

The Contribution of Office, Industrial and Retail Development and Construction to Kentucky's Economy*

By Stephen S. Fuller, PhD, George Mason University

The value of commercial buildings is much more than the sum of pre-construction (soft costs) and construction outlays (site development, building construction and tenant improvements). Commercial buildings generate continuing post-construction value within the local and state economies as a result of the spending associated with their operations and the value of output generated by the workers and businesses they house. This report measures the contribution of office, industrial and retail building development, construction and operations to Kentucky's economy in the form of annual direct spending for new development, construction and annual expenditures to operate existing buildings.

The analyses presented in this report define the economic impacts of commercial buildings on Kentucky's economy, highlighting the economic impacts from office, industrial, warehouse and retail buildings, during the three life stages: development, construction and maintenance.

The Three Stages in the Life of a Commercial Building



Soft Costs/Site Development/Tenant Improvements

Architects, engineers, developers and marketing/design professionals working during the development phase begin the life span of a commercial building.



Hard Costs

During the construction phase, new commercial projects employ workers who spend their paychecks in the local economy and contribute to the tax base.



Operating Costs

After new commercial buildings are completed and occupied, they add to the productive capacity of their host economies. The outlays that support the new buildings' operations add ongoing annual sources of economic impact that accumulates over the life span of commercial buildings.

* This report, prepared for the National Association of Industrial and Office Properties Research Foundation with 2007 construction data provided by McGraw-Hill Construction, is part of the larger report issued in October 2008 by Stephen S. Fuller, PhD entitled, The Contribution of Office, Industrial and Retail Development and Construction to the U.S. Economy, 2008 Edition.

The following table provides the soft costs, site development, tenant improvements and construction (hard) costs for the state of Kentucky.

**The Impacts of Construction Spending for Soft Costs, Site Development,
Tenant Improvements and Construction (Hard) Costs on the Economy of Kentucky, 2007
(in billions of 2007 dollars)**

Sources	Direct Spending	Total Output ¹	Personal Income ²	Jobs Supported ³
Office Buildings				
Soft Costs	\$0.080	\$0.156	\$0.056	1,829
Site Development*	0.069	0.149	0.042	1,532
Construction Costs	0.228	0.493	0.139	5,068
Tenant Improvement**	0.083	0.180	0.051	1,849
Totals	\$0.460	\$0.978	\$0.288	10,278
Industrial Buildings				
Soft Costs	\$0.013	\$0.026	\$0.009	309
Site Development*	0.019	0.042	0.012	428
Construction Costs	0.055	0.119	0.034	1,223
Tenant Improvement**	0.014	0.030	0.009	310
Totals	\$0.102	\$0.217	\$0.063	2,270
Warehouse Buildings				
Soft Costs	\$0.050	\$0.097	\$0.035	1,142
Site Development*	0.062	0.134	0.038	1,376
Construction Costs	0.190	0.411	0.116	4,224
Tenant Improvement**	0.049	0.105	0.030	1,082
Totals	\$0.351	\$0.747	\$0.218	7,824
Retail Buildings				
Soft Costs	\$0.092	\$0.180	\$0.065	2,114
Site Development*	0.101	0.219	0.062	2,248
Construction Costs	0.273	0.589	0.166	6,057
Tenant Improvement**	0.083	0.179	0.051	1,843
Totals	\$0.549	\$1.167	\$0.343	12,262
Totals Buildings				
Soft Costs	\$0.234	\$0.459	\$0.165	5,393
Site Development*	0.252	0.543	0.153	5,584
Construction Costs	0.747	1.613	0.455	16,573
Tenant Improvement**	0.229	0.495	0.140	5,083
Totals	\$1.462	\$3.110	\$0.913	32,633

Source: The Contribution of Office, Industrial and Retail Development and Construction to the U. S. Economy, 2008 Edition, NAIOP Research Foundation, October 2008, pp. 27-63.

Notes: ¹ the total value of goods and services generated directly and indirectly as a result of the initial construction spending within the state; ² the additional earnings generated within the state from direct spending during the construction phase; ³ the additional new jobs supported by the spending and re-spending of direct spending associated with the spending for new construction. *Site development includes grading, infrastructure, parking and landscaping. **Tenant improvements exclude furniture and equipment.

On a state level, Kentucky accounted for \$1.462 billion in direct spending for new office, industrial, warehouse and retail buildings as follows (in billions of 2007 dollars):

Office Buildings	\$0.460
Industrial Buildings	0.102
Warehouse Buildings	0.351
Retail Buildings	0.549
Totals Buildings	\$1.462

On a state level, commercial buildings supported 32,633 full-time-equivalent, year-round jobs.

The Contribution of Operating Costs on the Economy of Kentucky

The following table provides the state spending values for the existing buildings (spending for maintenance and repair, cleaning, utilities, security and administrative expenses) that will recur annually following the completion of a commercial building.

Annual Impacts of Existing Buildings on the Economy of Kentucky, 2007 (in millions of 2007 dollars)

Sources	Direct Spending	Total Output ¹	Personal Income ²	Jobs Supported ³
Office Buildings	\$9,327.13	\$18,132.56	\$5,535.34	220
Industrial Buildings	615.02	1,195.64	364.99	15
Warehouse Buildings	2,297.83	4,467.14	1,363.69	54
Retail Buildings	6,222.39	12,096.74	3,692.78	147
Totals Buildings	\$18,462.37	\$35,892.08	\$10,956.80	436

Source: The Contribution of Office, Industrial and Retail Development and Construction to the U. S. Economy, 2008 Edition, NAIOP Research Foundation, October 2008, p. 65-69.

Notes: ¹ the total value of goods and services generated directly and indirectly as a result of building operating spending within the state; ² the additional earnings generated within the state from spending for building operations; ³ the additional new jobs supported by the spending and re-spending of spending associated with building operations. Operations impacts include maintenance and repair, cleaning, utilities, roads and grounds, security and administrative expenses.

Commercial Construction Counterbalances Residential

Another important contribution of commercial buildings is that the long-term pattern of commercial real estate development, construction and operations spending lags residential spending, helping to cushion the negative economic impact of slower residential construction outlays in 2007 and 2008.

The magnitude and significance of commercial buildings is clear. Changes in construction activity during the business cycle are directly reflected in GDP growth rates. The combined impact of development, commercial construction and building operations spending is a major source and closely watched barometer of economic vitality at the national and local levels.

For more information about this report, please contact Toby Burke, Senior Director of State and Local Affairs at burke@naiop.org or (703) 904-7100 and Elizabeth Sherrod, Research Director at sherrod@naiop.org or (703) 904-7100.