

**National Survey on Drug Use and Health:
Comparison of 2008-2009 and 2015-2016
Population Percentages
(50 States and the District of Columbia)**

Table 1 Marijuana Use in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Total U.S.	10.88 ^a	13.71	0.000	13.37 ^a	12.29	0.001	29.31 ^a	32.60	0.000	7.38 ^a	10.73	0.000	10.61 ^a	13.85	0.000
Northeast	11.95 ^a	14.84	0.000	14.22 ^a	12.39	0.002	34.64 ^a	37.45	0.004	7.84 ^a	11.45	0.000	11.71 ^a	15.07	0.000
Midwest	10.36 ^a	13.06	0.000	12.84	12.67	0.718	28.53 ^a	31.69	0.000	6.90 ^a	9.97	0.000	10.08 ^a	13.10	0.000
South	9.59 ^a	11.78	0.000	12.06 ^b	11.25	0.058	25.38 ^a	29.66	0.000	6.62 ^a	8.90	0.000	9.32 ^a	11.83	0.000
West	12.55 ^a	16.49	0.000	15.26 ^a	13.55	0.008	31.83 ^a	34.39	0.008	8.69 ^a	13.79	0.000	12.25 ^a	16.80	0.000
Alabama	8.49	9.50	0.168	10.11	10.11	0.999	22.60	25.90	0.125	5.89	6.72	0.290	8.31	9.44	0.149
Alaska	16.25 ^a	23.00	0.000	15.89	18.86	0.133	35.51 ^a	41.88	0.018	12.67 ^a	20.09	0.000	16.29 ^a	23.46	0.000
Arizona	10.89	12.22	0.147	14.28	11.86	0.140	29.42	28.68	0.770	7.29 ^a	9.48	0.035	10.50 ^b	12.26	0.074
Arkansas	10.78	11.14	0.690	12.33	10.69	0.261	27.59	26.24	0.565	7.85	8.68	0.391	10.61	11.18	0.548
California	12.91 ^a	16.23	0.000	15.12 ^b	13.23	0.061	32.15	33.98	0.208	8.91 ^a	13.50	0.000	12.65 ^a	16.54	0.000
Colorado	15.12 ^a	23.12	0.000	18.55	16.21	0.229	38.59 ^a	47.54	0.001	10.79 ^a	19.85	0.000	14.76 ^a	23.82	0.000
Connecticut	12.56 ^a	15.08	0.014	15.91	14.11	0.319	37.10 ^a	43.54	0.026	8.25 ^a	10.57	0.042	12.20 ^a	15.18	0.007
Delaware	11.82	13.18	0.162	15.53	14.37	0.510	35.92	35.82	0.970	7.35 ^a	9.57	0.039	11.43	13.07	0.115
District of Columbia	14.34 ^a	24.68	0.000	14.59	13.58	0.573	33.16 ^a	51.00	0.000	10.11 ^a	19.99	0.000	14.33 ^a	25.30	0.000
Florida	10.12 ^a	13.07	0.000	12.94	12.72	0.828	26.58 ^a	33.66	0.000	7.38 ^a	10.21	0.000	9.85 ^a	13.10	0.000
Georgia	11.03	12.46	0.117	12.69	10.90	0.191	26.60 ^b	30.40	0.093	8.15	9.57	0.160	10.84 ^b	12.64	0.069
Hawaii	12.06	13.05	0.391	14.45	13.38	0.577	31.14	28.07	0.235	8.74	10.82	0.117	11.82	13.02	0.333
Idaho	10.66	11.62	0.264	13.44	11.73	0.269	28.30	25.36	0.196	7.15 ^a	9.30	0.026	10.32	11.61	0.166
Illinois	10.54 ^a	12.31	0.003	13.33	11.87	0.160	27.95 ^a	32.55	0.004	7.01 ^a	9.03	0.004	10.22 ^a	12.36	0.001
Indiana	10.28 ^a	13.35	0.001	12.90	13.47	0.719	27.22	30.41	0.182	7.08 ^a	10.32	0.001	9.99 ^a	13.33	0.000
Iowa	7.68 ^a	9.75	0.008	11.72	10.48	0.386	20.54 ^a	26.60	0.008	4.90 ^a	6.65	0.032	7.25 ^a	9.68	0.004
Kansas	9.39 ^a	11.17	0.032	12.12	12.42	0.838	25.63	26.92	0.585	6.00 ^a	8.15	0.016	9.09 ^a	11.03	0.029
Kentucky	8.83 ^a	12.79	0.000	10.91	12.30	0.352	24.66 ^a	29.45	0.040	6.10 ^a	10.11	0.000	8.61 ^a	12.84	0.000
Louisiana	8.52 ^a	11.22	0.001	9.76	10.20	0.751	23.23 ^a	28.25	0.026	5.51 ^a	8.45	0.001	8.37 ^a	11.33	0.001
Maine	13.55 ^a	19.81	0.000	14.20	16.22	0.250	39.68	41.89	0.427	9.85 ^a	17.19	0.000	13.49 ^a	20.12	0.000
Maryland	10.69 ^a	15.50	0.000	13.73	13.85	0.945	30.32 ^a	41.94	0.000	6.98 ^a	11.56	0.000	10.36 ^a	15.67	0.000
Massachusetts	14.57 ^a	18.64	0.000	16.44	14.45	0.283	40.19	43.58	0.233	9.81 ^a	14.75	0.000	14.39 ^a	19.02	0.000
Michigan	12.20 ^a	15.68	0.000	14.21	14.36	0.891	32.33	34.60	0.147	8.51 ^a	12.61	0.000	11.97 ^a	15.81	0.000
Minnesota	10.37 ^a	12.91	0.005	11.29	12.76	0.329	29.92	32.12	0.374	6.92 ^a	9.86	0.003	10.27 ^a	12.92	0.006
Mississippi	7.88 ^a	9.46	0.036	9.92	9.66	0.851	20.36	23.41	0.155	5.30 ^a	6.95	0.043	7.64 ^a	9.43	0.026
Missouri	9.73 ^a	13.19	0.000	11.54	12.55	0.500	27.19 ^a	32.40	0.032	6.62 ^a	10.09	0.000	9.53 ^a	13.26	0.000
Montana	12.23 ^a	18.41	0.000	15.50	17.04	0.392	34.96	38.05	0.232	8.04 ^a	15.36	0.000	11.90 ^a	18.54	0.000

See notes at end of file.

(continued)

Table 1 Marijuana Use in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Nebraska	9.25 ^a	11.33	0.013	10.87	11.36	0.742	24.63 ^a	29.84	0.029	6.12 ^a	8.00	0.037	9.07 ^a	11.32	0.012
Nevada	11.09 ^a	13.13	0.046	16.45	14.66	0.329	28.98	29.39	0.872	7.74 ^a	10.51	0.018	10.49 ^a	12.98	0.024
New Hampshire	14.87 ^a	17.58	0.027	16.56	14.24	0.197	41.83	40.68	0.680	10.55 ^a	14.30	0.008	14.69 ^a	17.89	0.016
New Jersey	9.19 ^a	12.01	0.001	11.63	10.80	0.544	30.00 ^a	35.35	0.027	5.67 ^a	8.66	0.001	8.93 ^a	12.14	0.000
New Mexico	10.95 ^a	15.83	0.000	16.83	15.34	0.415	29.23	32.79	0.188	6.82 ^a	13.04	0.000	10.30 ^a	15.88	0.000
New York	12.82 ^a	14.86	0.001	14.87 ^a	12.37	0.016	36.36	36.96	0.705	8.34 ^a	11.43	0.000	12.61 ^a	15.09	0.000
North Carolina	10.46 ^b	11.90	0.078	13.41 ^b	10.90	0.065	28.35	30.48	0.339	7.20 ^a	9.02	0.046	10.14 ^a	12.00	0.036
North Dakota	8.29 ^b	9.80	0.056	9.42 ^b	11.99	0.080	23.06	24.59	0.516	4.85 ^b	6.34	0.062	8.18 ^b	9.60	0.088
Ohio	10.08 ^a	13.81	0.000	12.97	12.01	0.337	29.54 ^a	33.01	0.022	6.52 ^a	10.95	0.000	9.77 ^a	14.00	0.000
Oklahoma	10.19	11.18	0.276	12.69	11.10	0.310	25.06	26.58	0.542	7.16	8.49	0.177	9.91	11.19	0.190
Oregon	14.41 ^a	22.70	0.000	18.34	17.35	0.616	37.33 ^a	44.03	0.011	10.40 ^a	20.01	0.000	14.01 ^a	23.19	0.000
Pennsylvania	10.04 ^a	13.05	0.000	12.87 ^b	10.93	0.067	28.78 ^a	32.45	0.026	6.62 ^a	10.24	0.000	9.75 ^a	13.25	0.000
Rhode Island	14.34 ^a	20.31	0.000	16.31	16.85	0.779	39.48	42.32	0.334	9.39 ^a	16.66	0.000	14.14 ^a	20.62	0.000
South Carolina	9.36 ^b	10.92	0.071	11.75	11.21	0.715	25.58	29.46	0.107	6.40	7.92	0.107	9.10 ^b	10.89	0.053
South Dakota	8.96 ^a	11.85	0.001	12.05	11.98	0.965	25.67	26.51	0.718	5.55 ^a	9.29	0.000	8.62 ^a	11.84	0.000
Tennessee	9.61 ^a	12.82	0.000	10.52	11.83	0.359	26.28	29.54	0.154	6.95 ^a	10.23	0.001	9.52 ^a	12.92	0.000
Texas	8.31 ^a	10.14	0.000	11.24	10.47	0.401	22.03 ^a	25.42	0.012	5.29 ^a	7.30	0.000	7.95 ^a	10.10	0.000
Utah	7.18 ^a	9.62	0.002	9.73	9.64	0.948	17.70 ^b	21.76	0.069	4.13 ^a	6.87	0.001	6.83 ^a	9.62	0.001
Vermont	15.95 ^a	21.79	0.000	16.67	15.64	0.580	45.25	48.06	0.362	11.09 ^a	17.81	0.000	15.88 ^a	22.32	0.000
Virginia	9.75 ^b	11.06	0.094	13.80 ^a	10.51	0.019	27.03 ^b	30.81	0.094	6.32 ^b	7.89	0.065	9.33 ^a	11.11	0.033
Washington	12.81 ^a	18.93	0.000	15.24	13.54	0.318	34.11	38.12	0.127	9.08 ^a	16.49	0.000	12.55 ^a	19.45	0.000
West Virginia	9.60 ^a	11.45	0.039	12.05	12.30	0.869	26.63	28.07	0.548	6.88 ^a	8.90	0.038	9.37 ^a	11.37	0.035
Wisconsin	10.65 ^b	12.18	0.086	13.71	13.90	0.913	31.13	30.44	0.776	6.82 ^a	8.96	0.030	10.33 ^b	12.01	0.076
Wyoming	9.88	10.62	0.390	14.19	12.63	0.367	27.24	26.98	0.916	6.27	7.68	0.133	9.43	10.42	0.280

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012).

Table 2 Marijuana Use in the Past Month, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Total U.S.	6.40 ^a	8.60	0.000	7.03	6.75	0.230	17.42 ^a	20.30	0.000	4.42 ^a	6.88	0.000	6.33 ^a	8.79	0.000
Northeast	7.14 ^a	9.50	0.000	7.94 ^b	7.15	0.080	21.45 ^a	23.64	0.009	4.63 ^a	7.46	0.000	7.06 ^a	9.72	0.000
Midwest	6.07 ^a	8.28	0.000	7.03	6.69	0.307	16.57 ^a	19.28	0.000	4.14 ^a	6.63	0.000	5.97 ^a	8.45	0.000
South	5.47 ^a	7.05	0.000	6.06	6.13	0.809	15.21 ^a	17.74	0.000	3.76 ^a	5.40	0.000	5.41 ^a	7.14	0.000
West	7.57 ^a	10.68	0.000	7.86	7.52	0.481	18.43 ^a	22.73	0.000	5.56 ^a	9.01	0.000	7.54 ^a	11.01	0.000
Alabama	5.04	5.25	0.689	5.70	5.20	0.587	14.49	14.25	0.884	3.35	3.77	0.467	4.97	5.25	0.608
Alaska	11.52 ^a	16.03	0.000	9.14	10.43	0.385	25.16	27.65	0.323	9.30 ^a	14.65	0.001	11.81 ^a	16.66	0.000
Arizona	6.70	7.42	0.347	7.28	6.75	0.626	17.08	17.81	0.721	4.86	5.74	0.305	6.63	7.49	0.299
Arkansas	6.11	6.98	0.191	6.73	5.59	0.246	16.16	15.49	0.720	4.40 ^b	5.74	0.072	6.04	7.13	0.130
California	7.67 ^a	10.51	0.000	7.70	7.33	0.617	18.67 ^a	23.09	0.000	5.57 ^a	8.70	0.000	7.67 ^a	10.84	0.000
Colorado	9.77 ^a	15.92	0.000	10.17	9.08	0.436	24.18 ^a	32.20	0.002	7.31 ^a	14.00	0.000	9.72 ^a	16.62	0.000
Connecticut	7.26 ^a	9.36	0.010	8.35	7.95	0.756	22.56 ^b	26.94	0.096	4.70 ^a	6.66	0.030	7.14 ^a	9.50	0.007
Delaware	6.97 ^a	8.88	0.012	7.54	7.35	0.872	22.67	23.29	0.792	4.29 ^a	6.83	0.003	6.91 ^a	9.03	0.009
District of Columbia	8.46 ^a	14.08	0.000	7.50	8.07	0.655	19.59 ^a	32.39	0.000	6.07 ^a	10.70	0.000	8.54 ^a	14.41	0.000
Florida	5.80 ^a	7.65	0.000	6.31	7.03	0.311	15.21 ^a	19.82	0.000	4.35 ^a	6.00	0.003	5.75 ^a	7.70	0.000
Georgia	6.06 ^b	7.22	0.063	5.50	6.40	0.325	15.87	18.12	0.209	4.46	5.45	0.160	6.12 ^b	7.31	0.079
Hawaii	8.46	8.18	0.767	7.72	6.63	0.378	19.15	18.66	0.828	6.84	6.81	0.981	8.54	8.32	0.834
Idaho	5.89	6.93	0.121	7.50 ^b	5.77	0.091	14.13	14.70	0.756	4.21 ^a	5.79	0.039	5.69 ^b	7.07	0.059
Illinois	5.91 ^a	7.90	0.000	7.29	6.71	0.438	16.23 ^a	20.87	0.001	3.86 ^a	5.91	0.000	5.76 ^a	8.03	0.000
Indiana	6.08 ^a	8.75	0.000	7.24	7.23	0.992	16.48	19.60	0.130	4.17 ^a	7.03	0.000	5.95 ^a	8.91	0.000
Iowa	4.48 ^b	5.47	0.071	6.88	5.38	0.135	11.62	13.25	0.339	2.92 ^a	4.09	0.045	4.23 ^a	5.48	0.033
Kansas	5.02 ^a	6.91	0.003	5.97	6.15	0.851	13.04	15.73	0.137	3.40 ^a	5.41	0.005	4.91 ^a	7.00	0.002
Kentucky	4.81 ^a	7.02	0.000	5.27	6.13	0.372	14.25	15.79	0.405	3.27 ^a	5.69	0.000	4.76 ^a	7.11	0.000
Louisiana	5.14 ^a	6.82	0.006	4.82	5.70	0.347	15.19	17.46	0.232	3.26 ^a	5.15	0.005	5.18 ^a	6.94	0.007
Maine	9.81 ^a	14.69	0.000	8.43	9.70	0.346	26.13 ^b	30.85	0.069	7.69 ^a	13.00	0.000	9.94 ^a	15.12	0.000
Maryland	5.66 ^a	10.22	0.000	7.01	7.78	0.516	17.03 ^a	27.34	0.000	3.56 ^a	7.83	0.000	5.51 ^a	10.47	0.000
Massachusetts	8.74 ^a	11.85	0.001	9.09	8.68	0.753	24.84	27.58	0.284	5.84 ^a	9.45	0.000	8.70 ^a	12.14	0.000
Michigan	7.52 ^a	10.55	0.000	7.88	7.98	0.906	18.99 ^a	22.07	0.021	5.52 ^a	8.89	0.000	7.48 ^a	10.81	0.000
Minnesota	5.98 ^b	7.32	0.052	5.58	5.88	0.756	17.10	17.42	0.873	4.13 ^a	5.88	0.025	6.02 ^b	7.47	0.051
Mississippi	4.54 ^a	5.69	0.045	5.02	4.95	0.928	11.72	14.46	0.111	3.15 ^b	4.23	0.090	4.48 ^a	5.77	0.038
Missouri	5.94 ^a	8.13	0.003	5.74	6.23	0.616	16.91	18.42	0.457	4.15 ^a	6.65	0.002	5.96 ^a	8.32	0.002
Montana	8.12 ^a	12.02	0.000	8.78	8.43	0.772	21.99	23.89	0.392	5.72 ^a	10.48	0.000	8.05 ^a	12.36	0.000

See notes at end of file.

(continued)

Table 2 Marijuana Use in the Past Month, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Nebraska	5.36 ^a	7.21	0.004	6.09	5.74	0.714	14.70	17.35	0.172	3.50 ^a	5.58	0.004	5.28 ^a	7.37	0.003
Nevada	7.00	8.25	0.119	8.96	8.65	0.809	18.34	18.25	0.967	5.06 ^b	6.71	0.071	6.78 ^b	8.21	0.097
New Hampshire	9.62 ^a	12.06	0.017	9.66	8.06	0.207	27.28	28.30	0.702	6.91 ^a	9.93	0.010	9.61 ^a	12.42	0.010
New Jersey	5.04 ^a	6.77	0.003	6.16	5.72	0.642	17.42	20.55	0.119	2.99 ^a	4.83	0.004	4.92 ^a	6.87	0.002
New Mexico	6.54 ^a	10.50	0.000	9.25	9.46	0.881	15.74 ^a	22.85	0.001	4.49 ^a	8.55	0.000	6.24 ^a	10.61	0.000
New York	7.73 ^a	9.68	0.000	8.50	7.28	0.129	23.09	23.38	0.834	4.87 ^a	7.65	0.000	7.65 ^a	9.90	0.000
North Carolina	6.30 ^a	7.72	0.033	7.19	5.80	0.146	16.85 ^b	19.92	0.095	4.49 ^a	5.98	0.050	6.21 ^a	7.92	0.018
North Dakota	4.67	5.61	0.111	5.06	5.63	0.546	10.65 ^b	13.92	0.051	3.30	3.80	0.431	4.64	5.61	0.121
Ohio	5.96 ^a	8.95	0.000	7.63	6.41	0.101	17.26 ^a	20.79	0.009	3.89 ^a	7.35	0.000	5.77 ^a	9.21	0.000
Oklahoma	5.60	5.99	0.567	6.23	5.20	0.306	14.18	14.02	0.928	3.96	4.68	0.331	5.53	6.07	0.454
Oregon	9.29 ^a	15.71	0.000	8.66	9.77	0.404	23.87 ^a	30.60	0.005	7.11 ^a	14.07	0.000	9.36 ^a	16.26	0.000
Pennsylvania	5.81 ^a	8.20	0.000	7.19	6.25	0.190	17.08 ^a	20.04	0.030	3.80 ^a	6.55	0.000	5.67 ^a	8.38	0.000
Rhode Island	10.04 ^a	15.21	0.000	9.09	10.50	0.334	27.14 ^b	32.00	0.087	6.94 ^a	12.65	0.000	10.13 ^a	15.63	0.000
South Carolina	5.91	6.82	0.167	5.55	6.40	0.377	16.88	19.66	0.174	4.16	4.81	0.369	5.95	6.86	0.196
South Dakota	5.14 ^a	7.60	0.000	6.61	6.72	0.923	13.55 ^b	17.09	0.058	3.44 ^a	6.06	0.001	4.98 ^a	7.70	0.000
Tennessee	5.42 ^a	7.82	0.000	5.19	6.16	0.297	16.64	18.34	0.365	3.72 ^a	6.32	0.000	5.44 ^a	7.99	0.000
Texas	4.74 ^a	5.91	0.001	6.11	5.94	0.802	13.45	14.58	0.307	2.91 ^a	4.33	0.001	4.58 ^a	5.91	0.001
Utah	3.60 ^a	5.25	0.002	4.78	4.32	0.592	8.21 ^a	12.07	0.017	2.27 ^a	3.86	0.007	3.44 ^a	5.38	0.001
Vermont	10.85 ^a	16.96	0.000	9.73	9.44	0.839	30.56 ^a	38.16	0.010	7.75 ^a	14.00	0.000	10.96 ^a	17.60	0.000
Virginia	5.33 ^a	6.86	0.010	6.33	5.35	0.294	15.70	17.94	0.214	3.45 ^a	5.22	0.007	5.23 ^a	7.01	0.005
Washington	7.21 ^a	12.02	0.000	7.74	7.93	0.869	17.19 ^a	23.30	0.005	5.53 ^a	10.69	0.000	7.15 ^a	12.41	0.000
West Virginia	5.50 ^b	6.76	0.053	5.74	5.94	0.833	17.46	16.56	0.654	3.74 ^a	5.39	0.022	5.47 ^b	6.83	0.052
Wisconsin	6.19 ^b	7.38	0.080	7.20	6.96	0.833	17.49	17.26	0.906	4.16 ^a	5.80	0.032	6.09 ^b	7.42	0.064
Wyoming	5.42	6.27	0.184	7.55	5.81	0.104	15.50	15.00	0.797	3.37 ^a	4.88	0.036	5.19	6.31	0.103

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012).

Table 3 First Use of Marijuana, by Age Group and State: Average Annual Incidence Estimates (Expressed as Percentages of the At-Risk Population) and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Total U.S.	1.75 ^a	1.96	0.000	5.74 ^a	5.25	0.003	7.09 ^a	7.74	0.019	0.13 ^a	0.39	0.000	1.07 ^a	1.40	0.000
Northeast	1.80 ^a	2.07	0.001	5.92 ^a	5.34	0.034	7.96 ^b	8.85	0.056	0.13 ^a	0.44	0.000	1.12 ^a	1.54	0.000
Midwest	1.79 ^a	2.04	0.000	5.57	5.25	0.135	7.41 ^a	8.16	0.035	0.12 ^a	0.38	0.000	1.12 ^a	1.47	0.000
South	1.56 ^a	1.70	0.018	5.22	4.91	0.116	6.34	6.78	0.137	0.12 ^a	0.29	0.000	0.95 ^a	1.17	0.000
West	2.00 ^a	2.24	0.012	6.57 ^a	5.75	0.007	7.38 ^b	8.18	0.079	0.14 ^a	0.53	0.000	1.18 ^a	1.62	0.000
Alabama	1.38	1.53	0.308	4.47	4.19	0.642	5.53	6.39	0.298	0.12 ^a	0.27	0.003	0.87 ^b	1.12	0.063
Alaska	2.30 ^a	3.56	0.000	6.35	7.79	0.116	7.33 ^a	10.76	0.010	0.17 ^a	0.81	0.000	1.34 ^a	2.51	0.000
Arizona	1.72	2.01	0.124	6.10	5.12	0.174	6.58	7.31	0.476	0.12 ^a	0.50	0.000	0.95 ^a	1.46	0.001
Arkansas	1.56	1.72	0.325	5.15	4.56	0.343	6.99	6.71	0.770	0.12 ^a	0.31	0.000	0.95 ^a	1.23	0.049
California	2.06	2.08	0.858	6.66 ^a	5.68	0.033	7.39	7.57	0.781	0.14 ^a	0.48	0.000	1.23 ^a	1.48	0.042
Colorado	2.45 ^a	3.84	0.000	8.11	7.74	0.706	9.23 ^a	15.97	0.000	0.17 ^a	0.83	0.000	1.38 ^a	2.99	0.000
Connecticut	2.14	2.31	0.455	7.09	5.78	0.101	8.98	9.91	0.485	0.14 ^a	0.49	0.000	1.23 ^a	1.68	0.018
Delaware	2.13	1.93	0.324	6.67	5.88	0.326	9.55	7.76	0.144	0.14 ^a	0.37	0.000	1.32	1.30	0.928
District of Columbia	2.33 ^a	3.66	0.000	7.25	6.85	0.669	8.38 ^a	14.69	0.000	0.24 ^a	0.99	0.000	1.68 ^a	3.24	0.000
Florida	1.39 ^a	1.66	0.007	5.35	5.62	0.533	6.22 ^b	7.31	0.084	0.10 ^a	0.32	0.000	0.83 ^a	1.12	0.002
Georgia	1.87	1.76	0.536	5.46	4.62	0.182	6.90	7.07	0.847	0.17 ^a	0.29	0.026	1.17	1.25	0.554
Hawaii	1.71	1.96	0.230	6.42	6.56	0.875	7.57	8.25	0.590	0.11 ^a	0.42	0.008	1.01	1.31	0.107
Idaho	1.86	1.80	0.756	5.50 ^a	4.20	0.046	7.18	6.28	0.347	0.13 ^a	0.39	0.000	1.14	1.31	0.290
Illinois	1.74	1.84	0.415	5.65	5.04	0.177	6.85	7.90	0.145	0.12 ^a	0.31	0.000	1.07 ^a	1.30	0.041
Indiana	1.76 ^a	2.15	0.038	5.81	5.55	0.722	7.37	7.88	0.624	0.11 ^a	0.40	0.000	1.05 ^a	1.52	0.004
Iowa	1.55	1.83	0.101	5.34	4.45	0.164	5.97 ^b	7.77	0.068	0.10 ^a	0.31	0.000	0.95 ^a	1.40	0.004
Kansas	1.72	1.89	0.393	5.65	4.74	0.185	6.85	6.48	0.715	0.10 ^a	0.48	0.000	1.06 ^a	1.39	0.049
Kentucky	1.48 ^a	1.83	0.034	5.46	5.04	0.527	6.09	7.17	0.240	0.14 ^a	0.31	0.004	0.86 ^a	1.28	0.002
Louisiana	1.33 ^a	1.66	0.032	3.89	4.68	0.184	5.53	6.45	0.291	0.12 ^a	0.28	0.002	0.91 ^b	1.15	0.077
Maine	1.73 ^a	2.31	0.005	5.43	6.29	0.225	8.97	9.58	0.646	0.14 ^a	0.48	0.000	1.09 ^a	1.60	0.005
Maryland	1.81 ^a	2.24	0.036	5.61	5.93	0.681	8.20	10.13	0.136	0.12 ^a	0.46	0.000	1.17 ^a	1.59	0.022
Massachusetts	2.27 ^a	2.80	0.034	7.13	6.49	0.446	9.69	10.85	0.433	0.16 ^a	0.72	0.000	1.42 ^a	2.15	0.002
Michigan	2.10	2.29	0.184	5.97	5.74	0.619	8.72	8.06	0.404	0.13 ^a	0.54	0.000	1.33 ^a	1.65	0.020
Minnesota	1.77 ^a	2.19	0.034	4.85	5.41	0.417	7.89	8.86	0.394	0.12 ^a	0.40	0.000	1.20 ^a	1.58	0.032
Mississippi	1.34	1.56	0.139	4.09	4.45	0.545	5.22	6.39	0.168	0.11 ^b	0.19	0.078	0.88	1.09	0.115
Missouri	1.64 ^a	2.18	0.004	5.11	5.12	0.985	7.12 ^a	9.59	0.035	0.12 ^a	0.36	0.000	1.02 ^a	1.66	0.000
Montana	2.04 ^a	2.91	0.000	6.67	7.02	0.674	9.79	10.46	0.628	0.13 ^a	0.63	0.000	1.25 ^a	2.11	0.000

See notes at end of file.

(continued)

Table 3 First Use of Marijuana, by Age Group and State: Average Annual Incidence Estimates (Expressed as Percentages of the At-Risk Population) and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Nebraska	1.54 ^b	1.87	0.071	4.48	4.32	0.791	6.32 ^a	8.49	0.039	0.10 ^a	0.29	0.000	1.05 ^a	1.45	0.019
Nevada	1.85 ^b	2.23	0.064	7.16	6.83	0.698	6.55	7.66	0.308	0.15 ^a	0.58	0.000	0.91 ^a	1.45	0.001
New Hampshire	2.25 ^b	2.70	0.074	6.29	5.92	0.627	10.53	10.98	0.768	0.15 ^a	0.46	0.000	1.44 ^a	2.04	0.010
New Jersey	1.50	1.72	0.150	4.89	4.50	0.516	7.69	8.18	0.639	0.10 ^a	0.35	0.000	0.96 ^a	1.28	0.024
New Mexico	2.06 ^b	2.50	0.065	7.84	6.99	0.360	8.01	8.79	0.552	0.12 ^a	0.60	0.000	1.09 ^a	1.69	0.003
New York	1.81 ^b	2.04	0.065	6.05	5.58	0.309	7.38	8.54	0.120	0.13 ^a	0.42	0.000	1.12 ^a	1.50	0.001
North Carolina	1.69	1.86	0.281	6.24 ^b	5.10	0.082	6.67	7.27	0.523	0.13 ^a	0.37	0.000	0.96 ^a	1.31	0.012
North Dakota	1.56 ^a	2.06	0.009	4.28	4.61	0.598	6.59	7.88	0.217	0.08 ^a	0.34	0.000	1.15 ^a	1.69	0.005
Ohio	1.78	1.91	0.290	5.59	5.14	0.319	7.47	8.04	0.429	0.13 ^a	0.30	0.001	1.10 ^a	1.33	0.036
Oklahoma	1.47 ^a	1.83	0.045	4.87	4.59	0.682	5.77	5.78	0.987	0.11 ^a	0.50	0.000	0.91 ^a	1.33	0.007
Oregon	2.42	2.67	0.343	7.87	6.46	0.111	9.63	10.18	0.690	0.19 ^a	0.66	0.000	1.39 ^a	1.96	0.015
Pennsylvania	1.61	1.80	0.128	5.37 ^b	4.56	0.081	7.47	8.08	0.449	0.10 ^a	0.35	0.000	1.01 ^a	1.35	0.004
Rhode Island	2.27 ^b	2.77	0.060	7.20	7.23	0.967	9.16	9.57	0.774	0.16 ^a	0.68	0.000	1.40 ^a	2.00	0.012
South Carolina	1.46 ^b	1.73	0.089	4.77	4.81	0.955	6.41	7.68	0.206	0.12 ^a	0.32	0.000	0.93 ^a	1.25	0.023
South Dakota	1.59 ^b	1.94	0.054	5.17	4.75	0.524	6.70	7.32	0.535	0.09 ^a	0.45	0.000	1.01 ^a	1.46	0.005
Tennessee	1.26 ^a	1.64	0.009	4.11	4.96	0.160	6.00	6.53	0.543	0.12 ^a	0.27	0.003	0.81 ^a	1.11	0.017
Texas	1.59	1.50	0.424	5.20	4.52	0.101	5.86	5.50	0.515	0.11 ^b	0.18	0.087	0.95	0.97	0.875
Utah	1.29 ^b	1.63	0.057	3.94	3.47	0.414	3.64 ^a	5.71	0.010	0.10 ^a	0.29	0.010	0.82 ^a	1.26	0.008
Vermont	2.47 ^a	3.08	0.042	7.37	6.53	0.335	11.93	12.40	0.798	0.15 ^a	0.70	0.000	1.56 ^a	2.41	0.002
Virginia	1.90	1.86	0.840	5.98	4.92	0.104	7.59	7.61	0.978	0.13 ^a	0.33	0.000	1.20	1.34	0.368
Washington	1.94 ^a	2.44	0.030	5.68	5.39	0.683	8.53	8.54	0.993	0.16 ^a	0.74	0.000	1.24 ^a	1.88	0.002
West Virginia	1.27 ^a	1.73	0.003	5.33	5.53	0.763	5.76 ^b	7.41	0.081	0.12 ^a	0.28	0.003	0.72 ^a	1.16	0.001
Wisconsin	1.92 ^b	2.27	0.080	6.16	5.91	0.745	8.39	8.68	0.805	0.12 ^a	0.44	0.000	1.17 ^a	1.62	0.012
Wyoming	1.92	1.93	0.935	6.47 ^a	4.96	0.042	7.70	7.66	0.974	0.11 ^a	0.41	0.000	1.15	1.42	0.123

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

NOTE: *Average annual initiation of marijuana (%)* = $100 * \{ [X_1 \div (0.5 * X_1 + X_2)] \div 2 \}$, where X_1 is the number of marijuana initiates in the past 24 months and X_2 is the number of individuals who never used marijuana (with the at-risk population defined as $0.5 * X_1 + X_2$). Both of the computation components, X_1 and X_2 , are based on a survey-weighted hierarchical Bayes estimation approach. The age group shown is based on a respondent's age at the time of the interview, not his or her age at first use. For details, see Section B of the "2015-2016 NSDUH: Guide to State Tables and Summary of Small Area Estimation Methodology" at <https://www.samhsa.gov/data/>.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012).

Table 4 Cocaine Use in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Total U.S.	2.01 ^a	1.84	0.026	1.11 ^a	0.58	0.000	5.46	5.46	0.994	1.53	1.39	0.103	2.11 ^b	1.97	0.096
Northeast	2.38	2.26	0.395	1.11 ^a	0.58	0.000	6.68	6.67	0.983	1.81	1.73	0.622	2.52	2.42	0.539
Midwest	1.82 ^a	1.51	0.004	1.06 ^a	0.55	0.000	5.12 ^a	4.40	0.024	1.34 ^b	1.14	0.095	1.90 ^a	1.61	0.013
South	1.81 ^a	1.60	0.033	0.98 ^a	0.45	0.000	4.64	4.75	0.711	1.44 ^b	1.22	0.062	1.90 ^b	1.72	0.094
West	2.21	2.22	0.968	1.35 ^a	0.81	0.001	6.08	6.61	0.248	1.62	1.64	0.943	2.31	2.36	0.749
Alabama	1.38	1.21	0.490	0.76 ^a	0.33	0.004	3.44	2.96	0.511	1.11	1.02	0.757	1.45	1.30	0.591
Alaska	2.99 ^b	2.12	0.064	1.45 ^b	0.89	0.081	7.38	5.83	0.210	2.39	1.61	0.138	3.18 ^b	2.26	0.078
Arizona	2.33	2.07	0.464	1.38 ^a	0.79	0.037	6.91	6.22	0.586	1.68	1.52	0.666	2.44	2.20	0.555
Arkansas	1.43	1.23	0.410	0.89 ^a	0.47	0.014	3.52	3.15	0.635	1.16	1.01	0.572	1.49	1.31	0.511
California	2.12	2.42	0.188	1.39 ^a	0.75	0.004	5.57 ^a	7.16	0.026	1.56	1.80	0.362	2.20	2.59	0.129
Colorado	3.28 ^b	2.42	0.052	1.37	1.01	0.262	8.94	8.18	0.623	2.56 ^a	1.62	0.035	3.47 ^b	2.56	0.060
Connecticut	2.05	2.48	0.254	1.26 ^a	0.62	0.006	6.25 ^a	9.07	0.034	1.49	1.62	0.732	2.14	2.66	0.206
Delaware	2.36	1.93	0.238	0.91 ^a	0.41	0.004	6.40	6.10	0.799	1.87	1.46	0.299	2.52	2.08	0.277
District of Columbia	3.76	3.46	0.671	0.43 ^a	0.18	0.025	5.14	6.75	0.159	3.76	3.00	0.356	4.01	3.64	0.628
Florida	1.80	1.63	0.393	1.05 ^a	0.45	0.000	4.70	5.35	0.323	1.46	1.22	0.301	1.88	1.73	0.522
Georgia	1.51	1.90	0.206	0.81 ^a	0.36	0.003	3.93	4.61	0.415	1.20	1.64	0.221	1.60	2.08	0.169
Hawaii	1.76	1.98	0.554	1.25	0.84	0.290	4.39	5.01	0.561	1.40	1.65	0.531	1.81	2.08	0.502
Idaho	1.31	1.26	0.822	1.24	0.83	0.162	4.52	3.84	0.463	0.75	0.88	0.545	1.31	1.31	0.985
Illinois	1.91	1.74	0.470	0.99 ^a	0.53	0.003	4.64	4.92	0.684	1.53	1.36	0.501	2.01	1.87	0.572
Indiana	1.66	1.32	0.192	1.09 ^a	0.53	0.007	4.97	3.94	0.283	1.18	0.96	0.422	1.72	1.41	0.274
Iowa	1.11	1.19	0.718	1.11 ^a	0.58	0.023	3.64	3.75	0.899	0.66	0.80	0.525	1.11	1.25	0.555
Kansas	1.52	1.24	0.221	1.11 ^a	0.63	0.044	4.97	3.83	0.243	0.94	0.84	0.695	1.57	1.30	0.307
Kentucky	1.36	1.65	0.274	1.02 ^a	0.59	0.043	4.37	5.09	0.462	0.93	1.21	0.323	1.40	1.75	0.217
Louisiana	2.34 ^b	1.69	0.076	0.84 ^a	0.29	0.000	4.77	4.41	0.697	2.08	1.40	0.104	2.51 ^b	1.84	0.100
Maine	2.30	1.82	0.139	1.13	0.86	0.295	7.67	6.44	0.341	1.69	1.30	0.244	2.42	1.91	0.151
Maryland	1.57	1.80	0.490	0.87 ^a	0.36	0.002	4.03	5.26	0.214	1.24	1.42	0.625	1.64	1.94	0.430
Massachusetts	2.45	2.80	0.376	1.18 ^b	0.73	0.063	7.16	9.07	0.174	1.76	1.94	0.675	2.58	2.99	0.344
Michigan	2.00 ^a	1.45	0.010	1.05 ^a	0.44	0.000	5.74 ^a	3.79	0.004	1.49	1.17	0.174	2.11 ^a	1.55	0.019
Minnesota	1.77	1.77	0.985	1.12 ^b	0.70	0.068	5.14	5.53	0.708	1.27	1.30	0.931	1.84	1.88	0.887
Mississippi	1.36	1.27	0.735	0.63 ^a	0.25	0.004	3.15	2.66	0.484	1.14	1.16	0.947	1.45	1.38	0.830
Missouri	2.01 ^a	1.29	0.010	1.00 ^a	0.48	0.006	5.74 ^b	3.90	0.064	1.52 ^b	0.95	0.054	2.12 ^a	1.37	0.016
Montana	2.32 ^b	1.80	0.090	1.17	1.08	0.779	7.60	5.71	0.130	1.58	1.25	0.279	2.44 ^b	1.87	0.089

See notes at end of file.

(continued)

Table 4 Cocaine Use in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Nebraska	1.57	1.40	0.488	1.10 ^a	0.62	0.029	4.61	4.48	0.895	1.06	0.95	0.658	1.62	1.49	0.618
Nevada	2.34	1.84	0.140	1.50 ^a	0.66	0.001	6.72	4.82	0.103	1.79	1.53	0.474	2.43	1.96	0.208
New Hampshire	2.75	2.78	0.931	1.23	1.13	0.755	8.97	10.84	0.264	1.98	1.69	0.472	2.91	2.93	0.952
New Jersey	1.73	1.93	0.525	1.04 ^a	0.55	0.015	4.93 ^b	6.63	0.098	1.33	1.38	0.865	1.81	2.06	0.449
New Mexico	2.17	1.88	0.385	1.30	0.96	0.289	6.55	5.42	0.362	1.47	1.40	0.818	2.26	1.98	0.436
New York	2.66	2.37	0.284	1.09 ^a	0.45	0.000	7.31 ^a	5.77	0.044	2.02	2.01	0.988	2.83	2.55	0.353
North Carolina	2.10	1.88	0.489	0.93 ^a	0.39	0.001	4.90	5.67	0.417	1.79	1.45	0.323	2.22	2.03	0.591
North Dakota	1.22	1.23	0.967	1.05	0.81	0.387	3.78	3.84	0.946	0.68	0.72	0.854	1.24	1.27	0.902
Ohio	1.49	1.66	0.387	1.02 ^a	0.48	0.001	4.51	4.86	0.588	1.05	1.29	0.296	1.54	1.78	0.271
Oklahoma	1.50	1.40	0.680	1.14 ^a	0.53	0.007	4.70	4.17	0.570	0.97	1.03	0.818	1.54	1.50	0.864
Oregon	2.63	2.51	0.728	1.23	1.00	0.435	8.04	7.96	0.950	1.95	1.83	0.748	2.77	2.64	0.749
Pennsylvania	2.27	1.87	0.128	1.08 ^a	0.56	0.001	5.86	5.22	0.397	1.82	1.48	0.249	2.39	1.99	0.165
Rhode Island	3.89 ^a	2.79	0.040	1.28	0.84	0.119	9.39	8.90	0.767	3.17 ^a	1.88	0.021	4.15 ^a	2.96	0.043
South Carolina	2.75 ^a	1.69	0.007	0.83 ^a	0.34	0.002	4.97	5.31	0.740	2.62 ^a	1.26	0.002	2.95 ^a	1.82	0.009
South Dakota	1.17	1.22	0.835	0.95	0.75	0.431	3.91	3.65	0.766	0.71	0.85	0.516	1.20	1.27	0.769
Tennessee	1.57	1.69	0.673	0.93 ^a	0.49	0.014	4.31	4.66	0.708	1.23	1.35	0.695	1.64	1.81	0.580
Texas	1.89 ^a	1.41	0.014	1.16 ^a	0.57	0.001	5.09	4.69	0.550	1.40 ^a	0.93	0.023	1.98 ^a	1.51	0.031
Utah	1.43	1.28	0.535	1.16	0.81	0.234	4.14	3.53	0.500	0.80	0.85	0.823	1.47	1.34	0.657
Vermont	3.01	3.02	0.992	1.22	1.14	0.802	10.17	10.83	0.722	2.05	1.84	0.630	3.19	3.18	0.985
Virginia	1.75	1.48	0.340	1.02 ^a	0.43	0.001	4.95	4.31	0.466	1.30	1.15	0.619	1.83	1.59	0.445
Washington	2.08	1.94	0.678	1.20	0.79	0.106	6.24	5.75	0.662	1.51	1.47	0.893	2.17	2.05	0.747
West Virginia	2.51 ^a	1.55	0.003	1.05	0.70	0.137	7.65 ^b	5.29	0.061	1.93 ^a	1.08	0.011	2.65 ^a	1.62	0.004
Wisconsin	2.71 ^a	1.38	0.000	1.19 ^a	0.68	0.029	7.27 ^a	4.34	0.010	2.13 ^a	0.97	0.000	2.87 ^a	1.45	0.000
Wyoming	1.46	1.42	0.891	1.13	0.98	0.628	5.25	4.81	0.683	0.83	0.91	0.757	1.49	1.47	0.926

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012).

Table 5 Alcohol Use in the Past Month, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Total U.S.	51.74	51.21	0.151	14.79 ^a	9.40	0.000	61.45 ^a	57.75	0.000	54.80	55.10	0.508	55.78	55.48	0.450
Northeast	56.57	56.02	0.457	16.68 ^a	10.95	0.000	67.33 ^a	63.92	0.002	59.59	59.67	0.924	60.71	60.27	0.586
Midwest	54.26	54.36	0.866	15.24 ^a	9.82	0.000	65.07 ^a	61.60	0.000	57.42	58.56	0.134	58.55	59.00	0.528
South	47.74	47.48	0.673	13.75 ^a	8.71	0.000	57.62 ^a	54.56	0.001	50.43	51.03	0.409	51.47	51.53	0.931
West	51.78	50.67	0.141	14.56 ^a	9.06	0.000	59.40 ^a	54.76	0.000	55.40	55.01	0.672	56.01	54.98	0.214
Alabama	42.94	40.79	0.256	12.70 ^a	8.08	0.000	54.41	50.76	0.165	44.84	43.06	0.450	46.22	44.16	0.319
Alaska	54.52	52.72	0.332	14.22 ^a	10.23	0.010	60.50	58.93	0.553	59.37	57.24	0.360	59.54	57.50	0.318
Arizona	51.15	50.94	0.912	14.80 ^a	7.95	0.000	59.35 ^a	54.01	0.045	54.60	55.78	0.614	55.29	55.53	0.910
Arkansas	43.29 ^b	40.14	0.100	15.34 ^a	8.93	0.000	55.94 ^a	49.43	0.011	44.80	42.45	0.327	46.36	43.45	0.168
California	50.65	49.74	0.409	14.11 ^a	9.08	0.000	59.79 ^a	54.10	0.000	53.99	53.88	0.937	54.92	53.91	0.406
Colorado	62.22 ^a	57.53	0.012	20.22 ^a	10.16	0.000	69.51 ^a	63.75	0.022	66.11 ^b	62.10	0.081	66.60 ^a	62.33	0.036
Connecticut	59.32	59.09	0.906	18.56 ^a	11.21	0.000	67.86	67.37	0.851	63.08	63.34	0.913	63.73	63.91	0.936
Delaware	56.32 ^a	52.04	0.037	16.35 ^a	9.05	0.000	68.53 ^a	57.10	0.000	59.18	55.96	0.205	60.52 ^a	56.11	0.050
District of Columbia	61.55 ^a	68.65	0.000	15.63 ^a	9.70	0.001	71.82	73.63	0.438	63.53 ^a	71.64	0.000	65.04 ^a	71.98	0.000
Florida	51.41 ^b	53.43	0.099	15.30 ^a	9.15	0.000	56.91	57.50	0.725	54.58 ^b	57.30	0.066	54.88 ^b	57.33	0.067
Georgia	48.89 ^b	45.88	0.090	13.56 ^a	6.90	0.000	58.18 ^b	53.90	0.087	52.19	49.67	0.258	53.06	50.30	0.160
Hawaii	48.23 ^a	43.98	0.034	11.64 ^b	9.10	0.091	57.21 ^b	52.01	0.076	50.95 ^b	46.44	0.063	51.81 ^a	47.15	0.032
Idaho	45.71	44.62	0.551	12.91 ^a	8.93	0.005	52.50 ^b	47.92	0.081	49.19	49.13	0.980	49.68	48.95	0.721
Illinois	54.33	53.41	0.450	15.16 ^a	9.66	0.000	64.88 ^a	60.76	0.017	57.60	57.53	0.964	58.72	57.99	0.588
Indiana	48.06	50.48	0.207	14.41 ^a	9.32	0.001	57.94	59.42	0.576	50.82	54.18	0.159	51.85	54.97	0.140
Iowa	56.70	57.42	0.694	17.34 ^a	9.42	0.000	69.06	65.17	0.112	59.43	61.86	0.287	60.87	62.36	0.460
Kansas	53.92	55.46	0.420	15.93 ^a	10.27	0.000	66.34 ^a	58.72	0.003	56.66 ^b	60.83	0.081	58.18	60.50	0.268
Kentucky	38.74	40.94	0.250	12.21 ^a	9.35	0.041	50.64	50.84	0.938	40.10	43.06	0.207	41.52	44.16	0.207
Louisiana	48.24	50.36	0.261	15.26 ^a	10.55	0.004	61.67 ^a	55.58	0.016	50.16 ^b	54.42	0.069	52.02	54.59	0.214
Maine	55.07	56.97	0.345	14.57 ^b	11.71	0.070	65.34	64.86	0.851	58.08	60.35	0.353	58.97	60.89	0.381
Maryland	54.24	55.88	0.422	14.02 ^a	9.73	0.005	61.74	62.32	0.834	58.09	60.18	0.406	58.62	60.47	0.410
Massachusetts	61.54	59.17	0.195	16.89 ^a	11.31	0.001	72.39	69.57	0.257	64.83	62.48	0.296	65.97	63.53	0.219
Michigan	54.65	53.24	0.240	14.56 ^a	10.39	0.000	63.73 ^a	59.58	0.013	58.39	57.30	0.460	59.17	57.63	0.243
Minnesota	60.95	59.65	0.478	14.70 ^a	10.38	0.004	68.13	66.47	0.491	65.51	64.42	0.634	65.90	64.71	0.556
Mississippi	40.39 ^b	36.94	0.067	12.70 ^a	7.69	0.000	52.99 ^a	46.68	0.018	41.96	39.03	0.216	43.68 ^b	40.18	0.094
Missouri	50.15	51.39	0.527	13.92 ^a	9.91	0.006	61.01	59.04	0.437	52.95	55.07	0.383	54.09	55.63	0.476
Montana	59.07	57.49	0.435	21.39 ^a	11.05	0.000	69.07 ^a	61.98	0.005	61.95	61.82	0.959	62.97	61.84	0.609

See notes at end of file.

(continued)

Table 5 Alcohol Use in the Past Month, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Nebraska	53.59 ^a	58.92	0.005	13.81 ^a	8.99	0.001	64.98	62.44	0.330	56.67 ^a	64.70	0.001	57.99 ^a	64.36	0.002
Nevada	54.47 ^b	50.92	0.091	15.29 ^b	12.28	0.080	60.32 ^a	53.25	0.009	58.63	55.08	0.172	58.85 ^b	54.85	0.084
New Hampshire	63.98	63.54	0.807	17.83 ^a	11.49	0.000	74.97 ^a	69.23	0.020	67.91	68.17	0.908	68.85	68.31	0.784
New Jersey	54.18	53.56	0.753	15.17 ^a	10.55	0.001	64.96	61.28	0.127	57.37	57.40	0.988	58.39	57.91	0.828
New Mexico	47.59	48.47	0.653	15.62 ^a	9.91	0.000	57.11	54.35	0.299	50.05	52.30	0.360	51.15	52.59	0.501
New York	55.72	54.65	0.374	16.83 ^a	11.37	0.000	66.32 ^a	62.60	0.024	58.57	57.99	0.694	59.75	58.65	0.401
North Carolina	47.45 ^b	44.34	0.074	12.83 ^a	7.25	0.000	58.35 ^a	53.47	0.045	49.98	47.32	0.212	51.15	48.17	0.119
North Dakota	57.80	59.98	0.233	18.98 ^a	11.94	0.000	71.80	68.68	0.200	59.46 ^b	63.43	0.086	61.71	64.37	0.182
Ohio	51.67	51.90	0.853	14.99 ^a	8.89	0.000	65.37 ^a	59.93	0.001	54.08	55.75	0.272	55.67	56.33	0.630
Oklahoma	45.62	42.34	0.102	13.86 ^a	8.71	0.000	59.12 ^a	51.94	0.009	47.31	44.99	0.352	49.13	46.02	0.160
Oregon	59.77	58.72	0.580	17.75 ^a	9.95	0.000	66.69	62.80	0.117	63.58	63.28	0.896	64.00	63.22	0.705
Pennsylvania	55.06	55.78	0.578	16.73 ^a	10.02	0.000	66.31 ^a	62.27	0.022	57.81	59.72	0.223	59.01	60.07	0.454
Rhode Island	59.91	61.03	0.562	18.29 ^a	12.10	0.001	71.17	67.35	0.129	62.78	65.05	0.340	64.10	65.40	0.532
South Carolina	45.89	45.36	0.787	12.45 ^a	8.57	0.004	53.32	56.53	0.232	48.82	47.78	0.661	49.46	48.99	0.826
South Dakota	57.81	58.85	0.578	15.85 ^a	10.66	0.001	70.66 ^a	64.72	0.016	60.93	63.76	0.224	62.41	63.90	0.467
Tennessee	41.06	42.83	0.344	11.39 ^a	7.94	0.010	53.40	49.58	0.143	42.77	45.84	0.183	44.18	46.36	0.289
Texas	48.42	47.14	0.242	14.09 ^a	8.86	0.000	58.49 ^a	52.66	0.001	51.52	51.58	0.969	52.63	51.74	0.467
Utah	28.11	29.83	0.362	6.73	5.25	0.230	32.09 ^b	37.41	0.093	30.72	32.37	0.499	30.98	33.29	0.275
Vermont	60.28	60.17	0.957	18.40 ^a	12.86	0.001	73.56 ^b	69.00	0.064	62.87	63.39	0.836	64.37	64.22	0.947
Virginia	50.79	52.02	0.489	13.10 ^a	10.20	0.026	60.21	61.60	0.559	53.83	55.28	0.505	54.75	56.17	0.466
Washington	56.13	55.80	0.860	14.03 ^a	8.86	0.000	60.77	57.37	0.187	60.54	60.80	0.911	60.58	60.34	0.908
West Virginia	38.17	40.71	0.224	13.23 ^b	10.70	0.086	53.45	54.37	0.732	38.66	41.77	0.219	40.53	43.39	0.206
Wisconsin	61.78	60.86	0.619	18.62 ^a	10.90	0.000	71.81	68.59	0.155	65.42	65.45	0.987	66.34	65.90	0.828
Wyoming	54.21	52.00	0.281	17.06 ^a	9.73	0.000	62.33	61.28	0.695	57.41	55.45	0.438	58.15	56.28	0.403

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012).

Table 6 *Alcohol Use in the Past Month among Individuals Aged 12 to 20, by State: Percentages and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs*

State	Alcohol Use in Past Month (2008-2009)	Alcohol Use in Past Month (2015-2016)	Alcohol Use in Past Month (P Value)
Total U.S.	26.83 ^a	19.83	0.000
Northeast	30.69 ^a	23.98	0.000
Midwest	27.60 ^a	20.92	0.000
South	25.18 ^a	18.39	0.000
West	25.76 ^a	18.18	0.000
Alabama	23.65 ^a	17.32	0.000
Alaska	25.51 ^b	22.08	0.069
Arizona	24.59 ^a	16.74	0.000
Arkansas	23.06 ^a	15.18	0.000
California	25.24 ^a	17.87	0.000
Colorado	32.89 ^a	21.48	0.000
Connecticut	31.02 ^a	26.24	0.018
Delaware	32.60 ^a	21.03	0.000
District of Columbia	31.66 ^b	26.93	0.051
Florida	26.62 ^a	20.64	0.000
Georgia	24.21 ^a	15.73	0.000
Hawaii	23.87 ^a	18.19	0.001
Idaho	23.93 ^a	16.74	0.000
Illinois	28.38 ^a	20.56	0.000
Indiana	23.50	20.89	0.140
Iowa	29.93 ^a	19.07	0.000
Kansas	28.91 ^a	20.78	0.000
Kentucky	23.65 ^a	19.57	0.022
Louisiana	29.69 ^a	22.73	0.000
Maine	26.61	24.83	0.328
Maryland	26.66 ^a	21.61	0.005
Massachusetts	32.97 ^b	29.24	0.068
Michigan	26.72 ^a	20.96	0.000
Minnesota	27.61 ^a	21.57	0.001
Mississippi	24.28 ^a	16.02	0.000
Missouri	24.24 ^a	20.88	0.049
Montana	34.33 ^a	22.04	0.000

See notes at end of file.

(continued)

Table 6 Alcohol Use in the Past Month among Individuals Aged 12 to 20, by State: Percentages and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	Alcohol Use in Past Month (2008-2009)	Alcohol Use in Past Month (2015-2016)	Alcohol Use in Past Month (P Value)
Nebraska	26.45 ^a	20.86	0.002
Nevada	24.63 ^b	21.34	0.072
New Hampshire	34.84 ^a	28.06	0.001
New Jersey	27.22 ^a	21.18	0.000
New Mexico	25.80 ^a	20.80	0.006
New York	32.01 ^a	23.24	0.000
North Carolina	22.42 ^a	15.97	0.000
North Dakota	36.44 ^a	31.69	0.026
Ohio	28.41 ^a	19.86	0.000
Oklahoma	25.90 ^a	18.04	0.000
Oregon	31.36 ^a	20.33	0.000
Pennsylvania	29.02 ^a	22.43	0.000
Rhode Island	34.78 ^a	24.94	0.000
South Carolina	21.88	19.77	0.198
South Dakota	32.31 ^a	23.58	0.000
Tennessee	20.16 ^b	17.34	0.076
Texas	26.46 ^a	17.29	0.000
Utah	14.34 ^a	10.71	0.037
Vermont	36.53 ^a	28.86	0.000
Virginia	25.83 ^a	19.63	0.000
Washington	27.00 ^a	18.43	0.000
West Virginia	22.75	22.57	0.922
Wisconsin	30.83 ^a	22.44	0.000
Wyoming	30.54 ^a	21.76	0.000

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012).

Table 7 Tobacco Product Use in the Past Month, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Total U.S.	28.06 ^a	23.72	0.000	11.64 ^a	5.66	0.000	41.53 ^a	31.48	0.000	27.85 ^a	24.58	0.000	29.86 ^a	25.56	0.000
Northeast	26.45 ^a	22.75	0.000	11.37 ^a	5.39	0.000	41.23 ^a	31.65	0.000	25.78 ^a	23.21	0.000	28.01 ^a	24.38	0.000
Midwest	30.55 ^a	26.56	0.000	13.24 ^a	6.68	0.000	46.33 ^a	35.22	0.000	30.06 ^a	27.52	0.000	32.45 ^a	28.62	0.000
South	29.54 ^a	25.43	0.000	11.53 ^a	5.91	0.000	41.69 ^a	32.37	0.000	29.79 ^a	26.65	0.000	31.51 ^a	27.46	0.000
West	24.67 ^a	19.18	0.000	10.55 ^a	4.52	0.000	37.12 ^a	26.69	0.000	24.31 ^a	19.68	0.000	26.27 ^a	20.70	0.000
Alabama	32.94 ^a	28.79	0.008	13.26 ^a	7.65	0.000	45.41 ^a	36.26	0.000	33.33 ^b	30.09	0.093	35.08 ^a	30.96	0.017
Alaska	29.41	29.64	0.882	13.46 ^a	9.68	0.012	44.60 ^a	37.95	0.009	28.91	30.78	0.361	31.40	31.89	0.783
Arizona	25.71 ^a	21.60	0.006	10.17 ^a	4.35	0.000	39.80 ^a	30.19	0.000	25.39 ^b	22.29	0.089	27.48 ^a	23.44	0.014
Arkansas	35.26 ^a	31.40	0.025	14.99 ^a	7.40	0.000	47.74 ^a	36.64	0.000	35.81	33.50	0.281	37.48 ^b	33.95	0.063
California	22.79 ^a	16.98	0.000	9.47 ^a	3.91	0.000	34.37 ^a	23.10	0.000	22.43 ^a	17.49	0.000	24.35 ^a	18.32	0.000
Colorado	27.37 ^a	21.16	0.000	13.30 ^a	4.64	0.000	43.67 ^a	32.83	0.000	26.37 ^a	21.16	0.004	28.84 ^a	22.83	0.000
Connecticut	25.34 ^a	22.25	0.049	11.01 ^a	5.40	0.000	41.49 ^a	33.85	0.004	24.58	22.33	0.237	26.89 ^b	23.95	0.087
Delaware	30.13 ^a	22.55	0.000	13.07 ^a	4.68	0.000	45.53 ^a	29.86	0.000	29.65 ^a	23.37	0.001	31.92 ^a	24.24	0.000
District of Columbia	27.62 ^a	22.43	0.001	9.48 ^a	4.35	0.000	34.96 ^a	28.28	0.006	27.66 ^a	22.46	0.007	28.99 ^a	23.45	0.001
Florida	26.78 ^a	20.59	0.000	10.61 ^a	4.44	0.000	38.36 ^a	26.37	0.000	26.85 ^a	21.39	0.000	28.33 ^a	22.00	0.000
Georgia	28.86 ^a	24.76	0.004	11.68 ^a	5.82	0.000	40.80 ^a	31.56	0.000	29.20 ^b	26.10	0.085	30.89 ^a	26.90	0.012
Hawaii	22.31 ^a	18.32	0.007	9.93 ^a	4.04	0.000	37.26 ^a	25.73	0.000	21.32	18.72	0.146	23.51 ^a	19.61	0.016
Idaho	26.80 ^a	21.04	0.000	10.75 ^a	5.70	0.000	39.73 ^a	31.23	0.001	26.82 ^a	21.50	0.002	28.75 ^a	22.90	0.000
Illinois	29.01 ^a	22.76	0.000	12.45 ^a	6.04	0.000	44.24 ^a	31.53	0.000	28.44 ^a	23.35	0.000	30.87 ^a	24.51	0.000
Indiana	31.88 ^a	28.72	0.050	13.97 ^a	7.73	0.000	46.31 ^a	37.35	0.000	31.80	29.89	0.336	33.89	31.01	0.104
Iowa	30.23	27.73	0.110	12.41 ^a	6.54	0.000	44.08 ^a	37.94	0.015	30.01	28.48	0.432	32.12	29.92	0.198
Kansas	30.69 ^a	24.62	0.000	13.11 ^a	5.86	0.000	47.46 ^a	32.22	0.000	29.91 ^a	25.71	0.030	32.67 ^a	26.71	0.000
Kentucky	38.08 ^a	34.28	0.031	16.82 ^a	9.61	0.000	52.70 ^a	43.43	0.000	38.37	35.71	0.218	40.31 ^b	36.80	0.068
Louisiana	30.67	30.58	0.954	10.72 ^a	7.94	0.024	41.06 ^a	35.74	0.032	31.40	32.52	0.573	32.96	32.99	0.987
Maine	29.82 ^a	24.18	0.001	12.13 ^a	8.32	0.004	47.65 ^a	35.17	0.000	29.28 ^a	24.26	0.012	31.52 ^a	25.55	0.001
Maryland	23.84	22.04	0.237	9.04 ^a	5.57	0.001	35.70	31.95	0.151	23.72	22.38	0.469	25.46	23.67	0.287
Massachusetts	25.06 ^a	20.46	0.001	10.50 ^a	4.79	0.000	41.42 ^a	31.03	0.000	23.85 ^a	20.30	0.040	26.50 ^a	21.89	0.003
Michigan	30.47 ^a	26.78	0.000	12.88 ^a	6.63	0.000	45.86 ^a	34.00	0.000	30.17 ^b	27.96	0.092	32.45 ^a	28.84	0.002
Minnesota	27.59 ^a	23.60	0.006	12.49 ^a	5.63	0.000	47.57 ^a	33.82	0.000	26.07	24.11	0.274	29.20 ^a	25.45	0.018
Mississippi	31.60	30.70	0.585	12.10 ^a	8.11	0.002	43.29 ^a	35.01	0.001	32.19	32.88	0.739	33.92	33.20	0.694
Missouri	32.65 ^b	29.51	0.059	14.57 ^a	8.45	0.000	47.19 ^a	38.91	0.001	32.55	30.46	0.306	34.62	31.66	0.105
Montana	31.17	28.82	0.158	15.59 ^a	10.13	0.000	49.20 ^a	38.90	0.000	30.03	29.22	0.689	32.78	30.57	0.222

See notes at end of file.

(continued)

Table 7 Tobacco Product Use in the Past Month, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Nebraska	29.00 ^b	26.33	0.096	12.29 ^a	5.20	0.000	42.14 ^a	33.89	0.001	28.71	27.69	0.610	30.85	28.63	0.212
Nevada	28.44 ^a	23.47	0.003	11.98 ^a	5.51	0.000	40.40 ^a	28.56	0.000	28.78 ^b	24.81	0.053	30.28 ^a	25.30	0.007
New Hampshire	28.12 ^a	24.31	0.013	12.55 ^a	6.97	0.000	45.16 ^a	36.02	0.000	27.40 ^b	24.31	0.096	29.76 ^a	25.90	0.021
New Jersey	24.81 ^a	19.25	0.000	9.81 ^a	4.64	0.000	38.34 ^a	30.27	0.000	24.58 ^a	19.31	0.003	26.42 ^a	20.73	0.000
New Mexico	26.72	25.01	0.263	12.82 ^a	4.81	0.000	42.62 ^a	34.50	0.001	25.62	25.93	0.869	28.26	27.17	0.515
New York	24.57 ^a	22.04	0.008	10.73 ^a	4.89	0.000	39.13 ^a	28.26	0.000	23.64	22.85	0.503	26.00 ^a	23.62	0.021
North Carolina	31.32 ^a	25.99	0.000	12.01 ^a	5.89	0.000	43.70 ^a	35.79	0.001	31.72 ^a	26.82	0.005	33.38 ^a	28.07	0.001
North Dakota	30.37	28.98	0.391	13.46 ^a	7.51	0.000	46.39 ^a	38.37	0.002	28.87	29.33	0.821	32.07	30.94	0.522
Ohio	32.29 ^a	29.61	0.013	14.11 ^a	6.94	0.000	49.54 ^a	39.07	0.000	31.76	30.81	0.474	34.27 ^a	31.95	0.050
Oklahoma	34.82 ^a	30.95	0.032	13.78 ^a	7.31	0.000	48.56 ^a	35.50	0.000	35.07	33.19	0.402	37.14 ^b	33.53	0.070
Oregon	30.12 ^a	22.75	0.000	14.94 ^a	6.18	0.000	45.09 ^a	34.41	0.000	29.56 ^a	22.73	0.000	31.65 ^a	24.28	0.000
Pennsylvania	30.97 ^a	26.96	0.000	13.84 ^a	6.36	0.000	45.29 ^a	36.17	0.000	30.67 ^a	27.74	0.027	32.74 ^a	28.89	0.001
Rhode Island	26.34	24.16	0.177	10.30 ^a	6.17	0.000	41.51 ^a	33.62	0.003	25.41	24.34	0.585	27.95	25.77	0.213
South Carolina	31.30 ^a	27.98	0.043	11.78 ^a	7.37	0.000	44.29 ^a	38.97	0.038	31.59	28.57	0.132	33.37 ^b	30.00	0.060
South Dakota	31.32	29.08	0.164	14.94 ^a	8.32	0.000	49.54 ^a	39.58	0.000	30.16	29.80	0.859	33.12	31.25	0.291
Tennessee	33.55 ^b	30.41	0.061	12.46 ^a	7.48	0.000	46.98 ^a	36.40	0.000	34.05	32.13	0.355	35.77 ^b	32.73	0.099
Texas	27.05 ^a	23.10	0.000	10.01 ^a	4.42	0.000	38.36 ^a	28.86	0.000	27.41 ^a	24.71	0.021	29.15 ^a	25.35	0.000
Utah	18.44 ^a	15.45	0.029	6.72 ^a	3.36	0.001	24.94	21.30	0.144	18.80	16.22	0.138	20.02 ^b	17.15	0.062
Vermont	27.61	27.99	0.820	12.66 ^a	8.59	0.004	44.28	43.90	0.893	26.58	27.16	0.777	29.07	29.65	0.748
Virginia	27.48 ^a	23.81	0.008	11.74 ^a	5.63	0.000	41.54 ^a	32.30	0.000	27.03	24.52	0.147	29.13 ^a	25.61	0.021
Washington	26.86 ^a	19.97	0.000	11.87 ^a	5.38	0.000	41.46 ^a	29.79	0.000	26.35 ^a	20.05	0.000	28.44 ^a	21.38	0.000
West Virginia	38.41	38.25	0.938	16.88 ^a	12.38	0.006	54.20 ^a	44.33	0.000	38.44	40.01	0.500	40.43	40.57	0.947
Wisconsin	30.21 ^a	25.44	0.003	12.88 ^a	6.21	0.000	45.41 ^a	32.18	0.000	29.79	26.58	0.101	32.04 ^a	27.38	0.007
Wyoming	34.32 ^a	28.61	0.001	18.41 ^a	8.09	0.000	49.70 ^a	40.21	0.000	33.58 ^a	29.11	0.038	36.01 ^a	30.69	0.005

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

NOTE: Tobacco Products include cigarettes, smokeless tobacco (i.e., snuff, dip, chewing tobacco, or "snus"), cigars, or pipe tobacco.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012).

Table 8 Cigarette Use in the Past Month, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Total U.S.	23.63 ^a	19.23	0.000	9.09 ^a	3.80	0.000	35.80 ^a	25.12	0.000	23.40 ^a	20.09	0.000	25.23 ^a	20.81	0.000
Northeast	22.40 ^a	18.46	0.000	8.82 ^a	3.44	0.000	35.95 ^a	24.93	0.000	21.75 ^a	19.05	0.000	23.81 ^a	19.87	0.000
Midwest	25.66 ^a	21.31	0.000	10.45 ^a	4.70	0.000	39.92 ^a	27.66	0.000	25.16 ^a	22.26	0.000	27.33 ^a	23.04	0.000
South	24.80 ^a	20.57	0.000	9.12 ^a	3.88	0.000	35.96 ^a	25.95	0.000	24.92 ^a	21.71	0.000	26.52 ^a	22.31	0.000
West	20.86 ^a	15.82	0.000	7.97 ^a	3.13	0.000	31.69 ^a	21.72	0.000	20.62 ^a	16.35	0.000	22.32 ^a	17.13	0.000
Alabama	26.82 ^a	22.65	0.005	10.40 ^a	4.83	0.000	38.16 ^a	27.51	0.000	26.98	23.98	0.102	28.60 ^a	24.48	0.012
Alaska	24.21	23.35	0.566	9.37 ^b	7.20	0.078	38.26 ^a	30.46	0.002	23.78	24.19	0.826	26.07	25.16	0.590
Arizona	21.97 ^a	17.98	0.003	8.70 ^a	2.94	0.000	33.07 ^a	23.81	0.000	21.85 ^b	18.87	0.071	23.48 ^a	19.59	0.009
Arkansas	30.28 ^a	25.90	0.006	12.05 ^a	5.30	0.000	42.83 ^a	29.90	0.000	30.56	27.79	0.162	32.28 ^a	28.09	0.017
California	19.28 ^a	14.30	0.000	7.05 ^a	2.66	0.000	29.58 ^a	19.32	0.000	19.02 ^a	14.84	0.000	20.71 ^a	15.50	0.000
Colorado	22.33 ^a	16.76	0.000	9.69 ^a	3.44	0.000	36.42 ^a	25.62	0.000	21.52 ^a	16.86	0.005	23.65 ^a	18.12	0.000
Connecticut	21.47 ^a	17.95	0.016	8.67 ^a	3.54	0.000	36.51 ^a	27.43	0.000	20.69	18.10	0.147	22.85 ^a	19.40	0.032
Delaware	25.41 ^a	19.03	0.000	9.74 ^a	3.22	0.000	39.95 ^a	23.53	0.000	24.90 ^a	20.07	0.009	27.05 ^a	20.53	0.000
District of Columbia	23.85 ^a	18.36	0.000	6.30 ^a	2.05	0.000	30.11 ^a	21.72	0.000	24.08 ^a	18.79	0.003	25.17 ^a	19.28	0.000
Florida	22.66 ^a	16.62	0.000	8.30 ^a	2.93	0.000	32.61 ^a	20.36	0.000	22.76 ^a	17.46	0.000	24.03 ^a	17.82	0.000
Georgia	24.48 ^a	19.72	0.000	8.95 ^a	3.73	0.000	35.71 ^a	25.15	0.000	24.72 ^a	20.91	0.026	26.32 ^a	21.53	0.002
Hawaii	20.24 ^a	14.86	0.000	7.60 ^a	2.98	0.000	34.07 ^a	22.86	0.000	19.46 ^a	14.92	0.005	21.47 ^a	15.93	0.000
Idaho	23.14 ^a	17.17	0.000	9.05 ^a	4.49	0.000	35.00 ^a	24.66	0.000	23.07 ^a	17.71	0.002	24.85 ^a	18.71	0.000
Illinois	24.93 ^a	18.74	0.000	10.01 ^a	3.93	0.000	38.97 ^a	26.46	0.000	24.37 ^a	19.28	0.000	26.60 ^a	20.29	0.000
Indiana	26.78 ^a	22.82	0.008	10.84 ^a	5.60	0.000	40.95 ^a	28.32	0.000	26.49	24.06	0.188	28.58 ^a	24.70	0.018
Iowa	24.90 ^a	21.54	0.018	10.17 ^a	4.60	0.000	37.13 ^a	29.66	0.003	24.58	22.14	0.170	26.46 ^a	23.28	0.043
Kansas	25.04 ^a	18.83	0.000	10.80 ^a	3.91	0.000	39.71 ^a	23.75	0.000	24.19 ^a	19.90	0.015	26.63 ^a	20.49	0.000
Kentucky	31.94 ^a	28.27	0.027	12.44 ^a	6.51	0.000	44.22 ^a	35.74	0.001	32.38	29.63	0.178	33.98 ^b	30.49	0.054
Louisiana	26.54	25.84	0.650	8.41 ^a	5.65	0.008	36.03 ^a	29.82	0.010	27.20	27.67	0.809	28.62	27.98	0.710
Maine	25.64 ^a	19.97	0.000	9.72 ^a	6.29	0.002	42.51 ^a	28.52	0.000	25.03 ^a	20.15	0.009	27.17 ^a	21.15	0.000
Maryland	19.82	17.78	0.149	7.61 ^a	3.46	0.000	31.15 ^a	24.05	0.003	19.45	18.44	0.561	21.15	19.20	0.212
Massachusetts	20.99 ^a	16.71	0.001	7.63 ^a	3.00	0.000	34.67 ^a	23.76	0.000	20.13 ^a	16.95	0.044	22.32 ^a	17.95	0.002
Michigan	26.12 ^a	22.09	0.000	10.34 ^a	4.58	0.000	39.79 ^a	26.86	0.000	25.87 ^a	23.37	0.038	27.89 ^a	23.88	0.000
Minnesota	23.49 ^a	18.59	0.000	9.72 ^a	4.19	0.000	41.01 ^a	25.47	0.000	22.22 ^b	19.21	0.073	24.96 ^a	20.07	0.001
Mississippi	26.35	24.12	0.138	9.66 ^a	5.08	0.000	36.57 ^a	28.23	0.000	26.82	25.88	0.621	28.34	26.23	0.207
Missouri	26.31 ^a	22.98	0.026	10.98 ^a	6.06	0.000	39.48 ^a	30.61	0.000	26.09	23.74	0.206	27.98 ^a	24.71	0.047
Montana	24.75 ^a	20.95	0.013	11.24 ^a	7.08	0.001	39.49 ^a	27.70	0.000	23.91	21.36	0.177	26.14 ^a	22.25	0.020

See notes at end of file.

(continued)

Table 8 Cigarette Use in the Past Month, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Nebraska	24.27 ^a	21.20	0.034	9.36 ^a	3.93	0.000	36.05 ^a	26.28	0.000	24.00	22.52	0.412	25.91 ^b	23.09	0.078
Nevada	24.45 ^a	19.76	0.004	9.44 ^a	3.43	0.000	33.92 ^a	23.03	0.000	24.97 ^b	21.17	0.055	26.13 ^a	21.42	0.008
New Hampshire	23.36 ^a	19.16	0.003	10.23 ^a	5.04	0.000	39.18 ^a	27.46	0.000	22.53 ^b	19.35	0.067	24.74 ^a	20.45	0.006
New Jersey	20.88 ^a	15.82	0.000	7.59 ^a	2.90	0.000	35.13 ^a	25.05	0.000	20.33 ^a	15.93	0.006	22.32 ^a	17.12	0.000
New Mexico	22.74 ^b	20.28	0.089	10.06 ^a	2.95	0.000	36.12 ^a	28.80	0.003	21.95	21.01	0.605	24.15	22.13	0.209
New York	21.30 ^a	18.08	0.000	8.21 ^a	3.14	0.000	34.38 ^a	22.22	0.000	20.55	19.00	0.162	22.66 ^a	19.46	0.001
North Carolina	26.45 ^a	21.31	0.000	9.16 ^a	3.74	0.000	37.96 ^a	28.40	0.000	26.73 ^a	22.27	0.009	28.30 ^a	23.12	0.001
North Dakota	24.70 ^b	21.88	0.059	10.42 ^a	5.96	0.000	36.38 ^a	26.64	0.000	23.86	22.62	0.512	26.14 ^b	23.33	0.086
Ohio	26.71 ^a	23.79	0.004	10.93 ^a	4.93	0.000	41.85 ^a	30.98	0.000	26.23	24.89	0.287	28.43 ^a	25.74	0.015
Oklahoma	28.24 ^a	24.61	0.025	11.31 ^a	4.78	0.000	41.18 ^a	28.74	0.000	28.10	26.44	0.412	30.11 ^b	26.78	0.062
Oregon	25.01 ^a	18.21	0.000	10.32 ^a	4.33	0.000	37.51 ^a	27.34	0.000	24.78 ^a	18.29	0.000	26.49 ^a	19.49	0.000
Pennsylvania	25.69 ^a	21.47	0.000	11.13 ^a	3.91	0.000	38.72 ^a	28.06	0.000	25.30 ^a	22.34	0.021	27.19 ^a	23.11	0.000
Rhode Island	22.58 ^a	19.19	0.022	7.93 ^a	3.69	0.000	35.37 ^a	24.92	0.000	21.93	19.79	0.242	24.05 ^a	20.58	0.032
South Carolina	26.94 ^a	22.59	0.004	9.52 ^a	4.91	0.000	37.73 ^a	30.13	0.002	27.33 ^a	23.40	0.034	28.80 ^a	24.33	0.007
South Dakota	25.04	23.53	0.302	11.43 ^a	7.17	0.001	39.83 ^a	31.67	0.001	24.14	24.14	1.000	26.53	25.25	0.424
Tennessee	28.20 ^a	24.78	0.030	9.69 ^a	5.07	0.000	39.48 ^a	29.32	0.000	28.71	26.36	0.234	30.14 ^b	26.78	0.052
Texas	22.51 ^a	18.60	0.000	8.17 ^a	2.90	0.000	33.64 ^a	23.86	0.000	22.51 ^a	19.87	0.017	24.27 ^a	20.49	0.000
Utah	16.42 ^a	13.43	0.020	5.39 ^a	2.85	0.002	22.29	18.63	0.117	16.83 ^b	14.09	0.096	17.91 ^a	14.92	0.040
Vermont	22.31	22.33	0.993	8.73 ^a	6.23	0.025	38.02	35.63	0.379	21.29	21.62	0.861	23.64	23.70	0.968
Virginia	23.23 ^a	19.52	0.004	9.56 ^a	3.77	0.000	35.65 ^a	26.72	0.000	22.79 ^b	20.15	0.100	24.66 ^a	21.08	0.013
Washington	22.91 ^a	15.89	0.000	8.89 ^a	3.61	0.000	35.68 ^a	23.08	0.000	22.56 ^a	16.12	0.000	24.38 ^a	17.07	0.000
West Virginia	30.76	29.79	0.581	13.14 ^a	7.84	0.000	47.13 ^a	35.80	0.000	30.30	31.14	0.696	32.42	31.75	0.727
Wisconsin	25.74 ^a	20.51	0.000	10.57 ^a	4.33	0.000	40.34 ^a	24.34	0.000	25.15 ^b	21.79	0.066	27.35 ^a	22.15	0.002
Wyoming	26.58 ^a	21.73	0.001	12.60 ^a	5.88	0.000	39.19 ^a	29.36	0.000	26.09 ^a	22.34	0.047	28.06 ^a	23.34	0.004

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012).

Table 9 Alcohol Use Disorder in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Total U.S.	7.42 ^a	5.73	0.000	4.76 ^a	2.23	0.000	16.76 ^a	10.80	0.000	6.16 ^a	5.31	0.000	7.72 ^a	6.09	0.000
Northeast	7.42 ^a	6.01	0.000	4.73 ^a	2.28	0.000	17.81 ^a	11.69	0.000	5.99	5.49	0.133	7.70 ^a	6.36	0.000
Midwest	7.84 ^a	5.90	0.000	5.14 ^a	2.29	0.000	18.24 ^a	11.66	0.000	6.39 ^a	5.37	0.000	8.13 ^a	6.28	0.000
South	6.90 ^a	5.25	0.000	4.14 ^a	2.08	0.000	15.18 ^a	9.86	0.000	5.86 ^a	4.87	0.000	7.20 ^a	5.58	0.000
West	7.86 ^a	6.14	0.000	5.37 ^a	2.38	0.000	16.97 ^a	10.85	0.000	6.54 ^a	5.80	0.033	8.14 ^a	6.53	0.000
Alabama	6.40 ^a	4.16	0.000	4.12 ^a	1.67	0.000	13.75 ^a	9.08	0.001	5.45 ^a	3.64	0.015	6.65 ^a	4.42	0.001
Alaska	8.06	6.82	0.140	5.31 ^a	2.59	0.000	16.94 ^a	10.45	0.000	6.80	6.72	0.940	8.40	7.30	0.229
Arizona	7.73 ^a	5.34	0.001	5.40 ^a	2.28	0.000	18.24 ^a	11.46	0.000	6.26 ^b	4.68	0.054	8.00 ^a	5.66	0.002
Arkansas	6.75 ^a	4.98	0.007	4.90 ^a	2.14	0.000	15.57 ^a	9.82	0.000	5.54	4.52	0.186	6.95 ^a	5.28	0.018
California	7.87 ^a	6.40	0.001	5.27 ^a	2.33	0.000	16.36 ^a	10.64	0.000	6.61	6.15	0.404	8.18 ^a	6.82	0.006
Colorado	8.97 ^a	6.41	0.002	6.32 ^a	2.60	0.000	21.03 ^a	11.53	0.000	7.28	6.00	0.190	9.25 ^a	6.79	0.007
Connecticut	8.64 ^a	6.78	0.039	5.92 ^a	2.82	0.000	19.92 ^a	11.34	0.000	7.19	6.50	0.516	8.93 ^b	7.18	0.070
Delaware	7.88 ^a	6.13	0.030	4.86 ^a	2.08	0.000	18.98 ^a	10.54	0.000	6.40	5.89	0.594	8.19 ^b	6.51	0.053
District of Columbia	9.26	8.53	0.433	3.04 ^a	1.88	0.031	17.04 ^a	13.17	0.025	8.10	8.03	0.949	9.73	8.91	0.402
Florida	6.93 ^a	5.63	0.008	4.33 ^a	2.20	0.000	14.60 ^a	9.94	0.000	6.08	5.36	0.216	7.18 ^a	5.93	0.017
Georgia	6.68 ^a	4.48	0.000	3.38 ^a	1.73	0.001	15.02 ^a	8.76	0.000	5.72 ^a	4.11	0.024	7.07 ^a	4.79	0.000
Hawaii	7.58 ^a	5.01	0.001	5.83 ^a	2.35	0.000	16.34 ^a	9.86	0.000	6.38 ^b	4.58	0.052	7.75 ^a	5.25	0.003
Idaho	7.14 ^a	5.54	0.017	5.16 ^a	2.56	0.000	16.35 ^a	10.70	0.000	5.79	5.09	0.373	7.37 ^a	5.90	0.044
Illinois	7.58 ^a	5.60	0.000	4.32 ^a	2.25	0.000	17.59 ^a	10.91	0.000	6.19 ^b	5.14	0.070	7.94 ^a	5.96	0.000
Indiana	6.99 ^a	5.36	0.015	5.01 ^a	2.07	0.000	17.00 ^a	11.44	0.001	5.57	4.71	0.268	7.22 ^a	5.72	0.039
Iowa	8.64 ^a	6.42	0.004	6.67 ^a	2.46	0.000	19.79 ^a	11.95	0.000	6.92	5.91	0.266	8.85 ^a	6.83	0.015
Kansas	8.06 ^a	5.08	0.000	5.68 ^a	2.36	0.000	19.37 ^a	11.96	0.000	6.27 ^a	4.19	0.009	8.33 ^a	5.38	0.000
Kentucky	5.98	5.38	0.372	3.83 ^a	2.08	0.003	14.21 ^a	10.04	0.006	4.95	5.00	0.946	6.20	5.71	0.500
Louisiana	7.02	6.51	0.511	3.63	2.60	0.121	14.96 ^a	10.02	0.001	5.95	6.40	0.628	7.40	6.93	0.567
Maine	6.76	5.68	0.129	4.06 ^a	2.42	0.008	17.72 ^a	11.61	0.000	5.52	5.21	0.693	7.01	5.97	0.167
Maryland	7.05	5.95	0.147	3.70 ^a	1.99	0.003	15.17 ^a	11.45	0.025	6.10	5.54	0.532	7.42	6.34	0.192
Massachusetts	7.42	7.52	0.901	4.74 ^a	2.56	0.002	18.97 ^a	12.93	0.001	5.68	7.11	0.132	7.68	7.97	0.741
Michigan	7.63 ^a	5.75	0.000	4.90 ^a	2.36	0.000	16.79 ^a	10.83	0.000	6.43 ^b	5.30	0.071	7.93 ^a	6.10	0.001
Minnesota	9.20 ^a	5.72	0.000	5.77 ^a	2.16	0.000	21.08 ^a	12.22	0.000	7.60 ^a	5.11	0.007	9.56 ^a	6.09	0.000
Mississippi	6.29 ^a	4.56	0.009	3.68 ^a	1.68	0.000	13.24 ^a	8.39	0.000	5.38	4.25	0.154	6.60 ^a	4.88	0.017
Missouri	7.63 ^a	5.80	0.010	5.15 ^a	2.21	0.000	17.62 ^a	11.75	0.000	6.29	5.24	0.203	7.90 ^a	6.17	0.024
Montana	9.78 ^a	7.24	0.004	8.23 ^a	2.91	0.000	24.59 ^a	14.65	0.000	7.49	6.51	0.339	9.94 ^a	7.65	0.015

See notes at end of file.

(continued)

Table 9 Alcohol Use Disorder in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	12+ (2008- 2009)	12+ (2015- 2016)	12+ (P Value)	12-17 (2008- 2009)	12-17 (2015- 2016)	12-17 (P Value)	18-25 (2008- 2009)	18-25 (2015- 2016)	18-25 (P Value)	26+ (2008- 2009)	26+ (2015- 2016)	26+ (P Value)	18+ (2008- 2009)	18+ (2015- 2016)	18+ (P Value)
Nebraska	8.50 ^a	5.88	0.001	5.65 ^a	2.43	0.000	19.05 ^a	11.12	0.000	6.88	5.38	0.109	8.81 ^a	6.25	0.003
Nevada	7.61 ^a	5.33	0.002	5.40 ^a	2.59	0.000	16.76 ^a	11.04	0.001	6.53 ^a	4.79	0.044	7.86 ^a	5.61	0.005
New Hampshire	7.50 ^b	6.02	0.056	5.09 ^a	2.28	0.000	19.31 ^a	12.01	0.000	5.98	5.47	0.575	7.75 ^b	6.36	0.096
New Jersey	6.61 ^a	4.83	0.005	3.71 ^a	2.19	0.006	15.87 ^a	11.24	0.001	5.54 ^b	4.18	0.070	6.93 ^a	5.10	0.008
New Mexico	8.64 ^b	6.98	0.051	6.64 ^a	2.76	0.000	18.71 ^a	11.56	0.000	7.05	6.74	0.760	8.86	7.43	0.119
New York	7.88 ^a	6.07	0.000	5.31 ^a	2.21	0.000	18.10 ^a	11.16	0.000	6.36	5.64	0.220	8.15 ^a	6.43	0.001
North Carolina	6.27 ^a	4.65	0.006	3.40 ^a	1.62	0.000	14.65 ^a	9.01	0.000	5.28	4.31	0.167	6.58 ^a	4.96	0.011
North Dakota	8.38 ^b	6.96	0.070	5.29 ^a	2.82	0.001	20.61 ^a	12.74	0.000	6.03	6.17	0.877	8.69	7.34	0.107
Ohio	7.62 ^a	6.07	0.004	5.19 ^a	2.16	0.000	17.80 ^a	11.59	0.000	6.26	5.65	0.334	7.89 ^a	6.47	0.014
Oklahoma	7.55 ^a	5.45	0.004	4.96 ^a	2.09	0.000	16.78 ^a	9.73	0.000	6.21	5.13	0.205	7.84 ^a	5.82	0.010
Oregon	8.54 ^b	7.07	0.066	6.33 ^a	2.79	0.000	18.71 ^a	11.94	0.000	7.22	6.78	0.643	8.76	7.46	0.130
Pennsylvania	6.91 ^a	5.62	0.009	4.21 ^a	2.12	0.000	17.07 ^a	11.99	0.000	5.56	5.00	0.326	7.18 ^a	5.95	0.019
Rhode Island	8.26 ^b	6.84	0.098	4.86 ^a	2.32	0.000	18.03 ^a	11.98	0.001	6.84	6.39	0.656	8.60	7.25	0.141
South Carolina	7.90 ^a	5.75	0.004	3.98 ^a	2.11	0.001	16.24 ^a	10.88	0.000	7.03 ^b	5.35	0.064	8.32 ^a	6.11	0.007
South Dakota	9.68 ^a	7.27	0.008	6.74 ^a	2.87	0.000	23.35 ^a	12.96	0.000	7.59	6.82	0.468	10.00 ^a	7.73	0.020
Tennessee	6.18 ^b	5.05	0.088	3.28 ^a	1.85	0.008	14.18 ^a	10.22	0.006	5.30	4.59	0.369	6.48	5.38	0.122
Texas	6.98 ^a	5.10	0.000	4.63 ^a	2.38	0.000	14.76 ^a	9.69	0.000	5.85 ^a	4.65	0.016	7.26 ^a	5.43	0.000
Utah	6.07 ^a	4.28	0.004	3.31 ^a	1.87	0.014	12.42 ^a	8.74	0.015	4.96 ^b	3.69	0.083	6.44 ^a	4.62	0.008
Vermont	7.84	6.80	0.190	4.92 ^a	2.60	0.001	20.15 ^a	15.21	0.012	6.16	5.75	0.658	8.12	7.16	0.256
Virginia	8.04 ^a	5.70	0.000	5.07 ^a	2.08	0.000	19.44 ^a	10.85	0.000	6.47	5.28	0.131	8.35 ^a	6.06	0.001
Washington	7.08 ^b	5.73	0.054	4.74 ^a	2.30	0.000	16.26 ^a	10.70	0.000	5.88	5.32	0.493	7.32 ^b	6.06	0.094
West Virginia	6.54 ^a	4.47	0.003	4.45 ^a	2.14	0.000	15.43 ^a	11.09	0.006	5.48 ^a	3.73	0.029	6.73 ^a	4.68	0.005
Wisconsin	8.06	7.16	0.266	5.43 ^a	2.63	0.000	19.67 ^a	14.03	0.002	6.43	6.56	0.895	8.34	7.62	0.408
Wyoming	8.51 ^a	6.54	0.012	6.96 ^a	2.86	0.000	19.54 ^a	12.83	0.000	6.75	5.94	0.375	8.67 ^a	6.92	0.037

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

NOTE: Alcohol Use Disorder is defined as meeting criteria for alcohol dependence or abuse. Dependence or abuse is based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012).

Table 10 *Serious Mental Illness in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs*

State	18+ (2008-2009)	18+ (2015-2016)	18+ (P Value)	18-25 (2008-2009)	18-25 (2015-2016)	18-25 (P Value)	26+ (2008-2009)	26+ (2015-2016)	26+ (P Value)
Total U.S.	3.70 ^a	4.13	0.001	3.55 ^a	5.46	0.000	3.72	3.91	0.212
Northeast	3.64 ^b	4.07	0.061	3.65 ^a	5.56	0.000	3.64	3.83	0.463
Midwest	4.00 ^b	4.37	0.074	3.79 ^a	5.94	0.000	4.04	4.11	0.753
South	3.59 ^a	4.05	0.012	3.28 ^a	5.03	0.000	3.64	3.89	0.232
West	3.63 ^a	4.09	0.048	3.66 ^a	5.62	0.000	3.62	3.82	0.443
Alabama	3.57	4.23	0.240	3.44 ^a	5.07	0.022	3.59	4.09	0.433
Alaska	3.49 ^b	4.53	0.070	3.11 ^a	7.17	0.000	3.56	4.04	0.450
Arizona	3.84	4.04	0.719	3.72 ^a	5.52	0.025	3.86	3.79	0.925
Arkansas	4.74	5.45	0.325	3.99 ^a	5.98	0.017	4.86	5.36	0.540
California	3.20	3.61	0.236	3.62 ^a	5.05	0.005	3.12	3.36	0.550
Colorado	4.65	4.61	0.955	3.67 ^a	6.65	0.001	4.81	4.27	0.462
Connecticut	3.52	3.59	0.894	3.53 ^a	5.44	0.014	3.51	3.28	0.702
Delaware	3.55	4.23	0.229	3.49 ^a	5.91	0.002	3.56	3.97	0.513
District of Columbia	3.06	3.92	0.103	3.00 ^a	5.38	0.001	3.07	3.61	0.370
Florida	3.64	3.56	0.836	3.39 ^a	5.06	0.001	3.67	3.35	0.445
Georgia	3.39	4.17	0.168	2.78 ^a	4.49	0.009	3.49	4.11	0.331
Hawaii	3.11	3.18	0.893	3.89	4.70	0.329	2.98	2.96	0.964
Idaho	4.75	4.98	0.726	3.74 ^a	6.70	0.001	4.93	4.69	0.746
Illinois	3.62	3.74	0.771	3.51 ^a	5.20	0.002	3.64	3.49	0.744
Indiana	4.71	4.93	0.742	4.02 ^a	6.49	0.004	4.82	4.66	0.830
Iowa	3.83	3.93	0.849	3.76 ^a	5.59	0.020	3.84	3.63	0.737
Kansas	3.51	4.37	0.127	3.78 ^a	5.91	0.008	3.46	4.09	0.322
Kentucky	4.18	5.25	0.113	3.42 ^a	5.89	0.001	4.30	5.14	0.267
Louisiana	3.59 ^b	4.53	0.093	3.49 ^a	4.97	0.045	3.61	4.45	0.188
Maine	4.00	4.35	0.569	4.33	5.62	0.128	3.95	4.18	0.740
Maryland	3.28	3.41	0.791	3.46 ^a	5.14	0.023	3.25	3.14	0.843
Massachusetts	3.73	4.32	0.306	3.21 ^a	6.08	0.000	3.82	4.02	0.765
Michigan	3.98	4.44	0.272	4.12 ^a	5.83	0.004	3.96	4.21	0.602
Minnesota	4.37	4.25	0.849	3.84 ^a	5.96	0.011	4.46	3.98	0.480
Mississippi	3.43	3.92	0.396	2.99 ^a	4.46	0.038	3.51	3.82	0.636
Missouri	4.09	4.17	0.898	3.58 ^a	5.53	0.011	4.18	3.94	0.717
Montana	3.95 ^a	5.34	0.035	3.98 ^a	6.99	0.001	3.95	5.08	0.129

See notes at end of file.

(continued)

Table 10 Serious Mental Illness in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	18+ (2008-2009)	18+ (2015-2016)	18+ (P Value)	18-25 (2008-2009)	18-25 (2015-2016)	18-25 (P Value)	26+ (2008-2009)	26+ (2015-2016)	26+ (P Value)
Nebraska	3.57	4.17	0.270	3.59 ^a	5.69	0.008	3.57	3.90	0.593
Nevada	4.37	4.21	0.813	3.81 ^a	5.76	0.021	4.45	3.98	0.521
New Hampshire	3.75 ^a	5.07	0.029	3.98 ^a	8.24	0.000	3.72	4.57	0.200
New Jersey	3.35	3.57	0.669	3.77 ^a	5.36	0.030	3.29	3.30	0.987
New Mexico	3.45 ^b	4.43	0.100	3.61 ^b	5.09	0.060	3.42	4.32	0.185
New York	3.84	4.08	0.554	3.80 ^a	5.24	0.007	3.85	3.88	0.945
North Carolina	3.63 ^b	4.72	0.070	3.02 ^a	4.42	0.032	3.73	4.77	0.132
North Dakota	3.25	4.03	0.110	3.36 ^a	5.89	0.001	3.23	3.63	0.477
Ohio	4.10 ^a	5.13	0.029	3.69 ^a	6.78	0.000	4.17	4.87	0.188
Oklahoma	3.97	4.60	0.306	4.07	5.41	0.110	3.95	4.45	0.470
Oregon	4.23	5.19	0.156	3.82 ^a	7.84	0.000	4.30	4.79	0.507
Pennsylvania	3.31 ^a	4.20	0.031	3.43 ^a	5.57	0.000	3.29	3.98	0.139
Rhode Island	5.38	4.24	0.121	4.29	5.71	0.119	5.58 ^b	3.97	0.054
South Carolina	3.57	3.98	0.461	3.26 ^a	4.79	0.036	3.62	3.85	0.715
South Dakota	3.19 ^b	4.12	0.069	3.44 ^a	5.61	0.004	3.14	3.86	0.220
Tennessee	3.80 ^b	4.98	0.065	3.25 ^a	5.62	0.001	3.89	4.87	0.167
Texas	3.33	3.26	0.861	3.08 ^a	4.80	0.001	3.37	2.98	0.330
Utah	4.64	5.20	0.385	3.78 ^a	6.77	0.001	4.86	4.84	0.973
Vermont	3.78 ^a	5.32	0.021	3.97 ^a	6.27	0.007	3.75 ^b	5.16	0.065
Virginia	3.34 ^a	4.60	0.023	3.55 ^a	5.62	0.004	3.30 ^b	4.43	0.072
Washington	3.78 ^b	4.80	0.095	3.55 ^a	5.95	0.002	3.82	4.62	0.241
West Virginia	4.87	5.18	0.679	3.66 ^a	6.22	0.002	5.04	5.03	0.987
Wisconsin	4.12	4.24	0.838	4.16 ^a	6.21	0.017	4.11	3.91	0.760
Wyoming	4.20	4.62	0.503	3.49 ^a	6.73	0.000	4.32	4.27	0.936

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

NOTE: Serious mental illness (SMI) is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, assessed by the Mental Health Surveillance Study (MHSS) *Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition—Research Version—Axis I Disorders* (MHSS-SCID), which is based on the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). SMI includes individuals with diagnoses resulting in serious functional impairment. For details, see Section B of the "2015-2016 NSDUH: Guide to State Tables and Summary of Small Area Estimation Methodology" at <https://www.samhsa.gov/data/>.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012 and October 2013).

Table 11 Any Mental Illness in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs

State	18+ (2008-2009)	18+ (2015-2016)	18+ (P Value)	18-25 (2008-2009)	18-25 (2015-2016)	18-25 (P Value)	26+ (2008-2009)	26+ (2015-2016)	26+ (P Value)
Total U.S.	17.92	18.07	0.585	18.25 ^a	21.89	0.000	17.86	17.44	0.173
Northeast	18.18	17.86	0.549	18.61 ^a	22.58	0.000	18.10 ^b	17.10	0.090
Midwest	18.36	18.01	0.433	19.22 ^a	22.25	0.000	18.21 ^b	17.30	0.069
South	17.33	17.95	0.133	17.06 ^a	20.50	0.000	17.38	17.53	0.740
West	18.23	18.48	0.657	18.88 ^a	23.21	0.000	18.12	17.67	0.469
Alabama	17.44	18.47	0.450	16.53 ^a	20.07	0.045	17.59	18.20	0.690
Alaska	16.72 ^a	20.01	0.016	15.79 ^a	27.17	0.000	16.90	18.70	0.236
Arizona	17.15	17.52	0.787	18.31	20.65	0.217	16.95	16.99	0.979
Arkansas	19.60	21.02	0.348	19.89	22.88	0.122	19.55	20.71	0.498
California	17.44	17.15	0.727	18.49 ^a	22.21	0.001	17.23	16.26	0.300
Colorado	18.95	20.05	0.453	17.74 ^a	25.63	0.000	19.15	19.11	0.981
Connecticut	17.87	18.00	0.930	19.35 ^a	23.48	0.041	17.64	17.11	0.741
Delaware	17.75	17.71	0.976	18.41 ^b	21.60	0.092	17.64	17.11	0.736
District of Columbia	17.99	18.82	0.542	17.44 ^b	21.11	0.051	18.12	18.35	0.882
Florida	16.99	17.30	0.728	16.69 ^a	20.57	0.001	17.03	16.84	0.856
Georgia	16.50	17.74	0.328	16.16 ^b	18.88	0.099	16.56	17.55	0.491
Hawaii	17.52	15.55	0.147	19.54	21.10	0.450	17.20	14.74	0.103
Idaho	19.51	21.62	0.141	19.37 ^a	25.08	0.004	19.54	21.03	0.354
Illinois	16.68	15.73	0.294	17.19 ^b	19.43	0.074	16.59	15.12	0.153
Indiana	20.37	19.95	0.773	20.62 ^a	24.86	0.039	20.33	19.08	0.448
Iowa	17.23	17.72	0.705	18.24 ^b	21.52	0.080	17.05	17.04	0.994
Kansas	17.24	18.17	0.491	17.89 ^b	21.42	0.073	17.13	17.58	0.764
Kentucky	19.23 ^b	22.08	0.060	17.78 ^b	21.20	0.068	19.46	22.23	0.102
Louisiana	17.46	17.31	0.906	16.81	16.91	0.953	17.59	17.38	0.885
Maine	19.25	17.62	0.252	19.59	21.87	0.260	19.20	17.04	0.169
Maryland	16.86	16.59	0.840	17.72 ^a	21.77	0.035	16.72	15.78	0.528
Massachusetts	18.01	19.34	0.341	18.31 ^a	24.09	0.005	17.95	18.51	0.720
Michigan	18.63	17.33	0.147	19.81	21.87	0.105	18.43 ^b	16.55	0.067
Minnesota	18.94	18.24	0.603	19.72 ^a	24.49	0.019	18.81	17.24	0.300
Mississippi	16.95	17.49	0.694	17.28	17.19	0.962	16.89	17.55	0.673
Missouri	19.11	18.03	0.455	21.43	19.43	0.317	18.72	17.80	0.567
Montana	19.18	20.57	0.338	19.20 ^a	25.39	0.002	19.17	19.79	0.707

See notes at end of file.

(continued)

Table 11 Any Mental Illness in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	18+ (2008-2009)	18+ (2015-2016)	18+ (P Value)	18-25 (2008-2009)	18-25 (2015-2016)	18-25 (P Value)	26+ (2008-2009)	26+ (2015-2016)	26+ (P Value)
Nebraska	17.56	18.39	0.537	17.25 ^a	22.75	0.003	17.63	17.61	0.990
Nevada	20.59	18.33	0.133	20.46	22.05	0.430	20.60 ^b	17.77	0.089
New Hampshire	18.35	19.36	0.471	19.88 ^a	26.10	0.004	18.11	18.30	0.901
New Jersey	17.65	15.50	0.108	18.52	20.29	0.314	17.51 ^b	14.78	0.066
New Mexico	17.85	19.19	0.355	18.04 ^a	23.51	0.005	17.82	18.46	0.696
New York	18.35	17.54	0.373	18.27 ^a	22.32	0.001	18.37	16.74	0.115
North Carolina	17.74	18.98	0.344	16.43 ^a	21.46	0.003	17.95	18.58	0.669
North Dakota	15.46	17.06	0.211	15.32 ^a	21.25	0.001	15.50	16.14	0.657
Ohio	18.41	19.72	0.177	18.75 ^a	24.18	0.000	18.36	19.01	0.553
Oklahoma	20.33	18.93	0.358	20.56	21.43	0.680	20.28	18.50	0.294
Oregon	19.55 ^a	22.61	0.045	20.51 ^a	28.37	0.000	19.40	21.74	0.169
Pennsylvania	17.83	18.76	0.330	18.55 ^a	22.65	0.002	17.71	18.16	0.678
Rhode Island	23.53 ^a	19.23	0.008	22.77	23.60	0.710	23.67 ^a	18.43	0.004
South Carolina	16.95	18.12	0.393	16.99 ^a	21.43	0.018	16.94	17.59	0.672
South Dakota	16.40	17.83	0.279	16.94 ^a	21.97	0.006	16.31	17.11	0.588
Tennessee	19.12	19.63	0.725	17.43 ^a	21.79	0.016	19.38	19.28	0.952
Texas	16.47	16.04	0.599	16.11 ^a	19.41	0.004	16.54	15.42	0.231
Utah	21.78	22.27	0.738	21.53 ^b	25.20	0.090	21.85	21.61	0.886
Vermont	18.66	20.85	0.142	19.42 ^a	28.30	0.000	18.53	19.55	0.538
Virginia	16.33 ^a	19.96	0.005	18.33 ^a	23.98	0.002	15.99 ^a	19.30	0.022
Washington	19.85	20.72	0.567	20.00 ^a	25.34	0.009	19.82	19.99	0.921
West Virginia	20.00	20.90	0.575	21.21	21.96	0.708	19.83	20.75	0.607
Wisconsin	19.96	18.51	0.303	22.43	24.00	0.440	19.55	17.61	0.219
Wyoming	20.24	19.46	0.594	20.38 ^b	23.71	0.088	20.22	18.76	0.376

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

NOTE: Any mental illness (AMI) is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, assessed by the Mental Health Surveillance Study (MHSS) *Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition—Research Version—Axis I Disorders* (MHSS-SCID), which is based on the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). For details, see Section B of the "2015-2016 NSDUH: Guide to State Tables and Summary of Small Area Estimation Methodology" at <https://www.samhsa.gov/data/>.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012 and October 2013).

Table 12 *Had Serious Thoughts of Suicide in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs*

State	18+ (2008-2009)	18+ (2015-2016)	18+ (P Value)	18-25 (2008-2009)	18-25 (2015-2016)	18-25 (P Value)	26+ (2008-2009)	26+ (2015-2016)	26+ (P Value)
Total U.S.	3.73 ^a	4.04	0.009	6.42 ^a	8.57	0.000	3.26	3.30	0.818
Northeast	3.73	4.03	0.170	6.64 ^a	8.81	0.000	3.24	3.26	0.927
Midwest	4.10	4.14	0.849	6.79 ^a	8.66	0.000	3.64	3.38	0.223
South	3.41 ^a	3.84	0.013	5.91 ^a	8.06	0.000	2.99	3.15	0.402
West	3.87 ^b	4.30	0.060	6.66 ^a	9.09	0.000	3.36	3.48	0.642
Alabama	3.73	3.57	0.765	6.42	7.27	0.414	3.28	2.96	0.599
Alaska	3.76 ^a	5.15	0.021	6.00 ^a	11.76	0.000	3.34	3.94	0.355
Arizona	3.98	4.01	0.961	6.60 ^a	8.92	0.039	3.54	3.18	0.560
Arkansas	4.11	4.47	0.543	6.67 ^b	8.60	0.073	3.69	3.78	0.888
California	3.39 ^b	3.96	0.077	6.53 ^a	8.54	0.003	2.79	3.17	0.293
Colorado	4.30	4.88	0.363	6.14 ^a	9.56	0.002	4.00	4.10	0.882
Connecticut	3.95	3.76	0.745	6.61 ^b	8.56	0.080	3.53	2.98	0.390
Delaware	3.02 ^a	4.35	0.016	6.09 ^a	9.13	0.005	2.51 ^b	3.62	0.064
District of Columbia	4.47	4.22	0.692	5.73 ^a	7.93	0.028	4.18	3.46	0.306
Florida	3.54	3.34	0.584	6.10 ^a	8.12	0.004	3.16	2.67	0.212
Georgia	2.80 ^a	3.94	0.013	5.26 ^b	7.02	0.053	2.38 ^a	3.41	0.043
Hawaii	3.81	3.79	0.972	7.53	8.99	0.257	3.21	3.03	0.771
Idaho	4.76	4.84	0.895	7.07 ^b	9.36	0.051	4.35	4.08	0.696
Illinois	4.28	3.89	0.362	6.31 ^a	8.45	0.006	3.91	3.14	0.101
Indiana	4.21	4.58	0.541	6.56 ^a	9.12	0.019	3.82	3.78	0.955
Iowa	4.01	3.94	0.890	6.44 ^a	8.74	0.033	3.59	3.08	0.395
Kansas	3.60 ^a	4.72	0.046	6.42 ^a	9.34	0.010	3.07	3.88	0.192
Kentucky	3.96 ^b	5.08	0.078	6.28 ^a	9.36	0.005	3.60	4.38	0.268
Louisiana	3.11 ^a	4.24	0.029	5.84 ^b	7.78	0.059	2.58 ^b	3.64	0.062
Maine	4.56	3.74	0.196	7.07	7.68	0.583	4.21	3.22	0.143
Maryland	3.41	3.82	0.426	6.51	8.23	0.109	2.89	3.13	0.658
Massachusetts	3.93	3.97	0.952	5.99 ^a	8.49	0.018	3.57	3.19	0.538
Michigan	4.26	3.91	0.396	7.67	8.35	0.393	3.69	3.16	0.252
Minnesota	3.67	4.15	0.386	6.59 ^a	8.79	0.046	3.18	3.41	0.690
Mississippi	3.29	3.78	0.325	6.35	7.72	0.181	2.72	3.08	0.517
Missouri	3.87	3.47	0.482	6.34	7.18	0.412	3.47	2.86	0.321
Montana	4.35	5.29	0.158	6.85 ^a	10.47	0.002	3.93	4.45	0.482

See notes at end of file.

(continued)

Table 12 Had Serious Thoughts of Suicide in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	18+ (2008-2009)	18+ (2015-2016)	18+ (P Value)	18-25 (2008-2009)	18-25 (2015-2016)	18-25 (P Value)	26+ (2008-2009)	26+ (2015-2016)	26+ (P Value)
Nebraska	3.91	4.42	0.370	6.04 ^a	8.12	0.044	3.51	3.76	0.691
Nevada	4.41	4.29	0.852	6.71 ^b	8.90	0.054	4.07	3.60	0.519
New Hampshire	3.40 ^a	5.01	0.007	6.82 ^a	10.26	0.004	2.88 ^a	4.18	0.042
New Jersey	3.28	3.58	0.528	6.97	8.47	0.146	2.71	2.85	0.788
New Mexico	4.15	4.28	0.837	6.85 ^b	8.88	0.073	3.65	3.50	0.829
New York	3.82	3.94	0.760	6.62 ^a	8.82	0.004	3.32	3.13	0.655
North Carolina	3.55	4.23	0.209	5.80 ^a	7.71	0.041	3.18	3.67	0.416
North Dakota	3.56	4.17	0.244	5.39 ^a	8.47	0.003	3.14	3.24	0.868
Ohio	4.25	4.47	0.620	6.90 ^a	9.27	0.002	3.82	3.70	0.800
Oklahoma	3.53	3.77	0.652	6.31	7.54	0.258	3.02	3.12	0.869
Oregon	4.43	5.07	0.335	6.64 ^a	11.52	0.000	4.08	4.09	0.999
Pennsylvania	3.52 ^a	4.41	0.026	6.73 ^a	9.05	0.005	2.99	3.69	0.112
Rhode Island	5.11	4.49	0.375	6.79 ^a	9.55	0.021	4.79	3.57	0.109
South Carolina	3.51	3.73	0.675	6.21	7.25	0.303	3.07	3.17	0.856
South Dakota	4.23	3.82	0.471	7.18	7.47	0.790	3.70	3.19	0.418
Tennessee	3.26 ^a	4.55	0.016	5.64 ^a	8.33	0.006	2.90 ^b	3.94	0.079
Texas	3.27	3.51	0.480	5.42 ^a	8.38	0.000	2.86	2.62	0.513
Utah	5.39	5.62	0.731	7.49 ^a	10.49	0.021	4.85	4.52	0.671
Vermont	4.49	5.48	0.160	7.04 ^a	10.34	0.008	4.07	4.64	0.468
Virginia	3.31	3.96	0.172	6.25 ^a	8.57	0.021	2.80	3.21	0.435
Washington	4.56	4.73	0.789	7.18 ^a	9.67	0.029	4.14	3.96	0.805
West Virginia	4.29	4.31	0.980	7.28	8.72	0.207	3.86	3.66	0.774
Wisconsin	4.05	4.41	0.515	7.90	9.41	0.199	3.40	3.59	0.756
Wyoming	4.52	4.14	0.528	6.32 ^a	8.66	0.027	4.20	3.39	0.223

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

NOTE: Respondents were asked, "At any time in the past 12 months, did you seriously think about trying to kill yourself?" If they answered "Yes," they were categorized as having serious thoughts of suicide in the past year.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012).

Table 13 Major Depressive Episode in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs

State	18+ (2008-2009)	18+ (2015-2016)	18+ (P Value)	12-17 (2008-2009)	12-17 (2015-2016)	12-17 (P Value)	18-25 (2008-2009)	18-25 (2015-2016)	18-25 (P Value)	26+ (2008-2009)	26+ (2015-2016)	26+ (P Value)
Total U.S.	6.53	6.70	0.309	8.22 ^a	12.63	0.000	8.21 ^a	10.59	0.000	6.24	6.06	0.329
Northeast	6.42	6.80	0.213	7.92 ^a	12.13	0.000	8.06 ^a	11.08	0.000	6.15	6.11	0.920
Midwest	6.72	6.89	0.479	8.35 ^a	13.53	0.000	8.50 ^a	11.01	0.000	6.41	6.20	0.481
South	6.44	6.60	0.502	8.07 ^a	11.90	0.000	7.79 ^a	9.91	0.000	6.22	6.05	0.538
West	6.57	6.61	0.883	8.53 ^a	13.32	0.000	8.67 ^a	10.89	0.000	6.19	5.88	0.364
Alabama	6.35	6.66	0.683	7.99 ^a	11.18	0.008	7.35 ^a	9.99	0.025	6.19	6.12	0.934
Alaska	5.86 ^b	7.39	0.057	7.70 ^a	15.22	0.000	7.31 ^a	12.85	0.000	5.59	6.40	0.360
Arizona	6.94	6.03	0.264	8.99 ^a	11.68	0.050	8.88	8.61	0.836	6.61	5.60	0.265
Arkansas	7.86	8.13	0.772	9.03 ^a	13.05	0.003	8.98	10.60	0.215	7.67	7.72	0.965
California	6.05	6.04	0.973	8.14 ^a	12.93	0.000	8.50 ^a	10.65	0.006	5.58	5.23	0.486
Colorado	7.56	7.62	0.938	9.16 ^a	14.59	0.000	8.40 ^a	12.66	0.003	7.41	6.78	0.509
Connecticut	5.95	6.84	0.243	8.03 ^a	12.52	0.001	8.11 ^a	11.73	0.007	5.61	6.05	0.600
Delaware	6.43	6.52	0.908	7.86 ^a	11.94	0.001	8.55	10.34	0.161	6.08	5.94	0.871
District of Columbia	5.93 ^b	7.28	0.073	6.93 ^a	9.91	0.016	7.39 ^a	11.88	0.001	5.60	6.34	0.379
Florida	6.40	6.12	0.589	8.53 ^a	12.84	0.000	7.93 ^a	10.40	0.003	6.17	5.52	0.256
Georgia	6.26	6.72	0.533	7.88 ^a	10.14	0.042	7.65	9.39	0.122	6.02	6.26	0.771
Hawaii	6.15	5.37	0.304	8.08 ^a	10.99	0.042	8.68	9.43	0.590	5.74	4.78	0.243
Idaho	7.47	7.62	0.858	8.90 ^a	15.93	0.000	9.19	11.17	0.148	7.16	7.02	0.877
Illinois	6.17	5.62	0.281	7.48 ^a	12.46	0.000	7.93 ^b	9.54	0.063	5.85	4.97	0.130
Indiana	8.14	7.69	0.615	9.25 ^a	14.70	0.000	8.51 ^a	12.37	0.005	8.08	6.87	0.229
Iowa	5.87	6.69	0.251	8.07 ^a	14.09	0.000	7.75 ^a	10.82	0.013	5.54	5.96	0.606
Kansas	6.61	7.21	0.460	8.58 ^a	12.53	0.003	8.38 ^b	10.91	0.060	6.29	6.54	0.778
Kentucky	7.14	7.55	0.626	8.42 ^a	11.72	0.010	7.98 ^a	11.05	0.012	7.00	6.97	0.973
Louisiana	5.75	6.49	0.316	7.67 ^a	10.15	0.046	6.97	7.79	0.453	5.51	6.27	0.372
Maine	6.81	7.21	0.629	8.08 ^a	14.25	0.000	8.78 ^a	12.28	0.014	6.53	6.53	0.996
Maryland	6.17	6.71	0.494	7.31 ^a	12.69	0.000	8.18 ^a	11.41	0.018	5.83	5.97	0.870
Massachusetts	6.77	7.48	0.374	8.03 ^a	13.72	0.000	8.51 ^a	12.55	0.004	6.47	6.60	0.875
Michigan	6.65	6.84	0.716	8.21 ^a	13.27	0.000	9.15 ^a	11.34	0.015	6.23	6.08	0.800
Minnesota	7.55	7.02	0.522	8.60 ^a	13.39	0.000	8.87 ^b	11.12	0.086	7.33	6.37	0.301
Mississippi	5.80	6.04	0.738	7.26 ^a	10.78	0.004	6.60	8.28	0.125	5.66	5.65	0.992
Missouri	7.03	6.99	0.961	8.91 ^a	14.28	0.000	9.15	10.35	0.348	6.68	6.43	0.791
Montana	6.76	7.79	0.202	9.07 ^a	13.56	0.001	8.85 ^a	11.45	0.047	6.41	7.19	0.387

See notes at end of file.

(continued)

Table 13 Major Depressive Episode in the Past Year, by Age Group and State: Percentages, Annual Averages, and P Values from Tests of Differences between Percentages, 2008-2009 and 2015-2016 NSDUHs (continued)

State	18+ (2008-2009)	18+ (2015-2016)	18+ (P Value)	12-17 (2008-2009)	12-17 (2015-2016)	12-17 (P Value)	18-25 (2008-2009)	18-25 (2015-2016)	18-25 (P Value)	26+ (2008-2009)	26+ (2015-2016)	26+ (P Value)
Nebraska	6.31	6.96	0.390	8.20 ^a	12.97	0.000	7.59 ^a	11.04	0.006	6.07	6.23	0.850
Nevada	6.88	7.35	0.589	7.38 ^a	15.66	0.000	8.89	10.73	0.162	6.58	6.84	0.791
New Hampshire	7.61	7.98	0.682	8.80 ^a	13.40	0.001	8.88 ^a	13.17	0.003	7.41	7.17	0.808
New Jersey	5.98	6.13	0.831	7.35 ^a	10.39	0.007	8.12 ^b	10.05	0.099	5.65	5.55	0.903
New Mexico	6.47	6.71	0.762	8.95 ^a	12.61	0.009	8.56	9.36	0.545	6.08	6.27	0.837
New York	6.64	6.68	0.930	8.22 ^a	11.91	0.000	7.84 ^a	10.65	0.001	6.42	6.02	0.491
North Carolina	6.85	7.07	0.770	8.43 ^a	11.70	0.007	8.07	9.05	0.378	6.65	6.75	0.904
North Dakota	6.26	6.80	0.473	9.03 ^b	11.25	0.093	7.21 ^a	10.33	0.009	6.05	6.03	0.982
Ohio	6.18 ^a	7.85	0.004	8.31 ^a	13.98	0.000	8.16 ^a	11.50	0.000	5.85 ^a	7.26	0.029
Oklahoma	7.40	7.50	0.909	8.04 ^a	13.53	0.000	9.47	10.29	0.551	7.03	7.02	0.991
Oregon	7.44	7.89	0.601	10.18 ^a	15.66	0.000	9.83 ^a	13.41	0.013	7.07	7.05	0.983
Pennsylvania	5.92	6.83	0.104	7.54 ^a	12.33	0.000	7.64 ^a	11.02	0.000	5.64	6.17	0.391
Rhode Island	9.34 ^a	7.23	0.036	9.35 ^a	13.72	0.004	10.87	11.17	0.849	9.05 ^a	6.52	0.024
South Carolina	7.02	6.52	0.531	8.90	10.83	0.118	8.43	9.06	0.605	6.79	6.11	0.451
South Dakota	5.71	6.86	0.122	8.47 ^a	11.79	0.015	6.90 ^a	10.90	0.001	5.50	6.16	0.429
Tennessee	6.83	7.06	0.774	8.53 ^a	12.13	0.006	7.19 ^a	11.12	0.001	6.78	6.41	0.675
Texas	5.97	5.68	0.531	7.49 ^a	11.95	0.000	7.25 ^a	9.11	0.014	5.73	5.05	0.200
Utah	7.51	7.78	0.727	8.43 ^a	13.81	0.000	8.37 ^b	10.74	0.066	7.29	7.12	0.846
Vermont	6.52	7.60	0.184	8.10 ^a	12.45	0.001	9.43 ^b	12.10	0.062	6.04	6.82	0.396
Virginia	6.30 ^a	7.94	0.034	8.78 ^a	12.56	0.003	8.57 ^a	11.88	0.008	5.92	7.29	0.111
Washington	7.19	7.68	0.568	9.39 ^a	13.23	0.005	9.07 ^a	12.10	0.033	6.88	6.98	0.919
West Virginia	7.77	8.26	0.599	8.39 ^a	13.90	0.000	8.81 ^a	11.76	0.034	7.62	7.75	0.901
Wisconsin	7.28	6.74	0.497	8.83 ^a	14.45	0.000	9.55 ^b	11.97	0.075	6.89	5.88	0.252
Wyoming	7.37	7.54	0.837	8.50 ^a	15.00	0.000	9.50 ^a	12.71	0.022	6.99	6.69	0.748

NOTE: State and census region estimates are based on a survey-weighted hierarchical Bayes estimation approach, with their *p* values being the Bayes significance levels for the null hypothesis of no change between the 2008-2009 and 2015-2016 population percentages. The "Total U.S." estimates, along with the *p* values, are based on design-based (direct) estimation methods.

NOTE: Major depressive episode (MDE) is defined as in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*, which specifies a period of at least 2 weeks when an individual experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms. For details, see Section B of the "2015-2016 NSDUH: Guide to State Tables and Summary of Small Area Estimation Methodology" at <https://www.samhsa.gov/data/>.

NOTE: There are minor wording differences in the questions in the adult and adolescent MDE modules. Therefore, data from youths aged 12 to 17 were not combined with data from adults aged 18 or older to produce an estimate for those aged 12 or older.

^a Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.05 level.

^b Difference between the 2008-2009 and 2015-2016 population percentages is statistically significant at the 0.10 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008, 2009, 2015, and 2016 (2008 and 2009 Data – Revised March 2012).

Methodology Used to Estimate the Bayes Significance Level for the Null Hypothesis of No Change between the 2008-2009 and 2015-2016 Population Percentages

Estimating *P* Values

To determine whether the differences between the 2008-2009¹ and 2015-2016 National Survey on Drug Use and Health (NSDUH) state prevalence rates are statistically significant, let $\pi_{sa(1)}$ and $\pi_{sa(2)}$ denote the 2008-2009 and 2015-2016 prevalence rates, respectively, for state-*s* and age group-*a*. The difference between $\pi_{sa(1)}$ and $\pi_{sa(2)}$ is defined in terms of the log-odds ratio (lor_{sa}) as opposed to the simple difference because the posterior distribution of lor_{sa} is closer to Gaussian than the posterior distribution of the simple difference ($\pi_{sa(2)} - \pi_{sa(1)}$). The lor_{sa} is defined as follows:

$$lor_{sa} = \ln \left[\frac{\pi_{sa(2)} / (1 - \pi_{sa(2)})}{\pi_{sa(1)} / (1 - \pi_{sa(1)})} \right].$$

In this equation, the ln denotes the natural logarithm. The *p* value given in each of the tables in this document (i.e., [Tables 1 to 13](#)) is computed to test the null hypothesis of no change (i.e., $\pi_{sa(2)} = \pi_{sa(1)}$ or equivalently, $lor_{sa} = 0$). An estimate of lor_{sa} is given by

$$\hat{lor}_{sa} = \ln \left[\frac{p_{sa(2)} / (1 - p_{sa(2)})}{p_{sa(1)} / (1 - p_{sa(1)})} \right],$$

where $p_{sa(1)}$ are the previously published 2008-2009 state estimates and $p_{sa(2)}$ are the 2015-2016 state estimates presented in [Tables 1 to 13](#) and elsewhere at <https://www.samhsa.gov/data/>. To compute the variance of \hat{lor}_{sa} , that is, $v(\hat{lor}_{sa})$, let

$$\hat{\theta}_1 = \frac{p_{sa(1)}}{1 - p_{sa(1)}} \text{ and } \hat{\theta}_2 = \frac{p_{sa(2)}}{1 - p_{sa(2)}}, \text{ then}$$

$$v(\hat{lor}_{sa}) = v[\ln(\hat{\theta}_1)] + v[\ln(\hat{\theta}_2)] - 2 \text{ cov}[\ln(\hat{\theta}_1), \ln(\hat{\theta}_2)],$$

¹ Note that in state small area estimation (SAE) documents prior to 2014-2015, 2002-2003 aggregated data were used as the baseline against which long-term changes for state-level estimates were compared. However, starting with 2014-2015 documents, 2008-2009 aggregated data are now used as the baseline so that mental health measures can also be included in long-term change testing.

where $\text{cov}[\ln(\hat{\theta}_1), \ln(\hat{\theta}_2)]$ denotes the covariance between $\ln(\hat{\theta}_1)$ and $\ln(\hat{\theta}_2)$. This covariance is defined in terms of the associated correlation as follows:

$$\text{cov}[\ln(\hat{\theta}_1), \ln(\hat{\theta}_2)] = \text{correlation} [\ln(\hat{\theta}_1), \ln(\hat{\theta}_2)] \times \sqrt{v[\ln(\hat{\theta}_1)] \times v[\ln(\hat{\theta}_2)]}.$$

Note that $v[\ln(\hat{\theta}_1)]$ and $v[\ln(\hat{\theta}_2)]$ used here to calculate $v(\hat{lor}_{sa})$ are the same variances used in calculating the previously published 2008-2009 Bayesian confidence intervals and the 2015-2016 Bayesian confidence intervals given here, respectively. The correlation between $\ln(\hat{\theta}_1)$ and $\ln(\hat{\theta}_2)$ is estimated using generalized correlations,² which are described in detail in the next section.

To calculate the p value for testing the null hypothesis of no difference ($lor=0$) between the 2008-2009 and 2015-2016 state estimates, it is assumed that the posterior distribution of lor is normal with $mean = \hat{lor}_{sa}$ and $variance = v(\hat{lor}_{sa})$. With the null value of ($lor=0$), the Bayes p value or significance level for the null hypothesis of no difference is

$$p \text{ value} = 2 * P[Z \geq \text{abs}(z)], \text{ where } Z \text{ is a standard normal random variate, } z = \frac{\hat{lor}_{sa}}{\sqrt{v(\hat{lor}_{sa})}}, \text{ and}$$

$\text{abs}(z)$ denotes the absolute value of z . This Bayesian significance level (or p value) for the null value of lor , say lor_0 , is defined following Rubin³ as the posterior probability for the collection of the lor values that are less likely or have smaller posterior density $d(lor)$ than the null (no change) value lor_0 . That is, $p \text{ value}(lor_0) = \text{probability}[d(lor) \leq d(lor_0)]$. With the posterior distribution of lor approximately normal, $p \text{ value}(lor_0)$ is given by the above expression.

Estimating Generalized Correlations

The correlation between $\ln(\hat{\theta}_1)$ and $\ln(\hat{\theta}_2)$ for each substance use outcome measure by state by age group combination was estimated by taking the average of seven correlations for each outcome measure by state by age group, as follows:

- 2002-2003 versus 2007-2008,
- 2002-2003 versus 2008-2009,

² In previous years (with the exception of 2002-2003 vs. 2011-2012), the correlations were produced by simultaneously modeling the 4 years of data instead of using the generalized correlations. For more information about simultaneous modeling, see the following document at <https://www.samhsa.gov/data/>: "NSDUH: Comparison of 2014-2015 and 2015-2016 Population Percentages."

³ See the following reference: Rubin, D. B. (1987). *Multiple imputation for nonresponse in surveys* (Wiley Series in Probability and Mathematical Statistics: Applied Probability and Statistics). New York, NY: John Wiley & Sons.

- two sets of 2002-2003 versus 2009-2010,⁴
- 2002-2003 versus 2010-2011,
- 2002-2003 versus 2012-2013, and
- 2002-2003 versus 2013-2014.

The average of these seven correlations is henceforth referred to as a "generalized correlation."

The generalized correlation between $\ln(\hat{\theta}_1)$ and $\ln(\hat{\theta}_2)$ for any mental illness (AMI), serious mental illness (SMI), and suicidal thoughts by state and age group was estimated by taking the average of six correlations for each outcome by state by age group, as follows:

- 2008-2009 versus 2010-2011,
- 2008-2009 versus 2011-2012,
- 2008-2009 versus 2012-2013,
- 2009-2010 versus 2011-2012,
- 2009-2010 versus 2012-2013, and
- 2010-2011 versus 2012-2013.

The generalized correlation between $\ln(\hat{\theta}_1)$ and $\ln(\hat{\theta}_2)$ for the fourth mental health measure—major depressive episode (MDE)—was estimated by taking the average of eight correlations for each outcome by age group by state, as follows:

- 2005-2006 versus 2007-2008,
- 2005-2006 versus 2008-2009,
- 2005-2006 versus 2009-2010,
- 2005-2006 versus 2010-2011,
- 2005-2006 versus 2011-2012,
- 2005-2006 versus 2012-2013,
- 2006-2007 versus 2009-2010, and
- 2008-2009 versus 2010-2011.

Each of these individual sets of correlations was produced by simultaneously fitting 4 years of NSDUH data separately for each outcome measure. For example, to produce correlations between the 2002-2003 and 2007-2008 state estimates for past month marijuana use, four age groups (12 to 17, 18 to 25, 26 to 34, and 35 or older) by two time periods (2002-2003

⁴ Correlations were available for 2002-2003 versus 2009-2010 for NSDUH data that included falsified cases, as well as 2009-2010 data excluding falsified cases (for more details on falsification and the revision of 2006 to 2010 data, see Section A.7 of the "2010-2011 National Survey on Drug Use and Health: Guide to State Tables and Summary of Small Area Estimation Methodology" at <https://www.samhsa.gov/data/>). Note that the correlations for 2002-2003 versus 2007-2008 and 2002-2003 versus 2008-2009 were also based on falsified data.

and 2007-2008), that is, eight subpopulation-specific models, were fitted each with its own set of fixed and random effects. In this case, the general covariance matrices for the state and within-state random effects were 8×8 matrices corresponding to the eight element (age group \times time period) vectors of random effects.

A study was conducted using 2002-2003 versus 2007-2008 data and 2002-2003 versus 2008-2009 data.⁵ When the actual (modeled) correlation was replaced by an average correlation of those 2 years, the p values of testing differences between estimates from both sets of comparisons were fairly similar. In most cases, they had the same conclusion of whether the test between 2002-2003 and 2007-2008 and the test between 2002-2003 and 2008-2009 was statistically significant or not. Only a few tests changed their significance⁶ depending on which correlation (actual or the average) was used. For all of these cases where significance changed, the p values were close to 0.05 (i.e., borderline cases). Given these results, it was decided, starting in 2014-2015 and going forward, that generalized correlations could be used to estimate long-term change.

⁵ More details on this study will be available at <https://www.samhsa.gov/data/>.

⁶ A total of 61 out of 9,632 tests across all outcomes, states, and age groups changed their conclusion from significant to nonsignificant and vice versa.