



National Health Interview Survey Early Release Program

Table 1. Modeled estimates (with standard errors) of the percent distribution of household telephone status for adults aged 18 and over, by state: United States, 2016

Geographic area	Wireless-only	Wireless-mostly	Dual-use	Landline-mostly	Landline-only	No telephone service	Total
Alabama	51.1 (2.0)	14.5 (1.4)	15.2 (1.4)	9.3 (0.7)	6.6 (1.0)	3.3	100.0
Alaska	51.9 (2.3)	18.4 (1.8)	17.0 (1.6)	6.1 (0.8)	4.3 (0.9)	2.1	100.0
Arizona	57.8 (1.7)	12.1 (1.2)	13.9 (1.2)	6.3 (0.5)	6.6 (0.8)	3.3	100.0
Arkansas	59.0 (1.9)	14.0 (1.4)	10.9 (1.2)	7.3 (0.7)	5.2 (0.9)	3.7	100.0
California	50.0 (1.0)	18.6 (0.8)	17.4 (0.8)	6.6 (0.3)	4.9 (0.4)	2.6	100.0
Colorado	59.2 (1.6)	15.0 (1.2)	12.8 (1.1)	6.4 (0.5)	3.9 (0.6)	2.7	100.0
Connecticut	33.4 (1.7)	19.3 (1.4)	24.7 (1.5)	11.2 (0.7)	9.7 (1.0)	1.7	100.0
Delaware	38.9 (1.8)	19.9 (1.5)	24.0 (1.5)	10.4 (0.7)	5.4 (0.8)	1.4	100.0
District of Columbia	55.3 (2.3)	17.8 (1.8)	15.0 (1.6)	3.9 (0.6)	3.8 (0.8)	4.1	100.0
Florida	54.6 (1.2)	15.3 (0.9)	13.6 (0.9)	6.8 (0.4)	6.2 (0.6)	3.5	100.0
Georgia	50.7 (1.5)	17.3 (1.1)	17.8 (1.1)	5.9 (0.5)	5.0 (0.6)	3.2	100.0
Hawaii	48.3 (1.9)	16.5 (1.4)	21.1 (1.5)	5.8 (0.7)	5.6 (0.8)	2.6	100.0
Idaho	64.4 (1.7)	9.3 (1.0)	11.2 (1.1)	6.5 (0.6)	4.8 (0.7)	3.8	100.0
Illinois	50.1 (1.4)	17.2 (1.1)	16.6 (1.0)	8.5 (0.5)	4.7 (0.6)	2.9	100.0
Indiana	59.3 (1.7)	11.4 (1.1)	14.1 (1.2)	7.1 (0.6)	4.9 (0.7)	3.2	100.0
Iowa	54.6 (1.7)	14.8 (1.2)	13.9 (1.1)	8.6 (0.6)	4.7 (0.7)	3.5	100.0
Kansas	58.2 (1.8)	12.8 (1.2)	14.4 (1.2)	6.5 (0.6)	4.5 (0.7)	3.5	100.0
Kentucky	52.6 (1.7)	13.3 (1.2)	12.4 (1.2)	10.9 (0.7)	7.7 (0.9)	3.1	100.0
Louisiana	48.1 (2.0)	19.0 (1.6)	15.9 (1.4)	7.1 (0.6)	6.7 (0.9)	3.3	100.0
Maine	48.0 (2.3)	13.2 (1.5)	15.2 (1.5)	12.2 (1.0)	8.1 (1.1)	3.4	100.0
Maryland	38.1 (1.7)	19.4 (1.4)	25.3 (1.5)	9.7 (0.7)	4.5 (0.7)	2.8	100.0
Massachusetts	37.0 (1.7)	18.8 (1.4)	24.1 (1.5)	10.6 (0.7)	7.2 (0.9)	2.2	100.0
Michigan	53.3 (1.5)	14.1 (1.1)	14.9 (1.1)	8.9 (0.6)	5.6 (0.7)	3.2	100.0
Minnesota	48.4 (1.6)	18.8 (1.3)	15.8 (1.2)	8.6 (0.6)	4.6 (0.7)	3.8	100.0
Mississippi	58.9 (1.9)	13.1 (1.4)	11.6 (1.3)	6.4 (0.6)	6.3 (0.9)	3.7	100.0
Missouri	57.7 (1.8)	12.4 (1.3)	14.5 (1.3)	7.5 (0.6)	4.5 (0.7)	3.5	100.0
Montana	46.4 (2.1)	14.3 (1.5)	16.6 (1.5)	9.4 (0.8)	9.9 (1.2)	3.4	100.0
Nebraska	51.1 (1.8)	16.9 (1.3)	15.4 (1.3)	7.5 (0.6)	6.0 (0.8)	3.1	100.0
Nevada	55.8 (1.7)	15.9 (1.3)	14.1 (1.2)	5.3 (0.5)	5.4 (0.7)	3.4	100.0
New Hampshire	36.6 (1.7)	18.1 (1.4)	22.7 (1.5)	14.2 (0.8)	6.1 (0.8)	2.3	100.0
New Jersey	30.2 (1.4)	29.3 (1.5)	22.7 (1.3)	9.4 (0.6)	5.9 (0.7)	2.5	100.0
New Mexico	53.8 (1.9)	13.6 (1.3)	13.5 (1.3)	6.0 (0.6)	8.9 (1.0)	4.1	100.0
New York	33.6 (1.0)	21.1 (0.9)	26.2 (1.0)	9.7 (0.4)	7.0 (0.5)	2.4	100.0
North Carolina	50.7 (1.5)	15.0 (1.1)	17.3 (1.1)	8.4 (0.5)	5.8 (0.7)	2.8	100.0
North Dakota	50.0 (2.4)	16.5 (1.7)	15.0 (1.6)	6.1 (0.8)	7.9 (1.2)	4.5	100.0
Ohio	50.6 (1.4)	13.6 (1.0)	17.1 (1.0)	9.1 (0.5)	6.0 (0.6)	3.6	100.0
Oklahoma	56.8 (1.7)	13.5 (1.2)	15.7 (1.2)	4.5 (0.5)	5.8 (0.8)	3.7	100.0
Oregon	54.3 (1.7)	12.8 (1.2)	13.4 (1.2)	9.4 (0.7)	7.1 (0.8)	3.0	100.0
Pennsylvania	36.4 (1.3)	17.4 (1.1)	25.1 (1.2)	12.4 (0.6)	6.3 (0.6)	2.4	100.0
Rhode Island	40.3 (1.8)	20.5 (1.5)	20.0 (1.4)	11.0 (0.8)	6.1 (0.8)	2.2	100.0
South Carolina	52.7 (1.8)	15.0 (1.3)	14.8 (1.3)	7.3 (0.6)	6.5 (0.9)	3.7	100.0
South Dakota	52.8 (2.1)	15.9 (1.6)	13.1 (1.4)	7.1 (0.7)	7.1 (1.0)	4.0	100.0
Tennessee	54.6 (1.7)	16.0 (1.3)	13.8 (1.2)	7.7 (0.6)	5.1 (0.7)	2.9	100.0
Texas	61.8 (1.0)	16.3 (0.8)	10.2 (0.6)	4.4 (0.3)	4.0 (0.4)	3.2	100.0
Utah	60.2 (1.7)	14.7 (1.3)	14.6 (1.2)	4.5 (0.5)	3.0 (0.6)	3.0	100.0
Vermont	38.1 (2.2)	13.3 (1.5)	12.7 (1.4)	19.1 (1.2)	13.9 (1.4)	2.9	100.0
Virginia	43.0 (1.6)	20.4 (1.4)	19.6 (1.3)	7.7 (0.6)	5.9 (0.7)	3.4	100.0
Washington	50.5 (1.6)	17.6 (1.3)	15.2 (1.2)	7.9 (0.6)	5.7 (0.7)	3.0	100.0
West Virginia	45.7 (2.0)	10.1 (1.2)	13.3 (1.3)	17.4 (1.0)	10.2 (1.1)	3.2	100.0
Wisconsin	51.3 (1.6)	12.9 (1.1)	16.4 (1.2)	10.3 (0.6)	6.3 (0.8)	2.8	100.0
Wyoming	60.7 (1.9)	12.1 (1.3)	16.2 (1.4)	4.5 (0.5)	4.1 (0.7)	2.4	100.0

See notes on next page.



NOTES: Small-area statistical modeling techniques were used to combine National Health Interview Survey (NHIS) data collected from within specific geographies (states and some counties) with auxiliary data that are representative of those geographies to produce model-based estimates. Estimates were modeled using the procedures described in previous National Health Statistics Reports (e.g., <http://www.cdc.gov/nchs/data/nhsr/nhsr039.pdf>), with a few modifications: Models were based on five 12-month periods (2012–2016); an Akaike information criterion (AIC) was used to select the best set of covariates for the models given the revised data years; variances for the direct estimates were computed using in-house rather than publicly available sample design variables; and the reported standard errors were based on the variance of the estimate prior to benchmarking to the national NHIS estimates for the corresponding phone category and the state-level American Community Survey (ACS) estimates for the population without telephone service. The proportion of adults living in households with no telephone service was not modeled. Other proportions were adjusted so that this estimate agreed with the 2015 ACS estimate for this proportion. Small-area statistical modeling assumes that the design-based estimates of variance are stable and that the direct estimates are unbiased. Users are therefore cautioned that the approach used to create the model-based estimates can produce substantially biased prevalence estimates and unstable variance estimates when the direct estimate from NHIS is based on small sample sizes, when that sample is drawn from only a few geographic areas, and when those few geographic areas are not representative of the state of interest.

SOURCES: NCHS, National Health Interview Survey, 2012–2016; U.S. Census Bureau, American Community Survey, 2011–2015; and infoUSA.com consumer database, 2012–2016.

ACKNOWLEDGMENTS: Estimates were calculated by Adrijo Chakraborty and Nadarajasundaram Ganesh of NORC at the University of Chicago, in collaboration with Kathleen Santos of NORC and with staff of the National Center for Health Statistics, Division of Health Interview Statistics and Division of Research and Methodology.



National Health Interview Survey Early Release Program

Table 2. Modeled estimates (with standard errors) of the percent distribution of household telephone status for children under age 18, by state: United States, 2016

Geographic area	Wireless-only	Wireless-mostly	Dual-use	Landline-mostly	Landline-only	No telephone service	Total
Alabama	65.0 (2.6)	16.7 (2.3)	10.2 (2.0)	2.9 (0.9)	*	2.8	100.0
Alaska	61.4 (3.1)	20.2 (2.8)	14.4 (2.4)	*	*	0.7	100.0
Arizona	70.0 (2.4)	13.9 (2.1)	8.1 (1.7)	*	3.4 (0.9)	3.0	100.0
Arkansas	73.6 (2.1)	13.8 (2.1)	4.8 (1.3)	*	*	4.1	100.0
California	58.7 (1.5)	19.5 (1.4)	14.5 (1.2)	2.4 (0.5)	2.0 (0.4)	2.8	100.0
Colorado	67.6 (2.1)	18.2 (2.0)	9.0 (1.5)	*	*	2.2	100.0
Connecticut	44.7 (2.5)	25.9 (2.6)	17.7 (2.3)	5.0 (1.0)	5.0 (1.1)	1.7	100.0
Delaware	49.6 (3.0)	23.1 (2.8)	21.0 (2.8)	4.0 (1.0)	*	0.5	100.0
District of Columbia	52.6 (3.3)	25.3 (3.3)	16.1 (2.8)	*	*	2.8	100.0
Florida	66.8 (1.8)	17.6 (1.8)	7.5 (1.2)	*	2.9 (0.7)	4.0	100.0
Georgia	60.1 (2.1)	18.6 (2.0)	13.2 (1.7)	*	2.5 (0.7)	3.9	100.0
Hawaii	61.8 (2.3)	17.6 (2.0)	13.7 (1.8)	*	3.3 (0.8)	2.7	100.0
Idaho	72.8 (2.3)	10.0 (1.8)	9.0 (1.7)	*	*	4.5	100.0
Illinois	60.1 (1.9)	20.1 (1.9)	12.5 (1.5)	2.1 (0.6)	2.2 (0.5)	2.9	100.0
Indiana	71.4 (2.2)	12.0 (1.8)	9.6 (1.7)	*	*	3.8	100.0
Iowa	61.7 (2.5)	19.7 (2.3)	9.0 (1.7)	3.7 (0.9)	*	3.5	100.0
Kansas	67.7 (2.4)	16.1 (2.2)	8.6 (1.7)	2.6 (0.8)	*	3.5	100.0
Kentucky	63.3 (2.4)	15.3 (2.1)	9.9 (1.8)	4.8 (1.0)	3.5 (0.9)	3.2	100.0
Louisiana	62.2 (2.5)	20.3 (2.4)	9.5 (1.8)	2.6 (0.8)	3.1 (0.9)	2.4	100.0
Maine	57.6 (2.8)	18.7 (2.4)	11.1 (2.0)	4.9 (1.1)	4.3 (1.1)	3.4	100.0
Maryland	47.3 (2.6)	22.6 (2.6)	20.7 (2.5)	3.3 (0.9)	*	4.5	100.0
Massachusetts	42.5 (2.5)	23.1 (2.5)	24.1 (2.6)	4.3 (1.0)	3.9 (0.9)	2.1	100.0
Michigan	62.7 (2.1)	16.7 (2.0)	11.8 (1.7)	3.4 (0.8)	*	3.5	100.0
Minnesota	51.5 (2.4)	24.4 (2.4)	14.9 (2.0)	3.0 (0.8)	*	4.7	100.0
Mississippi	73.6 (2.3)	13.0 (2.1)	6.2 (1.5)	*	*	3.7	100.0
Missouri	70.5 (2.2)	12.4 (1.9)	10.3 (1.8)	*	*	4.4	100.0
Montana	53.2 (3.0)	18.5 (2.6)	16.2 (2.5)	*	3.8 (1.1)	5.1	100.0
Nebraska	62.2 (2.4)	18.4 (2.2)	11.4 (1.8)	2.5 (0.7)	2.8 (0.8)	2.8	100.0
Nevada	62.4 (2.5)	17.3 (2.3)	11.7 (1.9)	2.7 (0.8)	2.8 (0.8)	3.0	100.0
New Hampshire	42.6 (2.6)	23.5 (2.6)	22.6 (2.6)	5.4 (1.1)	3.1 (0.9)	2.8	100.0
New Jersey	35.3 (2.2)	32.2 (2.6)	20.7 (2.2)	5.9 (1.0)	3.4 (0.8)	2.7	100.0
New Mexico	65.0 (2.4)	14.6 (2.1)	10.3 (1.9)	*	3.8 (1.0)	4.8	100.0
New York	40.0 (1.6)	26.2 (1.7)	22.8 (1.6)	4.9 (0.7)	3.6 (0.6)	2.5	100.0
North Carolina	60.1 (2.1)	19.3 (2.0)	11.5 (1.6)	2.9 (0.7)	3.0 (0.7)	3.1	100.0
North Dakota	54.8 (3.2)	21.2 (2.9)	13.0 (2.5)	*	*	6.5	100.0
Ohio	58.9 (2.0)	15.7 (1.8)	13.8 (1.7)	3.6 (0.7)	3.1 (0.7)	4.9	100.0
Oklahoma	70.1 (2.1)	13.4 (1.9)	10.0 (1.7)	*	2.8 (0.8)	3.3	100.0
Oregon	65.6 (2.3)	15.0 (2.0)	9.8 (1.7)	2.9 (0.8)	3.4 (0.9)	3.3	100.0
Pennsylvania	43.8 (1.9)	22.0 (1.9)	22.0 (1.9)	5.0 (0.8)	3.4 (0.7)	3.8	100.0
Rhode Island	50.3 (2.7)	25.0 (2.7)	14.6 (2.2)	5.1 (1.1)	*	2.3	100.0
South Carolina	68.0 (2.2)	15.0 (2.0)	8.6 (1.6)	*	2.5 (0.7)	4.5	100.0
South Dakota	63.8 (2.9)	17.2 (2.6)	9.6 (2.1)	*	*	5.9	100.0
Tennessee	68.2 (2.1)	17.3 (2.1)	8.1 (1.5)	*	*	3.1	100.0
Texas	70.4 (1.3)	16.7 (1.3)	5.9 (0.8)	1.5 (0.4)	2.3 (0.4)	3.2	100.0
Utah	65.0 (2.3)	16.9 (2.1)	13.0 (1.9)	*	*	2.5	100.0
Vermont	38.7 (2.6)	20.9 (2.5)	12.5 (2.0)	18.4 (2.0)	7.6 (1.3)	2.0	100.0
Virginia	48.0 (2.4)	26.2 (2.5)	15.9 (2.1)	2.5 (0.7)	3.8 (0.9)	3.6	100.0
Washington	58.6 (2.3)	21.3 (2.4)	12.2 (1.9)	2.9 (0.8)	*	3.0	100.0
West Virginia	62.0 (3.0)	10.5 (2.1)	8.6 (2.0)	11.5 (1.8)	4.3 (1.1)	3.1	100.0
Wisconsin	62.6 (2.2)	17.3 (2.0)	11.9 (1.8)	2.6 (0.7)	*	3.4	100.0
Wyoming	66.3 (2.5)	15.6 (2.2)	11.3 (2.0)	*	*	4.1	100.0

* Estimates are considered unreliable (have a relative standard error greater than 30%) and are not shown.

See additional notes on next page.



NOTES: Small-area statistical modeling techniques were used to combine National Health Interview Survey (NHIS) data collected from within specific geographies (states and some counties) with auxiliary data that are representative of those geographies to produce model-based estimates. Estimates were modeled using the procedures described in previous National Health Statistics Reports (e.g., <http://www.cdc.gov/nchs/data/nhsr/nhsr039.pdf>), with a few modifications: Models were based on five 12-month periods (2012–2016); an Akaike information criterion (AIC) was used to select the best set of covariates for the models given the revised data years; variances for the direct estimates were computed using in-house rather than publicly available sample design variables; and the reported standard errors were based on the variance of the estimate prior to benchmarking to the national NHIS estimates for the corresponding phone category and the state-level American Community Survey (ACS) estimates for the population without telephone service. The proportion of children living in households with no telephone service was not modeled. Other proportions were adjusted so that this estimate agreed with the 2015 ACS estimate for this proportion. Small-area statistical modeling assumes that the design-based estimates of variance are stable and that the direct estimates are unbiased. Users are therefore cautioned that the approach used to create the model-based estimates can produce substantially biased prevalence estimates and unstable variance estimates when the direct estimate from NHIS is based on small sample sizes, when that sample is drawn from only a few geographic areas, and when those few geographic areas are not representative of the state of interest.

SOURCES: NCHS, National Health Interview Survey, 2012–2016; U.S. Census Bureau, American Community Survey, 2011–2015; and infoUSA.com consumer database, 2012–2016.

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