



**THE CONTRIBUTION OF OFFICE
BUILDING OPERATING OUTLAYS
ON THE U.S. AND STATES'
ECONOMIES IN 2009**

Prepared for the Building Owners and
Managers Association (BOMA) International

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TABLE OF CONTENTS

Executive Summary	1
Introduction	3
Research Approach	4
National Economic Impacts	5
Economic Impacts of Operating Outlays in 91 Office Markets Served By BOMA Local Associations	6
State-Level Impact of Office Operating Outlays In Selected Metropolitan Areas, 2009	11
Additional Economic Impacts	12
Conclusions	13
Appendix A: Glossary of Terms	14
Appendix B: Sources for Office Building Inventory, By State	15
Appendix C: Office Market Inventory and Annual Operating Costs, By State and Metropolitan Area for 91 BOMA Local Associations, 2009	19
Appendix D: Economic Multipliers and Impact Calculations	23
Appendix E: Aggregate Economic Impact Multipliers for Building Operations	24
Appendix F: Economic Multipliers for Utilities Expenditures	28
Appendix G: Economic Multipliers for Management Expenditures	32
Appendix H: Economic Multipliers for Construction Expenditures	36
Appendix I: Economic Multipliers for Services to Buildings Expenditures	40

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The Building Owners and Managers Association (BOMA) International is an international federation of more than 100 local associations and affiliated organizations. Founded in 1907, its 17,000-plus members own or manage more than 9 billion square feet of commercial properties. BOMA International's mission is to enhance the human, intellectual and physical assets of the commercial real estate industry through advocacy, education, research, standards and information. On the Web at www.boma.org.

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EXECUTIVE SUMMARY

The value of office buildings within their local markets, and as aggregated at the state and national levels, starts with development and construction outlays. The economic impacts of these outlays have been shown to be substantial, but their duration is limited to the time required to bring new buildings to market. Following completion, these office buildings represent a continuing and accumulating stream of expenditures to support their operations. These outlays for management, maintenance and repair, building services, and utilities recur annually over the lifetime of each building in the inventory and increases annually as the inventory grows. These continuing outlays support local businesses that provide contract building services and generate demand for a wide range of workers with differing educational levels and job skills.

This annual spending is largely a function of the inventory of office space that continues to grow in dynamic markets in response to the economy's continuing shift away from goods-producing jobs and into services-producing jobs and also grows with the economy's general expansion. Therefore, even in a slowing economy or during recessions, the outlays associated with office building operations are not as cyclically sensitive as other segments of the economy such as manufacturing, construction and retail trade.

The five billion square feet of commercial office space located within the markets served by the Building Owners and Managers Association (BOMA) International's 91 local associations generated \$40.8 billion in direct operating outlays in 2009 to the benefit of workers and businesses within their host jurisdictions. This direct spending and its re-spending within these respective local jurisdictions, their states and the nation generated significant economic impacts as summarized below:

THE ECONOMIC IMPACTS OF OFFICE BUILDING OPERATING OUTLAYS IN 92 MARKETS SERVED BY BOMA LOCAL ASSOCIATIONS, 2009

Total Office Space (SF)	5 billion
Average Annual Operating Cost (SF)	\$8.11
Total Building Operating Outlays	\$40.8 billion
Impacts on US Economy	
Contribution to GDP	\$118.4 billion
New Personal Earnings	\$37.6 billion
Indirect Jobs Supported	994,728

Sources: BOMA International, GMUCenter for Regional Analysis

At the national level these economic impacts were:

- For each dollar of outlay for office building operations, the national economy gained \$2.90 with the result that \$40.8 billion in annual operating outlays contributed a total of \$118.4 billion to the gross domestic product (GDP) in 2009;
- For each dollar of outlay for office building operations, workers in the United States realized an increase of 92 cents in personal earnings with the result that \$40.8 billion in annual operating outlays generated a total of \$37.6 billion in new earnings for workers residing within these office market areas and respective state economies in 2009;
- For each \$1 million in outlays for office building operations, 24.4 jobs were supported nationwide with the result that \$40.8 billion in annual operating outlays supported a total of 994,728 jobs across all sectors of the national economy in 2009 in addition to the more than one million jobs supported directly as a result of these outlays for office building operations; and

• The five billion square feet of commercial office space located in the 91 markets served by BOMA local associations provided work space for an estimated 21 million office jobs whose productivity was supported and enhanced by the building and management services paid for by these operating outlays and whose presence within these office buildings' host jurisdictions have their own significant annual economic and fiscal benefits accruing locally, at the state level, and nationwide.

Beyond these important benefits flowing annually from the operating outlays associated with the inventory of office buildings within their local jurisdictions are the secondary benefits that extend more broadly across the local and state economies and accumulate to achieve their full economic impact at the national level. As these direct outlays for office building operations are re-spent and cycled through the local, state and national economies, they generate additional economic activity reflecting an almost 3 to 1 multiplier, they support significant job growth directly and indirectly and they generate new personal earnings that provide further stimulus to the economy. These direct and indirect economic impacts are important because of their magnitude, dependability and long-term growth pattern.

INTRODUCTION

There were an estimated 35 billion square feet of office, industrial and retail building space in the United States in 2009 (CoStar, 63 major markets, with no limitations on ownership or building size) with this inventory growing by an average of 2.5 percent annually. The value of this annual construction and its contribution to the U.S. economy and to job and income growth has been documented (*The Contribution of Office, Industrial and Retail Development and Construction to the U.S. Economy*, January 2007 and October 2008, NAIOP). While these economic impacts have been shown to make important contributions to the health of local, state and the national economies, these impacts are of limited duration spanning only the development and construction periods.

With the completion and occupancy of these new buildings, they begin to generate continuing outlays for their management, maintenance and repair, servicing (cleaning, security) and utilities. These buildings' operating outlays continue over their lifetimes and accumulate over the full inventory of existing built space; that is, all 35 billion square feet of this building space generates these operating expenditures and this spending recurs annually to the benefit of the economies within which these buildings are located.

In order to document the magnitude and significance of these annual operating outlays, the Building Owners and Managers Association (BOMA) International commissioned an analysis of the expenditures for office building operations in the 91 office markets served by its local associations. While this analysis was limited to commercial office space in buildings having a minimum of 10,000 square feet and excluded buildings owned by their occupants (not available for leasing for general purpose office use) as well as government-owned office buildings, the findings of this research clearly demonstrate the importance of office building operations as a source of income and employment benefiting the respective buildings' local and state economies.

RESEARCH APPROACH

The data used in this economic impact analysis were provided by local and national real estate market analysts (see Appendix B for the sources by state) and reflect the office market in mid-2009. Office market inventory data were developed for all 91 BOMA local associations reflecting commercial office buildings with a minimum of 10,000 square feet. Excluded from this inventory were owner-occupied, single-tenant office buildings having no leased space and publicly owned buildings.

The operating cost data for these office buildings were developed from BOMA's 2009 *Experience Exchange Report*. For office markets where operating cost data were not collected, estimates were made based on markets having similar characteristics in the same state where these were available or markets in adjacent states. Average operating cost data were used and these averages were averaged and weighted in markets including multiple sub-markets.

In thirteen market areas, metropolitan area-level office market data were collected and are reported separately. In twelve cases, these metropolitan area data are reported within their principal host state (New York for NYC metro area). For the Washington, DC metropolitan area, spanning the District of Columbia and portions of Maryland and Virginia, the metropolitan area data are reported alphabetically under the District of Columbia and not within the two separate states.

The economic impacts of the direct spending for building operations in 2009 are calculated using multipliers (RIMS II) purchased from the Bureau of Economic Analysis of the U.S. Department of Commerce. State multipliers were used to calculate the statewide impacts of local office building operating outlays and metropolitan area level multipliers were used to calculate the economic impacts for the 13 metropolitan areas reported separately. The state-level economic impacts for 12 of these metropolitan areas (the Washington, DC metro area is excluded) were also calculated and are reported in Table 3 in a subsequent section of this report.

The economic impact of office building outlays are a function of what is being purchased, whether it is locally supplied, and how labor intensive these services or products are (i.e., the more labor intensive, the greater the payroll effect, the more likely the benefits will be retained locally and the broader the impact across the retail and consumer services sectors in the local economy). Building operating outlays were disaggregated into four groups: utilities, management/administrative, maintenance and repair, and building services. The share of total operating outlays associated with each of these four categories of expenses was calculated across a sample of office markets nationally, yielding the following distribution: utilities, 29 percent; maintenance and repairs, 27 percent; building management, 26 percent and building services, 18 percent. Each of these categories has its own multipliers, as reported in Appendices F-I. The percentage that each category represented of total outlays was used to develop aggregate multipliers weighted to reflect this mix of sectors. These aggregate multipliers (Appendix E) were used to calculate the economic impacts of office building operating outlays by state and metropolitan area. (Table 2).

These multipliers and the economic impact calculations are discussed in Appendix D and the multipliers are presented by state and metropolitan area in Appendices E through I. These multipliers will remain valid for several years and can be used to update the 2009 impact calculations as office market data become available for 2010 going forward and possibly for several additional years.

The results of these analyses—the economic impacts of office building operating outlays in 2009 of their host states' economies, the 13 metropolitan area economies and the nation—are presented in Table 2 and summarized in the following sections.

NATIONAL ECONOMIC IMPACTS

In 2009, the five billion square feet of commercial office space existing in the 91 market areas encompassing BOMA's local associations generated annual outlays totaling \$40.5 billion in 2009. This spending supported local employment and business activities associated directly with these buildings in four broad categories and average proportions: utilities (29%), repairs and maintenance (27%), management (26%), and building services (18%). These operating outlays averaged \$8.11 per square foot across all 91 office markets reflecting a wide range of costs among smaller and larger markets. While operating expenses also include taxes, fees, insurance and other fixed expenditures, these are not included in this analysis, as they do not generate direct local economic benefits. Total office building operating outlays and their contribution to the national economy are summarized in Table 1.

TABLE 1:
THE ECONOMIC IMPACTS OF OFFICE BUILDING OPERATING OUTLAYS
IN 92 MARKETS SERVED BY BOMA'S LOCAL ASSOCIATIONS, 2009

Total Office Space (SF)	5 billion
Average Annual Operating Cost (SF)	\$8.11
Total Building Operating Outlays	\$40.8 billion
Impacts on US Economy	
Contribution to GDP	\$118.4 billion
New Personal Earnings	\$37.6 billion
Jobs Supported*	994,728

Sources: BOMA International, GMU Center for Regional Analysis
*excludes jobs that directly support, manage or maintain office buildings.

The payroll and non-payroll spending associated with these outlays for office building operations generated additional spending within the local and state economies as payroll dollars were re-spent for consumer goods and services and non-payroll expenditures ultimately supported additional payroll and business spending. The \$40.8 billion in direct office building operating outlays in 2009 contributed a total of \$118.4 billion to the U.S. economy (GDP) reflecting the initial \$40.8 billion in direct outlays and their indirect economic impacts totaling \$77.6 billion. This contribution to GDP reflected an aggregate multiplier (calculated from data provided by the U.S. Bureau of Economic Analysis) of 2.8985; that is, for each dollar in building operating outlays, on average a total of \$2.90 was generated to the benefit of the U.S. economy.

As these direct office building operating outlays were re-spent within the local, states' and the national economies, they generated new personal earnings (wages and salaries) that accrued to workers residing within the host jurisdictions benefiting from increased business and consumer sales. In 2009, the \$40.8 billion in direct office building operating outlays generated a total of \$37.6 billion in new personal earnings as a result of the jobs supported directly by this spending and the jobs supported by the re-spending of these dollars for consumer goods and services throughout the breadth of the local and state economies. These new personal earnings will directly expand the tax bases in the local and state jurisdictions served by these office markets. At the national level, where these annual office building operating outlays have their greatest cumulative impact, for each dollar in direct operating outlays, 92 cents of new personal earnings were generated.

This annual spending for office building operations in the 91 markets served by BOMA's local associations supported a workforce exceeding one million workers (estimated to range around 20-25 full-time equivalent jobs per 100,000 gross square feet of office building). While this "jobs requirement" provides an important source of local employment, the direct and indirect spending associated with office building operations was found to support an additional 995,000 jobs ranging across the local and state economies and concentrated in consumer goods and services (retail sales and services supporting local residents, health and education and housing). At the national level, the aggregate jobs multiplier for office building operations is 24.4 jobs per \$1 million in outlays for building operations.

ECONOMIC IMPACTS OF OPERATING OUTLAYS IN 91 OFFICE MARKETS SERVED BY BOMA LOCAL ASSOCIATIONS

Table 2 presents the total 2009 outlays for office building operations in the office markets served by all 91 BOMA local associations and their impacts on their respective state (and metropolitan area) economies. These data are organized by State with the total operating outlays and associated economic impacts specified for each state's local associations. Local associations representing metropolitan-wide office markets are identified separately (*). The Washington, DC Metropolitan Area is listed under the District of Columbia while the other 12 metropolitan areas identified separately are listed under their principal host state. There are no data provided for several states due to the absence of a BOMA local association serving their office markets.

This table consists of four data columns. The first column—Total Outlay—is the total annual outlay for office building operations for all commercial office buildings exceeding 10,000 square feet and not owner occupied (single tenant). Government-owned office buildings are also excluded. The square footage of this commercial office space was multiplied by the average operating cost in its respective market area, as reported by BOMA for these respective office markets in 2009, to determine total operating outlays.

The second column in this table—Total Output—represents the total contribution of the annual outlays for office building operations in each office market (as reported for each of the 91 local associations) to their respective state's economy—gross state product. In the cases of the thirteen metropolitan areas (*) reported separately, the Total Output value represents the contribution of the office building operating outlays to their respective metropolitan area's economy—their gross regional product (in contrast to the non-metropolitan office markets that report state level economic impacts).

The third column in the following table—Per Earnings—represents the new personal earnings (wages and salaries) generated as a result of the office building operating outlays reported in column one for each of BOMA's 91 local associations. These personal earnings represent new income that accrues to workers residing with the state or metropolitan area within which the local associations are located. This is new income earned by workers in businesses that benefit from the payroll spending of employees involved in the office building operations and the re-spending of these outlays across all sectors of the respective state or metropolitan area economies.

The fourth column in this table—Jobs—represents the employment impact of the total office building operating outlays in column one for each of BOMA's local association. The jobs supported by these office building operating outlays reflect the indirect and induced job impacts and do not include the jobs directly associated with building operations (these are estimated at 20-25 full-time job equivalents per 100,000 square feet of office building).

The jobs supported by outlays for office building operations include those in the businesses benefiting from payroll spending (these tend to be local focusing on consumer goods and services) as well as jobs involved in producing and transporting the materials used to clean and repair the office buildings (these jobs may not be local or even within the state). These jobs are generated as a result of the office building operating outlays throughout the breadth of the local, state and national economies and they are in addition to the direct employment on site to operate and service these office buildings.

TABLE 2:
**ECONOMIC IMPACTS OF OFFICE BUILDING OPERATING OUTLAYS BY STATE
AND METROPOLITAN AREA FOR 91 BOMA LOCAL ASSOCIATIONS, 2009**

STATE	TOTAL OUTLAY	TOTAL OUTPUT	PER EARNINGS	JOBS
ALABAMA				
Birmingham	168,409,306.34	362,614,202.95	115,728,180.77	3,589.64
ALASKA				
Anchorage	57,353,000.00	103,653,216.61	34,305,926.36	947.62
ARIZONA				
Greater Phoenix	839,936,045.90	1,717,443,271.07	568,689,619.05	14,905.24
Greater Tucson	52,530,398.16	107,410,533.56	35,566,388.97	932.19
ARKANSAS				
Greater Little Rock	142,801,859.46	282,907,905.42	88,881,448.15	2,856.96
Northwest Arkansas	5,264,850.60	10,430,311.35	3,276,900.93	105.33
CALIFORNIA				
Inland Empire	158,825,037.96	368,452,964.34	119,793,467.23	2,881.91
Greater Los Angeles*	1,824,502,754.03	3,749,013,802.02	1,025,937,968.12	23,231.38
Oakland-East Bay	587,862,822.08	1,363,763,561.47	443,394,357.83	10,666.86
Orange County	774,596,751.54	1,796,961,442.20	584,238,050.66	14,055.18
Sacramento	347,206,332.78	805,472,513.61	261,879,682.09	6,300.11
San Diego	389,176,603.35	902,837,959.28	293,535,674.72	7,061.67
San Francisco*	1,280,045,250.72	2,453,378,249.07	653,681,988.23	14,369.61
Silicon Valley	505,576,215.20	1,172,869,577.63	381,329,849.16	9,173.76
COLORADO				
Denver Metro*	667,858,239.04	1,474,674,402.59	416,228,622.46	8,663.92
Southern Colorado	142,157,255.58	324,685,892.33	105,997,993.89	2,687.49
CONNECTICUT				
Greater Hartford	207,586,180.72	397,617,628.48	126,527,306.11	2,955.15
Southern Connecticut	552,370,000.00	1,058,028,278.58	336,678,905.29	7,863.41
DISTRICT OF COLUMBIA				
Washington MSA*	3,173,980,936.21	5,621,866,123.55	1,615,223,028.53	39,358.28
FLORIDA				
Ft. Lauderdale and the Palm Beaches	359,157,637.32	745,357,689.78	248,283,878.89	6,576.51
Jacksonville	133,150,957.84	276,327,383.90	92,046,591.40	2,438.12
Miami-Dade*	354,903,522.41	676,791,079.94	208,015,342.75	5,329.91
Orlando	237,369,797.04	492,612,115.58	164,092,553.84	4,346.46
Southwest Florida	159,204,890.56	330,396,954.15	110,057,544.82	2,915.19
Tallahassee	74,980,000.00	155,605,544.12	51,833,299.10	1,372.95
Greater Tampa Bay	309,910,384.42	643,155,161.32	214,239,499.20	5,674.75

STATE	TOTAL OUTLAY	TOTAL OUTPUT	PER EARNINGS	JOBS
GEORGIA				
Atlanta*	863,912,601.66	1,809,781,136.19	540,294,396.73	13,836.85
HAWAII				
Hawaii	93,570,801.60	182,934,285.68	61,340,151.85	1,669.57
IDAHO				
Boise	58,187,489.50	113,437,849.09	37,259,195.15	1,178.36
ILLINOIS				
Chicago*	1,039,848,584.71	2,238,071,308.11	663,560,657.06	16,794.59
Suburban Chicago	845,970,776.64	1,997,721,920.35	624,282,442.68	15,080.01
Peoria	43,699,075.20	103,193,399.63	32,247,645.15	778.97
INDIANA				
Indianapolis	185,285,350.42	392,653,750.04	120,701,547.54	3,501.61
Michiana	24,932,713.98	52,837,008.54	16,242,067.46	471.19
IOWA				
Iowa	92,638,222.63	184,257,795.36	57,588,273.18	1,819.62
KANSAS				
Wichita	75,521,664.00	153,088,681.23	45,618,710.10	1,380.60
KENTUCKY				
Louisville	127,716,744.00	264,563,574.88	78,974,542.67	2,450.53
LOUISIANA				
New Orleans	224,922,058.72	452,971,433.74	148,147,163.20	4,638.87
Shreveport	24,941,286.96	50,229,357.57	16,427,828.07	514.40
MARYLAND				
Baltimore	501,447,596.18	1,026,729,498.05	311,869,315.07	7,855.68
MASSACHUSETTS				
Boston*	1,870,621,738.84	3,392,963,639.86	920,224,305.10	20,863.52
MICHIGAN				
Metropolitan Detroit	609,391,365.06	1,279,890,668.03	416,860,866.57	11,197.86
Mid-Michigan	53,101,240.62	111,527,314.35	36,324,487.76	975.76
West Michigan	100,316,992.16	210,693,471.34	68,622,941.97	1,843.37
MINNESOTA				
Duluth	23,310,000.00	51,006,289.32	16,237,979.10	426.29
Minneapolis*	355,902,159.90	712,957,798.70	209,943,481.01	5,560.65
St. Paul*	118,901,805.50	238,188,971.75	70,139,104.95	1,857.73
MISSISSIPPI				
Mississippi	40,859,511.90	80,985,554.70	25,554,723.67	837.40
MISSOURI				
Kansas City	256,529,971.00	559,222,253.75	163,795,412.60	4,630.24
St. Louis	294,783,374.96	642,612,723.46	188,220,364.05	5,320.69

STATE	TOTAL OUTLAY	TOTAL OUTPUT	PER EARNINGS	JOBS
NEBRASKA				
Omaha	130,750,909.45	257,303,799.45	81,157,481.75	2,474.54
NEVADA				
Nevada	271,031,588.19	499,294,120.73	164,556,015.67	4,179.57
NEW JERSEY				
New Jersey	2,383,987,726.64	5,175,773,241.84	1,553,699,633.17	36,845.25
NEW MEXICO				
New Mexico	73,137,534.12	137,734,871.52	45,730,413.41	1,454.05
NEW YORK				
Capital Region-Albany	225,262,568.30	422,524,999.36	123,405,592.79	2,945.07
Greater Buffalo	278,083,254.06	521,600,759.64	152,342,349.07	3,635.64
Central New York	98,632,048.90	185,004,134.12	54,033,595.35	1,289.51
Long Island	433,938,012.48	813,937,530.01	237,724,261.38	5,673.28
New York*	5,840,291,701.40	10,896,915,541.43	3,095,459,726.99	70,577.31
Greater Rochester	110,121,267.83	206,554,462.07	60,327,734.16	1,439.72
Westchester	340,578,000.00	638,822,154.60	186,578,845.74	4,452.69
NORTH CAROLINA				
Carolinas-West Virginia	510,918,052.52	1,114,703,124.86	352,729,137.85	10,400.50
Raleigh-Durham	253,998,048.78	554,164,052.90	175,355,934.91	5,170.51
OHIO				
Akron	43,232,357.70	96,247,765.62	30,019,684.54	845.35
Greater Cincinnati	233,201,752.83	519,174,730.31	161,930,633.13	4,559.95
Greater Cleveland	237,696,700.30	529,181,786.91	165,051,834.75	4,647.84
Columbus	211,809,646.29	471,549,697.44	147,076,382.19	4,141.66
Dayton	79,382,129.96	176,727,642.11	55,121,363.40	1,552.21
Toledo	86,504,846.40	192,584,874.49	60,067,235.24	1,691.49
OKLAHOMA				
Oklahoma City	95,294,799.25	203,579,137.29	65,750,171.46	2,101.65
Tulsa	124,929,585.40	266,888,197.66	86,197,166.32	2,755.22
OREGON				
Portland Metropolitan	299,243,728.00	622,635,227.87	193,507,452.93	5,570.04
PENNSYLVANIA				
Philadelphia	1,240,676,273.80	2,855,106,275.08	880,566,263.30	22,018.20
Pittsburgh	589,991,541.25	1,357,718,034.30	418,744,726.43	10,470.54
TENNESSEE				
Chattanooga	30,285,000.00	68,454,851.18	20,867,546.12	581.59
Knoxville	65,903,174.61	148,964,570.25	45,409,857.53	1,265.59
Memphis	117,396,360.30	265,357,449.99	80,890,670.70	2,254.45
Nashville	191,364,413.40	432,551,508.65	131,857,544.04	3,674.91

STATE	TOTAL OUTLAY	TOTAL OUTPUT	PER EARNINGS	JOBS
TEXAS				
Austin	282,714,005.76	684,355,616.04	217,124,073.71	5,769.62
Corpus Christi	48,941,000.00	118,469,716.82	37,586,639.06	998.79
Dallas*	1,148,581,234.65	2,587,918,917.36	757,140,155.56	18,432.48
Fort Worth	222,280,881.06	538,067,326.67	170,711,494.37	4,536.31
Houston*	1,376,071,161.99	2,901,744,652.50	858,014,771.28	20,659.15
San Antonio	155,538,881.25	376,507,370.44	119,453,705.26	3,174.24
UTAH				
Utah	148,176,053.80	334,119,961.07	108,020,491.40	3,400.26
VIRGINIA				
Virginia	310,777,452.72	652,950,576.05	196,387,731.03	5,247.56
WASHINGTON				
Seattle-King County*	572,595,092.17	990,588,364.26	258,002,187.01	5,975.05
South Puget Sound	43,433,379.40	93,468,328.44	29,551,376.41	756.50
Spokane	186,891,971.00	402,190,213.35	127,158,306.80	3,255.17
Tri Cities	73,500,000.00	158,171,485.50	50,008,224.00	1,280.18
WISCONSIN				
Wisconsin	234,298,953.05	493,473,191.65	158,219,974.30	4,484.13
US	40,834,473,244.41	118,358,720,698.92	37,563,631,937.53	994,727.77

STATE-LEVEL IMPACT OF OFFICE OPERATING OUTLAYS IN SELECTED METROPOLITAN AREAS, 2009

The economic impacts of office operating outlays in thirteen metropolitan areas on their respective host metropolitan area's economy are reported in Table 2. This spending also has economic impacts that extend beyond the host metropolitan area economy to their respective state economies. These state-level economic impacts can be measured by applying state multipliers to the values of metropolitan area office operating outlays. These state-level impacts are presented in Table 3 for twelve of the metropolitan areas in Table 2; the Washington, DC metropolitan area is excluded from this listing and only its metropolitan area impacts are shown. On average, the economic impact of office building operating outlays in metropolitan areas accounts for slightly less than 90 percent (88.6%) of their respective state-level economic impacts although these percentages range widely depending on the size and complexity of the metropolitan area's economy relative to its respective state's economy.

TABLE 3:
BOMA METROPOLITAN AREA OFFICE MARKETS' STATE-LEVEL
ECONOMIC IMPACTS, 2009 (\$S IN BILLIONS)

MSA	OPERATING OUTLAYS	TOTAL OUTPUT	PERSONAL EARNINGS	JOBS SUPPORTED
Atlanta	\$0.86	\$2.02	\$0.63	16,816
Boston	\$1.87	\$3.82	\$1.20	28,620
Chicago	\$1.04	\$2.46	\$0.77	18,536
Dallas-Fort Worth	\$1.15	\$2.78	\$0.88	23,440
Denver	\$0.67	\$1.52	\$0.50	12,626
Houston	\$1.38	\$3.33	\$1.06	28,083
Los Angeles	\$1.82	\$4.21	\$1.38	33,106
Miami-Dade	\$0.35	\$0.74	\$0.24	6,497
Minneapolis	\$0.36	\$0.78	\$0.25	6,509
NYC	\$5.84	\$10.95	\$3.20	76,355
San Francisco	\$1.28	\$2.96	\$0.96	23,227
Seattle	\$0.57	\$1.23	\$0.39	9,973
St. Paul	\$0.12	\$0.26	\$0.08	2,174

Source: GMU Center for Regional Analysis

ADDITIONAL ECONOMIC IMPACTS

Office buildings are where a growing share of the U.S. economy goes to work each day. They are the “factory floor” of the 21st Century. While constructing and operating these buildings has been shown to make significant annual contributions to local, state and the national economies, these building spaces and their effective operations enable the workers that occupy this office space to be productive and to generate the professional, business and consumer services that are driving the nation’s economic recovery and will account for much of its growth going forward.

The five billion square feet of office space accounted for in this BOMA-sponsored research provides workspace for an estimated 21 million workers (assuming the five billion square feet is 85 percent occupied). Thus, beyond the \$118.4 billion in contribution to GDP generated by the operating outlays required to support the tenants of this office space in 2009, the full measure of the annual value of this office space should reflect the value of output generated in this office space and the contribution of these jobs and associated payroll to the economies of their host jurisdictions.

CONCLUSIONS

The annual operating outlays for commercial office buildings in the United States are a major source of economic activity, jobs and personal earnings. This research on the economic impacts of operating outlays for commercial office buildings served by the 91 local associations of the Building Owners and Managers Association (BOMA) International establishes both the magnitude of these economic impacts and their significance. Even though the national office market is estimated to include approximately two-times the five billion square feet that are included in this analysis, these findings demonstrate the importance of these annually recurring expenditures to the local, state and national economies, expenditures that grow each year as the inventory of building space increases.

Additionally, while generating a relatively stable source of jobs and income throughout the ups and downs of the business cycle these operating outlays support the broader economy by maintaining a productive working environment for the millions of workers and businesses occupying these office buildings.

The key findings of this research are summarized below and in Table 4:

- The operating outlays for the five billion square feet of office buildings included in this analysis totaled \$40.8 billion in 2009;
- These \$40.8 billion in annual outlays for office building operations added a total of \$118.4 billion to the nation's economy (GDP) in 2009 reflecting a total output multiplier of 2.9;
- These \$40.8 billion in annual outlays for office building operations generated a total of \$37.6 billion in new personal earnings or 92 cents for each dollar spent accruing to workers residing within states served by the 91 office markets represented by BOMA's local associations; and
- The \$40.8 billion in annual outlays for office building operations supported a significant workforce, both locally and distributed beyond the local labor markets: (a) direct employment by office building managers was estimated to total approximately one million workers (on-site and directly supporting), (b) the indirect and induced job impact of this spending and re-spending of payroll dollars in the state's and national economies is estimated to support 994,728 jobs (24.2 jobs per \$1 million in direct operating outlays) across all sectors and (c) the five billion square feet of office space benefiting from these operating outlays have the capacity to provide a quality working environment to more than 21 million office workers.

In addition to generating significant annual impacts to the benefit of local, state and national economies that continue to grow even when the economy is contracting, these outlays will accelerate in an expanding economy. Unlike the economic benefits from construction that end when the building is ready for occupancy, the economic benefits flowing from the annual operating outlays associated with the office building inventory extend over the life span of the buildings and grow as this inventory expands supporting the local economy's vitality, creating new jobs, generating personal income and contributing to the local tax base year after year.

TABLE 4:
ECONOMIC IMPACTS OF OFFICE BUILDING OPERATING OUTLAYS, 2009
(DOLLARS IN BILLIONS)

	TOTAL OUTLAYS	TOTAL OUTPUT	PERSONAL EARNINGS	JOBS SUPPORTED
U.S. Multipliers		2.8985	0.9199	24.36
U.S. Impacts	\$40.834	\$118.6	\$37.6	994,728

Source: GMU Center for Regional Analysis

APPENDIX A

GLOSSARY OF TERMS

Direct Outlays – The annual spending associated with the operations (maintenance and repair, utilities, management, services to buildings) of office buildings.

Economic Impact – The generation of new spending (dollars) within a jurisdiction as a result of direct outlays associated with office building operations.

Gross Regional Product (GRP), Gross State Product (GSP) Gross Domestic Product (GDP) – The value of goods and services produced within the economy of the respective geographic area (metropolitan area, state, and nation).

Indirect Benefit – The additional economic benefits—measured in dollars or jobs—resulting from the accumulated additional value generated by the direct outlays or expenditures, as these dollars are re-spent within the metropolitan, state and national economies.

Multiplier – A number used to calculate the total economic impact of direct spending for office building operations. Types of multipliers include: (1) output multiplier—measures the contribution (impact) of a direct outlay on the overall economy; (2) personal earnings multiplier—measures the total personal earnings (wages and salaries) generated within the jurisdiction as a result of the direct outlays and the jobs they supports; (3) employment multiplier—measures the total number of jobs that can be supported by this direct outlay (per \$1 million).

Office Building Inventory – Square feet of office space in commercial buildings available to the leasing market having a minimum size of 10,000 square feet located within the service areas of BOMA's 92 local associations (excluded publicly-owned and occupied buildings and owner occupied buildings).

Operating Costs – Costs (expenditures) associated with the day-to-day operation of the office building inventory including maintenance and repairs, utilities, management/administrative and services to buildings—cleaning, security, and grounds. Taxes, fixed expenses, direct leasing expenses and parking costs are excluded costs.

Total Output – The sum of the direct and indirect impacts (outlays) reflecting the combination of the initial expenditures and their subsequent accumulated value as it is cycled through the economy inclusive of benefits generated by the re-spending of personal earnings; contribution to GDP gross domestic product), GSP (gross state product) or GRP (gross regional product).

Unit of Analysis – The geographic unit of analysis, normally a political unit (state, metropolitan area) for which economic information is reported. In this analysis, the state is the primary unit of analysis with selected metropolitan areas being reported separately along with an estimate for the nation.

APPENDIX B

SOURCES FOR OFFICE BUILDING INVENTORY, BY STATE

Alabama

Birmingham - Graham & Company, LLC, "2009 Birmingham Office Market Survey," 2009

Alaska

Anchorage - Reliant Advisory Services, LLC

Arizona

Greater Phoenix - Colliers International, "The Knowledge Report, Phoenix Office, Third Quarter 2009," 2009

Greater Tucson - CB Richard Ellis, Inc., "Market View, Tucson Office, Mid-Year 2009," 2009

Arkansas

Greater Little Rock - Colliers International Arkansas, November 2009

Northwest Arkansas - The University of Arkansas, Sam M. Walton College of Business, Center for Business and Economic Research, "The Skyline Report," July 2009

California

Inland Empire - CB Richard Ellis, Inc., "Market View, Inland Empire Office, Second Quarter 2009," 2009

Greater Los Angeles - CB Richard Ellis, Inc., "Market View, Greater Los Angeles Office, Second Quarter 2009," 2009; CB Richard Ellis, Inc., "Market View, Mid-County Office Report, Second Quarter 2009," 2009

Oakland-East Bay - CB Richard Ellis, Inc., "Market View, I-680/Contra Costa County Office, Second Quarter 2009," 2009; CB Richard Ellis, Inc., "Market View, Oakland Office, Second Quarter 2009," 2009

Orange County - CB Richard Ellis, Inc., "Market View, Orange County Office, Second Quarter 2009," 2009; CB Richard Ellis, Inc., "Market View, Mid-County Office Report, Second Quarter 2009," 2009

Sacramento - CB Richard Ellis, Inc., "Market View, Sacramento Office, Second Quarter 2009," 2009

San Diego - CB Richard Ellis, Inc., "Market View, San Diego Office, Second Quarter 2009," 2009

San Francisco - NAI BT Commercial, "Bay Area Office Report, Third Quarter 2009"; NAI BT Commercial, "Sonoma County Office Report, Third Quarter 2009"

Silicon Valley - CB Richard Ellis, Inc., "Market View, Silicon Valley Office, Second Quarter 2009," 2009

Colorado

Denver Metro - CB Richard Ellis, Inc., "Market View, Denver Office, Second Quarter 2009," 2009

Southern Colorado - Sierra Commercial Real Estate, Inc., "Market View 2009, Colorado Springs Third Quarter," 2009

Connecticut

Greater Hartford - CB Richard Ellis, Inc., "Market View, Hartford Office, Second Quarter 2009," 2009

Southern Connecticut - CB Richard Ellis, Inc., "Market View, Fairfield County, CT Office, Mid-Year 2009," 2009

District Of Columbia

Washington MSA - CB Richard Ellis, Inc., "Market View, Northern Virginia Office, Second Quarter 2009," 2009; CB Richard Ellis, Inc., "Market View, District of Columbia, Second Quarter 2009," 2009; CB Richard Ellis, Inc., "Market View, Suburban Maryland Office, Second Quarter 2009," 2009

Florida

Ft. Lauderdale and the Palm Beaches - CB Richard Ellis, Inc., "Market View, Palm Beach County Office, Second Quarter 2009," 2009; CB Richard Ellis, Inc., "Market View, Broward Office, Second Quarter 2009," 2009

Jacksonville - CB Richard Ellis, Inc., "Market View, Jacksonville Office, Second Quarter 2009," 2009

Miami-Dade - CB Richard Ellis, Inc., "Market View, Miami Office, Second Quarter 2009," 2009

Orlando - CB Richard Ellis, Inc., "Market View, Orlando Office, Second Quarter 2009," 2009

Southwest Florida - Colliers Arnold, "Market Overview - Southwest Florida Office, Third Quarter Report, 2009," 2009

Tallahassee - Advisors Real Estate Group, LLC

Greater Tampa Bay - CB Richard Ellis, Inc., "Market View, Tampa Bay Office, Second Quarter 2009," 2009

Georgia

Atlanta - CB Richard Ellis, Inc., "Market View, Atlanta Office, Second Quarter 2009," 2009

Hawaii

Hawaii - CB Richard Ellis, Inc., "Market View, Honolulu Office, Second Quarter 2009," 2009

Idaho

Boise - Colliers International Boise, "Mid-Year Real Estate Market Review - Boise and NAMPA, 2009," 2009

Illinois

Chicago - Colliers Bennett & Kahnweiler Inc., "Market Research Metropolitan Chicago, Downtown Office, Third Quarter 2009," 2009

Peoria - Local Sources

Suburban Chicago - CB Richard Ellis, Inc., "Market View, Chicago Suburban, Second Quarter 2009," 2009

Indiana

Indianapolis - CB Richard Ellis, Inc., "Market View, Indianapolis Downtown Office, Second Quarter 2009," 2009; CB Richard Ellis, Inc., "Market View Indianapolis Suburban Office, Second Quarter 2009," 2009

Michiana - Grubb & Ellis, Inc./Cressy & Everett, "Office Trends Report - Third Quarter 2009, South Bend/Mishawaka, IN," 2009

Iowa

Iowa - CB Richard Ellis, Inc./Hubbell Commercial, "Greater Des Moines Real Estate Market Survey 2009," 2009

Kansas

Wichita - Local Sources

Kentucky

Louisville - CB Richard Ellis, Inc., "Market View, Louisville Office, Second Quarter 2009," 2009

Louisiana

New Orleans - CoStar Group, Inc., "The CoStar Office Report, Third Quarter 2009, New Orleans/Metairie/Kenner Office Market," 2009

Shreveport - Local Sources

Maryland

Baltimore - CB Richard Ellis, Inc., "Market View, Baltimore Office, Second Quarter 2009," 2009

Massachusetts

Boston - Colliers Meredith & Grew, "Greater Boston Market Viewpoint, Second Quarter 2009," 2009

Michigan

Metropolitan Detroit - CB Richard Ellis, Inc., "Market View, Detroit Office, Second Quarter 2009," 2009

Mid-Michigan - CB Richard Ellis, Inc., "Market View, Greater Lansing Office, Second Quarter 2009," 2009

West Michigan - CB Richard Ellis, Inc., "Market View, Grand Rapids Office, Second Quarter 2009," 2009

Minnesota

Duluth - Oneida Realty Company

Minneapolis - CB Richard Ellis, Inc., "Market View Minneapolis/St. Paul Office, Second Quarter 2009," 2009

St. Paul - CB Richard Ellis, Inc., "Market View Minneapolis/St. Paul Office, Second Quarter 2009," 2009

Mississippi

Mississippi - Parkway Realty Services, First Quarter 2009

Missouri

Kansas City - CB Richard Ellis, Inc., "Market View, Kansas City Office, First Quarter 2009," 2009

St. Louis - CB Richard Ellis, Inc., "Market View, St. Louis Office, Second Quarter 2009," 2009

Nebraska

Omaha - CB Richard Ellis, Inc., "Market View, Omaha Office, Second Quarter 2009," 2009

Nevada

Nevada - CB Richard Ellis, Inc., "Market View, Las Vegas Office, Second Quarter 2009," 2009; CB Richard Ellis, Inc., "Market View, Reno Office, First Quarter 2009," 2009

New Jersey

New Jersey - Colliers Houston & Co., "Market Research New Jersey Office, Third Quarter 2009, Fall," 2009

New Mexico

New Mexico - CB Richard Ellis, Inc., "Market View, Albuquerque Office, Second Quarter 2009," 2009

New York

Capital Region-Albany - CB Richard Ellis, Inc., "Market View, Albany Office, Second Quarter 2009," 2009

Greater Buffalo - CB Richard Ellis, Inc., "Market View, Buffalo Office, Annual 2008/2009," 2009

Central New York - Pyramid Brokerage Company, "Annual Market Review 2008-2009," 2009

Long Island - CB Richard Ellis, Inc., "Market View, Long Island, Second Quarter 2009," 2009

New York - Colliers ABR, Inc., "Manhattan Monthly - Office, October 2009," 2009

Greater Rochester - Pyramid Brokerage Company, "Annual Market Review 2008," 2009

Westchester - CB Richard Ellis, Inc., "Market View Westchester, County, NY Office, Midyear 2009," 2009

North Carolina

Carolinas-West Virginia - CB Richard Ellis, Inc., "Market View, Charlotte Office, Second Quarter 2009," 2009; CB Richard Ellis, Inc., "Market View Triad Office, Second Quarter 2009," 2009; Colliers Keenan, "Charleston, SC Year-End Office Market, Fourth Quarter 2008," 2008; Colliers Keenan, "Columbia, South Carolina, Mid-Year Office Market, Second Quarter 2009," 2009; Colliers Keenan, "Greenville, South Carolina, Mid-Year Office Market, Second Quarter 2009," 2009

Raleigh-Durham - CB Richard Ellis, Inc., "Market View, Raleigh-Durham, North Carolina, Second Quarter 2009," 2009

Ohio

Akron - CB Richard Ellis, Inc., "Market View, Akron Office, Second Quarter 2009," 2009

Greater Cincinnati - CB Richard Ellis, Inc., "Market View, Cincinnati Office, Second Quarter 2009," 2009

Greater Cleveland - CB Richard Ellis, Inc., "Market View, Cleveland Downtown Office, Second Quarter 2009," 2009; CB Richard Ellis, Inc., "Market View, Cleveland Suburban Office, Second Quarter 2009," 2009

Columbus - CB Richard Ellis, Inc., Market View Columbus Office Downtown, Second Quarter 2009; CB Richard Ellis, Inc., Market View Columbus Office Suburban, Second Quarter 2009

Dayton - The GEM Real Estate Group, Inc., "Dayton Regional 2008 Office Market Study," 2008

Toledo - CB Richard Ellis, Inc., "Market View, Toledo Office, Midyear 2009," 2009

Oklahoma

Oklahoma City - CB Richard Ellis, Inc., "Market View, Oklahoma City Office, Midyear 2009," 2009

Tulsa - CB Richard Ellis, Inc., "Market View, Tulsa Office, Midyear 2009," 2009

Oregon

Portland Metropolitan - CB Richard Ellis, Inc., "Market View, Portland, OR, Second Quarter 2009," 2009

Pennsylvania

Philadelphia - CB Richard Ellis, Inc., "Market View, Greater Philadelphia Office, Second Quarter 2009," 2009

Pittsburgh - CB Richard Ellis, Inc., "Market View, Pittsburgh Office, Second Quarter 2009," 2009

Tennessee

Chattanooga - Jim Berry Company

Knoxville - CB Richard Ellis, Inc., December 2009

Memphis - CB Richard Ellis, Inc., "Market View, Memphis Office, Second Quarter 2009," 2009

Nashville - CB Richard Ellis, Inc., "Market View, Nashville Office, Second Quarter 2009," 2009

Texas

Austin - CB Richard Ellis, Inc., "Market View, Austin Office, Second Quarter 2009," 2009
Corpus Christi - CB Richard Ellis, Inc., November 2009
Dallas - CB Richard Ellis, Inc., "Market View, DFW Office, Second Quarter 2009," 2009
Fort Worth - CB Richard Ellis, Inc., "Market View, DFW Office, Second Quarter 2009," 2009
Houston - CB Richard Ellis, Inc., "Market View, Houston Office, Second Quarter 2009," 2009
San Antonio - CB Richard Ellis, Inc., "Market View, San Antonio Office, Second Quarter 2009," 2009

Utah

Utah - CB Richard Ellis, Inc., "Market View, Salt Lake City Office Market, Third Quarter 2009," 2009

Virginia

Virginia - CB Richard Ellis, Inc., "Market View, Richmond Office, Second Quarter 2009," 2009; CB Richard Ellis, Inc., "Market View, Hampton Roads Office, Second Quarter 2009," 2009

Washington

Seattle-King County - CB Richard Ellis, Inc., "Market View, Puget Sound Office, Second Quarter 2009," 2009
South Puget Sound - CB Richard Ellis, Inc., "Market View, Puget Sound Office, Second Quarter 2009," 2009
Spokane - Kiemle & Hagood Company, 2009
Tri Cities - Local Sources

Wisconsin

Wisconsin - CB Richard Ellis, Inc., "Market View, Milwaukee Office, Second Quarter 2009," 2009

APPENDIX C

OFFICE MARKET INVENTORY AND ANNUAL OPERATION COSTS, BY STATE AND METROPOLITAN AREA FOR 91 BOMA LOCAL ASSOCIATIONS, 2009

STATE	SQ.FT.	OPCOST/SF
ALABAMA		
Birmingham	26,396,443	6.38
ALASKA		
Anchorage	8,300,000	6.91
ARIZONA		
Greater Phoenix	127,649,855	6.58
Greater Tucson	7,591,098	6.92
ARKANSAS		
Northwest Arkansas	1,539,430	3.42
Greater Little Rock	23,107,097	6.18
CALIFORNIA		
Inland Empire	24,285,174	6.54
Greater Los Angeles*	209,954,287	8.69
Oakland-East Bay	69,323,446	8.48
Orange County	101,653,117	7.62
Sacramento	52,133,083	6.66
San Diego	56,648,705	6.87
San Francisco*	136,320,048	9.39
Silicon Valley	61,655,636	8.20
COLORADO		
Denver Metro*	105,673,772	6.32
Southern Colorado	27,710,966	5.13
CONNECTICUT		
Greater Hartford	25,691,359	8.08
Southern Connecticut	45,500,000	12.14
DISTRICT OF COLUMBIA		
Washington MSA*	377,405,581	8.41
FLORIDA		
Ft. Lauderdale and the Palm Beaches	49,065,251	7.32
Jacksonville	23,948,014	5.56
Miami-Dade*	41,412,313	8.57
Orlando	36,295,076	6.54
Southwest Florida	24,417,928	6.52
Tallahassee	11,500,000	6.52
Greater Tampa Bay	46,463,326	6.67

STATE	SQ.FT.	OPCOST/SF
GEORGIA		
Atlanta*	130,500,393	6.62
HAWAII		
Hawaii	11,467,010	8.16
IDAHO		
Boise	13,691,174	4.25
ILLINOIS		
Chicago*	131,128,447	7.93
Suburban Chicago	106,814,492	7.92
Peoria	5,517,560	7.92
INDIANA		
Indianapolis	32,056,289	5.78
Michiana	4,176,334	5.97
IOWA		
Iowa	13,888,789	6.67
KANSAS		
Wichita	9,833,550	7.68
KENTUCKY		
Louisville	21,286,124	6.00
LOUISIANA		
New Orleans	39,598,954	5.68
Shreveport	3,921,586	6.36
MARYLAND		
Baltimore	60,634,534	8.27
MASSACHUSETTS		
Boston*	200,710,487	9.32
MICHIGAN		
Metropolitan Detroit	73,068,509	8.34
Mid-Michigan	9,779,234	5.43
West Michigan	16,285,226	6.16
MINNESOTA		
Duluth	3,000,000	7.77
Minneapolis*	47,772,102	7.45
St. Paul*	17,132,825	6.94
MISSISSIPPI		
Mississippi	8,139,345	5.02
MISSOURI		
Kansas City	44,613,908	5.75
St. Louis	47,089,996	6.26

STATE	SQ.FT.	OPCOST/SF
NEBRASKA		
Omaha	19,602,835	6.67
NEVADA		
Nevada	40,392,189	6.71
NEW JERSEY		
New Jersey	247,815,772	9.62
NEW MEXICO		
New Mexico	12,899,036	5.67
NEW YORK		
Capital Region-Albany	29,254,879	7.70
Greater Buffalo	31,140,342	8.93
Central New York	12,809,357	7.70
Long Island	40,517,088	10.71
New York*	445,823,794	13.10
Greater Rochester	13,283,627	8.29
Westchester	31,800,000	10.71
NORTH CAROLINA		
Carolinas-West Virginia	82,141,166	6.22
Raleigh-Durham	44,796,834	5.67
OHIO		
Akron	6,862,279	6.30
Greater Cincinnati	36,494,797	6.39
Greater Cleveland	34,250,245	6.94
Columbus	32,436,393	6.53
Dayton	14,921,453	5.32
Toledo	13,730,928	6.30
OKLAHOMA		
Oklahoma City	15,007,055	6.35
Tulsa	21,174,506	5.90
OREGON		
Portland Metropolitan	42,749,104	7.00
PENNSYLVANIA		
Philadelphia	144,264,683	8.60
Pittsburgh	78,144,575	7.55
TENNESSEE		
Chattanooga	4,500,000	6.73
Knoxville	9,940,147	6.63
Memphis	16,651,966	7.05
Nashville	31,268,695	6.12

STATE	SQ.FT.	OPCOST/SF
TEXAS		
Austin	41,092,152	6.88
Corpus Christi	7,830,560	6.25
Dallas*	165,263,487	6.95
Fort Worth	31,618,902	7.03
Houston*	188,245,029	7.31
San Antonio	24,886,221	6.25
UTAH		
Utah	29,458,460	5.03
VIRGINIA		
Virginia	47,738,472	6.51
WASHINGTON		
Seattle-King County*	83,835,299	6.83
South Puget Sound	4,116,908	10.55
Spokane	26,698,853	7.00
Tri Cities	10,500,000	7.00
WISCONSIN		
Wisconsin	44,799,035	5.23
US	5,034,504,996	8.11

APPENDIX D

ECONOMIC MULTIPLIERS AND IMPACT CALCULATIONS

The total economic impacts of annual outlays for the operation of office buildings reflect the combination of direct outlays and their subsequent monetary effects as these funds are circulated through the economy; that is, the re-spending of these direct outlays will generate additional economic activity that otherwise would not have occurred. The total value of these combined direct and indirect values can be estimated by the application of appropriate multipliers that have been calculated for each state and metropolitan area by type of outlays by the Bureau of Economic Analysis of the U.S. Department of Commerce employing its Regional Input-Output Model (RIMS II).

For this analysis, state and metropolitan area multipliers were purchased for construction (maintenance and repair), utilities, management and services to buildings. These multipliers were weighed by their share of operating cost outlays for office buildings (BOMA's income and expense data) and combined into a single series of multipliers representing building operations outlays. These aggregate multipliers (a different set for each state and metropolitan area) were applied to the market data for each of the 91 BOMA local associations (square feet of office space and average operating cost per square foot) to calculate the total economic impacts generated by these direct outlays for office building operations in 2009.

The results of these calculations are estimates of: (1) output value—total contribution to the U.S., state and metropolitan area economies; (2) personal earnings—new earnings realized by residents of the state or metropolitan area in which the spending occurs; and (3) the jobs supported by these outlays—full-time, year-round jobs throughout the state (or metropolitan area) and nation. The key variables governing the magnitude and significance of these economic impacts are: their dollar value; the category of outlay (e.g., maintenance and repair, utilities, management, and services to buildings); the direct employment and payroll associated with the direct spending (payroll) for building operations; and the geographic area of analysis and the complexity of the respective state economies. The size and complexity of the states' or metropolitan areas' economies determine the extent to which they can provide the inputs and retain the outputs of these economic activities; i.e., how self-sufficient the states or metropolitan areas are. Larger states retain a greater share of this direct spending for building operations than smaller states or their constituent metropolitan areas. At the national level, interstate transfers add to the magnitude of these secondary economic impacts. The degree to which the direct outlays are retained internally by the state is reflected in the respective state economic multipliers. These multipliers are presented in the following Appendices.

APPENDIX E

AGGREGATE ECONOMIC IMPACT MULTIPLIERS FOR BUILDING OPERATIONS

STATE	OUTPUT MULTIPLIER	EARNINGS MULTIPLIER	JOBS MULTIPLIER (PER MILLION)
ALABAMA	2.1532	0.6872	21.3150
Birmingham	2.1532	0.6872	21.3150
ALASKA	1.8073	0.5982	16.5226
Anchorage	1.8073	0.5982	16.5226
ARIZONA	2.0447	0.6771	17.7457
Greater Phoenix	2.0447	0.6771	17.7457
Greater Tucson	2.0447	0.6771	17.7457
ARKANSAS	1.9811	0.6224	20.0065
Greater Little Rock	1.9811	0.6224	20.0065
Northwest Arkansas	1.9811	0.6224	20.0065
CALIFORNIA	2.3199	0.7542	18.1452
Inland Empire	2.3199	0.7542	18.1452
Greater Los Angeles*	2.0548	0.5623	12.7330
Oakland-East Bay	2.3199	0.7542	18.1452
Orange County	2.3199	0.7542	18.1452
Sacramento	2.3199	0.7542	18.1452
San Diego	2.3199	0.7542	18.1452
San Francisco*	1.9166	0.5107	11.2259
Silicon Valley	2.3199	0.7542	18.1452
COLORADO	2.2840	0.7456	18.9050
Denver Metro*	2.2081	0.6232	12.9727
Southern Colorado	2.2840	0.7456	18.9050
CONNECTICUT	1.9154	0.6095	14.2358
Greater Hartford	1.9154	0.6095	14.2358
Southern Connecticut	1.9154	0.6095	14.2358
DISTRICT OF COLUMBIA	1.2724	0.0803	2.4715
Washington MSA*	1.7712	0.5089	12.4003
FLORIDA	2.0753	0.6913	18.3109
Ft. Lauderdale and the Palm Beaches	2.0753	0.6913	18.3109
Jacksonville	2.0753	0.6913	18.3109
Miami-Dade*	1.9070	0.5861	15.0179
Orlando	2.0753	0.6913	18.3109
Southwest Florida	2.0753	0.6913	18.3109
Tallahassee	2.0753	0.6913	18.3109
Greater Tampa Bay	2.0753	0.6913	18.3109

STATE	OUTPUT MULTIPLIER	EARNINGS MULTIPLIER	JOBS MULTIPLIER (PER MILLION)
GEORGIA	2.3399	0.7380	19.4650
Atlanta*	2.0949	0.6254	16.0165
HAWAII	1.9550	0.6555	17.8429
Hawaii	1.9550	0.6555	17.8429
IDAHO	1.9495	0.6403	20.2511
Boise	1.9495	0.6403	20.2511
ILLINOIS	2.3615	0.7379	17.8257
Chicago*	2.1523	0.6381	16.1510
Suburban Chicago	2.3615	0.7379	17.8257
Peoria	2.3615	0.7379	17.8257
INDIANA			
Indianapolis	2.1192	0.6514	18.8985
Michiana	2.1192	0.6514	18.8985
IOWA			
Iowa	1.9890	0.6216	19.6422
KANSAS			
Wichita	2.0271	0.6040	18.2808
KENTUCKY			
Louisville	2.0715	0.6184	19.1872
LOUISIANA	2.0139	0.6587	20.6244
New Orleans	2.0139	0.6587	20.6244
Shreveport	2.0139	0.6587	20.6244
MARYLAND	2.0475	0.6219	15.6660
Baltimore	2.0475	0.6219	15.6660
MASSACHUSETTS	2.0417	0.6444	15.3000
Boston*	1.8138	0.4919	11.1533
MICHIGAN	2.1003	0.6841	18.3755
Metropolitan Detroit	2.1003	0.6841	18.3755
Mid-Michigan	2.1003	0.6841	18.3755
West Michigan	2.1003	0.6841	18.3755
MINNESOTA	2.1882	0.6966	18.2880
Duluth	2.1882	0.6966	18.2880
Minneapolis*	2.0032	0.5899	15.6241
St. Paul*	2.0032	0.5899	15.6241
MISSISSIPPI	1.9820	0.6254	20.4947
Mississippi	1.9820	0.6254	20.4947
MISSOURI	2.1799	0.6385	18.0495
Kansas City	2.1799	0.6385	18.0495
St. Louis	2.1799	0.6385	18.0495

STATE	OUTPUT MULTIPLIER	EARNINGS MULTIPLIER	JOBS MULTIPLIER (PER MILLION)
NEBRASKA	1.9679	0.6207	18.9256
Omaha	1.9679	0.6207	18.9256
NEVADA	1.8422	0.6071	15.4210
Nevada	1.8422	0.6071	15.4210
NEW JERSEY	2.1711	0.6517	15.4553
New Jersey	2.1711	0.6517	15.4553
NEW MEXICO	1.8832	0.6253	19.8810
New Mexico	1.8832	0.6253	19.8810
NEW YORK	1.8757	0.5478	13.0739
Capital Region-Albany	1.8757	0.5478	13.0739
Greater Buffalo	1.8757	0.5478	13.0739
Central New York	1.8757	0.5478	13.0739
Long Island	1.8757	0.5478	13.0739
New York*	1.8658	0.5300	12.0846
Greater Rochester	1.8757	0.5478	13.0739
Westchester	1.8757	0.5478	13.0739
NORTH CAROLINA	2.1818	0.6904	20.3565
Carolinas-West Virginia	2.1818	0.6904	20.3565
Raleigh-Durham	2.1818	0.6904	20.3565
OHIO	2.2263	0.6944	19.5537
Akron	2.2263	0.6944	19.5537
Greater Cincinnati	2.2263	0.6944	19.5537
Greater Cleveland	2.2263	0.6944	19.5537
Columbus	2.2263	0.6944	19.5537
Dayton	2.2263	0.6944	19.5537
Toledo	2.2263	0.6944	19.5537
OKLAHOMA	2.1363	0.6900	22.0542
Oklahoma City	2.1363	0.6900	22.0542
Tulsa	2.1363	0.6900	22.0542
OREGON	2.0807	0.6467	18.6137
Portland Metropolitan	2.0807	0.6467	18.6137
PENNSYLVANIA	2.3013	0.7097	17.7469
Philadelphia	2.3013	0.7097	17.7469
Pittsburgh	2.3013	0.7097	17.7469
TENNESSEE	2.2604	0.6890	19.2037
Chattanooga	2.2604	0.6890	19.2037
Knoxville	2.2604	0.6890	19.2037
Memphis	2.2604	0.6890	19.2037
Nashville	2.2604	0.6890	19.2037

THE CONTRIBUTION OF **OFFICE BUILDING OPERATING OUTLAYS**
ON THE U.S. AND STATES' ECONOMIES IN 2009

STATE	OUTPUT MULTIPLIER	EARNINGS MULTIPLIER	JOBS MULTIPLIER (PER MILLION)
TEXAS	2.4207	0.7680	20.4080
Austin	2.4207	0.7680	20.4080
Corpus Christi	2.4207	0.7680	20.4080
Dallas*	2.2531	0.6592	16.0480
Fort Worth	2.4207	0.7680	20.4080
Houston*	2.1087	0.6235	15.0131
San Antonio	2.4207	0.7680	20.4080
UTAH	2.2549	0.7290	22.9474
Utah	2.2549	0.7290	22.9474
VIRGINIA	2.1010	0.6319	16.8853
Virginia	2.1010	0.6319	16.8853
WASHINGTON	2.1520	0.6804	17.4174
Seattle-King County*	1.7300	0.4506	10.4350
South Puget Sound	2.1520	0.6804	17.4174
Spokane	2.1520	0.6804	17.4174
Tri Cities	2.1520	0.6804	17.4174
WISCONSIN	2.1062	0.6753	19.1385
Wisconsin	2.1062	0.6753	19.1385
US	2.8985	0.9199	24.3600

APPENDIX F

ECONOMIC MULTIPLIER FOR UTILITIES EXPENDITURES

STATE	OUTPUT	EARNINGS	JOBS
ALABAMA	1.9326	0.5125	14.2007
Birmingham	1.9326	0.5125	14.2007
ALASKA	1.6843	0.4496	9.7243
Anchorage	1.6843	0.4496	9.7243
ARIZONA	1.8648	0.5131	11.353
Greater Phoenix	1.8648	0.5131	11.353
Greater Tucson	1.8648	0.5131	11.353
ARKANSAS	1.8158	0.4716	13.5652
Greater Little Rock	1.8158	0.4716	13.5652
Northwest Arkansas	1.8158	0.4716	13.5652
CALIFORNIA	2.0846	0.5736	11.852
Inland Empire	2.0846	0.5736	11.852
Greater Los Angeles*	1.5198	0.2417	3.7923
Oakland-East Bay	2.0846	0.5736	11.852
Orange County	2.0846	0.5736	11.852
Sacramento	2.0846	0.5736	11.852
San Diego	2.0846	0.5736	11.852
San Francisco*	1.4535	0.2114	2.9738
Silicon Valley	2.0846	0.5736	11.852
COLORADO	2.069	0.5674	12.7158
Denver Metro*	1.9628	0.3542	5.8713
Southern Colorado	2.069	0.5674	12.7158
CONNECTICUT	1.7487	0.4547	8.8033
Greater Hartford	1.7487	0.4547	8.8033
Southern Connecticut	1.7487	0.4547	8.8033
DISTRICT OF COLUMBIA	1.2166	0.0389	0.7258
Washington MSA*	1.272	0.1977	3.2957
FLORIDA	1.8753	0.5195	12.353
Ft. Lauderdale and the Palm Beaches	1.8753	0.5195	12.353
Jacksonville	1.8753	0.5195	12.353
Miami-Dade*	1.3381	0.2394	4.5197
Orlando	1.8753	0.5195	12.353
Southwest Florida	1.8753	0.5195	12.353
Tallahassee	1.8753	0.5195	12.353
Greater Tampa Bay	1.8753	0.5195	12.353

STATE	OUTPUT	EARNINGS	JOBS
GEORGIA	2.0583	0.5502	12.8711
Atlanta*	1.4184	0.2562	4.6928
HAWAII	1.7875	0.4921	11.9347
Hawaii	1.7875	0.4921	11.9347
IDAHO	1.7758	0.4795	13.9642
Boise	1.7758	0.4795	13.9642
ILLINOIS	2.1218	0.5592	11.964
Chicago*	1.47	0.262	4.846
Suburban Chicago	2.1218	0.5592	11.964
Peoria	2.1218	0.5592	11.964
INDIANA	1.9413	0.5002	12.3441
Indianapolis	1.9413	0.5002	12.3441
Michiana	1.9413	0.5002	12.3441
IOWA	1.8277	0.4656	12.3302
Iowa	1.8277	0.4656	12.3302
KANSAS	1.8676	0.469	13.2003
Wichita	1.8676	0.469	13.2003
KENTUCKY	1.8883	0.4698	13.2086
Louisville	1.8883	0.4698	13.2086
LOUISIANA	1.8864	0.504	13.9457
New Orleans	1.8864	0.504	13.9457
Shreveport	1.8864	0.504	13.9457
MARYLAND	1.8737	0.4797	10.5604
Baltimore	1.8737	0.4797	10.5604
MASSACHUSETTS	1.8288	0.4758	9.42
Boston*	1.2839	0.1933	2.9383
MICHIGAN	1.8737	0.503	11.251
Metropolitan Detroit	1.8737	0.503	11.251
Mid-Michigan	1.8737	0.503	11.251
West Michigan	1.8737	0.503	11.251
MINNESOTA	1.9622	0.5211	11.3547
Duluth	1.9622	0.5211	11.3547
Minneapolis*	1.4023	0.2463	4.594
St. Paul*	1.4023	0.2463	4.594
MISSISSIPPI	1.8206	0.4757	13.7536
Mississippi	1.8206	0.4757	13.7536
MISSOURI	1.9619	0.4754	11.6615
Kansas City	1.9619	0.4754	11.6615
St. Louis	1.9619	0.4754	11.6615

STATE	OUTPUT	EARNINGS	JOBS
NEBRASKA	1.7972	0.4595	11.0637
Omaha	1.7972	0.4595	11.0637
NEVADA	1.6863	0.4391	10.7413
Nevada	1.6863	0.4391	10.7413
NEW JERSEY	1.9459	0.4918	9.85
New Jersey	1.9459	0.4918	9.85
NEW MEXICO	1.7442	0.4695	13.516
New Mexico	1.7442	0.4695	13.516
NEW YORK	1.7156	0.4298	8.2681
Capital Region-Albany	1.7156	0.4298	8.2681
Greater Buffalo	1.7156	0.4298	8.2681
Central New York	1.7156	0.4298	8.2681
Long Island	1.7156	0.4298	8.2681
New York*	1.3048	0.217	3.3649
Greater Rochester	1.7156	0.4298	8.2681
Westchester	1.7156	0.4298	8.2681
NORTH CAROLINA	1.9486	0.5122	13.4368
Carolinas-West Virginia	1.9486	0.5122	13.4368
Raleigh-Durham	1.9486	0.5122	13.4368
OHIO	1.9723	0.509	12.2536
Akron	1.9723	0.509	12.2536
Greater Cincinnati	1.9723	0.509	12.2536
Greater Cleveland	1.9723	0.509	12.2536
Columbus	1.9723	0.509	12.2536
Dayton	1.9723	0.509	12.2536
Toledo	1.9723	0.509	12.2536
OKLAHOMA	1.9524	0.5251	14.8171
Oklahoma City	1.9524	0.5251	14.8171
Tulsa	1.9524	0.5251	14.8171
OREGON	1.8475	0.4695	12.5897
Portland Metropolitan	1.8475	0.4695	12.5897
PENNSYLVANIA	2.0589	0.5335	11.3398
Philadelphia	2.0589	0.5335	11.3398
Pittsburgh	2.0589	0.5335	11.3398
TENNESSEE	1.9865	0.5083	12.1344
Chattanooga	1.9865	0.5083	12.1344
Knoxville	1.9865	0.5083	12.1344
Memphis	1.9865	0.5083	12.1344
Nashville	1.9865	0.5083	12.1344

STATE	OUTPUT	EARNINGS	JOBS
TEXAS	2.1864	0.5899	13.6003
Austin	2.1864	0.5899	13.6003
Corpus Christi	2.1864	0.5899	13.6003
Dallas*	1.7697	0.341	5.8777
Fort Worth	2.1864	0.5899	13.6003
Houston*	1.8211	0.3517	5.8123
San Antonio	2.1864	0.5899	13.6003
UTAH	2.0006	0.5415	15.0748
Utah	2.0006	0.5415	15.0748
VIRGINIA	1.9031	0.4844	11.7435
Virginia	1.9031	0.4844	11.7435
WASHINGTON	1.9313	0.5073	11.1744
Seattle-King County*	1.3746	0.2385	4.1899
South Puget Sound	1.9313	0.5073	11.1744
Spokane	1.9313	0.5073	11.1744
Tri Cities	1.9313	0.5073	11.1744
WISCONSIN	1.902	0.5062	11.6449
Wisconsin	1.902	0.5062	11.6449

APPENDIX G

ECONOMIC MULTIPLIERS FOR MANAGEMENT EXPENDITURES

STATE	OUTPUT	EARNINGS	JOBS
ALABAMA	2.1081	0.8047	17.6766
Birmingham	2.1081	0.8047	17.6766
ALASKA	1.8445	0.7331	14.9557
Anchorage	1.8445	0.7331	14.9557
ARIZONA	2.0499	0.7938	16.627
Greater Phoenix	2.0499	0.7938	16.627
Greater Tucson	2.0499	0.7938	16.627
ARKANSAS	1.9597	0.74	15.9046
Greater Little Rock	1.9597	0.74	15.9046
Northwest Arkansas	1.9597	0.74	15.9046
CALIFORNIA	2.3602	0.8841	15.8707
Inland Empire	2.3602	0.8841	15.8707
Greater Los Angeles*	2.2974	0.7021	12.5627
Oakland-East Bay	2.3602	0.8841	15.8707
Orange County	2.3602	0.8841	15.8707
Sacramento	2.3602	0.8841	15.8707
San Diego	2.3602	0.8841	15.8707
San Francisco*	2.2119	0.7007	12.0883
Silicon Valley	2.3602	0.8841	15.8707
COLORADO	2.3382	0.883	15.8152
Denver Metro*	2.3294	0.7222	12.9397
Southern Colorado	2.3382	0.883	15.8152
CONNECTICUT	1.9584	0.7401	11.5137
Greater Hartford	1.9584	0.7401	11.5137
Southern Connecticut	1.9584	0.7401	11.5137
DISTRICT OF COLUMBIA	1.3313	0.0688	1.0026
Washington MSA*	2.0959	0.6898	12.3363
FLORIDA	2.1151	0.8234	15.8743
Ft. Lauderdale and the Palm Beaches	2.1151	0.8234	15.8743
Jacksonville	2.1151	0.8234	15.8743
Miami-Dade*	2.1787	0.7459	14.866
Orlando	2.1151	0.8234	15.8743
Southwest Florida	2.1151	0.8234	15.8743
Tallahassee	2.1151	0.8234	15.8743
Greater Tampa Bay	2.1151	0.8234	15.8743

STATE	OUTPUT	EARNINGS	JOBS
GEORGIA	2.3691	0.8621	16.5498
Atlanta*	2.3914	0.7839	15.3423
HAWAII	2.0277	0.7937	16.3172
Hawaii	2.0277	0.7937	16.3172
IDAHO	1.9499	0.7621	15.7514
Boise	1.9499	0.7621	15.7514
ILLINOIS	2.3933	0.8689	14.933
Chicago*	2.445	0.8034	15.4218
Suburban Chicago	2.3933	0.8689	14.933
Peoria	2.3933	0.8689	14.933
INDIANA	2.0269	0.7288	15.3539
Indianapolis	2.0269	0.7288	15.3539
Michiana	2.0269	0.7288	15.3539
IOWA	1.9846	0.7423	16.9866
Iowa	1.9846	0.7423	16.9866
KANSAS	2.0248	0.7261	15.5434
Wichita	2.0248	0.7261	15.5434
KENTUCKY	2.0196	0.7143	14.3923
Louisville	2.0196	0.7143	14.3923
LOUISIANA	1.9745	0.7799	18.3866
New Orleans	1.9745	0.7799	18.3866
Shreveport	1.9745	0.7799	18.3866
MARYLAND	2.0838	0.7279	13.1894
Baltimore	2.0838	0.7279	13.1894
MASSACHUSETTS	2.1203	0.7878	13.1381
Boston*	2.0907	0.6319	10.6127
MICHIGAN	2.0742	0.7884	14.5779
Metropolitan Detroit	2.0742	0.7884	14.5779
Mid-Michigan	2.0742	0.7884	14.5779
West Michigan	2.0742	0.7884	14.5779
MINNESOTA	2.2313	0.8288	15.2636
Duluth	2.2313	0.8288	15.2636
Minneapolis*	2.2652	0.7523	14.8091
St. Paul*	2.2652	0.7523	14.8091
MISSISSIPPI	1.9432	0.7461	17.3135
Mississippi	1.9432	0.7461	17.3135
MISSOURI	2.1935	0.752	15.3285
Kansas City	2.1935	0.752	15.3285
St. Louis	2.1935	0.752	15.3285

STATE	OUTPUT	EARNINGS	JOBS
NEBRASKA	1.9908	0.7462	16.032
Omaha	1.9908	0.7462	16.032
NEVADA	1.8725	0.7425	12.2643
Nevada	1.8725	0.7425	12.2643
NEW JERSEY	2.1768	0.7463	12.3264
New Jersey	2.1768	0.7463	12.3264
NEW MEXICO	1.9045	0.7581	18.4481
New Mexico	1.9045	0.7581	18.4481
NEW YORK	1.8966	0.5896	9.312
Capital Region-Albany	1.8966	0.5896	9.312
Greater Buffalo	1.8966	0.5896	9.312
Central New York	1.8966	0.5896	9.312
Long Island	1.8966	0.5896	9.312
New York*	2.1632	0.6555	11.1452
Greater Rochester	1.8966	0.5896	9.312
Westchester	1.8966	0.5896	9.312
NORTH CAROLINA	2.1401	0.8001	15.9588
Carolinas-West Virginia	2.1401	0.8001	15.9588
Raleigh-Durham	2.1401	0.8001	15.9588
OHIO	2.1801	0.8035	15.6233
Akron	2.1801	0.8035	15.6233
Greater Cincinnati	2.1801	0.8035	15.6233
Greater Cleveland	2.1801	0.8035	15.6233
Columbus	2.1801	0.8035	15.6233
Dayton	2.1801	0.8035	15.6233
Toledo	2.1801	0.8035	15.6233
OKLAHOMA	2.1177	0.8019	18.3432
Oklahoma City	2.1177	0.8019	18.3432
Tulsa	2.1177	0.8019	18.3432
OREGON	2.0773	0.7684	15.9291
Portland Metropolitan	2.0773	0.7684	15.9291
PENNSYLVANIA	2.2814	0.8296	15.1113
Philadelphia	2.2814	0.8296	15.1113
Pittsburgh	2.2814	0.8296	15.1113
TENNESSEE	2.2544	0.8097	17.0173
Chattanooga	2.2544	0.8097	17.0173
Knoxville	2.2544	0.8097	17.0173
Memphis	2.2544	0.8097	17.0173
Nashville	2.2544	0.8097	17.0173

STATE	OUTPUT	EARNINGS	JOBS
TEXAS	2.4039	0.8835	17.6998
Austin	2.4039	0.8835	17.6998
Corpus Christi	2.4039	0.8835	17.6998
Dallas*	2.4582	0.7972	16.1209
Fort Worth	2.4039	0.8835	17.6998
Houston*	2.1951	0.7317	14.401
San Antonio	2.4039	0.8835	17.6998
UTAH	2.2833	0.8624	21.178
Utah	2.2833	0.8624	21.178
VIRGINIA	2.1097	0.735	13.2279
Virginia	2.1097	0.735	13.2279
WASHINGTON	2.1226	0.7687	14.2431
Seattle-King County*	2.211	0.7246	13.5501
South Puget Sound	2.1226	0.7687	14.2431
Spokane	2.1226	0.7687	14.2431
Tri Cities	2.1226	0.7687	14.2431
WISCONSIN	2.0708	0.7835	15.7041
Wisconsin	2.0708	0.7835	15.7041

APPENDIX H

ECONOMIC MULTIPLIERS FOR CONSTRUCTION EXPENDITURES

STATE	OUTPUT	EARNING	JOBS
ALABAMA	2.4706	0.7681	23.7483
Birmingham	2.4706	0.7681	23.7483
ALASKA	1.887	0.626	16.2319
Anchorage	1.887	0.626	16.2319
ARIZONA	2.2239	0.7366	18.7596
Greater Phoenix	2.2239	0.7366	18.7596
Greater Tucson	2.2239	0.7366	18.7596
ARKANSAS	2.2246	0.6775	22.1435
Greater Little Rock	2.2246	0.6775	22.1435
Northwest Arkansas	2.2246	0.6775	22.1435
CALIFORNIA	2.5113	0.8152	19.5738
Inland Empire	2.5113	0.8152	19.5738
Greater Los Angeles*	2.2424	0.6636	15.7144
Oakland-East Bay	2.5113	0.8152	19.5738
Orange County	2.5113	0.8152	19.5738
Sacramento	2.5113	0.8152	19.5738
San Diego	2.5113	0.8152	19.5738
San Francisco*	1.9925	0.5651	13.2884
Silicon Valley	2.5113	0.8152	19.5738
COLORADO	2.4669	0.8033	20.4887
Denver Metro*	2.2711	0.7077	17.7706
Southern Colorado	2.4669	0.8033	20.4887
CONNECTICUT	2.0325	0.6448	15.3103
Greater Hartford	2.0325	0.6448	15.3103
Southern Connecticut	2.0325	0.6448	15.3103
DISTRICT OF COLUMBIA	1.2621	0.0874	2.0502
Washington MSA*	1.8497	0.574	14.8635
FLORIDA	2.2331	0.7412	19.8569
Ft. Lauderdale and the Palm Beaches	2.2331	0.7412	19.8569
Jacksonville	2.2331	0.7412	19.8569
Miami-Dade*	2.1053	0.706	18.9097
Orlando	2.2331	0.7412	19.8569
Southwest Florida	2.2331	0.7412	19.8569
Tallahassee	2.2331	0.7412	19.8569
Greater Tampa Bay	2.2331	0.7412	19.8569

STATE	OUTPUT	EARNING	JOBS
GEORGIA	2.6018	0.8111	22.2544
Atlanta*	2.3872	0.7688	21.1244
HAWAII	2.0293	0.6853	18.0063
Hawaii	2.0293	0.6853	18.0063
IDAHO	2.1441	0.6975	23.2344
Boise	2.1441	0.6975	23.2344
ILLINOIS	2.6111	0.8046	19.5078
Chicago*	2.4489	0.7816	20.3648
Suburban Chicago	2.6111	0.8046	19.5078
Peoria	2.6111	0.8046	19.5078
INDIANA	2.4349	0.7376	21.4754
Indianapolis	2.4349	0.7376	21.4754
Michiana	2.4349	0.7376	21.4754
IOWA	2.2131	0.6829	21.3966
Iowa	2.2131	0.6829	21.3966
KANSAS	2.2511	0.6502	20.1076
Wichita	2.2511	0.6502	20.1076
KENTUCKY	2.3482	0.6869	22.0375
Louisville	2.3482	0.6869	22.0375
LOUISIANA	2.1958	0.7072	20.6571
New Orleans	2.1958	0.7072	20.6571
Shreveport	2.1958	0.7072	20.6571
MARYLAND	2.1698	0.6581	16.2405
Baltimore	2.1698	0.6581	16.2405
MASSACHUSETTS	2.1667	0.6783	16.1096
Boston*	1.9649	0.5842	14.0133
MICHIGAN	2.3474	0.7645	20.86
Metropolitan Detroit	2.3474	0.7645	20.86
Mid-Michigan	2.3474	0.7645	20.86
West Michigan	2.3474	0.7645	20.86
MINNESOTA	2.4094	0.7583	20.3972
Duluth	2.4094	0.7583	20.3972
Minneapolis*	2.261	0.7162	19.6865
St. Paul*	2.261	0.7162	19.6865
MISSISSIPPI	2.2361	0.6804	22.3456
Mississippi	2.2361	0.6804	22.3456
MISSOURI	2.4338	0.71	20.6056
Kansas City	2.4338	0.71	20.6056
St. Louis	2.4338	0.71	20.6056

STATE	OUTPUT	EARNING	JOBS
NEBRASKA	2.1595	0.676	20.8445
Omaha	2.1595	0.676	20.8445
NEVADA	1.984	0.6526	16.3828
Nevada	1.984	0.6526	16.3828
NEW JERSEY	2.3626	0.7161	17.0825
New Jersey	2.3626	0.7161	17.0825
NEW MEXICO	2.0145	0.6621	20.9007
New Mexico	2.0145	0.6621	20.9007
NEW YORK	1.9664	0.6012	14.2639
Capital Region-Albany	1.9664	0.6012	14.2639
Greater Buffalo	1.9664	0.6012	14.2639
Central New York	1.9664	0.6012	14.2639
Long Island	1.9664	0.6012	14.2639
New York*	1.9993	0.6446	15.4831
Greater Rochester	1.9664	0.6012	14.2639
Westchester	1.9664	0.6012	14.2639
NORTH CAROLINA	2.4515	0.7639	23.367
Carolinas-West Virginia	2.4515	0.7639	23.367
Raleigh-Durham	2.4515	0.7639	23.367
OHIO	2.5315	0.7788	22.582
Akron	2.5315	0.7788	22.582
Greater Cincinnati	2.5315	0.7788	22.582
Greater Cleveland	2.5315	0.7788	22.582
Columbus	2.5315	0.7788	22.582
Dayton	2.5315	0.7788	22.582
Toledo	2.5315	0.7788	22.582
OKLAHOMA	2.3715	0.7579	24.7239
Oklahoma City	2.3715	0.7579	24.7239
Tulsa	2.3715	0.7579	24.7239
OREGON	2.3197	0.7072	19.9959
Portland Metropolitan	2.3197	0.7072	19.9959
PENNSYLVANIA	2.6097	0.79	20.0365
Philadelphia	2.6097	0.79	20.0365
Pittsburgh	2.6097	0.79	20.0365
TENNESSEE	2.5516	0.758	22.3633
Chattanooga	2.5516	0.758	22.3633
Knoxville	2.5516	0.758	22.3633
Memphis	2.5516	0.758	22.3633
Nashville	2.5516	0.758	22.3633

STATE	OUTPUT	EARNING	JOBS
TEXAS	2.6992	0.848	21.5813
Austin	2.6992	0.848	21.5813
Corpus Christi	2.6992	0.848	21.5813
Dallas*	2.4825	0.7866	19.8812
Fort Worth	2.6992	0.848	21.5813
Houston*	2.2744	0.736	18.4735
San Antonio	2.6992	0.848	21.5813
UTAH	2.4849	0.7972	23.7748
Utah	2.4849	0.7972	23.7748
VIRGINIA	2.2948	0.6854	18.1949
Virginia	2.2948	0.6854	18.1949
WASHINGTON	2.3954	0.7629	19.2512
Seattle-King County*	1.3746	0.2385	4.1899
South Puget Sound	2.3954	0.7629	19.2512
Spokane	2.3954	0.7629	19.2512
Tri Cities	2.3954	0.7629	19.2512
WISCONSIN	2.3837	0.7531	21.5571
Wisconsin	2.3837	0.7531	21.5571

APPENDIX I

ECONOMIC MULTIPLIERS FOR SERVICES TO BUILDINGS EXPENDITURES

STATE	OUTPUT	EARNINGS	JOBS
ALABAMA	2.0975	0.6775	34.3824
Birmingham	2.0975	0.6775	34.3824
ALASKA	1.8321	0.6008	30.1748
Anchorage	1.8321	0.6008	30.1748
ARIZONA	2.0584	0.6833	28.14
Greater Phoenix	2.0584	0.6833	28.14
Greater Tucson	2.0584	0.6833	28.14
ARKANSAS	1.9132	0.6129	33.1035
Greater Little Rock	1.9132	0.6129	33.1035
Northwest Arkansas	1.9132	0.6129	33.1035
CALIFORNIA	2.3535	0.7663	29.4265
Inland Empire	2.3535	0.7663	29.4265
Greater Los Angeles*	2.285	0.725	22.9113
Oakland-East Bay	2.3535	0.7663	29.4265
Orange County	2.3535	0.7663	29.4265
Sacramento	2.3535	0.7663	29.4265
San Diego	2.3535	0.7663	29.4265
San Francisco*	2.1225	0.6367	20.1813
Silicon Valley	2.3535	0.7663	29.4265
COLORADO	2.2777	0.7479	30.9642
Denver Metro*	2.3334	0.787	17.2646
Southern Colorado	2.2777	0.7479	30.9642
CONNECTICUT	1.9464	0.6174	25.3081
Greater Hartford	1.9464	0.6174	25.3081
Southern Connecticut	1.9464	0.6174	25.3081
DISTRICT OF COLUMBIA	1.2929	0.1529	8.0378
Washington MSA*	1.9889	0.6513	23.4664
FLORIDA	2.1033	0.7024	29.1104
Ft. Lauderdale and the Palm Beaches	2.1033	0.7024	29.1104
Jacksonville	2.1033	0.7024	29.1104
Miami-Dade*	2.1335	0.7341	26.3134
Orlando	2.1033	0.7024	29.1104
Southwest Florida	2.1033	0.7024	29.1104
Tallahassee	2.1033	0.7024	29.1104
Greater Tampa Bay	2.1033	0.7024	29.1104

STATE	OUTPUT	EARNINGS	JOBS
GEORGIA	2.3587	0.7518	30.1155
Atlanta*	2.3179	0.7762	27.5722
HAWAII	2.0086	0.6747	29.3201
Hawaii	2.0086	0.6747	29.3201
IDAHO	1.937	0.6378	32.4045
Boise	1.937	0.6378	32.4045
ILLINOIS	2.3271	0.7368	28.9247
Chicago*	2.3839	0.7902	29.0972
Suburban Chicago	2.3271	0.7368	28.9247
Peoria	2.3271	0.7368	28.9247
INDIANA	2.0655	0.6541	30.7128
Indianapolis	2.0655	0.6541	30.7128
Michiana	2.0655	0.6541	30.7128
IOWA	1.9191	0.6069	32.6271
Iowa	1.9191	0.6069	32.6271
KANSAS	1.9513	0.5761	27.6801
Wichita	1.9513	0.5761	27.6801
KENTUCKY	2.0265	0.6163	31.4699
Louisville	2.0265	0.6163	31.4699
LOUISIANA	2.0034	0.6599	34.5676
New Orleans	2.0034	0.6599	34.5676
Shreveport	2.0034	0.6599	34.5676
MARYLAND	2.0918	0.6438	26.6073
Baltimore	2.0918	0.6438	26.6073
MASSACHUSETTS	2.0838	0.6579	26.6814
Boston*	2.041	0.6325	20.8792
MICHIGAN	2.1323	0.7044	31.6124
Metropolitan Detroit	2.1323	0.7044	31.6124
Mid-Michigan	2.1323	0.7044	31.6124
West Michigan	2.1323	0.7044	31.6124
MINNESOTA	2.1581	0.6959	30.6629
Duluth	2.1581	0.6959	30.6629
Minneapolis*	2.2064	0.7194	28.4784
St. Paul*	2.2064	0.7194	28.4784
MISSISSIPPI	1.9172	0.6099	33.174
Mississippi	1.9172	0.6099	33.174
MISSOURI	2.1309	0.6301	28.4375
Kansas City	2.1309	0.6301	28.4375
St. Louis	2.1309	0.6301	28.4375

STATE	OUTPUT	EARNINGS	JOBS
NEBRASKA	1.9224	0.6162	32.8932
Omaha	1.9224	0.6162	32.8932
NEVADA	1.8369	0.6142	26.0773
Nevada	1.8369	0.6142	26.0773
NEW JERSEY	2.2382	0.6762	26.5648
New Jersey	2.2382	0.6762	26.5648
NEW MEXICO	1.8796	0.6291	30.676
New Mexico	1.8796	0.6291	30.676
NEW YORK	1.9674	0.5976	24.4656
Capital Region-Albany	1.9674	0.5976	24.4656
Greater Buffalo	1.9674	0.5976	24.4656
Central New York	1.9674	0.5976	24.4656
Long Island	1.9674	0.5976	24.4656
New York*	2.1399	0.6812	22.3919
Greater Rochester	1.9674	0.5976	24.4656
Westchester	1.9674	0.5976	24.4656
NORTH CAROLINA	2.213	0.7087	33.3413
Carolinas-West Virginia	2.213	0.7087	33.3413
Raleigh-Durham	2.213	0.7087	33.3413
OHIO	2.2444	0.7088	32.4496
Akron	2.2444	0.7088	32.4496
Greater Cincinnati	2.2444	0.7088	32.4496
Greater Cleveland	2.2444	0.7088	32.4496
Columbus	2.2444	0.7088	32.4496
Dayton	2.2444	0.7088	32.4496
Toledo	2.2444	0.7088	32.4496
OKLAHOMA	2.1067	0.692	35.0698
Oklahoma City	2.1067	0.692	35.0698
Tulsa	2.1067	0.692	35.0698
OREGON	2.1028	0.6654	30.1237
Portland Metropolitan	2.1028	0.6654	30.1237
PENNSYLVANIA	2.2577	0.7002	28.4422
Philadelphia	2.2577	0.7002	28.4422
Pittsburgh	2.2577	0.7002	28.4422
TENNESSEE	2.2733	0.7025	29.0121
Chattanooga	2.2733	0.7025	29.0121
Knoxville	2.2733	0.7025	29.0121
Memphis	2.2733	0.7025	29.0121
Nashville	2.2733	0.7025	29.0121

STATE	OUTPUT	EARNINGS	JOBS
TEXAS	2.4045	0.7681	33.5278
Austin	2.4045	0.7681	33.5278
Corpus Christi	2.4045	0.7681	33.5278
Dallas*	2.3918	0.7814	26.5786
Fort Worth	2.4045	0.7681	33.5278
Houston*	2.1988	0.7365	25.5304
San Antonio	2.4045	0.7681	33.5278
UTAH	2.2785	0.7361	36.946
Utah	2.2785	0.7361	36.946
VIRGINIA	2.1167	0.6405	28.4877
Virginia	2.1167	0.6405	28.4877
WASHINGTON	2.1849	0.7079	29.31
Seattle-King County*	2.1409	0.7146	25.3648
South Puget Sound	2.1849	0.7079	29.31
Spokane	2.1849	0.7079	29.31
Tri Cities	2.1849	0.7079	29.31
WISCONSIN	2.0699	0.6747	32.5443
Wisconsin	2.0699	0.6747	32.5443

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