

The CDC/ATSDR Social Vulnerability Index

A tool for measuring social vulnerability at the community level

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11/14/24

Healthy people. Thriving communities. Place matters.



Geospatial Research, Analysis, and Services Program (GRASP)
Office of Innovation and Analytics (OIA), ATSDR



The History of the CDC/ATSDR Social Vulnerability Index (SVI)

- The Pandemic and All-Hazards Preparedness Act of 2006 cited public health preparedness and response capabilities as critical needs for the United States.
- The Centers for Disease Control and Prevention (CDC) decided to build agency capacity by addressing social vulnerability to disasters.
- The Geospatial Research, Analysis, and Services Program (GRASP) began developing the SVI in 2007 and disseminated the first SVI database in 2011.

The Purpose of the CDC/ATSDR Social Vulnerability Index



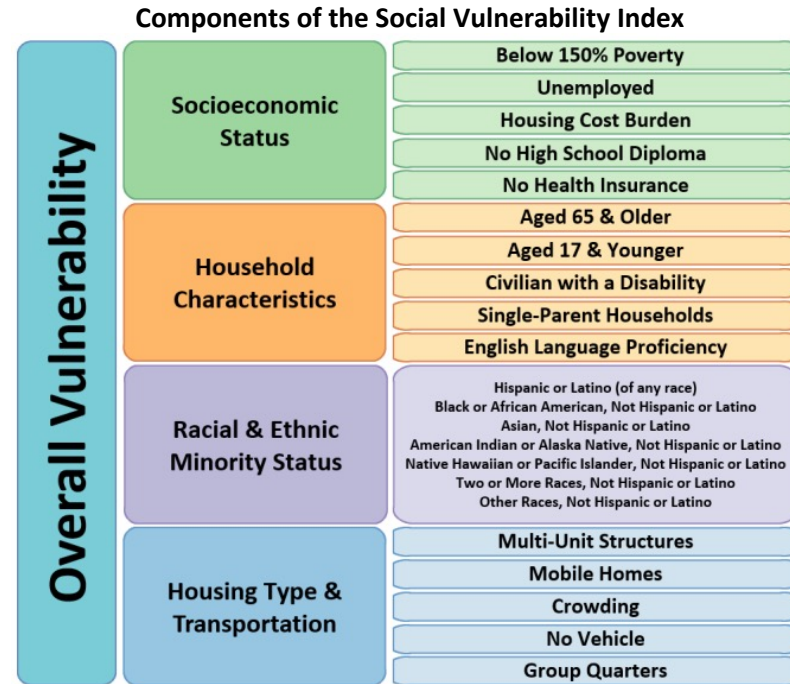
Hurricane Sandy, Breezy Point, NY, October 2012

Photographer: Pauline Tran, CDC public health image library

- **Social Vulnerability** refers to the demographic and socioeconomic factors that adversely affect communities that encounter hazards and other community-level stressors.
- The SVI was developed as a place-based index, database, and mapping application designed to identify and quantify communities experiencing social vulnerability.

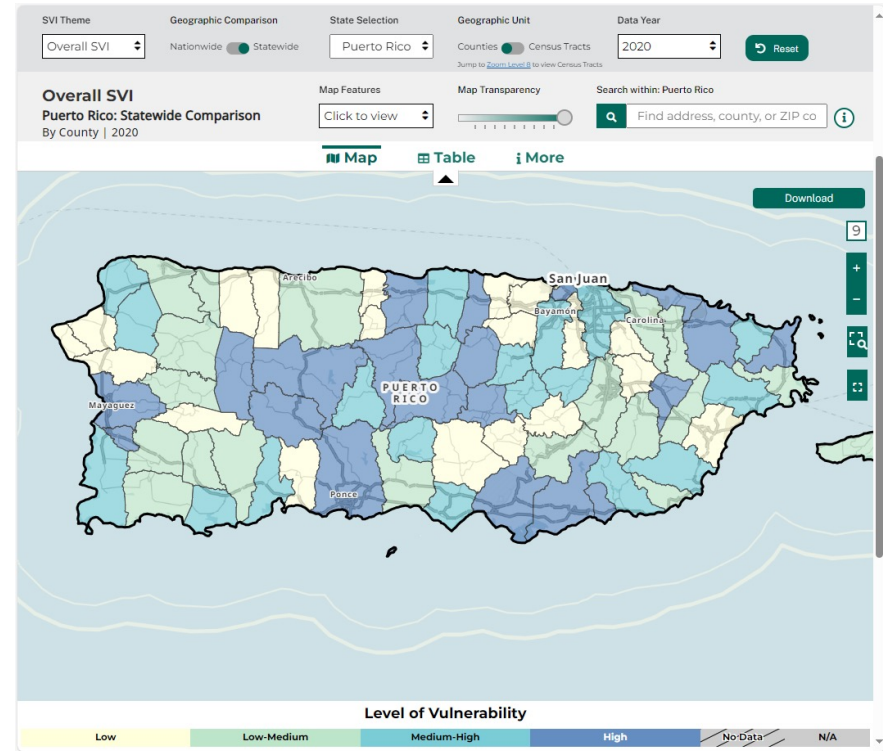
The Methodology of the CDC/ATSDR Social Vulnerability Index

- SVI uses Census Bureau data to measure the relative social vulnerability of U.S. communities
 - 16 variables
 - 4 themes
 - 1 overall ranking
- SVI uses percentile ranks
 - Scale of 0 to 1
- All variables are weighted equally



The Methodology of the CDC/ATSDR Social Vulnerability Index (continued)

- **SVI has been developed for:**
 - Census tracts and counties
- **SVI is provided as:**
 - Nationwide and statewide comparisons
- **SVI data available for Puerto Rico and tribal tracts**
 - Provided as stand-alone databases
- **SVI databases are available for:**
 - 2000, 2010, 2014, 2016, 2018, 2020, and 2022



The CDC/ATSDR Social Vulnerability Index is a Complete Toolbox

SVI Theme: Overall SVI

Geographic Comparison: Nationwide Statewide

State Selection: Select

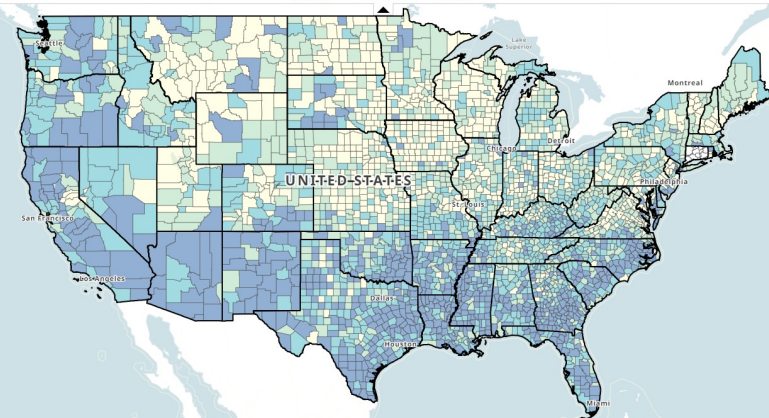
Geographic Unit: Counties Census Tracts

Data Year: 2022

Map Features: Click to view

Map Transparency:

Search within U.S.: Find address, county, or ZIP code



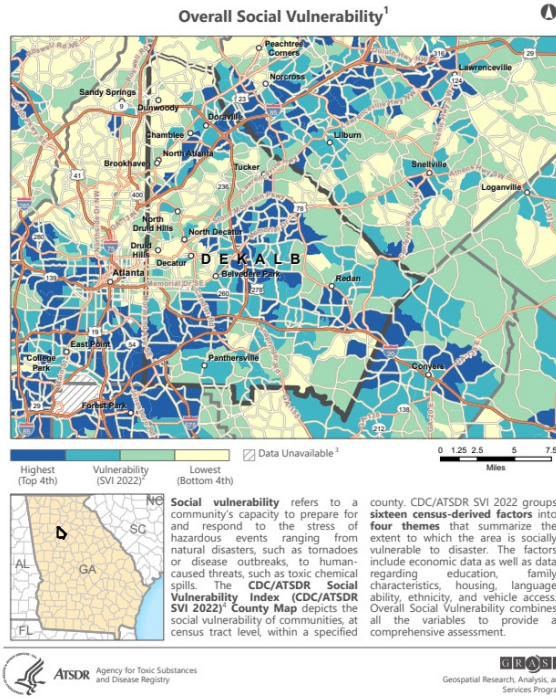
Level of Vulnerability



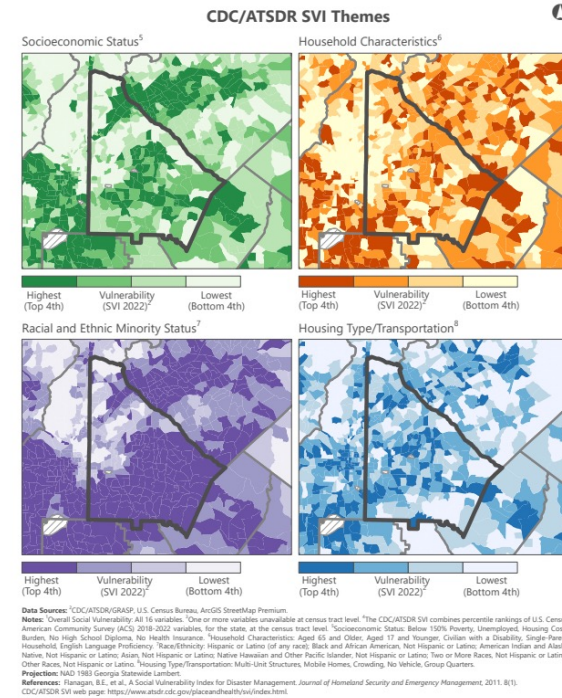
	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X								
EA_SQFE	TOTPOF	M_TOTPO	E_HU	M_HU	E_HH	M_HH	E_POV15	M_POV15	E_UNEMP	M_UNEMP	E_HBURD	M_HBURD	E_NOHSD	M_NOHSD	E_NOHSE	M_NOHSE								
94.4558	55639	0	23697	68	21559	366	13811	1349	736	185	5029	576	4273	562	4345									
889.835	218289	0	116747	180	84047	1143	36413	2802	4027	714	19350	1526	14823	1344	20501									
35.0076	25026	0	12057	119	9322	338	8965	673	649	182	2305	298	4457	387	2362									
14.8904	22374	0	9237	82	7259	299	5730	907	667	260	4060	431	6838	499	5746									
22.4693	57755	0	24404	87	21205	430	13624	1151	1253	301	4060	319	6838	499	5746									
22.8148	10173	0	4591	60	3429	195	4128	593	139	107	695	180	1700	285	1025									
76.3382	19726	0	10119	57	6649	282	6133	794	551	194	1383	218	1886	286	1973									
35.8911	114324	0	53722	190	44572	642	30323	2125	3769	560	9451	766	11767	837	11260									
36.5606	33427	0	16985	70	13582	418	9277	926	548	195	2932	368	4140	488	3045									
33.5239	26035	0	16631	68	10836	476	6662	842	444	170	1968	347	3288	499	2458									
32.8364	44147	0	19897	60	17140	358	12061	1211	1153	324	3169	482	5485	686	5145									
13.4788	12755	0	7410	42	5330	255	3749	461	306	154	814	177	1603	220	1273									
1238.42	23866	0	12813	63	9323	439	8251	715	1075	254	2042	321	2904	394	2275									
73.9621	13285	0	6832	33	5153	269	3685	684	305	156	863	196	1796	326	1108									
30.1052	14952	0	6859	44	5835	194	4017	574	196	112	1068	219	1877	260	1791									
78.9858	52238	0	23313	95	19951	457	12810	1011	1266	307	3903	440	5158	449	5331									
32.9532	54957	0	26727	59	21797	514	12779	1162	979	250	5033	507	5590	627	3723									
350.279	12219	0	7203	27	4585	297	4249	650	339	136	651	164	1328	278	1263									
30.9089	10696	0	6615	48	4016	203	2478	538	109	64	696	207	1394	233	713									
1030.57	37096	0	19073	133	14995	400	10202	805	1242	219	2980	347	3864	347	3926									
38.8646	13626	0	6834	56	5011	209	3679	467	237	83	965	167	2051	248	1099									
34.3737	83345	0	38956	113	31733	507	17853	1437	1866	375	6186	574	10302	855	9669									
51.1128	49293	0	23151	111	19405	433	14570	1087	1714	297	4668	408	4923	502	4990									
78.7375	38184	0	20427	68	15409	422	15509	1209	1615	320	4459	566	4111	546	3673									
77.0767	71430	0	31424	109	26365	479	24968	1437	1406	340	5396	558	10615	809	9683									
118.5144	81526	0	34332	226	29794	557	13805	1471	1481	328	6516	701	7213	680	5597									
28	1	Alabama	AL	1053	Escambia	1053	Escambia	0.8924	945.4075	36775	0	16618	398	12931	629	12592	1052	1405	311	2751	361	5050	561	3987
29	1	Alabama	AL	1055	Etowah	1055	Etowah Ct	0.7136	535.1052	102721	0	47805	111	36765	578	26737	1312	2601	369	8184	578	10591	768	11688
30	1	Alabama	AL	1057	Fayette	1057	Fayette Ct	0.6432	627.6834	16406	0	8493	61	6865	271	5274	605	555	153	1544	261	1829	302	1316
31	1	Alabama	AL	1059	Franklin	1059	Franklin C	0.782	633.9199	31587	0	14082	41	11017	380	10362	1161	662	194	1890	315	4493	494	3659
32	1	Alabama	AL	1061	Geneva	1061	Geneva Ct	0.6057	574.4844	26383	0	12901	39	10572	378	8849	985	405	122	2015	149	3399	467	3063
33	1	Alabama	AL	1063	Greene	1063	Greene Ct	0.9211	647.0228	8221	0	5131	23	3178	229	4166	452	348	137	805	195	1100	252	1354
34	1	Alabama	AL	1065	Hale	1065	Hale Court	0.9055	643.9898	14754	0	7847	41	5490	292	5426	764	528	184	1480	286	1938	385	1200
35	1	Alabama	AL	1067	Henry	1067	Henry COL	0.5748	561.7628	17123	0	9203	42	6556	285	4305	574	401	126	1271	205	2385	297	1316
36	1	Alabama	AL	1069	Houston	1069	Houston Ct	0.7263	579.8257	105319	0	47798	140	39784	366	29466	1139	2646	236	9702	451	9564	492	11915

The CDC/ATSDR Social Vulnerability Index County Map Series

CDC/ATSDR Social Vulnerability Index 2022
DEKALB COUNTY, GEORGIA

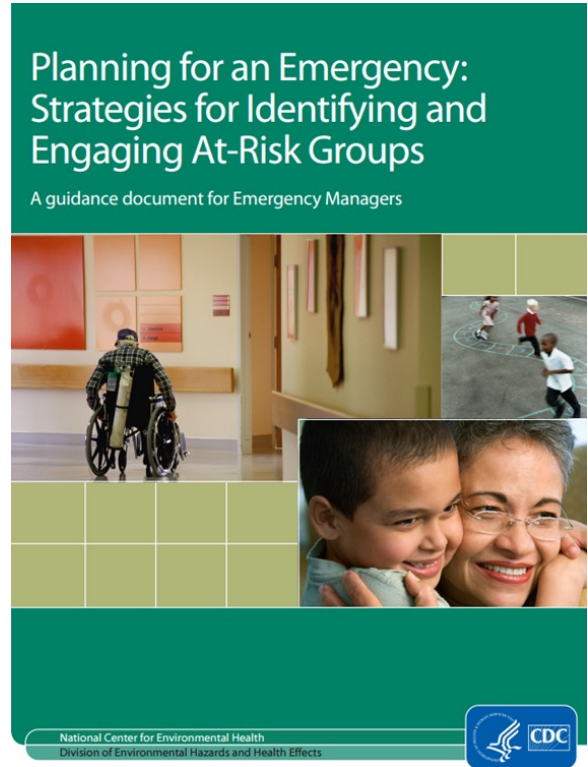


CDC/ATSDR SVI 2022 – DEKALB COUNTY, GEORGIA



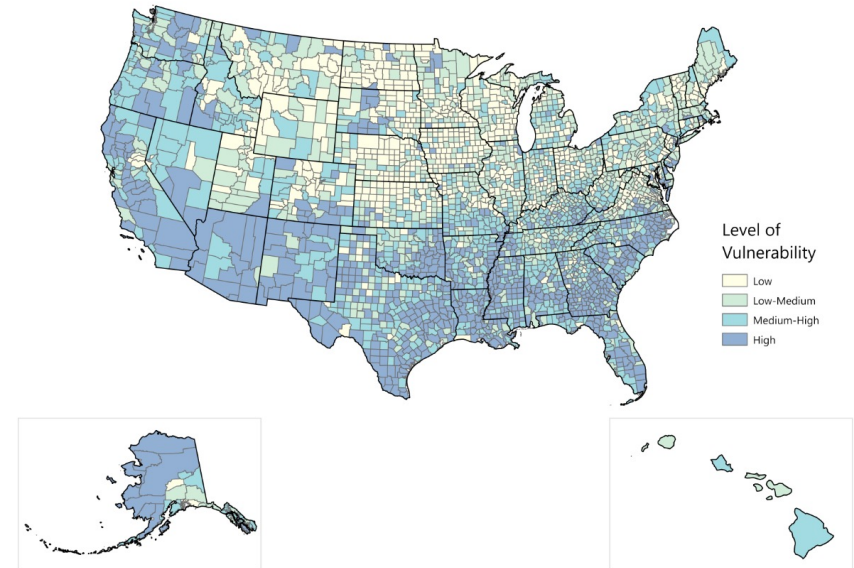
The Utility of the CDC/ATSDR Social Vulnerability Index

- **SVI has been used by federal, state, local, and academic partners with:**
 - Natural hazards (e.g., hurricanes, flooding, tornadoes, and wildfires)
 - Hazard mitigation planning
 - Pathogenic disease outbreaks (e.g., COVID-19 epidemiology, equitable placement of COVID-19 testing and vaccination centers)
 - Non-disaster health outcomes (e.g., obesity, injury mortality, cancer, and physical inactivity)



Summary of the CDC/ATSDR Social Vulnerability Index

- SVI measures 16 demographic and socioeconomic factors
- SVI is measured for all U.S. census tracts and counties on a scale of 0 to 1
- SVI was originally developed for use within the disaster context
- SVI is useful for assisting communities in need during any public health crisis



Questions?

- **SVI Website:**
 - svi.cdc.gov
- **SVI Coordinator Email:**
 - svi_coordinator@cdc.gov



The findings and conclusions in this presentation have not been formally disseminated by the Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry and should not be construed to represent any agency determination or policy.