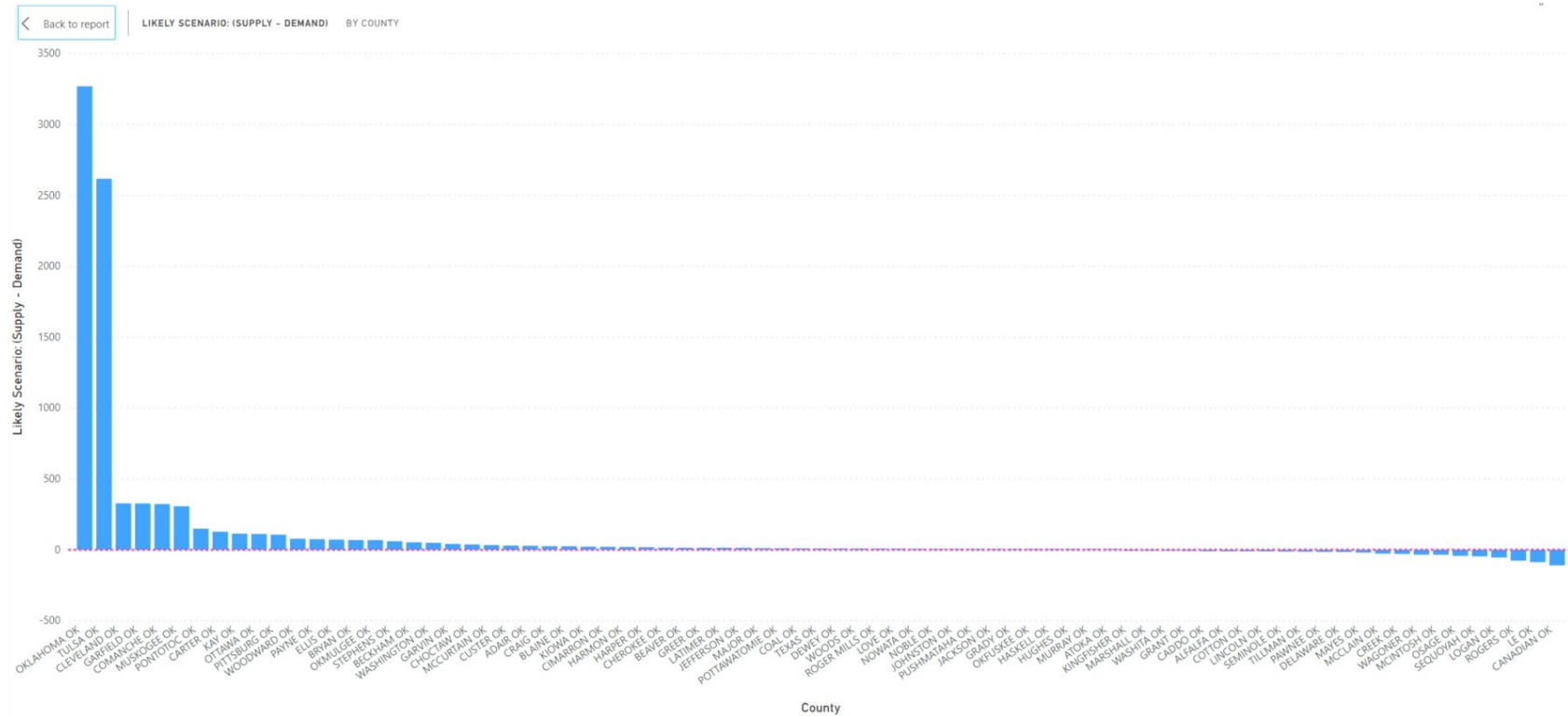


Fig 2: In the more likely scenario where some precautions are taken to flatten the curve, data suggests some Counties will still be unable to meet the needed demand. The peak will hit in early June. Planning for servicing counties that either do not have hospitals or overburdened systems should be made.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

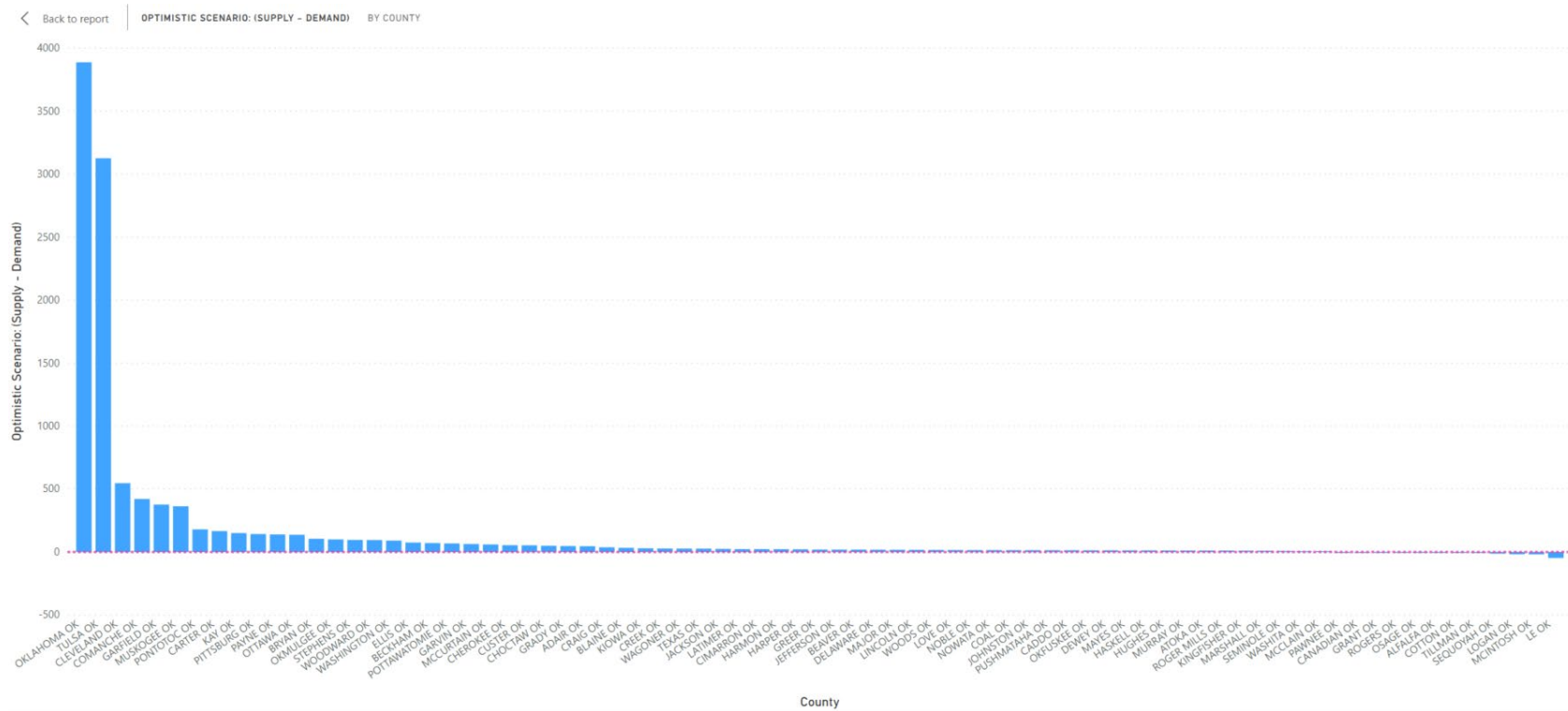


Fig 3: In the scenario where all precautions are taken to flatten the curve, data suggests almost all Counties will be able to meet the needed demand. The peak will hit in June. Planning for servicing counties that either do not have hospitals or overburdened systems should be made. Several Counties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

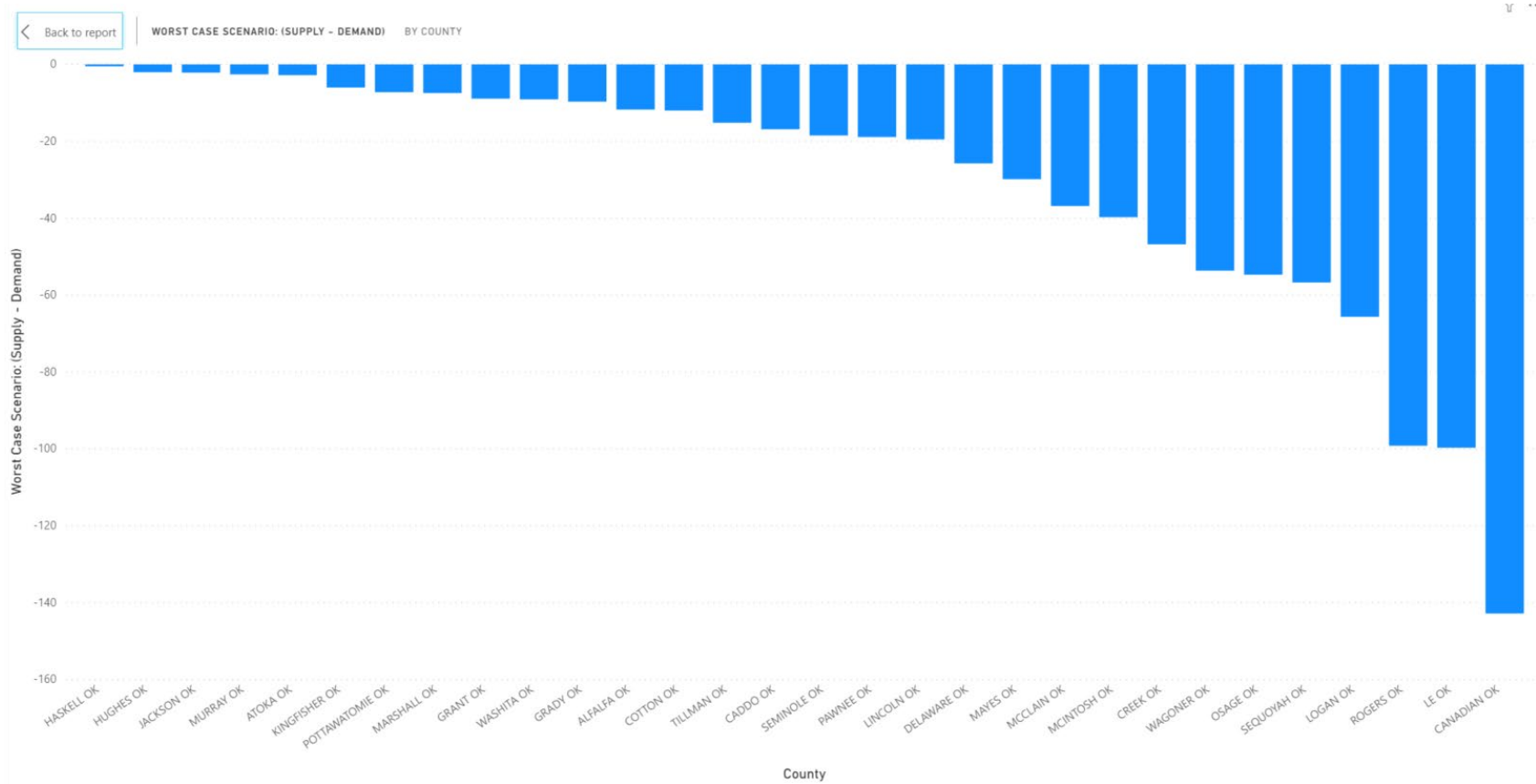


Fig 4: The figure above represents Counties that will run out of beds at peak for the Worst-Case scenario

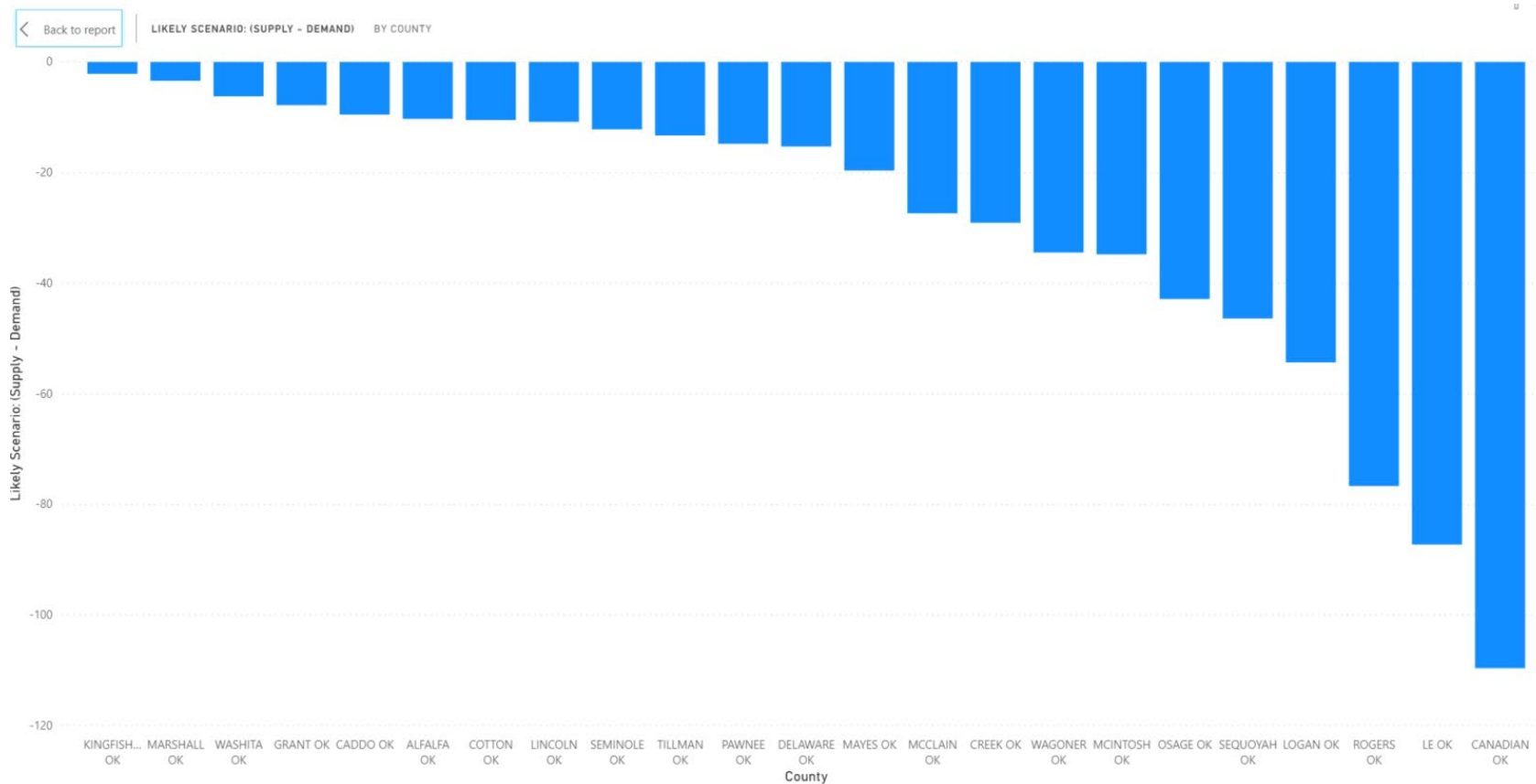


Fig 5: The figure above represents Counties that will run out of beds at peak for the Likely scenario

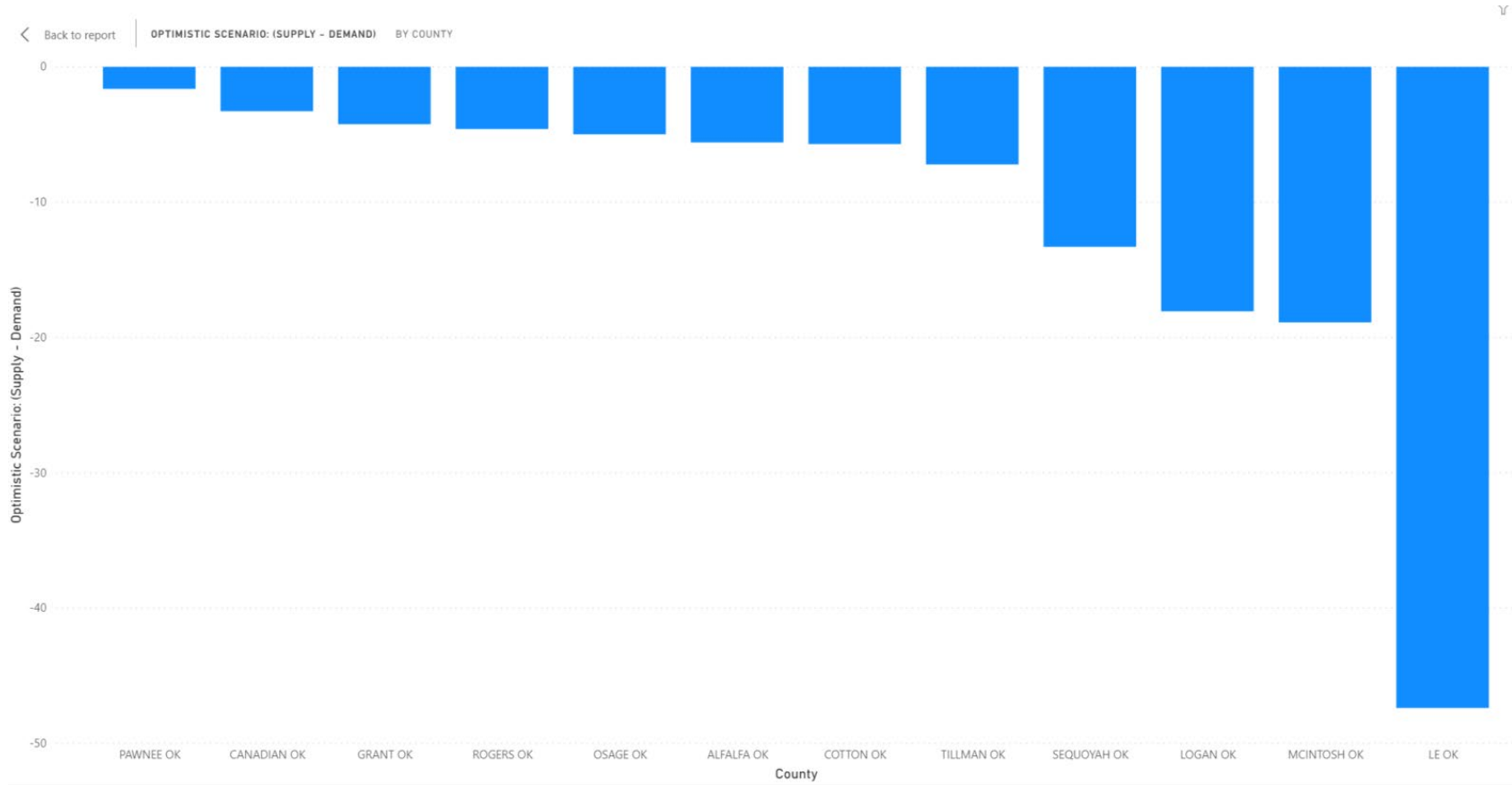


Fig 6: The figure above represents Counties that will run out of beds or do not have a hospital at peak for the Optimistic scenario

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
					█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█				█
ADAIR OK	OK	22136	4376	67	2	2	20	21	11	2	2	11	39	11	2	2	22	61	44	3	2			
ALFALFA OK	OK	5877	1322	0	1	1	5	6	3	1	1	3	10	3	1	1	6	16	12	1	1	x		x
ATOKA OK	OK	13899	3312	25	1	1	13	13	7	1	1	7	24	7	1	1	14	38	28	2	1			x
BEAVER OK	OK	5445	1242	24	1	1	5	5	3	1	1	3	10	3	1	1	5	15	11	1	1			
BECKHAM OK	OK	22971	3942	93	2	2	21	22	11	2	2	11	40	11	2	2	23	63	46	3	2			
BLAINE OK	OK	9680	2121	42	1	1	9	9	5	1	1	5	17	5	1	1	10	27	19	1	1			
BRYAN OK	OK	45068	9731	148	5	5	41	43	23	5	5	23	79	23	5	5	45	124	90	7	5			
CADDO OK	OK	29437	5999	42	3	3	26	28	15	3	3	15	52	15	3	3	29	81	59	4	3			x
CANADIAN OK	OK	132922	21819	123	13	13	120	126	66	13	13	66	233	66	13	13	133	366	266	20	13	x		x
CARTER OK	OK	48407	9619	212	5	5	44	46	24	5	5	24	85	24	5	5	48	133	97	7	5			
CHEROKEE OK	OK	48404	9418	100	5	5	44	46	24	5	5	24	85	24	5	5	48	133	97	7	5			x
CHOCTAW OK	OK	14979	3706	64	1	1	13	14	7	1	1	7	26	7	1	1	15	41	30	2	1			
CIMARRON OK	OK	2221	627	25	0	0	2	2	1	0	0	1	4	1	0	0	2	6	4	0	0			
CLEVELAND OK	OK	274024	44290	807	27	27	247	260	137	27	27	137	480	137	27	27	274	754	548	41	27			
COAL OK	OK	5666	1402	20	1	1	5	5	3	1	1	3	10	3	1	1	6	16	11	1	1			
COMANCHE OK	OK	123066	18755	538	12	12	111	117	62	12	12	62	215	62	12	12	123	338	246	18	12			
COTTTON OK	OK	6000	1459	0	1	1	5	11	6	1	1	3	11	3	1	1	6	17	12	1	1	x		x
CRAIG OK	OK	14563	3320	51	1	1	13	14	7	1	1	7	25	7	1	1	15	40	29	2	1			
CREEK OK	OK	70899	15471	95	7	7	64	67	35	7	7	35	124	35	7	7	73	195	142	11	7			x
CUSTER OK	OK	29169	4727	81	3	3	26	28	15	3	3	15	51	15	3	3	29	80	58	4	3			
DELAWARE OK	OK	41878	12267	58	4	4	38	40	21	4	4	21	73	21	4	4	42	115	84	6	4			x
DEWEY OK	OK	4904	1101	18	0	0	4	5	2	0	0	2	9	2	0	0	5	13	10	1	0			
ELLIS OK	OK	4102	1059	79	0	0	4	4	2	0	0	2	7	2	0	0	4	11	8	1	0			
GARFIELD OK	OK	62421	11715	436	6	6	56	59	31	6	6	31	109	31	6	6	62	172	125	9	6			
GARVIN OK	OK	27751	6069	90	3	3	25	26	14	3	3	14	49	14	3	3	28	76	56	4	3			
GRADY OK	OK	54351	10383	99	5	5	49	52	27	5	5	27	95	27	5	5	54	149	109	8	5			x
GRANT OK	OK	4458	1165	0	0	0	4	4	2	0	0	2	8	2	0	0	4	12	9	1	0	x		x
GREER OK	OK	6018	1132	25	1	1	5	6	3	1	1	3	11	3	1	1	6	17	12	1	1			
HARMON OK	OK	2758	635	25	0	0	2	3	1	0	0	1	5	1	0	0	3	8	6	0	0			
HARPER OK	OK	3843	871	25	0	0	3	4	2	0	0	2	7	2	0	0	4	11	8	1	0			
HASKELL OK	OK	12746	3096	25	1	1	11	12	6	1	1	6	22	6	1	1	13	35	25	2	1			x
HUGHES OK	OK	13519	3007	25	1	1	12	13	7	1	1	7	24	7	1	1	14	37	27	2	1			x
JACKSON OK	OK	25574	4333	49	3	3	23	24	13	3	3	13	45	13	3	3	26	70	51	4	3			x
JEFFERSON OK	OK	6270	1529	25	1	1	6	6	3	1	1	3	11	3	1	1	6	17	13	1	1			
JOHNSON OK	OK	11039	2452	25	1	1	10	10	6	1	1	6	19	6	1	1	11	30	22	2	1			x
KAY OK	OK	45173	10261	193	5	5	41	43	23	5	5	23	79	23	5	5	45	124	90	7	5			
KINGFISHER OK	OK	15510	2916	25	2	2	14	15	8	2	2	8	27	8	2	2	16	43	31	2	2			x
KIOWA OK	OK	9127	2307	38	1	1	8	9	5	1	1	5	16	5	1	1	9	25	18	1	1			
LATIMER OK	OK	10621	2519	33	1	1	10	10	5	1	1	5	19	5	1	1	11	29	21	2	1			
LE OK	OK	49860	10813	0	5	5	45	47	25	5	5	25	87	25	5	5	50	137	100	7	5	x		x
LINCOLN OK	OK	34759	7958	50	3	3	31	33	17	3	3	17	61	17	3	3	35	96	70	5	3			x
LOGAN OK	OK	45326	8729	25	5	5	41	43	23	5	5	23	79	23	5	5	45	125	91	7	5	x		x
LOVE OK	OK	9843	2261	25	1	1	9	9	5	1	1	5	17	5	1	1	10	27	20	1	1			x
MCCLEAIN OK	OK	37919	7429	39	4	4	34	36	19	4	4	19	66	19	4	4	38	104	76	6	4			x
MCCURTAIN OK	OK	33026	7201	91	3	3	30	31	17	3	3	17	58	17	3	3	33	91	66	5	3			x
MCINTOSH OK	OK	19874	5936	0	2	2	18	19	10	2	2	10	35	10	2	2	20	55	40	3	2	x		x
MAJOR OK	OK	7730	1827	25	1	1	7	7	4	1	1	4	14	4	1	1	8	21	15	1	1			
MARSHALL OK	OK	16226	4241	25	2	2	15	15	8	2	2	8	28	8	2	2	16	45	32	2	2			x
MAYES OK	OK	40929	9230	52	4	4	37	39	20	4	4	20	72	20	4	4	41	113	82	6	4	x		x
MURRAY OK	OK	13797	3135	25	1	1	12	13	7	1	1	7	24	7	1	1	14	38	28	2	1			x
MUSKOGEE OK	OK	69471	13755	429	7	7	63	66	35	7	7	35	122	35	7	7	69	191	139	10	7			
NOBLE OK	OK	11421	2602	26	1	1	10	11	6	1	1	6	20	6	1	1	11	31	23	2	1			x
NOWATA OK	OK	10448	2510	25	1	1	9	10	5	1	1	5	18	5	1	1	10	29	21	2	1			x
OKFUSKEE OK	OK	12160	2600	25	1	1	11	12	6	1	1	6	21	6	1	1	12	33	24	2	1			
OKLAHOMA OK	OK	774203	128045	4624	77	77	697	735	387	77	77	387	1355	387	77	77	774	2129	1548	116	77			
OKMULGEE OK	OK	39121	8424	137	4	4	35	37	20	4	4	20	68	20	4	4	39	108	78	6	4			
OSAGE OK	OK	47350	11069	40	5	5	43	45	24	5	5	24	83	24	5	5	47	130	95	7	5	x		x
OTTAWA OK	OK	31725	6973	167	3	3	29	30	16	3	3	16	56	16	3	3	32	87	63	5	3			x
PAWNEE OK	OK	16448	3889	14	2	2	15	16	8	2	2	8	29	8	2	2	16	45	33	2	2	x		x
PAYNE OK	OK	80634	11784	216	8	8	73	77	40	8	8	40	141	40	8	8	81	222	161	12	8			x
PITTSBURG OK	OK	44673	10364	385	4	4	40	42	22	4	4	22	78	22	4	4	45	123	89	7	4			
PONTOTOC OK	OK	38289	7597	216	4	4	34	36	19	4	4	19	67	19	4	4	38	105	77	6	4			
POTTAWATOMIE OK	OK	71614	14192	136	7	7	64	68	36	7	7	36	125	36	7	7	72	197	143	11	7			x
PUSHMATAHA OK	OK	11132	2917	25	1	1	10	11	6	1	1	6	19	6	1	1	11	31	22	2	1			x
ROGER MILLS OK	OK	3734	805	15	0	0	3	4	2	0	0	2	7	2	0	0	4	10	7	1	0			
ROGERS OK	OK	90098	18106	81	9	9	81	86	45	9	9	45	158	45	9	9	90	248	180	14	9	x		x
SEMINOLE OK	OK	25246	5497	32	3	3	23	24	13	3	3	13	44	13	3	3	25	69	50	4	3			x
SEQUOYAH OK	OK	41364	9004	26	4	4	37	39	21	4	4	21	72	21	4	4	41	114	83	6	4	x		x
STEPHENS OK	OK	44293	9933	138	4	4	40	42	22	4	4	22	78	22	4	4	44	122	89	7	4			
TEXAS OK	OK	21409	3226	47	2	2	19	20	11	2	2	11	37	11	2	2	21	59	43	3	2			
TILLMAN OK	OK	7591	181																					