

C. Fixed Communications Market Appendices

APPENDIX C-1

Percentage of State Population with Zero, One, Two, or More Than Two Provider Options for 10 Mbps/1 Mbps Fixed Terrestrial Services (December 31, 2017)

	Zero	One	Two	More Than Two
United States	2.7%	14.5%	39.6%	43.1%
Alaska	14.9%	21.8%	52.5%	10.9%
Alabama	7.6%	30.4%	39.4%	22.5%
Arkansas	11.0%	32.5%	44.4%	12.2%
Arizona	3.4%	8.5%	18.5%	69.7%
California	1.6%	14.2%	49.3%	34.8%
Colorado	2.4%	8.9%	20.4%	68.3%
Connecticut	0.0%	0.3%	11.5%	88.2%
District of Columbia	0.0%	1.6%	2.5%	95.9%
Delaware	2.0%	18.3%	68.8%	10.9%
Florida	2.5%	14.8%	53.4%	29.2%
Georgia	4.8%	24.4%	60.0%	10.7%
Hawaii	3.0%	18.4%	75.8%	2.9%
Iowa	3.3%	17.1%	36.9%	42.7%
Idaho	2.2%	8.7%	17.8%	71.3%
Illinois	1.9%	12.3%	43.4%	42.5%
Indiana	3.8%	15.0%	45.0%	36.2%
Kansas	2.0%	13.1%	22.6%	62.3%
Kentucky	2.8%	26.6%	54.3%	16.3%
Louisiana	6.3%	31.5%	37.9%	24.3%
Massachusetts	1.6%	15.9%	59.9%	22.6%
Maryland	0.0%	2.1%	10.2%	87.7%
Maine	1.7%	17.8%	57.9%	22.6%
Michigan	3.9%	22.0%	45.7%	28.4%
Minnesota	2.3%	13.7%	63.4%	20.6%
Missouri	4.7%	14.5%	18.5%	62.3%
Mississippi	11.9%	27.5%	28.4%	32.2%
Montana	5.3%	22.5%	30.1%	42.1%
North Carolina	2.5%	22.9%	63.6%	11.0%
North Dakota	5.2%	42.5%	32.0%	20.3%
Nebraska	2.6%	11.0%	16.5%	69.9%
New Hampshire	1.4%	12.5%	82.8%	3.3%
New Jersey	0.0%	0.8%	15.8%	83.4%
New Mexico	5.6%	13.2%	20.9%	60.4%
Nevada	4.1%	14.0%	59.6%	22.2%

	Zero	One	Two	More Than Two
New York	0.0%	1.1%	11.7%	87.3%
Ohio	1.9%	19.4%	52.9%	25.8%
Oklahoma	11.2%	33.8%	40.0%	15.0%
Oregon	3.5%	11.3%	52.9%	32.2%
Pennsylvania	0.0%	2.7%	18.3%	79.0%
Rhode Island	0.0%	1.5%	6.7%	91.8%
South Carolina	5.1%	34.5%	48.6%	11.8%
South Dakota	4.7%	31.8%	27.4%	36.1%
Tennessee	4.1%	19.7%	49.8%	26.4%
Texas	3.5%	15.0%	39.6%	41.9%
Utah	2.6%	7.2%	17.4%	72.8%
Virginia	0.0%	5.0%	17.7%	77.3%
Vermont	2.4%	20.0%	63.9%	13.7%
Washington	1.7%	8.7%	44.5%	45.1%
Wisconsin	3.7%	19.4%	45.0%	31.9%
West Virginia	5.5%	19.3%	49.6%	25.6%
Wyoming	8.2%	20.1%	25.8%	45.9%

APPENDIX C-2

**Percentage of Population with Zero, One, Two, or More Than Two Provider Options for
25 Mbps/3 Mbps Fixed Terrestrial Services by State (December 31, 2017)**

	Zero	One	Two	More Than Two
United States	6.0%	23.7%	42.4%	28.0%
Alaska	19.5%	40.3%	35.4%	4.7%
Alabama	13.9%	32.5%	40.2%	13.5%
Arkansas	22.6%	38.3%	35.6%	3.5%
Arizona	13.1%	29.5%	55.5%	1.9%
California	3.0%	22.4%	49.8%	24.8%
Colorado	7.1%	20.5%	25.5%	46.9%
Connecticut	0.0%	0.9%	93.2%	5.9%
District of Columbia	0.0%	1.9%	11.9%	86.1%
Delaware	2.4%	33.8%	56.5%	7.3%
Florida	3.8%	20.4%	50.8%	25.0%
Georgia	7.5%	26.0%	57.1%	9.3%
Hawaii	3.9%	46.5%	47.9%	1.7%
Iowa	9.3%	39.0%	40.2%	11.4%
Idaho	14.7%	31.7%	44.8%	8.8%
Illinois	5.3%	24.3%	40.4%	30.0%
Indiana	10.1%	26.4%	50.7%	12.8%
Kansas	8.8%	30.3%	22.1%	38.7%
Kentucky	9.1%	42.5%	46.0%	2.5%
Louisiana	12.4%	40.0%	35.8%	11.7%
Massachusetts	2.1%	39.1%	45.2%	13.6%
Maryland	0.0%	2.4%	17.9%	79.7%
Maine	6.7%	76.0%	16.9%	0.5%
Michigan	8.0%	30.8%	39.9%	21.3%
Minnesota	5.2%	28.3%	54.6%	11.9%
Missouri	11.3%	26.5%	37.7%	24.4%
Mississippi	20.4%	26.3%	33.4%	19.9%
Montana	13.9%	31.6%	37.7%	16.8%
North Carolina	5.2%	36.9%	51.5%	6.4%
North Dakota	6.9%	52.6%	27.4%	13.1%
Nebraska	12.7%	42.1%	41.1%	4.1%
New Hampshire	5.3%	64.1%	30.3%	0.3%
New Jersey	0.0%	0.9%	29.0%	70.1%
New Mexico	16.6%	22.4%	22.6%	38.4%

	Zero	One	Two	More Than Two
Nevada	7.3%	37.2%	54.8%	0.7%
New York	0.0%	1.6%	27.2%	71.2%
Ohio	5.3%	36.3%	42.9%	15.5%
Oklahoma	21.0%	37.6%	33.0%	8.3%
Oregon	7.6%	25.1%	54.9%	12.4%
Pennsylvania	0.0%	4.7%	37.1%	58.2%
Rhode Island	0.0%	1.7%	9.9%	88.4%
South Carolina	10.1%	37.5%	44.4%	8.0%
South Dakota	11.1%	39.5%	36.7%	12.6%
Tennessee	8.7%	26.2%	51.2%	13.8%
Texas	7.3%	22.3%	40.3%	30.1%
Utah	5.8%	24.1%	37.5%	32.6%
Virginia	0.0%	8.3%	37.0%	54.7%
Vermont	10.7%	59.5%	28.2%	1.6%
Washington	2.7%	17.2%	44.5%	35.6%
Wisconsin	8.7%	28.2%	40.0%	23.1%
West Virginia	15.4%	59.5%	23.0%	2.2%
Wyoming	18.7%	31.5%	30.2%	19.6%

APPENDIX C-3

**Percentage of Population with Zero, One, Two, or More Than Two Provider Options for
50 Mbps/ 5 Mbps Fixed Terrestrial Services by State (December 31, 2017)**

	Zero	One	Two	More Than Two
United States	7.7%	27.5%	43.8%	20.9%
Alaska	23.8%	65.0%	11.2%	0.0%
Alabama	14.9%	35.8%	37.1%	12.3%
Arkansas	30.3%	38.2%	29.4%	2.1%
Arizona	13.6%	31.3%	53.6%	1.5%
California	5.3%	26.6%	57.0%	11.1%
Colorado	8.0%	21.1%	25.1%	45.8%
Connecticut	0.0%	0.9%	93.2%	5.9%
District of Columbia	0.0%	1.9%	11.9%	86.1%
Delaware	2.6%	38.0%	54.1%	5.2%
Florida	4.0%	21.6%	50.3%	24.1%
Georgia	9.0%	27.7%	54.8%	8.5%
Hawaii	3.9%	46.5%	48.6%	1.0%
Iowa	11.9%	46.2%	36.8%	5.2%
Idaho	17.7%	40.5%	38.7%	3.1%
Illinois	6.7%	31.1%	47.4%	14.9%
Indiana	12.8%	33.9%	47.3%	6.0%
Kansas	14.7%	36.5%	24.2%	24.6%
Kentucky	11.1%	45.6%	41.2%	2.1%
Louisiana	12.8%	41.9%	34.4%	11.0%
Massachusetts	2.1%	39.3%	45.1%	13.6%
Maryland	0.0%	3.3%	31.8%	64.9%
Maine	9.3%	78.5%	12.0%	0.2%
Michigan	9.4%	33.7%	38.8%	18.1%
Minnesota	6.7%	32.6%	52.5%	8.2%
Missouri	13.1%	28.7%	35.8%	22.3%
Mississippi	22.8%	29.4%	32.3%	15.5%
Montana	27.5%	55.2%	15.4%	2.0%
North Carolina	6.0%	41.4%	48.1%	4.5%
North Dakota	8.3%	53.6%	26.0%	12.1%
Nebraska	15.1%	41.1%	40.0%	3.8%
New Hampshire	5.5%	65.2%	29.1%	0.3%
New Jersey	0.0%	0.9%	29.1%	70.0%
New Mexico	18.9%	23.8%	27.5%	29.8%

	Zero	One	Two	More Than Two
Nevada	8.5%	40.8%	50.0%	0.6%
New York	0.0%	1.7%	30.2%	68.1%
Ohio	6.6%	42.9%	37.9%	12.6%
Oklahoma	25.6%	42.7%	31.1%	0.6%
Oregon	10.2%	31.8%	54.8%	3.2%
Pennsylvania	0.0%	5.6%	37.8%	56.6%
Rhode Island	0.0%	1.7%	9.9%	88.4%
South Carolina	11.9%	39.2%	41.6%	7.3%
South Dakota	14.3%	41.6%	36.1%	8.0%
Tennessee	10.4%	31.1%	49.4%	9.1%
Texas	12.0%	30.0%	49.0%	9.1%
Utah	7.0%	25.0%	36.8%	31.2%
Virginia	0.0%	9.8%	38.7%	51.4%
Vermont	12.4%	62.7%	23.6%	1.2%
Washington	6.4%	30.9%	51.9%	10.9%
Wisconsin	13.7%	39.1%	46.5%	0.8%
West Virginia	23.6%	68.4%	7.8%	0.2%
Wyoming	23.1%	38.0%	26.6%	12.3%

APPENDIX C-4

Percentage of Population with Zero, One, Two, or More Than Two Provider Options for 100 Mbps/10 Mbps Fixed Terrestrial Services by State (December 31, 2017)

	Zero	One	Two	More Than Two
United States	10.7%	34.7%	36.7%	17.8%
Alaska	24.6%	69.9%	5.4%	0.0%
Alabama	20.1%	45.0%	27.5%	7.4%
Arkansas	44.6%	36.6%	17.8%	1.0%
Arizona	15.5%	43.2%	40.1%	1.1%
California	7.3%	38.1%	46.6%	7.9%
Colorado	11.4%	25.0%	31.0%	32.6%
Connecticut	0.0%	0.9%	93.2%	5.9%
District of Columbia	0.0%	1.9%	11.9%	86.1%
Delaware	2.6%	38.0%	54.1%	5.2%
Florida	5.0%	28.6%	47.6%	18.9%
Georgia	14.6%	35.3%	44.8%	5.3%
Hawaii	3.9%	46.8%	48.6%	0.6%
Iowa	18.2%	52.1%	26.5%	3.2%
Idaho	21.0%	51.1%	27.8%	0.1%
Illinois	7.5%	45.0%	38.7%	8.8%
Indiana	14.1%	45.4%	36.9%	3.6%
Kansas	18.6%	40.6%	17.6%	23.2%
Kentucky	17.0%	56.8%	25.5%	0.7%
Louisiana	23.8%	48.4%	25.9%	2.0%
Massachusetts	3.0%	42.8%	44.2%	10.0%
Maryland	0.0%	3.3%	31.8%	64.8%
Maine	11.3%	84.3%	4.2%	0.1%
Michigan	15.5%	42.1%	29.9%	12.6%
Minnesota	8.5%	40.6%	44.5%	6.4%
Missouri	15.2%	35.9%	31.2%	17.7%
Mississippi	31.0%	33.9%	25.6%	9.5%
Montana	35.9%	52.7%	10.3%	1.1%
North Carolina	10.0%	53.3%	33.8%	2.9%
North Dakota	9.6%	54.5%	27.1%	8.8%
Nebraska	22.0%	48.6%	26.6%	2.8%
New Hampshire	5.9%	65.6%	28.3%	0.3%
New Jersey	0.0%	0.9%	29.4%	69.7%
New Mexico	23.3%	44.7%	30.1%	1.9%

	Zero	One	Two	More Than Two
Nevada	22.6%	55.7%	21.6%	0.1%
New York	0.0%	1.9%	30.5%	67.6%
Ohio	8.2%	53.7%	29.6%	8.5%
Oklahoma	31.2%	49.2%	19.5%	0.2%
Oregon	11.7%	35.4%	50.5%	2.3%
Pennsylvania	0.0%	6.8%	40.0%	53.2%
Rhode Island	0.0%	1.7%	9.9%	88.4%
South Carolina	30.7%	42.8%	21.5%	5.0%
South Dakota	18.2%	41.0%	34.9%	5.9%
Tennessee	12.3%	41.5%	39.7%	6.5%
Texas	15.3%	38.9%	39.2%	6.6%
Utah	8.0%	33.1%	32.7%	26.1%
Virginia	0.0%	10.7%	39.2%	50.1%
Vermont	16.8%	64.8%	18.3%	0.2%
Washington	7.2%	37.0%	46.3%	9.5%
Wisconsin	22.2%	54.7%	23.0%	0.1%
West Virginia	28.0%	65.5%	6.4%	0.1%
Wyoming	38.7%	35.7%	16.9%	8.6%

APPENDIX C-5

**Percentage of Population with Zero, One, Two, or More Than Two Provider Options for
250 Mbps/25 Mbps Fixed Terrestrial Services by State (December 31, 2017)**

	Zero	One	Two	More Than Two
United States	37.0%	38.1%	15.4%	9.5%
Alaska	27.5%	68.2%	4.3%	0.0%
Alabama	57.7%	34.2%	5.2%	2.9%
Arkansas	55.4%	39.3%	4.9%	0.4%
Arizona	22.2%	73.1%	4.6%	0.1%
California	53.9%	39.9%	5.8%	0.4%
Colorado	23.0%	63.5%	12.9%	0.6%
Connecticut	0.0%	61.5%	38.1%	0.5%
District of Columbia	0.0%	2.2%	46.6%	51.2%
Delaware	4.1%	51.2%	44.3%	0.3%
Florida	55.7%	33.9%	9.9%	0.5%
Georgia	30.8%	44.0%	24.4%	0.7%
Hawaii	28.7%	24.7%	46.7%	0.0%
Iowa	22.8%	63.8%	12.4%	1.0%
Idaho	34.1%	61.2%	4.7%	0.0%
Illinois	15.1%	65.7%	18.3%	0.9%
Indiana	30.9%	57.1%	11.6%	0.5%
Kansas	28.5%	46.8%	16.0%	8.7%
Kentucky	69.5%	23.5%	6.9%	0.1%
Louisiana	44.0%	46.2%	9.5%	0.3%
Massachusetts	22.1%	50.1%	27.3%	0.6%
Maryland	0.0%	11.3%	45.3%	43.5%
Maine	91.7%	7.4%	0.8%	0.0%
Michigan	67.5%	29.4%	3.1%	0.1%
Minnesota	24.6%	56.9%	17.3%	1.2%
Missouri	52.5%	25.8%	19.1%	2.6%
Mississippi	48.0%	43.3%	8.5%	0.2%
Montana	92.5%	7.5%	0.0%	0.0%
North Carolina	41.0%	40.5%	17.0%	1.5%
North Dakota	45.0%	52.3%	2.4%	0.3%
Nebraska	53.2%	38.1%	8.7%	0.0%
New Hampshire	33.5%	62.2%	4.3%	0.0%
New Jersey	0.0%	1.9%	39.2%	58.9%

	Zero	One	Two	More Than Two
New Mexico	36.9%	58.9%	4.2%	0.0%
Nevada	30.5%	55.5%	14.0%	0.0%
New York	0.0%	25.4%	19.9%	54.7%
Ohio	63.1%	25.9%	11.0%	0.1%
Oklahoma	40.4%	51.8%	7.8%	0.0%
Oregon	37.6%	46.5%	15.4%	0.5%
Pennsylvania	0.0%	29.3%	36.8%	33.9%
Rhode Island	0.0%	2.1%	27.2%	70.6%
South Carolina	75.2%	22.2%	2.4%	0.2%
South Dakota	85.5%	11.8%	2.6%	0.0%
Tennessee	49.1%	31.1%	18.1%	1.8%
Texas	46.5%	36.5%	14.1%	2.9%
Utah	18.9%	54.8%	13.7%	12.6%
Virginia	0.0%	21.7%	33.6%	44.7%
Vermont	81.3%	18.7%	0.1%	0.0%
Washington	23.0%	63.0%	13.7%	0.3%
Wisconsin	88.9%	10.9%	0.2%	0.0%
West Virginia	52.1%	43.3%	4.5%	0.1%
Wyoming	87.0%	12.7%	0.4%	0.0%