



Responding to COVID-19

Health Resources and Social Determinants of Health in Preparation for COVID-19 Outbreaks

March 16, 2020

Summary

Purpose

Using state and county Federal Information Processing Standards (FIPS) codes¹, we conducted an analysis of the COVID-19 Social Determinants of Health (SDOH) risk factors for serious disease, including diabetes prevalence, smoking rates, age, and socioeconomic status, in areas without Federally Qualified Health Centers² (FQHC) or hospitals. The intention is to assist the Federal government in knowing where additional health resources may be most needed for COVID-19.

Background

The Centers for Disease Control and Prevention (CDC) is responding to an outbreak of respiratory disease caused by a novel coronavirus which has now been detected in more than 100 locations internationally, including the United States. The virus has been named “SARS-CoV-2” and the disease it causes has been named “coronavirus disease 2019” (abbreviated “COVID-19”)³. On January 31, 2020, Health and Human Services (HHS) Secretary Alex M. Azar II declared a public health emergency for the United States to aid the nation’s healthcare community in responding to COVID-19.

Older adults and people with severe underlying chronic medical conditions like heart disease, lung disease, or diabetes seem to be at higher risk for developing more serious complications from the COVID-19 virus. In one analysis, patients who reported no underlying medical conditions had an overall case fatality of 0.9%, but case fatality was higher for patients with comorbidities: 10.5% for those with cardiovascular disease, 7% for diabetes, and 6% each for chronic respiratory disease, hypertension, and cancer.⁴

As part of an ongoing study, CVP constructed an open-source data and analytics platform for analyzing SDOH using publicly available data. Federal data sources included the Environmental Protection Agency (EPA), Census Bureau, Department of Labor (DOL), Food and Nutrition Services, CDC, and Centers for Medicare and Medicaid Services (CMS). We merged this data with the Robert Wood Johnson Foundation County Health Ratings. We achieved our goal to develop an SDOH “wrap” which can be rapidly applied to different health care issues, as needed. Applying this SDOH wrap to a health care supply dataset, by state and county FIPS, allowed us to generate insights that can be useful to HHS in understanding the potential impact of COVID-19 in communities with limited health care resources.

¹ Other potential links include Census tract, zip code

² Available at <https://data.hrsa.gov/tools/data-explorer>, retrieved 12/15/2019.

³ CDC, *Coronavirus Disease 2019 (COVID-19) Situation Summary*, accessed 3/11/2020, available at <https://www.cdc.gov/coronavirus/2019-ncov/summary.html>

⁴ Novel Coronavirus Pneumonia Emergency Response Epidemiology Team [external icon](#) [external icon](#). [The Epidemiological Characteristics of an Outbreak of 2019 Novel Coronavirus Diseases (COVID-19) in China]. *Zhonghua Liu Xing Bing Xue Za Zhi*. 2020;41(2):145–151. DOI:10.3760/cma.j.issn.0254-6450.2020.02.003.

Methods

We downloaded the U.S. Health Resources and Services Administration (HRSA) Federally Qualified Health Centers (FQHC) file and filtered it to only include the 50 states and the District of Columbia. We also filtered out administrative sites. We conducted statistical analyses to determine the number of facilities in the states, locations of counties where there were no FQHCs, total FQHC operating hours, number of grantees operating in a county, and other variables of interest that could be gained from the HRSA file. Using FIPS codes, we merged county level information about FQHCs by state (e.g. total FQHCs, total grantees, total FQHC hours, count of types of FQHCs, and average FQHC hours) onto our county level SDOH wrap data file. We also merged the FQHC dataset with the latest information from CMS' Hospital Compare, giving us a clearer picture of the available health care resources in the community.

We focused on county level estimates of the conditions most likely to cause severe illness in people infected with COVID-19. These include older adults, people with chronic medical conditions such as diabetes, heart disease, and lung disease.⁵ Although the evidence is changing daily, at the time of this writing, the elderly and those with underlying disorders (e.g., hypertension, chronic obstructive pulmonary disease, diabetes, or cardiovascular disease), more often developed rapidly into acute respiratory distress syndrome, septic shock, metabolic acidosis, and more often die from these complications.⁶ *Table 1* provides a summary of the variables and the associated datasets we analyzed.

Table 1. Summary of COVID-19 SDOH wrap.

Domain	Variables	Datasets
Demographic	People over age 65, no health insurance, poverty	Census American Community Survey (ACS)
Risk factors	Diabetes, smoking, poor physical health days, percent adults self-reporting poor physical health	County Health Rankings, CDC Wonder database

⁵ National Center for Immunization and Respiratory Diseases (NCIRD), Division of Viral Diseases, March 13, 2020.

⁶ Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet*. 2020;395(10223):497–506.

Results

By merging public information from Hospital Compare and SDOH data that highlights risk factors for severe morbidity and mortality from COVID-19, we have an idea where outbreaks of the pandemic could be worse and where health resources are thin. In *Table 2*, we provide summary information at the state level for the 34 states containing counties that do not have FQHCs or hospitals. In *Table 3*, we provide the complete list of counties with additional SDOH-related variables that can impact access to health care, such as uninsurance and poverty.

Table 2. Summary by state of SDOH for counties without FQHCs or hospitals.

State	Counties without FQHC or Hospitals	Average percent of Adults with Diabetes	Average percent of Adults Who Smoke	Average percent of Adults in Poor or Fair Health	Average of Age 65 or older
AR	4	27.3%	20.8%	22.3%	18.5%
CA	1	26.8%	15.0%	17.0%	23.0%
CO	10	12.9%	13.9%	11.4%	22.5%
FL	2	30.8%	19.5%	20.0%	19.5%
GA	10	28.3%	19.1%	18.9%	17.5%
HI	1	20.0%	13.0%	14.0%	38.0%
IA	7	18.8%	15.0%	12.3%	19.1%
ID	4	18.2%	16.5%	19.0%	19.8%
IL	12	19.3%	15.3%	13.9%	18.8%
IN	12	24.2%	19.4%	16.2%	18.7%
KS	8	19.9%	15.5%	13.9%	21.3%
KY	13	28.4%	22.0%	21.2%	18.6%
MI	1	22.9%	17.0%	16.0%	35.0%
MN	6	16.7%	15.0%	11.7%	18.0%
MO	8	24.3%	21.8%	19.1%	18.8%
MS	1	36.9%	17.0%	19.0%	22.0%
MT	7	15.6%	16.0%	13.9%	24.9%
NC	8	25.0%	18.3%	17.8%	21.3%
ND	15	17.0%	16.9%	13.1%	20.6%
NE	23	18.0%	15.3%	13.0%	23.8%
NV	2	17.6%	18.5%	18.5%	22.0%
NY	2	22.4%	17.5%	15.5%	20.0%



State	Counties without FQHC or Hospitals	Average percent of Adults with Diabetes	Average percent of Adults Who Smoke	Average percent of Adults in Poor or Fair Health	Average of Age 65 or older
OH	4	25.7%	18.8%	14.5%	19.8%
OK	1	25.9%	18.0%	19.0%	19.0%
OR	2	19.9%	15.0%	14.0%	26.0%
PA	4	27.5%	16.5%	15.0%	22.0%
SD	9	24.2%	21.1%	17.1%	16.3%
TN	4	28.8%	21.3%	19.8%	19.5%
TX	42	22.5%	14.9%	17.8%	21.3%
UT	3	24.1%	8.3%	11.0%	20.3%
VA	35	23.3%	16.1%	15.5%	19.3%
WA	1	18.7%	14.0%	14.0%	19.0%
WI	5	22.2%	18.8%	17.0%	20.8%
WY	1	18.0%	14.0%	12.0%	15.0%

Table 3. All counties without FQHCs or hospitals by SDOH-related risks for COVID-19.

FIPS	COUNTY	STATE	Population, 2017	Self-reported diabetes rate, 2016	Adults Who Smoke, 2016	Percent of Adults in Fair or Poor Health, 2016	Percent over 65, 2017	Uninsurance rate, 2017	Poverty rate, 2017
5053	GRANT	AR	6869	26%	19.0%	19.0%	17%	12.8%	32%
5099	NEVADA	AR	3509	28%	24.0%	28.0%	20%	13.7%	45%
5105	PERRY	AR	3730	29%	20.0%	20.0%	18%	18.9%	42%
5109	PIKE	AR	4298	26%	20.0%	22.0%	19%	22.2%	45%
6003	ALPINE	CA	343	27%	15.0%	17.0%	23%	14.3%	59%
8014	BROOMFIELD	CO	24581	12%	13.0%	10.0%	13%	10.3%	13%
8019	CLEAR CREEK	CO	4411	13%	12.0%	9.0%	19%	9.2%	17%
8027	CUSTER	CO	1950	14%	15.0%	13.0%	31%	15.7%	32%
8047	GILPIN	CO	2508	12%	14.0%	10.0%	15%	7.9%	16%
8053	HINSDALE	CO	401	11%	14.0%	12.0%	26%	13.7%	17%
8057	JACKSON	CO	616	13%	15.0%	13.0%	22%	22.1%	31%
8079	MINERAL	CO	409	11%	13.0%	11.0%	29%	9.3%	16%
8091	OURAY	CO	2166	13%	13.0%	11.0%	26%	12.7%	17%
8111	SAN JUAN	CO	284	15%	16.0%	13.0%	23%	17.3%	34%
8121	WASHINGTON	CO	2005	14%	14.0%	12.0%	21%	14.6%	31%
12047	HAMILTON	FL	4717	34%	23.0%	23.0%	17%	25.0%	59%
12065	JEFFERSON	FL	5564	27%	16.0%	17.0%	22%	20.1%	41%
13029	BRYAN	GA	11788	24%	18.0%	16.0%	11%	29.0%	32%
13061	CLAY	GA	1160	35%	27.0%	33.0%	25%	28.6%	83%
13073	COLUMBIA	GA	45623	24%	16.0%	13.0%	12%	23.1%	22%



FIPS	COUNTY	STATE	Population, 2017	Self-reported diabetes rate, 2016	Adults Who Smoke, 2016	Percent of Adults in Fair or Poor Health, 2016	Percent over 65, 2017	Uninsurance rate, 2017	Poverty rate, 2017
13079	CRAWFORD	GA	4643	30%	19.0%	18.0%	18%	30.8%	46%
13149	HEARD	GA	4364	27%	19.0%	17.0%	16%	30.2%	50%
13181	LINCOLN	GA	3457	28%	19.0%	19.0%	22%	26.0%	41%
13197	MARION	GA	3021	35%	20.0%	22.0%	19%	34.5%	66%
13219	OCONEE	GA	12288	20%	14.0%	12.0%	15%	20.6%	20%
13229	PIERCE	GA	6947	29%	19.0%	18.0%	16%	34.3%	53%
13307	WEBSTER	GA	1025	31%	20.0%	21.0%	21%	28.8%	51%
15005	KALAWAO	HI	55	20%	13.0%	14.0%	38%	0.0%	0%
19031	CEDAR	IA	7599	18%	14.0%	11.0%	19%	6.3%	17%
19129	MILLS	IA	5444	21%	15.0%	11.0%	17%	7.6%	25%
19171	TAMA	IA	6734	19%	16.0%	13.0%	20%	11.2%	24%
19173	TAYLOR	IA	2715	16%	16.0%	15.0%	21%	9.2%	26%
19181	WARREN	IA	18231	18%	15.0%	11.0%	16%	6.1%	16%
19189	WINNEBAGO	IA	4545	17%	14.0%	13.0%	21%	6.1%	21%
19195	WORTH	IA	3144	23%	15.0%	12.0%	20%	7.4%	20%
16015	BOISE	ID	2994	21%	15.0%	14.0%	24%	18.7%	29%
16033	CLARK	ID	287	17%	19.0%	27.0%	15%	56.8%	44%
16061	LEWIS	ID	1624	18%	15.0%	16.0%	26%	24.1%	34%
16063	LINCOLN	ID	1596	17%	17.0%	19.0%	14%	41.2%	42%
17009	BROWN	IL	2130	21%	17.0%	15.0%	14%	5.6%	32%
17013	CALHOUN	IL	1936	21%	15.0%	14.0%	23%	9.1%	26%



FIPS	COUNTY	STATE	Population, 2017	Self-reported diabetes rate, 2016	Adults Who Smoke, 2016	Percent of Adults in Fair or Poor Health, 2016	Percent over 65, 2017	Uninsurance rate, 2017	Poverty rate, 2017
17015	CARROLL	IL	6649	19%	15.0%	14.0%	24%	9.6%	25%
17023	CLARK	IL	6673	19%	17.0%	16.0%	19%	8.4%	25%
17041	DOUGLAS	IL	7562	17%	16.0%	15.0%	17%	16.5%	25%
17079	JASPER	IL	3719	20%	15.0%	13.0%	19%	11.1%	30%
17093	KENDALL	IL	39275	19%	14.0%	13.0%	10%	12.2%	15%
17123	MARSHALL	IL	4953	21%	15.0%	14.0%	23%	8.3%	22%
17129	MENARD	IL	5219	18%	16.0%	14.0%	19%	8.1%	20%
17133	MONROE	IL	13030	19%	13.0%	11.0%	17%	7.2%	13%
17155	PUTNAM	IL	2440	18%	14.0%	13.0%	21%	9.1%	19%
17171	SCOTT	IL	2092	19%	17.0%	15.0%	20%	9.7%	29%
18007	BENTON	IN	3388	24%	21.0%	17.0%	17%	18.7%	28%
18013	BROWN	IN	5953	24%	18.0%	15.0%	22%	16.7%	27%
18045	FOUNTAIN	IN	6963	24%	20.0%	17.0%	20%	14.7%	30%
18047	FRANKLIN	IN	8710	24%	19.0%	15.0%	17%	15.3%	24%
18101	MARTIN	IN	4219	23%	19.0%	17.0%	18%	14.7%	30%
18111	NEWTON	IN	5482	26%	21.0%	19.0%	18%	19.6%	28%
18115	OHIO	IN	2427	25%	17.0%	13.0%	21%	12.5%	22%
18125	PIKE	IN	4957	26%	18.0%	15.0%	19%	14.4%	25%
18129	POSEY	IN	10017	21%	18.0%	15.0%	17%	12.0%	23%
18147	SPENCER	IN	8065	21%	18.0%	14.0%	19%	13.7%	26%
18155	SWITZERLAND	IN	4102	25%	24.0%	21.0%	17%	18.1%	42%



FIPS	COUNTY	STATE	Population, 2017	Self-reported diabetes rate, 2016	Adults Who Smoke, 2016	Percent of Adults in Fair or Poor Health, 2016	Percent over 65, 2017	Uninsurance rate, 2017	Poverty rate, 2017
18161	UNION	IN	2917	27%	20.0%	16.0%	19%	15.6%	26%
20017	CHASE	KS	1084	20%	16.0%	14.0%	24%	14.9%	26%
20031	COFFEY	KS	3580	18%	16.0%	13.0%	20%	11.8%	23%
20049	ELK	KS	1245	22%	16.0%	16.0%	29%	16.4%	31%
20069	GRAY	KS	2129	17%	14.0%	13.0%	15%	29.2%	21%
20139	OSAGE	KS	6444	19%	15.0%	14.0%	19%	16.0%	28%
20197	WABAUNSEE	KS	2707	20%	14.0%	11.0%	19%	13.0%	19%
20199	WALLACE	KS	587	24%	14.0%	13.0%	22%	15.8%	29%
20207	WOODSON	KS	1521	19%	19.0%	17.0%	22%	15.7%	32%
21029	BULLITT	KY	28533	33%	20.0%	17.0%	15%	9.4%	26%
21031	BUTLER	KY	5153	28%	23.0%	23.0%	18%	12.3%	42%
21075	FULTON	KY	2611	25%	25.0%	27.0%	20%	8.5%	64%
21091	HANCOCK	KY	3254	30%	20.0%	19.0%	17%	7.8%	33%
21105	HICKMAN	KY	1856	29%	23.0%	23.0%	24%	9.9%	44%
21143	LYON	KY	3326	31%	19.0%	18.0%	25%	7.1%	30%
21163	MEADE	KY	10631	25%	24.0%	19.0%	14%	10.2%	29%
21165	MENIFEE	KY	2521	33%	24.0%	22.0%	19%	15.9%	64%
21169	METCALFE	KY	3922	30%	26.0%	26.0%	18%	12.2%	60%
21191	PENDLETON	KY	5296	25%	20.0%	18.0%	15%	11.3%	40%
21201	ROBERTSON	KY	961	26%	21.0%	22.0%	22%	9.1%	46%
21223	TRIMBLE	KY	3555	26%	21.0%	20.0%	17%	9.6%	32%



FIPS	COUNTY	STATE	Population, 2017	Self-reported diabetes rate, 2016	Adults Who Smoke, 2016	Percent of Adults in Fair or Poor Health, 2016	Percent over 65, 2017	Uninsurance rate, 2017	Poverty rate, 2017
21229	WASHINGTON	KY	4490	28%	20.0%	21.0%	18%	12.9%	40%
26083	KEWEENAW	MI	1023	23%	17.0%	16.0%	35%	8.2%	25%
27009	BENTON	MN	15726	15%	16.0%	12.0%	15%	7.3%	24%
27039	DODGE	MN	7583	18%	14.0%	11.0%	14%	7.3%	16%
27045	FILLMORE	MN	8540	17%	14.0%	11.0%	21%	10.7%	25%
27055	HOUSTON	MN	7989	16%	15.0%	11.0%	20%	7.4%	17%
27099	MOWER	MN	15414	17%	16.0%	14.0%	18%	11.0%	27%
27125	RED LAKE	MN	1676	17%	15.0%	11.0%	20%	9.1%	25%
29043	CHRISTIAN	MO	30093	20%	20.0%	15.0%	15%	19.8%	28%
29063	DEKALB	MO	3774	32%	22.0%	20.0%	16%	16.9%	37%
29089	HOWARD	MO	3760	21%	21.0%	19.0%	18%	19.6%	33%
29111	LEWIS	MO	3807	25%	21.0%	18.0%	18%	20.4%	39%
29125	MARIES	MO	3642	26%	21.0%	19.0%	21%	24.1%	33%
29197	SCHUYLER	MO	1726	22%	24.0%	21.0%	18%	28.0%	41%
29205	SHELBY	MO	2480	21%	21.0%	18.0%	21%	20.6%	37%
29223	WAYNE	MO	5612	26%	24.0%	23.0%	23%	22.9%	53%
28015	CARROLL	MS	3674	37%	17.0%	19.0%	22%	29.7%	47%
30037	GOLDEN VALLEY	MT	330	18%	16.0%	14.0%	27%	15.8%	46%
30043	JEFFERSON	MT	4468	17%	15.0%	11.0%	21%	15.4%	22%
30045	JUDITH BASIN	MT	915	15%	15.0%	12.0%	24%	13.9%	27%
30069	PETROLEUM	MT	212	15%	17.0%	15.0%	24%	20.8%	35%



FIPS	COUNTY	STATE	Population, 2017	Self-reported diabetes rate, 2016	Adults Who Smoke, 2016	Percent of Adults in Fair or Poor Health, 2016	Percent over 65, 2017	Uninsurance rate, 2017	Poverty rate, 2017
30075	POWDER RIVER	MT	748	16%	16.0%	13.0%	25%	16.2%	28%
30103	TREASURE	MT	372	14%	17.0%	17.0%	28%	15.1%	21%
30109	WIBAUX	MT	496	15%	16.0%	15.0%	25%	13.9%	22%
37029	CAMDEN	NC	3804	23%	16.0%	14.0%	15%	20.6%	22%
37043	CLAY	NC	4666	23%	18.0%	17.0%	30%	21.9%	36%
37053	CURRITUCK	NC	9582	25%	17.0%	14.0%	16%	23.5%	29%
37103	JONES	NC	4141	30%	19.0%	20.0%	23%	22.5%	51%
37115	MADISON	NC	8400	20%	18.0%	16.0%	21%	21.1%	43%
37143	PERQUIMANS	NC	5710	27%	19.0%	19.0%	26%	19.1%	42%
37177	TYRRELL	NC	1457	30%	21.0%	24.0%	20%	29.0%	60%
37197	YADKIN	NC	15287	21%	18.0%	18.0%	19%	25.6%	33%
38005	BENSON	ND	2257	22%	30.0%	25.0%	12%	26.5%	86%
38007	BILLINGS	ND	405	14%	17.0%	12.0%	19%	14.8%	21%
38027	EDDY	ND	1043	21%	16.0%	14.0%	24%	11.3%	23%
38033	GOLDEN VALLEY	ND	836	15%	17.0%	13.0%	19%	9.4%	22%
38041	HETTINGER	ND	1109	17%	16.0%	12.0%	23%	10.0%	25%
38043	KIDDER	ND	1083	18%	15.0%	12.0%	22%	12.3%	30%
38045	LAMOURE	ND	1810	16%	15.0%	13.0%	25%	11.0%	23%
38047	LOGAN	ND	878	17%	14.0%	11.0%	27%	15.0%	27%
38049	MCHENRY	ND	2614	14%	17.0%	13.0%	19%	10.8%	25%
38059	MORTON	ND	12673	14%	17.0%	11.0%	16%	10.0%	20%



FIPS	COUNTY	STATE	Population, 2017	Self-reported diabetes rate, 2016	Adults Who Smoke, 2016	Percent of Adults in Fair or Poor Health, 2016	Percent over 65, 2017	Uninsurance rate, 2017	Poverty rate, 2017
38075	RENVILLE	ND	1011	17%	17.0%	12.0%	20%	10.3%	19%
38077	RICHLAND	ND	6677	16%	17.0%	13.0%	16%	10.0%	23%
38081	SARGENT	ND	1775	19%	16.0%	12.0%	22%	9.3%	17%
38087	SLOPE	ND	306	19%	16.0%	12.0%	20%	10.8%	30%
38091	STEELE	ND	943	18%	14.0%	11.0%	25%	9.9%	16%
31005	ARTHUR	NE	183	15%	16.0%	13.0%	21%	17.5%	34%
31007	BANNER	NE	314	25%	15.0%	14.0%	31%	12.4%	28%
31009	BLAINE	NE	251	16%	16.0%	14.0%	26%	16.3%	28%
31027	CEDAR	NE	3571	15%	13.0%	12.0%	22%	12.9%	19%
31035	CLAY	NE	2600	19%	17.0%	13.0%	20%	18.0%	25%
31049	DEUEL	NE	850	18%	16.0%	13.0%	25%	15.9%	27%
31051	DIXON	NE	2290	18%	17.0%	14.0%	20%	16.2%	22%
31063	FRONTIER	NE	1097	18%	16.0%	12.0%	22%	15.4%	30%
31071	GARFIELD	NE	920	17%	14.0%	13.0%	29%	11.6%	25%
31073	GOSPER	NE	811	17%	14.0%	12.0%	21%	12.5%	22%
31075	GRANT	NE	272	18%	17.0%	14.0%	20%	13.2%	24%
31077	GREELEY	NE	1025	17%	15.0%	13.0%	25%	19.8%	28%
31085	HAYES	NE	441	17%	16.0%	15.0%	27%	26.3%	34%
31087	HITCHCOCK	NE	1288	18%	17.0%	14.0%	24%	14.6%	30%
31091	HOOKER	NE	301	21%	15.0%	14.0%	30%	10.6%	19%
31103	KEYA PAHA	NE	338	20%	13.0%	12.0%	28%	17.8%	41%



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31113	LOGAN	NE	352	16%	16.0%	12.0%	17%	18.8%	19%
31115	LOUP	NE	248	21%	14.0%	12.0%	26%	17.7%	39%
31117	MCPHERSON	NE	195	19%	15.0%	13.0%	20%	14.4%	32%
31163	SHERMAN	NE	1367	19%	14.0%	12.0%	27%	15.1%	26%
31165	SIOUX	NE	544	15%	16.0%	13.0%	23%	15.8%	38%
31171	THOMAS	NE	298	17%	14.0%	12.0%	22%	12.4%	33%
31183	WHEELER	NE	373	16%	15.0%	13.0%	22%	12.9%	20%
32009	ESMERALDA	NV	454	16%	21.0%	23.0%	28%	17.6%	27%
32011	EUREKA	NV	766	19%	16.0%	14.0%	16%	11.1%	23%
36039	GREENE	NY	17125	23%	18.0%	16.0%	21%	10.3%	33%
36107	TIOGA	NY	19705	22%	17.0%	15.0%	19%	8.3%	24%
39019	CARROLL	OH	10871	24%	21.0%	15.0%	20%	13.0%	32%
39121	NOBLE	OH	4863	33%	18.0%	15.0%	25%	11.5%	39%
39135	PREBLE	OH	16048	26%	20.0%	16.0%	18%	12.3%	25%
39137	PUTNAM	OH	13092	20%	16.0%	12.0%	16%	9.1%	16%
40033	COTTON	OK	2368	26%	18.0%	19.0%	19%	28.7%	45%
41021	GILLIAM	OR	788	22%	15.0%	14.0%	27%	7.7%	26%
41055	SHERMAN	OR	804	18%	15.0%	14.0%	25%	11.1%	27%
42053	FOREST	PA	1816	41%	17.0%	16.0%	22%	11.8%	57%
42067	JUNIATA	PA	9326	22%	16.0%	15.0%	21%	13.6%	32%
42109	SNYDER	PA	14528	21%	17.0%	14.0%	17%	14.9%	30%



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42113	SULLIVAN	PA	2647	26%	16.0%	15.0%	28%	12.1%	31%
46019	BUTTE	SD	4181	17%	16.0%	12.0%	20%	20.4%	33%
46021	CAMPBELL	SD	682	17%	15.0%	11.0%	26%	12.0%	20%
46025	CLARK	SD	1501	19%	15.0%	13.0%	21%	19.3%	26%
46061	HANSON	SD	1060	21%	15.0%	11.0%	14%	19.0%	28%
46063	HARDING	SD	495	17%	16.0%	12.0%	17%	20.6%	27%
46071	JACKSON	SD	994	24%	26.0%	23.0%	14%	48.9%	118%
46087	MCCOOK	SD	2210	16%	14.0%	11.0%	20%	15.4%	22%
46102	OGLALA LAKOTA	SD	2932	48%	41.0%	33.0%	7%	59.2%	N/A
46137	ZIEBACH	SD	792	38%	32.0%	28.0%	8%	51.1%	N/A
47033	CROCKETT	TN	5446	25%	24.0%	24.0%	18%	26.6%	46%
47115	MARION	TN	11219	33%	22.0%	20.0%	19%	18.1%	39%
47127	MOORE	TN	2560	29%	19.0%	16.0%	21%	16.0%	24%
47153	SEQUATCHIE	TN	5549	28%	20.0%	19.0%	20%	20.2%	44%
48007	ARANSAS	TX	9552	29%	16.0%	20.0%	28%	34.9%	48%
48009	ARCHER	TX	3331	23%	14.0%	13.0%	19%	30.7%	26%
48011	ARMSTRONG	TX	702	23%	13.0%	12.0%	22%	25.4%	27%
48019	BANDERA	TX	8256	24%	14.0%	16.0%	26%	29.6%	32%
48031	BLANCO	TX	4174	24%	14.0%	15.0%	24%	36.7%	29%
48033	BORDEN	TX	251	22%	11.0%	12.0%	21%	21.9%	29%
48045	BRISCOE	TX	698	19%	16.0%	19.0%	25%	39.5%	33%



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48065	CARSON	TX	2324	20%	13.0%	13.0%	17%	25.5%	22%
48081	COKE	TX	1567	19%	15.0%	17.0%	26%	21.5%	28%
48101	COTTLE	TX	679	19%	16.0%	21.0%	24%	33.1%	43%
48105	CROCKETT	TX	1431	19%	14.0%	21.0%	16%	36.3%	41%
48111	DALLAM	TX	2360	17%	16.0%	21.0%	9%	55.1%	35%
48125	DICKENS	TX	869	20%	16.0%	20.0%	21%	31.1%	46%
48129	DONLEY	TX	1287	24%	15.0%	16.0%	23%	34.1%	48%
48137	EDWARDS	TX	718	25%	13.0%	20.0%	26%	39.0%	61%
48155	FOARD	TX	526	22%	13.0%	15.0%	26%	33.5%	41%
48159	FRANKLIN	TX	4114	22%	16.0%	17.0%	21%	28.9%	38%
48169	GARZA	TX	1625	26%	16.0%	20.0%	12%	41.7%	69%
48173	GLASSCOCK	TX	438	21%	14.0%	17.0%	14%	40.2%	29%
48175	GOLIAD	TX	2798	25%	14.0%	18.0%	21%	24.2%	41%
48191	HALL	TX	1235	23%	19.0%	27.0%	23%	48.5%	59%
48193	HAMILTON	TX	3231	23%	14.0%	16.0%	26%	35.8%	41%
48235	IRION	TX	632	20%	13.0%	15.0%	20%	20.9%	22%
48243	JEFF DAVIS	TX	1013	24%	15.0%	21.0%	32%	37.8%	28%
48261	KENEDY	TX	170	18%	15.0%	27.0%	15%	32.9%	37%
48263	KENT	TX	284	25%	13.0%	15.0%	29%	29.9%	33%
48269	KING	TX	114	20%	15.0%	15.0%	17%	33.3%	36%
48295	LIPSCOMB	TX	1235	20%	14.0%	16.0%	16%	42.8%	36%



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48301	LOVING	TX	37	19%	19.0%	18.0%	9%	32.4%	35%
48315	MARION	TX	4387	26%	17.0%	18.0%	25%	25.9%	52%
48333	MILLS	TX	1875	23%	14.0%	17.0%	27%	35.9%	40%
48343	MORRIS	TX	5015	24%	16.0%	18.0%	22%	33.0%	45%
48345	MOTLEY	TX	475	23%	15.0%	18.0%	30%	36.2%	46%
48351	NEWTON	TX	4629	28%	17.0%	17.0%	19%	33.9%	59%
48359	OLDHAM	TX	616	24%	16.0%	16.0%	15%	33.1%	39%
48379	RAINS	TX	4252	28%	14.0%	14.0%	24%	36.0%	47%
48387	RED RIVER	TX	5163	28%	16.0%	20.0%	24%	31.2%	45%
48393	ROBERTS	TX	342	21%	13.0%	12.0%	19%	17.0%	19%
48411	SAN SABA	TX	2110	25%	16.0%	21.0%	23%	41.3%	43%
48421	SHERMAN	TX	1017	20%	14.0%	18.0%	15%	53.6%	37%
48431	STERLING	TX	453	22%	17.0%	22.0%	16%	35.1%	34%
48443	TERRELL	TX	396	19%	15.0%	25.0%	26%	26.3%	39%
49009	DAGGETT	UT	217	37%	8.0%	9.0%	23%	27.2%	32%
49029	MORGAN	UT	3079	15%	8.0%	10.0%	11%	14.7%	16%
49031	PIUTE	UT	545	20%	9.0%	14.0%	27%	19.6%	42%
51011	APPOMATTOX	VA	5972	25%	17.0%	16.0%	20%	21.1%	31%
51023	BOTETOURT	VA	13305	22%	14.0%	11.0%	21%	13.8%	16%
51043	CLARKE	VA	5591	22%	15.0%	14.0%	20%	17.3%	17%



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51570	COLONIAL HEIGHTS CITY	VA	7206	21%	16.0%	15.0%	20%	17.7%	24%
51580	COVINGTON CITY	VA	2472	20%	18.0%	17.0%	20%	15.9%	35%
51049	CUMBERLAND	VA	4085	30%	19.0%	20.0%	21%	20.5%	37%
51600	FAIRFAX CITY	VA	8476	20%	12.0%	13.0%	17%	18.3%	22%
51610	FALLS CHURCH CITY	VA	5301	19%	13.0%	11.0%	12%	7.1%	9%
51065	FLUVANNA	VA	9829	23%	14.0%	13.0%	19%	19.7%	17%
51069	FREDERICK	VA	29914	20%	14.0%	12.0%	17%	20.7%	19%
51075	GOOCHLAND	VA	8177	27%	13.0%	12.0%	21%	10.6%	16%
51077	GRAYSON	VA	6710	21%	18.0%	18.0%	24%	19.1%	41%
51079	GREENE	VA	7107	19%	17.0%	15.0%	17%	24.9%	23%
51081	GREENSVILLE	VA	3705	35%	21.0%	23.0%	16%	15.2%	53%
51093	ISLE OF WIGHT	VA	13902	25%	15.0%	14.0%	18%	16.3%	22%
51097	KING AND QUEEN	VA	2807	26%	18.0%	18.0%	22%	24.6%	31%
51099	KING GEORGE	VA	8669	21%	15.0%	12.0%	13%	15.3%	20%
51113	MADISON	VA	5042	22%	17.0%	15.0%	22%	23.6%	30%
51685	MANASSAS PARK CITY	VA	4730	23%	16.0%	19.0%	8%	42.5%	25%
51119	MIDDLESEX	VA	4474	26%	15.0%	15.0%	30%	15.5%	31%



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51127	NEW KENT	VA	7537	22%	14.0%	12.0%	16%	17.2%	15%
51133	NORTHUMBERLAND	VA	5776	26%	14.0%	15.0%	35%	15.0%	30%
51135	NOTTOWAY	VA	5676	31%	20.0%	21.0%	19%	20.2%	51%
51137	ORANGE	VA	13245	26%	16.0%	14.0%	20%	20.9%	24%
51141	PATRICK	VA	7805	22%	19.0%	18.0%	26%	21.4%	32%
51735	POQUOSON CITY	VA	4610	21%	13.0%	11.0%	19%	11.4%	13%
51145	POWHATAN	VA	9866	25%	14.0%	12.0%	17%	17.7%	15%
51750	RADFORD CITY	VA	5604	18%	23.0%	24.0%	8%	19.5%	75%
51157	RAPPAHANNOCK	VA	3247	23%	14.0%	13.0%	26%	19.1%	20%
51159	RICHMOND	VA	3084	29%	20.0%	21.0%	21%	19.9%	44%
51161	ROANOKE	VA	38322	22%	15.0%	14.0%	21%	12.9%	17%
51790	STAUNTON CITY	VA	10383	21%	17.0%	17.0%	21%	15.2%	30%
51820	WAYNESBORO CITY	VA	9044	19%	17.0%	17.0%	19%	20.8%	36%
51830	WILLIAMSBURG CITY	VA	4627	22%	16.0%	18.0%	16%	19.6%	52%
51199	YORK	VA	23872	20%	13.0%	11.0%	15%	14.1%	14%
53059	SKAMANIA	WA	4577	19%	14.0%	14.0%	19%	12.4%	31%
55011	BUFFALO	WI	5707	17%	16.0%	13.0%	21%	11.2%	22%
55037	FLORENCE	WI	1958	22%	15.0%	14.0%	27%	11.0%	27%



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55061	KEWAUNEE	WI	8211	18%	14.0%	12.0%	20%	9.6%	20%
55077	MARQUETTE	WI	6328	23%	16.0%	14.0%	23%	11.2%	31%
55078	MENOMINEE	WI	1215	30%	33.0%	32.0%	13%	28.0%	N/A
56035	SUBLETTE	WY	3203	18%	14.0%	12.0%	15%	27.7%	20%