

# Appendix D: Tenant Improvement Impacts by State

## Appendix D-1

Impacts of Tenant Improvements on State Economies (Office), 2016

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	0.052	0.112	0.037	889
Alaska	0.011	0.019	0.007	135
Arizona	0.160	0.328	0.111	2,638
Arkansas	0.041	0.082	0.026	651
California	1.381	2.934	0.971	20,087
Colorado	0.246	0.530	0.177	4,121
Connecticut	0.010	0.018	0.006	117
Delaware	0.016	0.029	0.008	173
District of Columbia	0.533	0.598	0.045	828
Florida	0.435	0.891	0.300	7,537
Georgia	0.720	1.651	0.540	13,044
Hawaii	0.027	0.050	0.017	371
Idaho	0.043	0.079	0.026	667
Illinois	0.353	0.810	0.255	5,359
Indiana	0.089	0.196	0.062	1,428
Iowa	0.080	0.155	0.050	1,161
Kansas	0.161	0.319	0.094	2,231
Kentucky	0.052	0.109	0.033	829
Louisiana	0.042	0.083	0.028	608
Maine	0.021	0.040	0.013	334
Maryland	0.291	0.545	0.172	3,561
Massachusetts	0.600	1.137	0.359	7,041
Michigan	0.484	1.029	0.342	8,245
Minnesota	0.077	0.168	0.054	1,184
Mississippi	0.008	0.016	0.005	132
Missouri	0.195	0.417	0.127	3,009
Montana	0.019	0.035	0.012	302
Nebraska	0.033	0.062	0.020	456
Nevada	0.237	0.437	0.145	3,161
New Hampshire	0.005	0.009	0.003	59
New Jersey	0.099	0.202	0.062	1,280
New Mexico	0.029	0.050	0.017	421
New York	4.104	7.504	2.334	46,633
North Carolina	0.520	1.139	0.368	9,236
North Dakota	0.033	0.058	0.018	377
Ohio	0.280	0.641	0.203	4,595
Oklahoma	0.107	0.220	0.073	1,673
Oregon	0.386	0.777	0.245	5,786
Pennsylvania	0.190	0.429	0.134	2,814
Rhode Island	0.051	0.090	0.026	566
South Carolina	0.042	0.091	0.029	746
South Dakota	0.031	0.058	0.019	483
Tennessee	0.213	0.480	0.150	3,342
Texas	1.733	4.157	1.362	28,876
Utah	0.073	0.162	0.053	1,266
Vermont	0.001	0.002	0.001	13
Virginia	0.433	0.844	0.264	6,109
Washington	0.383	0.793	0.258	5,377
West Virginia	0.005	0.009	0.003	67
Wisconsin	0.212	0.439	0.145	3,398
Wyoming	0.003	0.005	0.002	33
<b>State Totals</b>	<b>15.349</b>	<b>31.039</b>	<b>9.815</b>	<b>213,449</b>
<b>Interstate Spillovers</b>		<b>13.626</b>	<b>4.320</b>	<b>101,670</b>
<b>U.S. Totals</b>	<b>15.349</b>	<b>44.664</b>	<b>14.134</b>	<b>315,118</b>

Sources: GMU Schar Fuller; Dodge Data & Analytics; BEA; NAIOP

Note: Appendices include data for the District of Columbia, resulting in 51 states.

## Appendix D-2

### Impacts of Tenant Improvements on State Economies (**Industrial**), 2016

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	0.156	0.335	0.110	2,668
Alaska	0.000	0.000	0.000	–
Arizona	0.010	0.021	0.007	171
Arkansas	0.037	0.074	0.024	588
California	0.132	0.280	0.093	1,919
Colorado	0.027	0.058	0.019	452
Connecticut	0.054	0.100	0.032	630
Delaware	0.000	0.000	0.000	1
District of Columbia	0.000	0.000	0.000	–
Florida	0.067	0.138	0.047	1,170
Georgia	0.010	0.024	0.008	188
Hawaii	0.000	0.000	0.000	1
Idaho	0.018	0.034	0.011	286
Illinois	0.040	0.091	0.029	602
Indiana	0.027	0.060	0.019	435
Iowa	0.050	0.096	0.031	717
Kansas	0.016	0.031	0.009	220
Kentucky	0.199	0.419	0.128	3,173
Louisiana	1.979	3.930	1.323	28,667
Maine	0.000	0.000	0.000	–
Maryland	0.017	0.032	0.010	210
Massachusetts	0.068	0.128	0.040	794
Michigan	0.560	1.191	0.396	9,543
Minnesota	0.066	0.145	0.046	1,018
Mississippi	0.022	0.043	0.014	350
Missouri	0.057	0.121	0.037	874
Montana	0.000	0.000	0.000	–
Nebraska	0.182	0.342	0.112	2,529
Nevada	0.004	0.007	0.002	48
New Hampshire	0.001	0.002	0.000	10
New Jersey	0.247	0.506	0.156	3,207
New Mexico	0.000	0.000	0.000	1
New York	0.113	0.207	0.064	1,284
North Carolina	0.008	0.018	0.006	145
North Dakota	0.000	0.001	0.000	4
Ohio	0.102	0.234	0.074	1,676
Oklahoma	0.011	0.022	0.007	165
Oregon	0.015	0.031	0.010	229
Pennsylvania	0.165	0.371	0.116	2,438
Rhode Island	0.004	0.007	0.002	46
South Carolina	0.255	0.554	0.178	4,538
South Dakota	0.103	0.190	0.063	1,578
Tennessee	0.177	0.400	0.125	2,786
Texas	0.643	1.542	0.505	10,712
Utah	0.001	0.001	0.000	9
Vermont	0.008	0.015	0.005	118
Virginia	0.009	0.018	0.006	128
Washington	0.062	0.129	0.042	877
West Virginia	0.013	0.023	0.007	165
Wisconsin	0.031	0.065	0.021	500
Wyoming	0.015	0.024	0.008	174
<b>State Totals</b>	<b>5.782</b>	<b>12.059</b>	<b>3.944</b>	<b>88,045</b>
<b>Interstate Spillovers</b>		<b>4.765</b>	<b>1.381</b>	<b>30,655</b>
<b>U.S. Totals</b>	<b>5.782</b>	<b>16.824</b>	<b>5.324</b>	<b>118,700</b>

Sources: GMU Schar Fuller; Dodge Data & Analytics; BEA; NAIOP

Note: Appendices include data for the District of Columbia, resulting in 51 states.

### Appendix D-3

#### Impacts of Tenant Improvements on State Economies (Warehouse), 2016

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	0.001	0.003	0.001	24
Alaska	0.002	0.003	0.001	19
Arizona	0.085	0.174	0.059	1,399
Arkansas	0.032	0.064	0.021	513
California	0.394	0.838	0.277	5,735
Colorado	0.085	0.184	0.061	1,430
Connecticut	0.027	0.050	0.016	318
Delaware	0.001	0.002	0.001	13
District of Columbia	0.003	0.003	0.000	4
Florida	0.284	0.582	0.196	4,921
Georgia	0.088	0.202	0.066	1,594
Hawaii	0.004	0.007	0.002	51
Idaho	0.005	0.008	0.003	71
Illinois	0.208	0.477	0.150	3,156
Indiana	0.075	0.164	0.052	1,200
Iowa	0.017	0.032	0.010	239
Kansas	0.076	0.150	0.044	1,051
Kentucky	0.047	0.100	0.031	757
Louisiana	0.016	0.032	0.011	237
Maine	0.001	0.002	0.001	15
Maryland	0.036	0.068	0.021	444
Massachusetts	0.022	0.042	0.013	259
Michigan	0.030	0.064	0.021	513
Minnesota	0.033	0.073	0.023	513
Mississippi	0.000	0.001	0.000	5
Missouri	0.085	0.182	0.056	1,316
Montana	0.001	0.002	0.001	14
Nebraska	0.008	0.016	0.005	118
Nevada	0.061	0.113	0.038	816
New Hampshire	0.001	0.002	0.001	15
New Jersey	0.157	0.321	0.099	2,035
New Mexico	0.002	0.003	0.001	24
New York	0.156	0.286	0.089	1,776
North Carolina	0.050	0.108	0.035	880
North Dakota	0.013	0.024	0.007	153
Ohio	0.057	0.132	0.042	944
Oklahoma	0.031	0.063	0.021	477
Oregon	0.053	0.107	0.034	794
Pennsylvania	0.117	0.264	0.082	1,731
Rhode Island	0.000	0.000	0.000	2
South Carolina	0.017	0.037	0.012	305
South Dakota	0.013	0.025	0.008	204
Tennessee	0.025	0.057	0.018	398
Texas	0.381	0.914	0.300	6,351
Utah	0.026	0.058	0.019	450
Vermont	0.000	0.001	0.000	4
Virginia	0.028	0.056	0.017	402
Washington	0.047	0.097	0.032	658
West Virginia	0.005	0.008	0.003	59
Wisconsin	0.045	0.093	0.031	724
Wyoming	0.003	0.005	0.002	39
<b>State Totals</b>	<b>2.957</b>	<b>6.298</b>	<b>2.033</b>	<b>45,169</b>
<b>Interstate Spillovers</b>		<b>2.307</b>	<b>0.690</b>	<b>15,539</b>
<b>U.S. Totals</b>	<b>2.957</b>	<b>8.605</b>	<b>2.723</b>	<b>60,707</b>

Sources: GMU Schar Fuller; Dodge Data & Analytics; BEA; NAIOP

Note: Appendices include data for the District of Columbia, resulting in 51 states.

## Appendix D-4

### Impacts of Tenant Improvements on State Economies (Retail and Entertainment), 2016

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	0.046	0.098	0.032	778
Alaska	0.003	0.006	0.002	42
Arizona	0.114	0.233	0.078	1,873
Arkansas	0.035	0.070	0.022	555
California	0.726	1.542	0.510	10,556
Colorado	0.130	0.280	0.094	2,176
Connecticut	0.031	0.056	0.018	356
Delaware	0.015	0.027	0.007	162
District of Columbia	0.042	0.047	0.004	66
Florida	0.544	1.116	0.376	9,440
Georgia	0.277	0.635	0.208	5,014
Hawaii	0.036	0.066	0.023	486
Idaho	0.021	0.039	0.013	332
Illinois	0.256	0.588	0.185	3,888
Indiana	0.066	0.146	0.046	1,064
Iowa	0.087	0.168	0.054	1,255
Kansas	0.060	0.118	0.035	827
Kentucky	0.073	0.154	0.047	1,164
Louisiana	0.059	0.117	0.039	855
Maine	0.012	0.023	0.008	194
Maryland	0.126	0.236	0.075	1,545
Massachusetts	0.224	0.424	0.134	2,625
Michigan	0.094	0.199	0.066	1,594
Minnesota	0.091	0.199	0.063	1,395
Mississippi	0.026	0.052	0.017	421
Missouri	0.125	0.268	0.082	1,932
Montana	0.021	0.040	0.013	340
Nebraska	0.035	0.065	0.021	484
Nevada	0.085	0.157	0.052	1,135
New Hampshire	0.017	0.032	0.010	210
New Jersey	0.122	0.251	0.077	1,589
New Mexico	0.030	0.052	0.018	439
New York	0.586	1.071	0.333	6,655
North Carolina	0.188	0.412	0.133	3,338
North Dakota	0.009	0.016	0.005	102
Ohio	0.176	0.402	0.127	2,882
Oklahoma	0.074	0.151	0.050	1,150
Oregon	0.074	0.150	0.047	1,116
Pennsylvania	0.271	0.609	0.190	4,000
Rhode Island	0.009	0.015	0.005	97
South Carolina	0.075	0.163	0.052	1,332
South Dakota	0.014	0.026	0.009	213
Tennessee	0.172	0.388	0.122	2,707
Texas	0.756	1.813	0.594	12,593
Utah	0.050	0.110	0.036	861
Vermont	0.005	0.009	0.003	69
Virginia	0.245	0.477	0.149	3,453
Washington	0.093	0.193	0.063	1,309
West Virginia	0.008	0.015	0.005	106
Wisconsin	0.082	0.170	0.056	1,318
Wyoming	0.005	0.008	0.003	56
<b>State Totals</b>	<b>6.518</b>	<b>13.700</b>	<b>4.411</b>	<b>98,148</b>
<b>Interstate Spillovers</b>		<b>5.268</b>	<b>1.592</b>	<b>35,679</b>
<b>U.S. Totals</b>	<b>6.518</b>	<b>18.968</b>	<b>6.003</b>	<b>133,827</b>

Sources: GMU Schar Fuller; Dodge Data & Analytics; BEA; NAIOP

Note: Appendices include data for the District of Columbia, resulting in 51 states.

## Appendix D-5

### Impacts of Tenant Improvements on State Economies (in Four Categories), 2016

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	0.255	0.548	0.179	4,359
Alaska	0.016	0.027	0.010	196
Arizona	0.370	0.755	0.255	6,081
Arkansas	0.145	0.289	0.093	2,306
California	2.633	5.595	1.852	38,297
Colorado	0.487	1.053	0.352	8,179
Connecticut	0.122	0.224	0.072	1,421
Delaware	0.033	0.058	0.016	350
District of Columbia	0.578	0.648	0.049	898
Florida	1.330	2.728	0.918	23,069
Georgia	1.095	2.512	0.822	19,839
Hawaii	0.067	0.123	0.042	909
Idaho	0.087	0.160	0.054	1,355
Illinois	0.856	1.966	0.619	13,005
Indiana	0.257	0.566	0.178	4,127
Iowa	0.234	0.451	0.145	3,372
Kansas	0.312	0.619	0.183	4,329
Kentucky	0.371	0.782	0.239	5,923
Louisiana	2.097	4.163	1.402	30,367
Maine	0.034	0.065	0.022	543
Maryland	0.470	0.881	0.279	5,759
Massachusetts	0.914	1.731	0.546	10,720
Michigan	1.167	2.484	0.825	19,894
Minnesota	0.268	0.585	0.187	4,109
Mississippi	0.057	0.112	0.037	908
Missouri	0.462	0.989	0.301	7,131
Montana	0.041	0.076	0.026	656
Nebraska	0.258	0.485	0.158	3,587
Nevada	0.386	0.713	0.237	5,160
New Hampshire	0.023	0.045	0.014	293
New Jersey	0.625	1.279	0.395	8,111
New Mexico	0.060	0.105	0.036	884
New York	4.959	9.067	2.821	56,348
North Carolina	0.766	1.677	0.542	13,599
North Dakota	0.056	0.098	0.031	636
Ohio	0.615	1.409	0.445	10,098
Oklahoma	0.222	0.456	0.152	3,465
Oregon	0.529	1.064	0.335	7,926
Pennsylvania	0.743	1.673	0.521	10,983
Rhode Island	0.065	0.113	0.033	710
South Carolina	0.388	0.845	0.272	6,921
South Dakota	0.162	0.298	0.099	2,478
Tennessee	0.587	1.325	0.415	9,234
Texas	3.513	8.426	2.761	58,532
Utah	0.150	0.332	0.109	2,586
Vermont	0.014	0.025	0.008	204
Virginia	0.715	1.394	0.436	10,092
Washington	0.585	1.212	0.395	8,221
West Virginia	0.031	0.056	0.017	398
Wisconsin	0.371	0.767	0.254	5,939
Wyoming	0.026	0.041	0.014	303
<b>State Totals</b>	<b>30.605</b>	<b>63.096</b>	<b>20.202</b>	<b>444,810</b>
<b>Interstate Spillovers</b>		<b>25.965</b>	<b>7.982</b>	<b>183,542</b>
<b>U.S. Totals</b>	<b>30.605</b>	<b>89.062</b>	<b>28.184</b>	<b>628,352</b>

Sources: GMU Schar Fuller; Dodge Data & Analytics; BEA; NAIOP

Note: Appendices include data for the District of Columbia, resulting in 51 states.