

TABLE 6

Incidence of various types of innovation by cloud adopters and non-adopters for single-unit firms, by settlement size category

(Percent, ratio, and standard error)

Rural-urban continuum code	Settlement size description	Any product innovation			New-to-market product innovation			Business practice innovation			Marketing innovation			Cloud computing services use	
		Using cloud	Not using cloud	Ratio	Using cloud	Not using cloud	Ratio	Using cloud	Not using cloud	Ratio	Using cloud	Not using cloud	Ratio	Using cloud	Standard error
1	Counties in a metropolitan area with a population of 1 million or more	26.38	14.79	1.78	11.76	6.66	1.77	22.69	9.44	2.40	32.46	14.73	2.20	47.34	1.49
2	Counties in a metropolitan area with a population of 250,000 to 1 million	25.49	14.58	1.75	11.56	6.67	1.73	21.71	9.45	2.30	31.93	14.69	2.17	44.88	1.65
3	Counties in a metropolitan area with a population of fewer than 250,000	25.08	14.82	1.69	11.22	6.81	1.65	21.16	8.99	2.35	31.66	14.46	2.19	42.58	1.47
4	Counties with an urban population of 20,000 or more adjacent to a metropolitan area	23.84	13.93	1.71	11.18	6.20	1.80	19.79	7.98	2.48	30.11	14.06	2.14	39.04	1.28
5	Counties with an urban population of 20,000 or more not adjacent to a metropolitan area	26.73	13.92	1.92	11.86	6.86	1.73	20.33	9.02	2.25	31.64	14.79	2.14	41.16	1.79
6	Counties with an urban population of 2,500 to 19,999 adjacent to a metropolitan area	22.89	13.35	1.71	10.14	6.15	1.65	19.01	8.05	2.36	28.52	12.79	2.23	35.41	1.08
7	Counties with an urban population of 2,500 to 19,999 not adjacent to a metropolitan area	24.07	13.81	1.74	11.87	6.50	1.83	19.05	7.92	2.41	28.77	12.88	2.23	36.30	1.45
8	Counties that are completely rural (urban population fewer than 2,500) adjacent to a metropolitan area	23.16	12.12	1.91	9.49	6.06	1.57	18.58	7.64	2.43	28.48	11.72	2.43	32.98	1.77
9	Counties that are completely rural (urban population fewer than 2,500) not adjacent to a metropolitan area	23.73	14.92	1.59	10.86	5.98	1.82	19.47	7.38	2.64	30.74	12.70	2.42	32.58	1.89

Note(s):

Settlement size categories are the RUCCs constructed by the Economic Research Service using official Office of Management and Budget designations of metropolitan and nonmetropolitan counties (<https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>). More information on the rural-urban continuum codes available here: <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx>. These estimates are derived from companies with only a single location and may differ from the published innovation counts and estimates based on

single- and multi-unit firms (Kindlon 2021). Limiting analysis to single-unit firms eliminates the potential headquarters' bias resulting from attributing innovation to the reporting location of multi-unit firms and reduces potential measurement error resulting from attributing company reports of innovation to all branch locations. The statistics allow inferences regarding the population of single-unit firms but do not allow inferences regarding the population of all firms.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, 2018 Annual Business Survey: Data Year 2017.