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Economic Impacts of Commercial Real Estate

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Produced in conjunction with

Leeds School of Business
UNIVERSITY OF COLORADO BOULDER

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About NAIOP

NAIOP, the Commercial Real Estate Development Association, is the leading organization for developers, owners and related professionals in office, industrial, retail and mixed-use real estate. NAIOP comprises some 21,000 members in North America. NAIOP advances responsible commercial real estate development and advocates for effective public policy. For more information, visit naiop.org.

The NAIOP Research Foundation was established in 2000 as a 501(c)(3) organization to support the work of individuals and organizations engaged in real estate development, investment and operations. The Foundation's core purpose is to provide information about how real properties, especially office, industrial and mixed-use properties, impact and benefit communities throughout North America. The initial funding for the Research Foundation was underwritten by NAIOP and its Founding Governors with an endowment established to support future research. For more information, visit naiop.org/researchfoundation.

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About NCREIF

NCREIF is a member-driven, not-for-profit association that improves private real estate investment industry knowledge by providing transparent and consistent data, performance measurement, analytics, standards and education.

About the Leeds School of Business

Formed in 1906, the Leeds School of Business is the eighth-oldest business school in the United States. As part of the University of Colorado, the Leeds School embraces the university's research and teaching mission, with prominent faculty teaching 4,600 undergraduate and graduate students in accounting, finance, marketing and management degree programs.

A center within the Leeds School of Business, the Business Research Division (BRD) was formed shortly after the school came into existence. Continuing with the inaugural mission, the BRD conducts applied industry and economic research for multiple constituencies external to the school. Faculty and staff who contributed to this report have extensive experience in conducting real estate and economic research. The project team included Brian Lewandowski, Executive Director of the BRD; Richard Wobbekind, PhD, Faculty Director of the BRD and Associate Dean at the Leeds School of Business; Adam Illig, Data Scientist with the BRD; and Ethan Street, Student Research Assistant with the BRD. For more information about the project team or the BRD, please visit: www.colorado.edu/business/brd.

Disclaimer

The data collection measures included in this report should be regarded as guidelines rather than as absolute standards. The data may differ according to the geographic area in question, and results may vary accordingly. Local and regional economic performance is a key factor. Further study and evaluation are recommended before any investment decisions are made.

This report is intended to provide information and insight to industry practitioners and does not constitute advice or recommendations. NAIOP disclaims any liability for action taken as a result of this project and its findings.

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Introduction

Since 2008, NAIOP has conducted this study to estimate the annual economic contribution of commercial real estate development to the U.S. economy. The study uses key data sets from the U.S. Census Bureau, U.S. Bureau of Labor Statistics, the Bureau of Economic Analysis (BEA), Dodge Construction Network, and the National Council of Real Estate Investment Fiduciaries (NCREIF). It applies several estimating and impact-assessment methodologies to take snapshots of the commercial real estate development industry from various perspectives. The study includes an analysis of the economic contributions of new commercial real estate development and existing commercial building operations and compares these contributions to the broader economic contributions of all building and nonbuilding construction, which includes infrastructure, residential and government building construction.

The combined economic contributions of new commercial building development and the operations of existing commercial buildings in 2024 (see Table 1 on page 2 and Table 2 on page 3) resulted in direct expenditures of $898.5 billion and the following impacts on the U.S. economy:

- Contributed $2.5 trillion to U.S. GDP
- Generated $862.5 billion in personal earnings
- Supported a total of 14.2 million jobs

Development of New Commercial Real Estate Buildings. The analysis begins with Dodge Construction Network data relating to square footage and construction values for office, industrial, warehouse and retail projects. Dodge Construction Network measures a building's full construction value and square feet when the project breaks ground (starts), not when it is completed. The U.S. Census Bureau also tracks construction spending via its Value of Construction Put in Place Survey. The survey provides monthly estimates of the national total dollar value of construction work in the U.S. The survey includes data on construction completed on new structures or improvements to existing property across residential and nonresidential property subtypes.

These data provide the foundation for estimating expenditures made during four distinct phases of the development process: preconstruction (soft costs), site development, on-site construction (hard costs) and tenant improvements (financing fees are not included in this analysis within the soft construction costs category because they have little immediate economic impact). This study also examines the contribution of one year of building operations that are reported as a stand-alone phase that follows development. Additionally, it shows the impacts for the estimated 696 million square feet of commercial buildings that commenced construction over the past year (according to Dodge Construction Network), which will accommodate an estimated 1.6 million jobs that are estimated to collectively generate $128 billion in personal earnings in the 12 months following the completion of construction.

Multipliers are applied to the direct expenditures to calculate the contribution to U.S. gross domestic product (GDP), personal earnings and jobs supported during each distinct development phase. Residential and hotel properties and government buildings are not included in these calculations (see Table 1).

The full measure of the economic impact of office, industrial, warehouse and retail development includes all expenditures associated with each phase of the development process. In addition to the wide range of on-site construction services, these expenditures also support professional and business services, including:

- Architecture and engineering services;
- Legal services;
- Marketing and management services;
- Grading, paving and landscaping services;
- Site engineering services; and
- Interior design and construction services.

The combined spending for preconstruction, construction and post-construction activities required to deliver buildings ready for occupancy represents the development industry's total direct contribution to national, state and local economies. It provides the appropriate basis for calculating the economic impacts of this spending as represented by its contribution to GDP, personal earnings (wages and salaries), and employment.

TABLE 1 Economic Contributions to the U.S. Economy from Development of Commercial Real Estate Buildings, 2019–2024

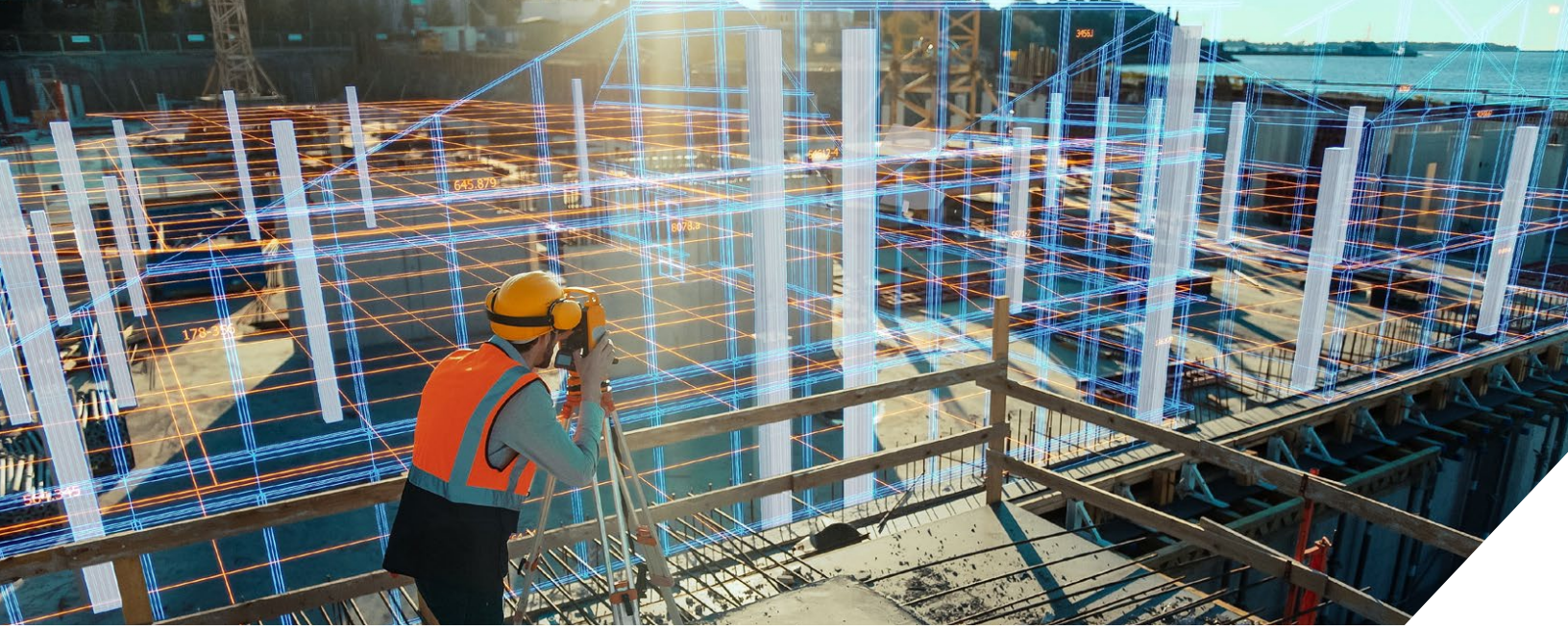
	Development Phases					Operations Phase
	Pre-Construction	Construction			Totals	Post-Construction
	Soft Construction (Soft Costs)	**Site Development**	**Hard Construction (Hard Costs)**	**Tenant Improvements**		**Building Operations[4]**
	architecture, engineering, legal, marketing, management, administration	grading, paving, landscaping, roadway, parking, off-site improvements	labor, materials, construction management	interior design and construction (excludes furniture and equipment)		maintenance, repairs, custodial, utilities, property management
Direct Expenditures (In Billions of Dollars)						
2024	**$54.93**	**$58.16**	**$184.89**	**$68.06**	**$366.04**	**$3.59**
2023	58.46	62.48	196.85	71.82	389.61	3.88
2022	66.14	70.21	236.23	88.05	460.63	4.30
2021	37.26	38.25	137.69	49.73	262.94	3.42
2020	31.20	29.03	108.27	37.01	205.52	3.82
2019	38.33	35.46	135.06	48.29	257.14	4.41
Total Economic Contribution to GDP (In Billions of Dollars, Includes Multiplier Effect)[1]						
2024	**$153.77**	**$171.36**	**$544.73**	**$200.53**	**$1,070.39**	**$9.92**
2023	163.67	184.07	579.97	211.60	1,139.31	10.73
2022	185.15	206.85	696.00	259.42	1,347.42	11.88
2021	102.38	108.70	391.26	141.32	743.65	9.23
2020	86.61	84.02	313.32	107.11	591.07	10.29
2019	107.29	96.14	366.13	130.92	700.47	12.04
Personal Earnings (In Billions of Dollars, Includes Multiplier Effect)[2]						
2024	**$61.18**	**$60.38**	**$191.93**	**$70.66**	**$384.14**	**$3.22**
2023	65.11	64.86	204.35	74.56	408.87	3.49
2022	73.66	72.88	245.23	91.41	483.18	3.86
2021	44.05	37.79	136.03	49.13	267.00	3.28
2020	38.66	30.17	112.50	38.46	219.80	3.66
2019	43.78	33.19	126.41	45.20	248.58	4.24
Jobs Supported (Includes Multiplier Effect)[3]						
2024	**742,685**	**854,599**	**2,716,666**	**1,000,089**	**5,314,039**	**66,730**
2023	790,475	918,013	2,892,412	1,055,290	5,656,191	71,614
2022	894,222	1,031,611	3,471,111	1,293,774	6,690,719	78,999
2021	541,441	562,317	2,014,173	727,972	3,845,903	61,757
2020	511,099	457,108	1,704,543	582,702	3,255,453	60,719
2019	608,157	640,690	2,440,035	872,503	4,561,385	75,404

Sources: NAIOP; Dodge Construction Network, Bureau Economic Analysis RIMS II, NCREIF, and IMPLAN.

[1] The total value of goods and services generated directly and indirectly as a result of construction and related expenditures within the U.S.
[2] The additional earnings (wages and salaries) generated from construction and related expenditures.
[3] The jobs supported by the spending and re-spending of direct expenditures for all phases of development and operations.
[4] NCREIF state level data was used in 2022, 2023, and 2024, and a national weighted average was used for 2019-2021.

Note: Data include office, industrial, warehouse/flex and retail buildings under construction in the year indicated and excludes existing inventory. Operations figures are based on buildings delivered in the year indicated.

Column totals may not add up due to rounding.



Existing Inventory of Commercial Real Estate Buildings. This study also includes the economic contributions of existing buildings. Based on the existing stock of commercial buildings—totaling 57.8 billion square feet at the end of the third quarter of 2024—direct expenditures for building operations totaled an estimated $532.5 billion and contributed $1.5 trillion to GDP. These direct expenditures also generated $478.4 billion in personal earnings (wages and salaries) and supported 8.9 million jobs (Table 2).

TABLE 2 **Economic Contribution to the Economy from Operations of Existing Buildings, 2020-2024**

Year	Total Square Feet (In Billions)	Direct Expenditures for Building Operations[1] (In Billions of Dollars)	Total Economic Contribution to GDP[2] (In Billions of Dollars)	Personal Earnings[3] (In Billions of Dollars)	Jobs Supported (In Millions)
2024	57.80	$532.5	$1,471.5	$478.4	8.932
2023	57.01	516.8	1,428.2	464.3	8.669
2022	56.05	479.2	1,324.2	430.5	8.038
2021	54.61	447.2	1,223.3	412.9	7.817
2020	53.37	505.3	1,362.6	484.2	10.195

Sources: NCREIF; Newmark Group Inc.

[1] The total value of goods and services generated directly and indirectly as a result of construction and related expenditures within the U.S.

[2] The additional earnings (wages and salaries) generated from construction and related expenditures.

[3] The jobs supported by the spending and re-spending of direct expenditures for all phases of development and operations.

Note: Building operations include maintenance repair, cleaning, utilities, security, building management, and administrative expense; see Appendices for state and building type data. Newmark estimates of historical values for square feet of existing buildings are updated each year and may not match the figures provided in prior editions of this report.

The remaining sections of this report discuss the broader economic impacts of building and nonbuilding construction; analyze trends in the construction and performance of office, warehouse, industrial and retail real estate; and discuss the outlook for individual commercial property types. Table 8 on page 18 details the economic contributions of the first year of operating expenditures from newly developed buildings to the economies of each state and the District of Columbia. Table 9 on page 19 details the total economic contribution of construction across commercial property types to individual state economies. The study's methodology is described at the end of the report, and the appendices provide a detailed breakdown of the economic contributions of expenditures on soft costs, site development, hard costs, tenant improvements and operations for new office, manufacturing, warehouse and retail construction in each state.

Economic Contributions

Building and Nonbuilding Construction

U.S. Census data on the value of construction put in place allow for a calculation of the contribution of building and nonbuilding construction to the U.S. economy for the year in review. The product types include residential, nonresidential and infrastructure projects in the construction pipeline. The most recent multipliers from the U.S. Department of Commerce's BEA and IMPLAN are applied to reflect the effects of construction expenditures on U.S. GDP and the jobs supported by these direct expenditures (Table 3).

TABLE 3 **Economic Contributions from Building and Nonbuilding Construction**

Year	Direct Expenditures (In Billions of Dollars)	Total Economic Contribution to GDP[1] (In Trillions of Dollars, Includes Multiplier Effect)	Percent Contribution to GDP	Jobs Supported[2] (In Millions, Includes Multiplier Effect)
2024	$2,171	$6.4	22.1%	31.9
2023	2,024	6.0	21.5	29.7
2022	1,903	5.6	21.6	28.0
2021	1,653	4.7	19.8	22.9
2020	1,500	4.3	20.3	23.6
2019	1,391	3.8	17.5	25.3
2018	1,333	3.7	18.1	27.1
2017	1,280	3.5	17.7	24.6
2016	1,213	3.4	17.9	24.9
2015	1,132	3.0	16.2	23.3
2014	1,015	2.9	16.3	20.8

Sources: U.S. Census, Annual Value of Construction Put in Place; Bureau of Economic Analysis, Gross Domestic Product; author's calculations.

[1] The total value of goods and services generated directly and indirectly as a result of construction and related expenditures within the U.S.; revised based on current multipliers from the BEA.

[2] The jobs supported by the spending and re-spending of direct expenditures for all phases of development and operations.

Note: The BEA periodically revises GDP statistics, leading to a change in the historical values seen in the current report. 2024 is estimated.

Construction Trends. Construction spending continued to rise across most sectors in 2024. Data centers have been a standout, growing 30%-50% per year over the last few years. Nonresidential construction as a whole grew 7% year over year as of September 2024. While residential construction spending was more modest, Consensus Economics expects modest growth in housing starts in 2025.

The Value of Construction. The overall value of building and nonbuilding construction put in place increased 6.4% in 2023, down from a 15.1% increase in 2022. On a more granular level, the 2023 increase reflects a large increase in nonresidential construction activity and a decrease in residential construction. The value of nonresidential construction put in place increased 19.1%, while residential value decreased 6.1%. This sharp increase in nonresidential construction was driven by growth in all sectors except one in 2023 when compared with 2022.[1] The subsectors of manufacturing and private data center construction increased 54.9% and 44.6%, respectively. Offices excluding private data centers decreased 2.4% (see Table 4).

[1] Excluding communication, power, highway and street, sewage and waste disposal, water supply, and conservation and development. Private data centers separated from total office spending.

TABLE 4 **Nonresidential Construction Spending, 2022-2024** (In Billions of Current Year Dollars)

Type of Structure	2022	2023	Percent Change 2022-2023	September YTD 2023	September YTD 2024	Percent Change 2023-2024
Transportation	$60.9	$65.2	7.1	$48.7	$50.5	3.8
Health Care	58.1	65.4	12.6	48.3	50.9	5.5
Retail	131.5	141.7	7.8	107.6	94.9	–11.8
Manufacturing	125.0	193.6	54.9	139.0	171.2	23.2
Amusement and Recreation	31.5	36.2	14.8	26.7	29.8	11.5
Educational	104.0	120.2	15.6	90.3	98.3	8.8
Public Safety	11.7	14.4	22.9	10.3	14.1	36.8
Office (excl. Data Centers)	82.8	80.8	-2.4	61.4	55.1	–10.2
Private Data Centers	12.6	18.2	44.6	12.8	20.3	59.0
Religious	3.2	3.8	19.3	2.7	3.0	11.9
Lodging	20.2	24.7	22.3	18.6	17.5	–5.8
Total	**$641.6**	**$764.4**	**19.1**	**$566.4**	**$605.8**	**7.0**

Sources: U.S. Census, Annual Value of Construction Put in Place 2009-2024, https://www.census.gov/construction/c30/historical_data.html, retrieved November 11, 2024.

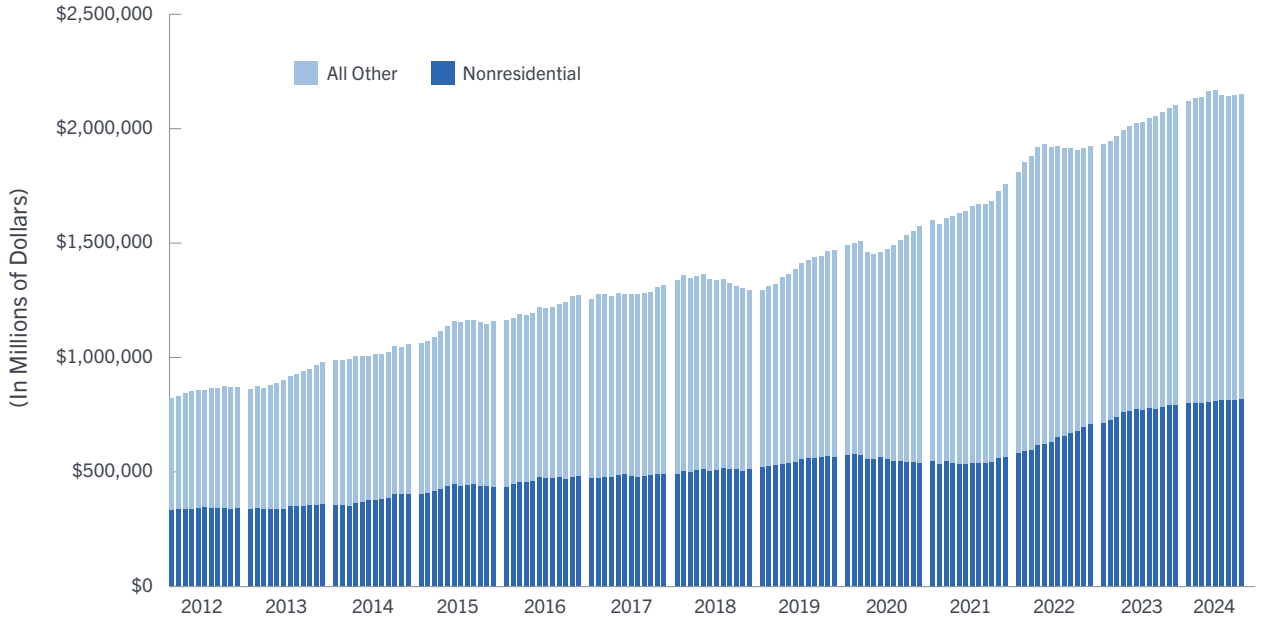
Note: Totals include some miscellaneous state and local government buildings but exclude spending for nonbuilding construction on items relating to communication, power, highway and street, sewage and waste disposal, water supply, and conservation and development. Data center values are available only for private construction; office data exclude private data centers from public and private offices.

Nominal GDP grew 4.7% year over year in the third quarter of 2023, and real GDP grew 2.8%, according to the second estimate by the BEA. The value of nonresidential building construction put in place increased 7% year to date through September 2024 when compared with the same period in 2023.[2] This increase in nonresidential construction value was driven by increases in most categories, as shown in Figure 3. Private data center construction increased 59%, public safety construction increased 36.8%, and manufacturing increased 23.2%. Residential value of construction put in place increased 6.9% year over year.

For 2024, projections show that residential permits will total 1.4 million units, a 3.4% decrease from 2023 (see Figure 2).[3] This will be the third year of decline following a high of 1.6 million units in 2021. The Federal Reserve began cutting the federal funds rate (EFFR) after maintaining it at its recent high (5.25–5.50%) for just over a year. U.S. Treasury securities, and consequentially mortgage rates, have remained higher than pre-pandemic levels. However, markets expect the EFFR to decrease to 3.75–4.00 by the end of 2025.[4] This could have an impact on interest rates in general, making mortgage payments more affordable and likely increasing the pool of potential homebuyers. While the housing market has slowed in the short term, demographics are favorable for residential demand as millennials continue to transition to homeownership.

[2] Excluding communication, power, highway and street, sewage and waste disposal, water supply, and conservation and development.
[3] September 2024 year-to-date change from September 2023 year-to-date applied to 2023.
[4] CME FedWatch.

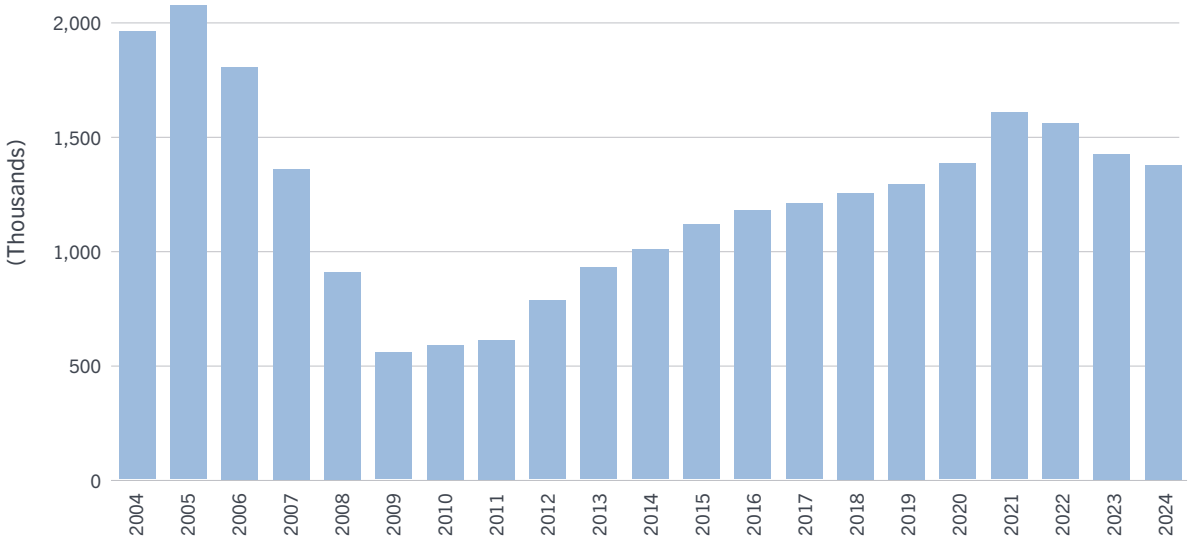
FIGURE 1: Value of Construction, 2012–2024



Source: U.S. Census Bureau, Value of Construction Put in Place (Seasonally Adjusted).

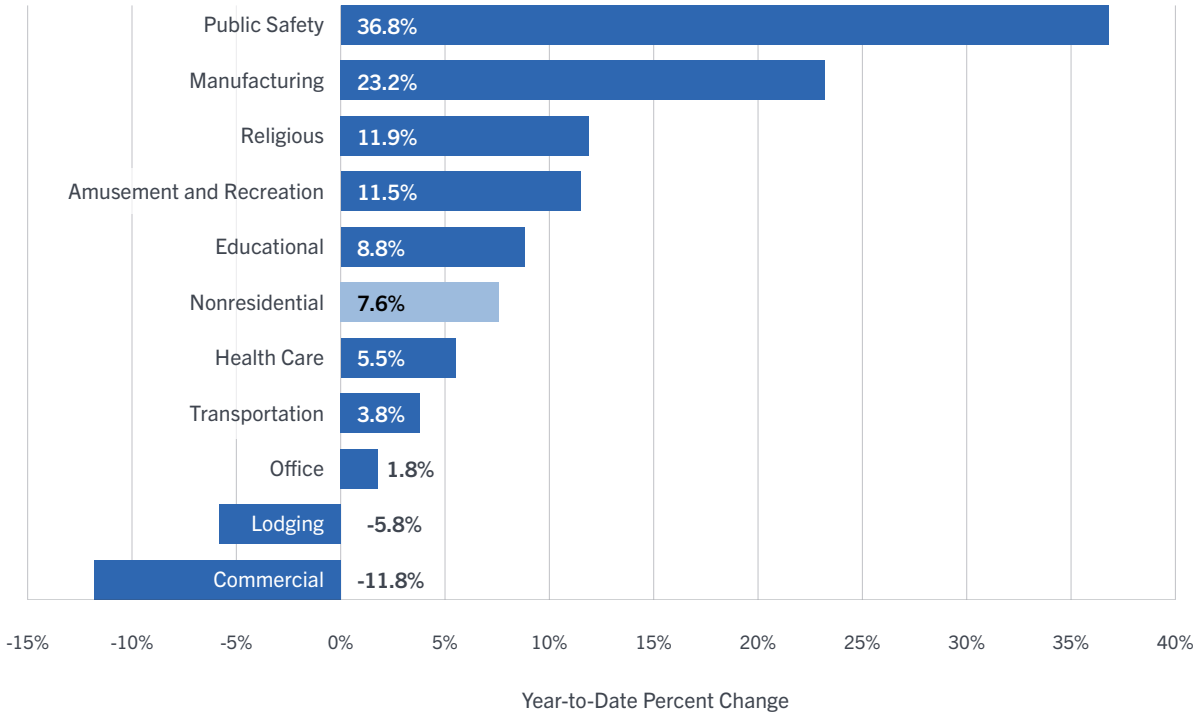
Note: Nonresidential excludes communication, power, highway and street, sewage and waste disposal, water supply, and conservation and development.

FIGURE 2: New Privately Owned Housing Units Started, 2004-2024



Source: U.S. Census Bureau, New Privately Owned Housing Units Started. 2023 based on year-to-date growth rate as of September 2024.

FIGURE 3: Value of Construction Put In Place, September 2023 to September 2024



Source: U.S. Census Bureau, Annual Value of Construction Put in Place.

Note: Office value includes data center construction.

Building and Nonbuilding Construction, Output Multipliers, GDP and Employment. Based on U.S. Census data, the estimated total value of building and nonbuilding construction spending put in place in the U.S. in 2024 was $2.2 trillion. This construction spending directly accounted for 7.5% of the nation's estimated 2024 GDP. With an output multiplier of 2.95, each $1 of construction spending generated a total value of $2.95 to the economy, reflecting the cumulative effects of the initial construction expenditures as they cycle throughout the economy.[5] Applying this multiplier to the total value of direct construction spending in 2024 brings the value of its overall contribution to GDP—direct, indirect and induced—to $6.4 trillion, which supported 22.1% of all U.S. economic activity in 2024. Industry spending also directly and indirectly supported 31.9 million jobs in the economy.

The Bottom Line: In 2024, the $2.2 trillion in building and nonbuilding construction spending contributed $6.4 trillion to U.S. GDP and supported 31.9 million jobs.

Office, Industrial, Warehouse and Retail Development Expenditures

Construction data provided by Dodge Construction Network for office, industrial (manufacturing), warehouse and retail buildings provide a more refined definition of construction expenditures (hard costs) over time. As presented in Table 5, total construction expenditures (hard costs) for these four building types in 2024 totaled $184.9 billion, down $12.0 billion, or 6.1%, from the revised annual total for 2023.

Office construction expenditures averaged $50.6 billion over the past five years (2020-2024). Office activity totaled $59.6 billion in 2024, up 8.5% from 2023. It is important to note that Dodge Construction Network includes data centers in its office construction data. The U.S. Census Bureau estimates that private data centers represented 28.7% of office construction value put in place in 2024, an increase from 19.7% in 2023.[6]

[5] The nonresidential structures multiplier was sourced from IMPLAN. The state-level multipliers were sourced from the BEA.
[6] Seasonally adjusted, as of September 2024 and September 2023. Private data centers as a percent of public office construction.

Industrial (manufacturing) construction expenditures averaged $58.0 billion over the past five years (2020-2024). Industrial activity totaled $64.2 billion in 2024, representing a 14.2% decrease from 2023. This follows a drop of 26.6% from 2022 to 2023. However, construction activity previously surged by 216.8% from 2021 to 2022 ($32.2 to $102.0 billion), likely a resurgence from the COVID-19 pandemic.

Warehouse construction outlays averaged $46.9 billion over the past five years (2020-2024). Warehouse activity totaled $41.0 billion in 2024, down 13.6% from 2023.

Retail construction expenditures averaged $17.3 billion over the past five years (2020-2024). Retail activity totaled $20.0 billion in 2024, up 2.2% from 2023.

TABLE 5 **Comparing Construction Expenditures (Hard Costs), 2023 and 2024**
(In Billions of Current Year Dollars)

Building Type	2023[1]	2024[2]	Change (2023–2024)
Office	$54.9	$59.6	8.5%
Industrial	74.9	64.2	–14.2%
Warehouse	47.5	41.0	–13.6%
Retail/Entertainment	19.6	20.0	2.2%
Total	**$196.8**	**$184.9**	**–6.1%**

Source: Dodge Construction Network.

[1] Revised.
[2] Trailing 12 months ending September 2024.

Expenditures and Square Footage (All Structures Combined). The total amount of new construction in 2024, as measured in square feet for these four building types, decreased by 126.5 million square feet (15.4%) from revised year-end construction data for 2023. A continuing change in the mix of building types affected the square footage of new construction in 2024. Industrial accounted for 15.1% of all new space built in 2024, down from 16.7% in 2023 but up from 13.7% in 2022. Warehouses accounted for 58.1% of all new space built in 2024, down from 61.6% in 2023 and 68.2% in 2022. Retail space share has experienced growth, at 11.1% in 2024, 8.9% in 2023 and 6.7% in 2022. This is still down from 16.2% in 2017. Office rose to 15.7% of space built in 2024 from 12.8% in 2023 and 11.5% in 2022. This growth is likely attributable to the rapid growth of data center construction, which is included in the office category.

The patterns of construction value by building type present a slightly different distribution, as shown in Table 6. Industrial construction value decreased its share (38.0% to 34.7%) from 2023 to 2024. In comparison, office construction value increased as a percentage of the total from 27.9% to 32.2%. Additionally, retail construction value increased to 10.8% from 9.9%. Warehouse decreased its share (24.1% to 22.2%) from 2023 to 2024.

Private data centers constituted 34.4% of private office construction put in place in the 12 months ending in September 2024 (see Figure 4). This is up from 23.2% in September 2023, and the increase in office construction over this period is attributable entirely to data center construction. Office construction excluding data centers decreased 10.2% in 2024 compared with 2023.[7]

[7] Seasonally adjusted as of September 2024.

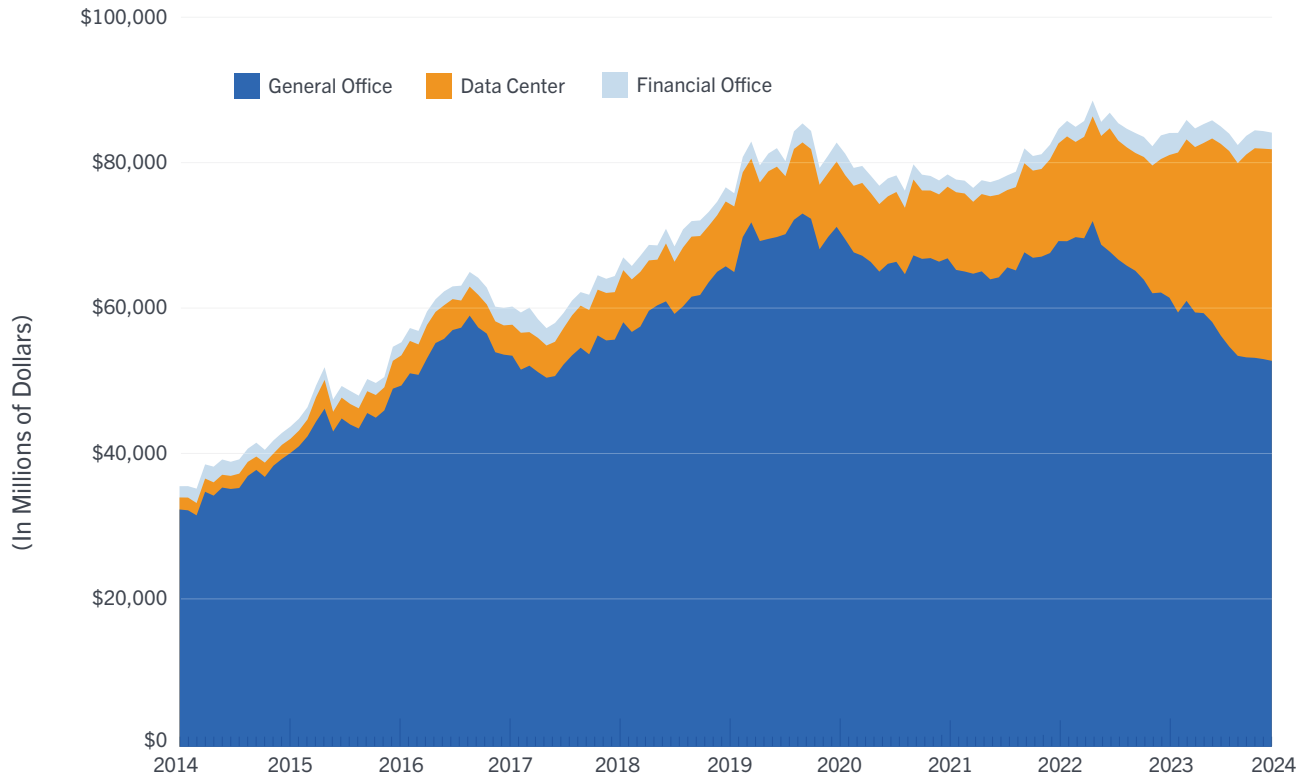
TABLE 6 Office, Industrial, Warehouse, and Retail Construction, 2023 and 2024

Building Type	Square Feet (In Millions) 2023[1]	Square Feet (In Millions) 2024[2]	Construction Value[3] (In Billions of Dollars) 2023[1]	Construction Value[3] (In Billions of Dollars) 2024[2]
Office	105	109	$54.9	$59.6
Industrial	137	105	74.9	64.2
Warehouse	506	404	47.5	41.0
Retail/Entertainment	73	77	19.6	20.0
Total	**822**	**696**	**$196.8**	**$184.9**

Source: Dodge Construction Network.

[1] Revised.
[2] Trailing 12 months ending September 2024.
[3] Hard costs only.

FIGURE 4: Private Office Construction Breakdown



Source: U.S. Census Bureau, Private Construction Put in Place.

Hard Construction Expenditures (All Structures Combined), Multipliers and GDP. Applying national construction multipliers from IMPLAN yields the economic impact of this construction activity. The multipliers measure contribution to GDP ($2.95 of output per dollar spent), personal earnings final demand ($1.04 per dollar spent), and employment final demand (14.69 jobs supported per $1 million in output).[8]

State-level direct spending and associated economic impacts for spending on preconstruction (soft costs), construction (site development and hard costs), and post-construction (operations) are included in the appendices. Note that individual state construction multipliers are generally smaller than the U.S. multipliers. The state-level multipliers measure only the share of construction-related expenditures retained within the respective state economies. Construction-related spending flows that leak out of one state economy to other states (spillover effects) are excluded. States with smaller economies tend to retain smaller portions of construction-related spending benefits than larger states due to the local supply chain—fewer goods and services are available to be sourced. Thus, goods and services tend to be sourced from outside the states or regions (i.e., leakage).

The Bottom Line. The four phases of development tracked in this study make substantial contributions to U.S. GDP. Applying the latest IMPLAN and BEA multipliers shows that direct construction expenditures—soft costs, site development costs, hard costs, tenant improvements—of $366.0 billion in 2024 resulted in a contribution of $1,070.4 billion to U.S. GDP, generated $384.1 billion in personal earnings, and supported 5.3 million jobs, as presented in Table 7.

TABLE 7 **Office, Industrial, Warehouse and Retail Construction and Operations Contribution to the Economy, 2024**

	Direct Expenditures (In Billions of Dollars)	Total Economic Contribution to GDP[1] (In Billions of Dollars)	Personal Earnings[2] (In Billions of Dollars)	Jobs Supported[3]
Development Phase	**$366.0**	**$1,070.4**	**$384.1**	**5,314,039**
Soft Construction (Soft Costs)	54.9	153.8	61.2	742,685
Site Development[4]	58.2	171.4	60.4	854,599
Hard Construction (Hard Costs)	184.9	544.7	191.9	2,716,666
Tenant Improvements[5]	68.1	200.5	70.7	1,000,089
Annual Operations	**$3.6**	**$9.9**	**$3.2**	**66,730**

Source: Dodge Construction Network.

[1] The total value of goods and services generated directly and indirectly as a result of construction and related expenditures within the U.S.
[2] The additional earnings (wages and salaries) generated from construction and related expenditures.
[3] The jobs supported by the spending and re-spending of direct expenditures for all phases of development and operations.
[4] Site development includes grading, infrastructure, parking and landscaping.
[5] Tenant improvements exclude furniture and equipment.

Note: See Appendices for state-level data.

[8] The nonresidential structures multiplier was sourced from IMPLAN. The state-level multipliers were sourced from the BEA.

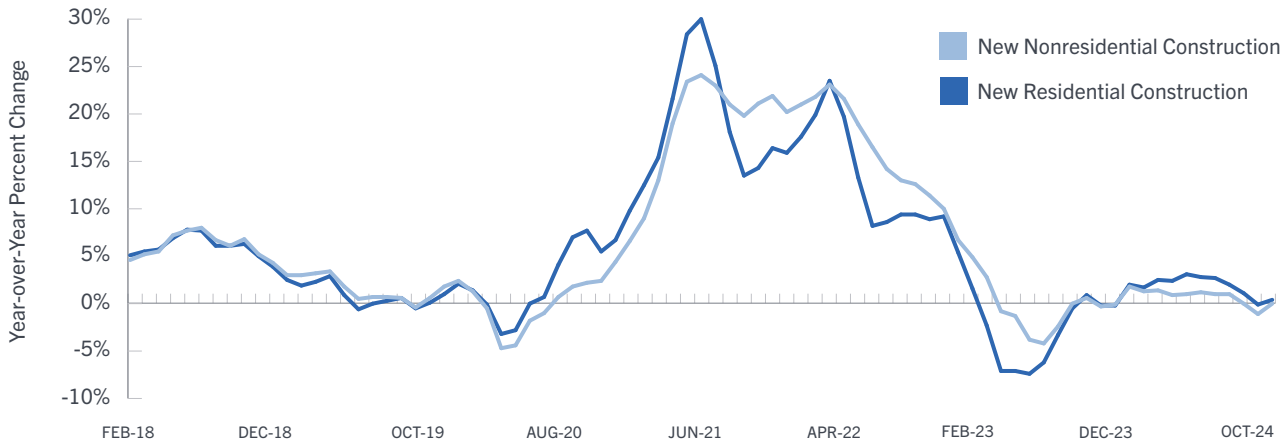
The U.S. Economy and Residential and Nonresidential Construction

In 2024, demand for residential and nonresidential construction was strong as worker shortages, supply chain disruptions, and inflation began to normalize. Infrastructure demand continued, while certain categories of nonresidential construction grew, including data centers and retail.

The economy as a whole continued to stabilize in 2024. According to Consensus Forecasts, as of November 2024, real (inflation-adjusted) GDP is projected to grow an estimated 2.7% in 2024, which is slightly down from 2.9% in 2023. Topline inflation as measured by the Bureau of Labor Statistics' Consumer Price Index was 2.6% in October 2024, down from 3.2% in October 2023. These trends reflect the Federal Reserve's efforts to execute a soft landing of the post-pandemic economy.

According to the Bureau of Labor Statistics' Producer Price Index data, the cost of inputs for new nonresidential construction (excluding capital investment, labor and imports) experienced double digit growth in 2021 and 2022 before slowing to a slight decrease of 0.3% in 2023. October 2024 nonresidential input costs were unchanged from October 2023. Annualized producer price inflation for new nonresidential construction has not exceeded 2% since February 2023. New industrial building construction costs in October 2024 were 0.3% lower than in October 2023. Costs for new office building construction rose 2.5% in the same period.

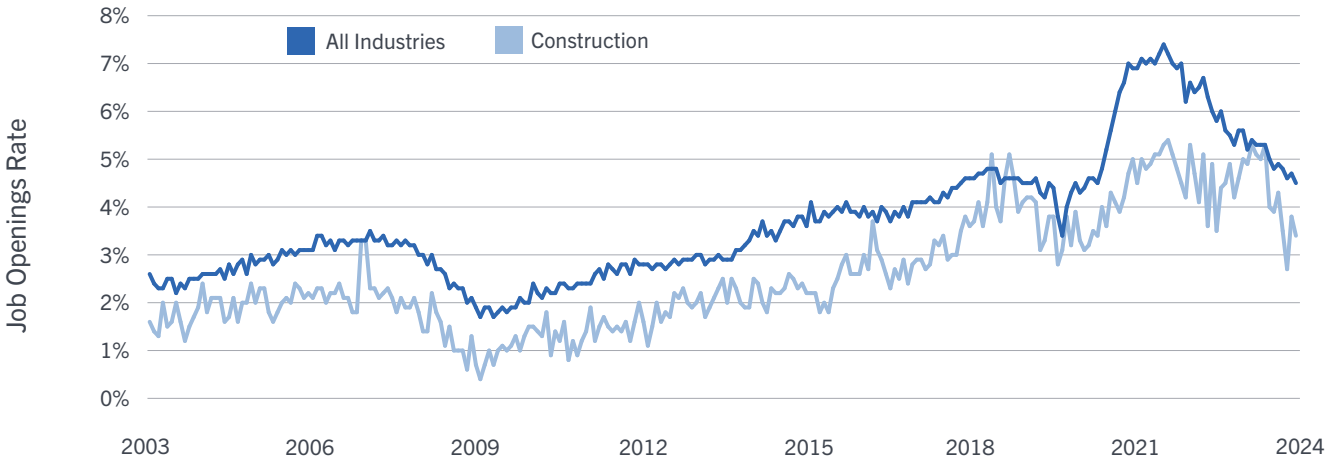
FIGURE 5: Construction Producer Price Index Inputs



Source: Bureau of Labor Statistics.

While total job openings are elevated, recent data suggest the job market is cooling. Total job openings in September 2024 stood at 7.4 million, compared with 9.3 million in September 2023. The rate of job openings (openings as a percentage of total nonfarm employment) decreased from 5.6% in September 2023 to 4.5% in September 2024. The construction industry followed a similar path to others in 2024—job openings decreased from 422,000 in September 2023 to 288,000 in September 2024, and the rate of openings decreased from 5% to 3.4%.

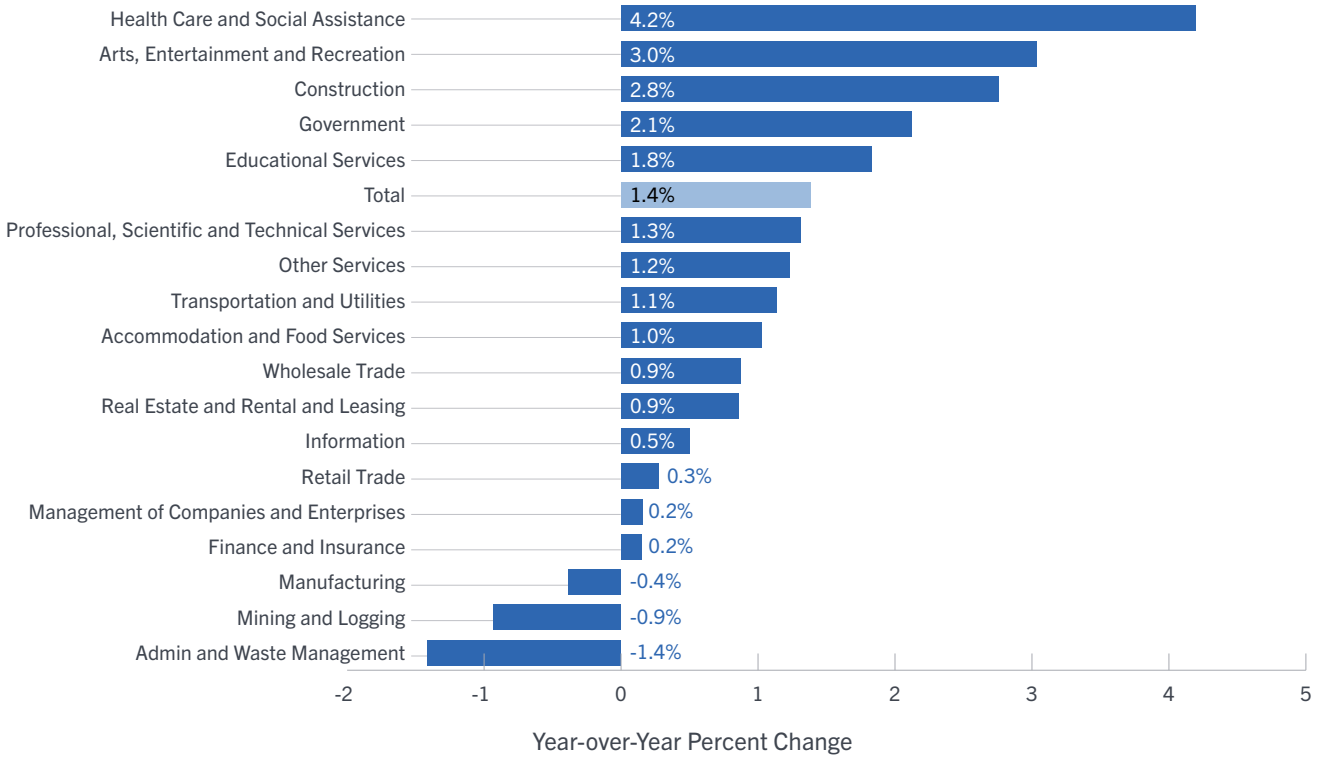
FIGURE 6: Job Openings Rate



Source: Bureau of Labor Statistics.

Between October 2023 and October 2024, most industries recorded job gains. Health care and social assistance grew 4.2%, the largest increase among job sectors, followed by arts, entertainment and recreation (3%), and construction (2.8%). Admin and waste management had the largest job decrease among all industries at 1.4%. In total, jobs grew 1.4% over the period.

FIGURE 7: U.S. Employment by Industry, Change from October 2023 to October 2024

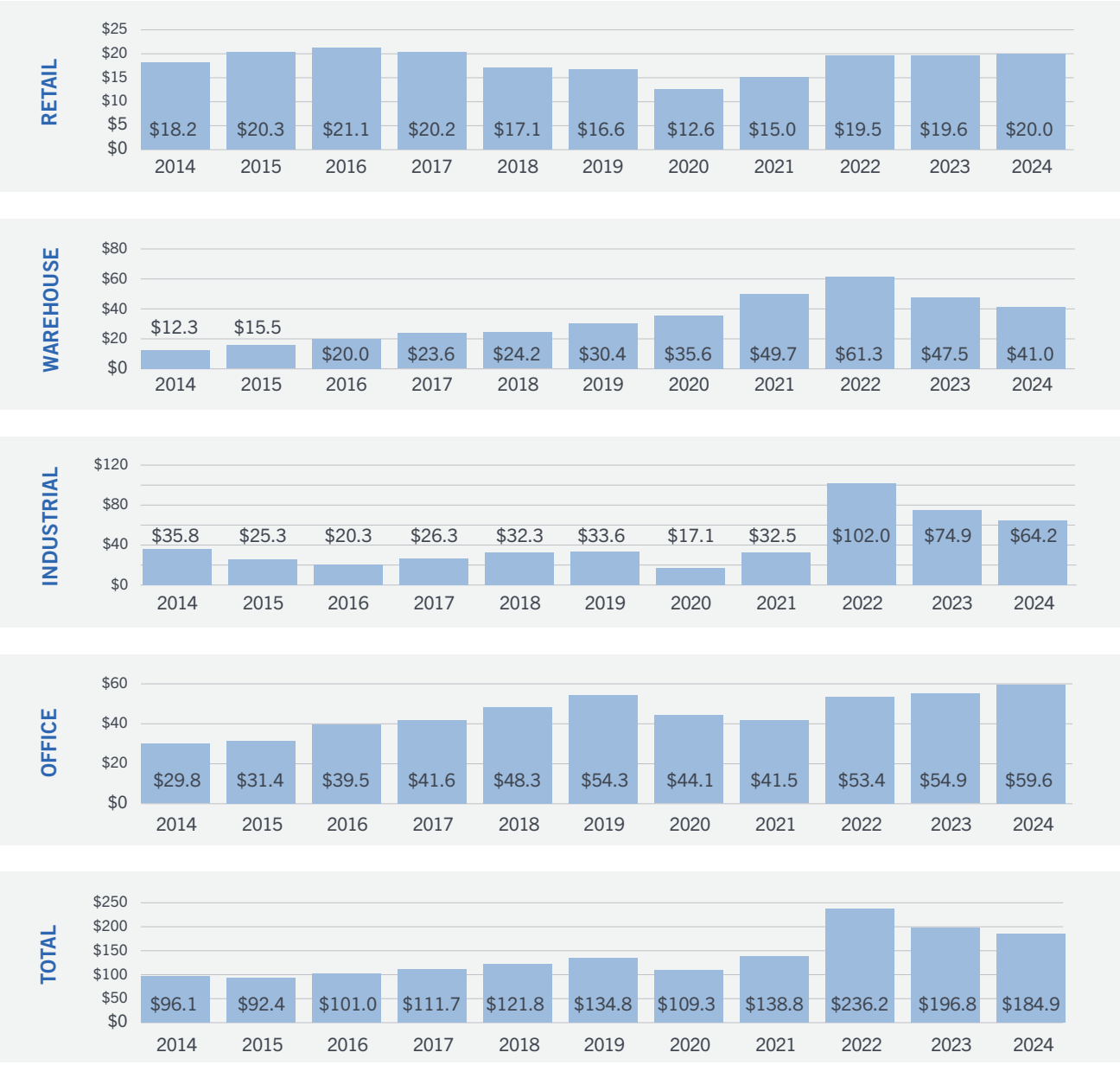


Source: Bureau of Labor Statistics, CES (Seasonally Adjusted).

Residential building construction maintained a high level of growth in the last decade except for a minor slowdown in 2023, likely due to higher mortgage rates. In 2022, residential construction value put in place climbed 15.3%. After dipping 5.9% in 2023, it has increased 6.9% year to date as of September 2024 over the same period in 2023.

Nonresidential building construction expenditures fell 6.1% in 2024 after a 16.7% decrease in 2023. This follows a 70.1% surge in 2022 (see Figure 8). Technology, demographics and financing availability are having profound cyclical and secular impacts on commercial real estate property types that will shape the future demand, use and design of commercial space. Even as some employers are trying to bring workers back to the office, work-from-home behaviors are showing a level of persistence that is leading to low utilization of office space and high vacancy rates in many markets. Given high vacancy and interest rates, the capital funding environment has become more difficult for new projects in the near term. Over the long term, the industry may be affected by demographic changes caused by migration and slowing fertility rates leading some cities' populations to stagnate while others continue to grow.

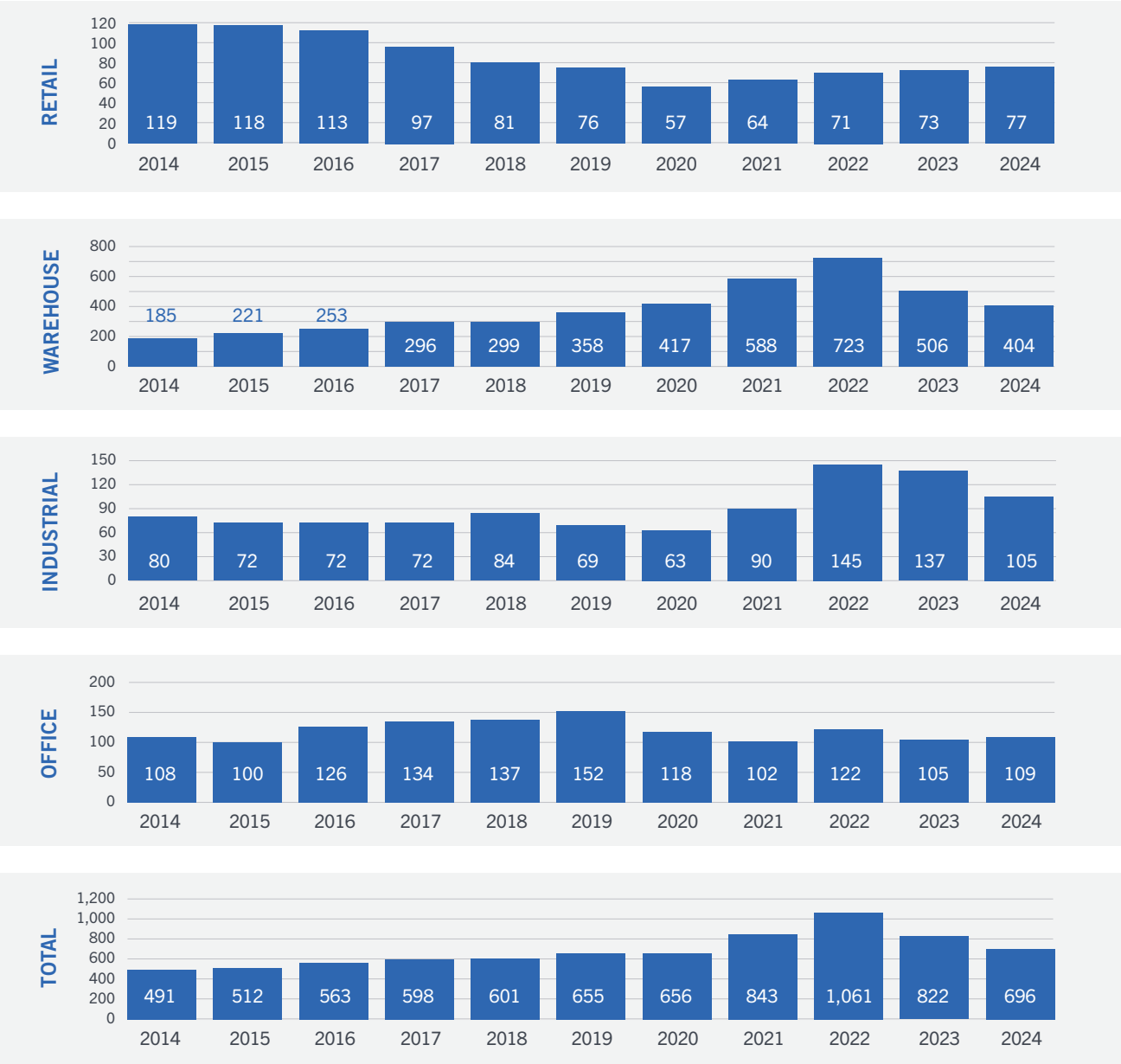
FIGURE 8: Total Value of Construction by Type, 2014-2024 (In Billions of Dollars)



Source: Dodge Construction Network.

Note: 2024 reflects the trailing 12 months through September 2024.

FIGURE 9: Total Square Feet of Construction by Type, 2014-2024 (In Millions of Square Feet)



Source: Dodge Construction Network.

Note: 2024 reflects the trailing 12 months through September 2024.

Office: Focus on Quality, Growth in Data Centers

While many companies have settled into a hybrid model for their employees, office space is still needed for peak days in the middle of the week. Ancillary property types are also affected by office occupancy, as office employees frequent downtown retail and hospitality buildings.

Office utilization has not fully recovered to pre-COVID levels. Placer.ai uses cell phone location data to build foot traffic counts for various buildings. Its return-to-office dashboard estimates that office attendance rates are at 72% of pre-COVID levels as of October 2024 among the U.S. markets the company tracks. This is up from 65% in October 2023 and 51% in October 2022. Some cities have experienced a larger recovery in office attendance than others. New York, for example, reached 82% utilization as of October 2024, and 91% for top-tier office buildings, indicative

of a shift in demand to high-quality office properties. Notably, the recovery rate for Wednesdays in New York is 105% of pre-COVID levels, compared with 53% on Fridays. This suggests that hybrid work is becoming the preferred mode for occupiers. San Francisco, on the other hand, has reached only 54% of pre-COVID office utilization.[9]

When selecting office space, employers are increasingly focused on high-quality buildings to entice employees to spend more time at the office. Decreased office utilization has disproportionately affected occupancy rates in older commodity office space. Prior to the COVID-19 pandemic, around 10%-20% of new office construction was Class B and C buildings, according to Moody's. However, this practice has been discontinued, and new construction is almost 100% Class A buildings, with structures only aging into the Class B or C category. Moody's also reported that office tenants are opting to sign more short-term leases, afraid of the uncertainty that comes with 10- to 15-year leases.[10]

After the COVID-19 pandemic, the sublease market for office grew steadily. However, as of the third quarter of 2024, CBRE reported the sublease availability rate to be 4.1%, down from 4.6% a year ago. Nationally, office vacancy remained at 19%, the same as the prior two quarters.[11]

Much of the growth in office space construction noted in this report is due to data center construction, which is included in the office totals. Data centers utilize large arrays of computing systems to process and store information. In the U.S. Census' May 2024 construction spending release, data centers were broken out of office for the first time, with historical numbers dating back to 2014. This new data revealed the rapid growth in data center construction. In September 2021, private data center construction accounted for just 11.8% of total office construction value put in place. This number grew to 28.7% of total office construction (34.4% of private office construction) in September 2024.

Retail: Growing Demand for Smaller Spaces

Demand for retail space in 2024 remained strong and shifted toward smaller and more creative spaces. Retailers that thrived offered experiential shopping with a more personalized touch or other activities for consumers to engage in between shopping, such as dining. While larger department stores struggled, retail as a whole proved resilient.

Department stores have continued to follow a trajectory of slow decline. Long-standing retailer Macy's announced that it expects to close around 150 locations by 2026, including its flagship San Francisco store. Vacated department stores may not be totally abandoned though– like defunct office buildings, many of these spaces can be transformed into retail alternatives, such as grocery stores, movie theaters or gyms.[12]

On the other hand, smaller and more specialized retailers have thrived recently. Many luxury brands are bypassing long-standing retailers and have begun opening their own stores. Luxury brand customers appear to be much less interested in the online competitors that have driven larger retailers to close stores. Additionally, many large retail brands including Whole Foods, Ikea, Target, Best Buy and Nordstrom have fueled their expansions with smaller-format stores. This approach has been quite successful, as stores can maintain a steady stream of customers while reducing overhead costs.[13]

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[9] Placer.ai, "Return to Office Report," https://analytics.placer.ai/advanced-reports/external-iframe-report_return-to-office.
[10] Christopher Rosin et al., "Office Market Shows Signs of Nearing Bottom," Moody's, August 15, 2024, https://www.moodyscre.com/insights/cre-news/office-market-shows-signs-of-nearing-bottom/.

[11] CBRE, "U.S. Office Market Recovery Continues," October 28, 2024, https://www.cbre.com/insights/figures/q3-2024-us-office-figures.
[12] Lu Chen, David Caputo, and Caglar Demir, "Are Smaller-Yet-Smarter Layouts Translating to Stronger Retail Performance?" Moody's, March 14, 2024, https://www.moodyscre.com/insights/cre-news/are-smaller-yet-smarter-layouts-translating-to-stronger-retail-performance/.
[13] Maytal Cohen and Noam Maman, "Small Format Stores – Sprouting, Blooming, and Expanding," blog entry, Placer.ai Blog, June 25, 2024, https://www.placer.ai/blog/small-format-stores-sprouting-blooming-and-expanding.

Brick-and-mortar retail continues to be a major part of American lives. E-commerce reached a record high 16.2% of total retail sales in the third quarter of 2024, up from 15.4% the prior year, according to census data.[14] However, most retail sales still occur in stores. Furthermore, e-commerce and brick-and-mortar are becoming increasingly intertwined, with more retailers offering the option to buy products online and pick them up in-store, as well as opportunities to order deliveries while shopping in-store. Retailers are also intentionally using brick-and-mortar stores as showcases to boost online sales. Even with online shopping being omnipresent, a recent ICSC study suggests that having physical locations can boost online sales by around 6.9%. The same study reported that closing a retail location caused an average 11.5% decrease in online sales.[15] A CBRE study found that brick-and-mortar is heavily preferred for many retail categories, including housewares, clothing, jewelry and luxury items. Retail construction has grown across multiple metrics (see Table 6, Figure 8) and will likely continue to constitute a large portion of new commercial real estate construction for the foreseeable future.[16]

Industrial: Reshoring Continues as Supply Chain Pressures Ease

Industrial commercial real estate construction has slowed over the last two years after outperforming other sectors in 2021 and 2022. Much of the new construction now coming online can be attributed to recent reshoring efforts in the U.S. The CHIPS Act and Inflation Reduction Act, both of which provided incentives to manufacturers, some specifically for semiconductors, likely led to some of this reshoring.

Industrial capacity utilization in October 2024 was down slightly from the previous year, coming in at 77.1% (vs. 78.3% in October 2023). Industrial production remained relatively flat, decreasing 0.3% in October 2024 on a year-over-year basis. On the other hand, the ISM Manufacturing New Orders Index was up 3.5% year over year in October 2024.[17] Declining capacity utilization may partially explain a decline in new manufacturing construction starts from 2023 to 2024 (see Table 6).

The New York Fed's Global Supply Chain Pressure Index, which measures the standard deviation of supply chain pressure factors such as delivery time and backlog in comparison to historical values, posted a reading of -0.32 in October 2024. This is down from a recent peak of 4.39 in December 2021, demonstrating that supply chain disturbances have mostly normalized. In 2021 and 2022, more warehouse space was needed due to supply chain pressures preventing goods from being completed and moved by distributors.[18]

During 2021 and 2022, warehouse prices and rents both outpaced the Consumer Price Index according to Moody's. However, in 2023 rent growth slowed closer to the general rate of inflation.[19] Growth in demand for warehouse and distribution space also began to slow in 2023 as retailers paused pandemic-era expansion plans and began to reduce their inventory levels. At the same time, a large volume of building completions over the last two years has pushed up vacancy rates. Retailer and wholesaler inventory levels have since stabilized and the pace of warehouse and distribution building completions has slowed, suggesting that industrial vacancy rates will likely stabilize in 2025.[20]

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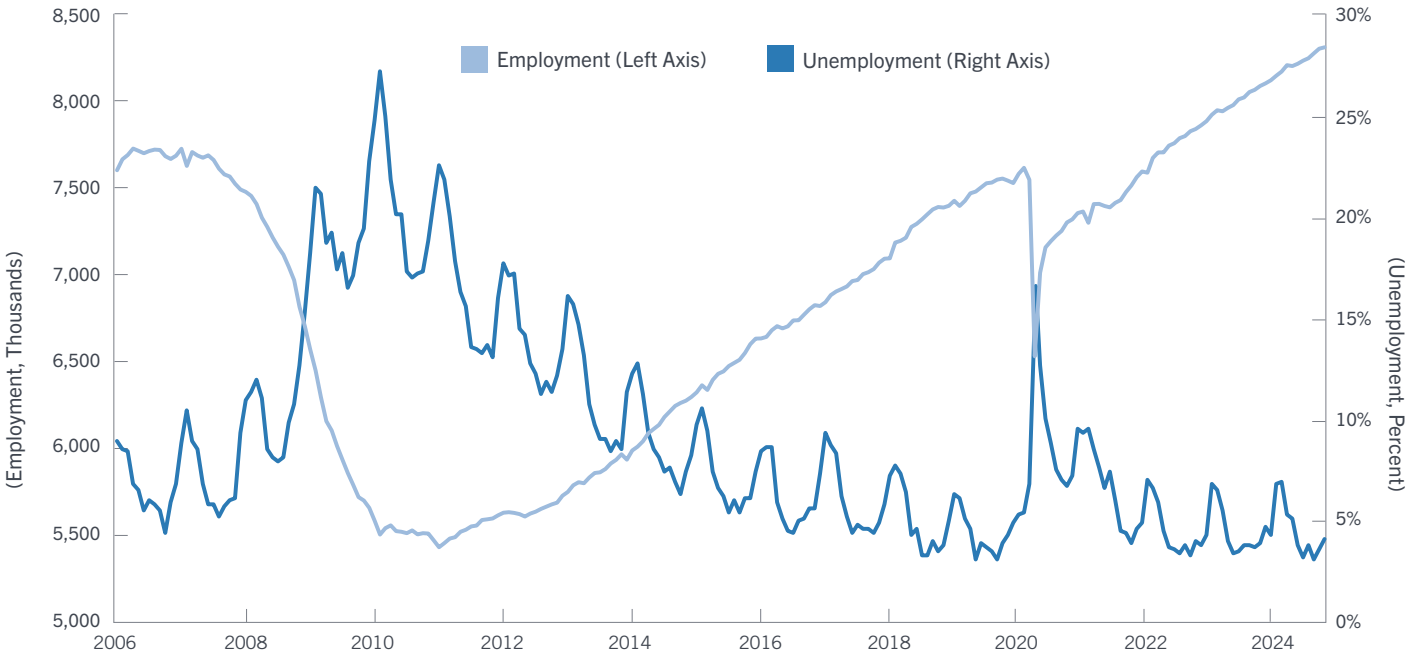
[14] U.S Census Bureau, "Quarterly E-Commerce Sales," November 19, 2024, https://www.census.gov/retail/ecommerce.html.
[15] ICSC, "The Halo Effect III," December 12, 2023, https://www.icsc.com/news-and-views/icsc-exchange/icsc-halo-effect-iii.
[16] CBRE, "Reports of Street Retail's Demise Are Greatly Exaggerated," May 13, 2024, https://www.cbre.com/insights/viewpoints/reports-of-street-retails-demise-are-greatly-exaggerated.
[17] Federal Reserve Bank of St. Louis, FRED Economic Data, https://fred.stlouisfed.org/.
[18] Federal Reserve Bank of New York, Global Supply Chain Pressure Index, https://www.newyorkfed.org/research/policy/gscpi.
[19] Todd Metcalfe, "Is the Distribution Bubble About to Burst? Or Will Price Gains Endure?" Moody's, May 22, 2024, https://www.moodyscre.com/insights/cre-news/is-the-distribution-bubble-about-to-burst-or-will-price-gains-endure/.
[20] Hany Guirguis and Joshua Harris, "Industrial Space Demand Forecast, Third Quarter 2024," NAIOP Research Foundation, August 2024, https://www.naiop.org/research-and-publications/research-reports/reports/industrial-space-demand-forecast-third-quarter-2024/.

Construction employment reached an all-time high of 8.3 million jobs in October 2024. With the economy stabilizing, construction industry demand for workers remains strong. Construction unemployment stood at 4.2% (unadjusted) in October 2024 compared with the unadjusted U.S. unemployment rate of 4.1% for the same month. The job opening rate was 4.6% in October 2024 (compared with 5.2% in October 2023), with 7.7 million openings.

FIGURE 10: U.S. Construction Employment and Unemployment, 2006-2024



Source: Employment from the Bureau of Labor Statistics, CES (seasonally adjusted); unemployment from the BLS, CPS (not seasonally adjusted).

Conclusion

The total value of construction project completions was up an estimated 7.3% in 2024 and accounted for approximately 22.1% of total GDP (inclusive of the multiplier effect). The subsector of nonresidential construction has been a strong performer for the industry at large in 2024, with the value of completions increasing 7.3% year to date in September 2024. Manufacturing continued to play a significant role, with the value of completions in the sector seeing 23.2% growth year to date in September 2024. By contrast, high interest rates and construction costs and a shortage of some components (e.g., switchgear) contributed to a slowdown in new commercial real estate construction starts in 2024, with a particularly sharp reduction in manufacturing starts (down 14.2% year over year in September 2024).

However, as inflation and interest rates decline and supply chain issues resolve, conditions for new commercial real estate projects should improve in 2025. Although slightly lower growth in real (inflation-adjusted) GDP (1.9%) and real business investment (2.6%) are expected in 2025, they still represent growth, which will be beneficial for commercial real estate.[21] As developers gain more confidence about the current economic climate, the value of construction starts will likely increase modestly in 2025.

[21] GDP and fixed business investment projections from November 2024 issue of Consensus Forecasts.

TABLE 8 Impacts of Operations on State Economies (In Four Categories), 2024

State	Direct Spending (In Thousands of Dollars)	Total Output (In Thousands of Dollars)	Personal Earnings (In Thousands of Dollars)	Jobs Supported
Alabama	$73,131	$149,846	$49,217	1,471
Alaska	5,945	9,666	3,387	103
Arizona	133,242	283,593	95,508	2,358
Arkansas	10,837	20,521	6,808	206
California	235,921	502,275	168,919	3,946
Colorado	82,668	180,646	60,934	1,448
Connecticut	14,206	27,639	8,747	212
Delaware	9,046	15,837	4,396	120
District of Columbia	6,685	8,650	883	26
Florida	431,429	911,308	308,213	8,926
Georgia	146,909	336,877	109,506	2,928
Hawaii	7,469	13,915	4,737	124
Idaho	43,633	82,846	28,017	825
Illinois	66,423	155,330	49,346	1,183
Indiana	61,995	131,826	42,194	1,059
Iowa	47,098	85,501	27,740	814
Kansas	30,739	59,569	17,687	471
Kentucky	38,393	78,164	23,857	654
Louisiana	31,519	60,576	20,452	614
Maine	3,609	6,848	2,316	63
Maryland	20,968	40,946	12,715	337
Massachusetts	38,143	75,549	24,217	580
Michigan	36,921	81,027	26,857	671
Minnesota	52,851	108,546	35,992	877
Mississippi	29,736	55,399	18,005	551
Missouri	23,060	49,036	14,867	414
Montana	10,142	18,123	6,286	192
Nebraska	27,506	50,808	16,668	480
Nevada	36,898	69,081	23,010	612
New Hampshire	8,805	16,658	5,067	121
New Jersey	80,459	174,854	53,320	1,278
New Mexico	16,983	29,549	10,136	312
New York	139,007	259,179	79,248	1,975
North Carolina	120,254	267,360	86,763	2,391
North Dakota	15,537	26,479	8,321	253
Ohio	80,500	179,434	57,590	1,478
Oklahoma	36,333	72,491	24,441	725
Oregon	37,729	75,530	24,539	602
Pennsylvania	60,663	129,394	41,287	1,006
Rhode Island	3,862	7,130	2,097	52
South Carolina	50,457	110,774	35,164	1,046
South Dakota	21,266	36,651	12,026	365
Tennessee	52,365	122,743	38,671	964
Texas	733,251	1,779,819	582,201	15,656
Utah	43,416	92,920	31,021	855
Vermont	1,551	2,719	893	27
Virginia	154,730	309,368	95,608	2,460
Washington	87,612	176,136	58,683	1,404
West Virginia	9,494	16,237	5,058	148
Wisconsin	61,235	123,163	40,648	1,088
Wyoming	15,114	24,127	8,059	258
U.S. Totals	**$3,587,743**	**$9,915,041**	**$3,223,142**	**66,730**

Sources: Dodge Construction Network, BEA, NAIOP, NCREIF; author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

TABLE 9

Total Impacts of Soft Cost, Site Development, Hard Costs, and Tenant Improvements on State Economies (in Four Categories), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$5.68	$12.30	$3.76	68,976
Alaska	0.44	0.69	0.23	3,551
Arizona	15.03	31.35	10.02	163,980
Arkansas	2.64	5.26	1.61	29,703
California	15.14	30.77	9.90	148,457
Colorado	3.12	6.67	2.14	33,395
Connecticut	1.03	1.94	0.59	9,037
Delaware	0.32	0.53	0.14	2,239
District of Columbia	0.50	0.59	0.04	592
Florida	20.23	42.09	13.50	253,469
Georgia	16.63	38.31	11.81	208,845
Hawaii	0.60	1.04	0.34	5,384
Idaho	16.61	32.18	10.15	186,922
Illinois	8.36	19.41	5.83	94,935
Indiana	10.73	23.75	7.08	119,221
Iowa	6.56	12.69	3.82	67,599
Kansas	3.05	6.14	1.73	30,961
Kentucky	4.13	8.66	2.50	45,443
Louisiana	6.63	12.90	4.06	75,199
Maine	0.25	0.48	0.16	2,790
Maryland	1.67	3.07	0.90	15,071
Massachusetts	4.23	8.02	2.43	36,684
Michigan	6.04	13.43	4.21	72,607
Minnesota	4.71	10.02	3.09	48,684
Mississippi	7.87	15.39	4.67	87,254
Missouri	5.12	11.04	3.13	54,760
Montana	0.32	0.59	0.19	3,515
Nebraska	2.28	4.32	1.33	23,832
Nevada	3.06	5.71	1.80	28,907
New Hampshire	0.52	1.02	0.30	4,504
New Jersey	5.31	11.25	3.30	51,477
New Mexico	1.03	1.73	0.56	10,284
New York	15.49	27.21	7.98	123,532
North Carolina	15.18	34.20	10.51	185,936
North Dakota	0.93	1.63	0.47	7,956
Ohio	13.85	31.66	9.53	163,517
Oklahoma	2.35	4.81	1.52	28,415
Oregon	4.23	8.59	2.57	41,275
Pennsylvania	6.02	13.59	4.05	65,494
Rhode Island	0.25	0.44	0.12	2,015
South Carolina	9.99	22.18	6.61	125,030
South Dakota	1.29	2.38	0.75	13,053
Tennessee	10.86	25.90	7.60	122,686
Texas	59.39	146.27	45.36	783,508
Utah	14.27	30.91	9.70	168,175
Vermont	0.06	0.11	0.04	635
Virginia	14.31	28.19	8.31	143,208
Washington	6.26	12.61	3.97	60,439
West Virginia	4.04	7.07	2.02	36,905
Wisconsin	5.51	11.60	3.61	59,509
Wyoming	1.88	2.98	0.92	17,046
U.S. Totals	**$366.04**	**$1,070.39**	**$384.14**	**5,314,039**

Sources: Dodge Construction Network, BEA, NAIOP, NCREIF; author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Jobs Housed and Payroll Value

In addition to the annual operating expenditures associated with new buildings, these structures represent new productive capacity within the national economy. While the value of this added capacity depends on how each building is used, two common measures are the number of jobs this new capacity can accommodate and the amount of payroll these new jobs can potentially generate. Using an average-jobs-per-square-foot estimate for each category of building, it is possible to estimate the total number of employees that could be housed within the buildings built in 2024. The total payroll value of these new workers can also be calculated by multiplying this employment estimate by the 2024 U.S. average wage earnings per worker for the mix of jobs associated with each building category.

These calculations are presented in Table 10. They show that the 696 million square feet of new office, industrial, warehouse and retail space constructed in 2024 has the capacity to house 1.6 million new workers with a total estimated annual payroll of $128 billion.

TABLE 10 **Jobs Accommodated and Payroll Generated in Office, Industrial, Warehouse, and Retail Space Construction in 2024**

Building Type	**Square Feet** (In Millions)	**Square Feet per Job**	**Jobs Accommodated** (In Thousands)	**Average Earnings per Job**	**Total Payroll** (In Billions of Dollars)
Office	109	190	575	$130,752	$75
Industrial	105	750	140	82,575	12
Warehouse	404	600	674	51,865	35
Retail/Entertainment	77	475	162	41,140	7
Total/Average	**696**	**449**	**1,551**	**$82,770**	**$128**

Sources: Dodge Construction Network; U.S. Bureau of Labor Statistics (QCEW), Newmark Group, Inc.; author's calculations.

Note: For this study, office jobs were tabulated for Information; Finance and Insurance; and Professional, Scientific, and Technical Services industries. Industrial jobs included the Manufacturing industry; Warehouse jobs included the Warehouse industry; and Retail/Entertainment jobs included the Retail industry.

Note on Methodology

Construction Value and Area

To publish the economic results in this report in January 2025, full-year 2024 data was estimated. The construction estimates (value and area) for 2024 were provided by Dodge Construction Network and based on activity for the 12 months ending in September 2024 and revised annual construction totals for 2023 and 2022. Values before 2021 were kept the same as in the previous report, released in February 2024. It is important to note that Dodge Construction Network categorizes data centers as office properties in their data.

Economic Multipliers

The output (GDP), personal earnings (wages and salaries), and jobs-supported multipliers used in the 2025 report reflect the most recent revisions that the U.S. Department of Commerce's Bureau of Economic Analysis and IMPLAN acquired in November 2024. These multipliers are based on the 2017 Benchmark Input-Output Table for the nation and 2022 regional data.

Multipliers by state were sourced from the Bureau of Economic Analysis (RIMS II) for three industries: construction (office and commercial structures), soft costs (architectural, engineering and related services) and operations (services to buildings and dwellings). The aggregated national multipliers were sourced from IMPLAN.

- **Construction** multipliers are utilized for hard costs, site improvements and tenant improvements.
- **Architectural and engineering services** multipliers are utilized to represent the bundle of construction-related professional services considered in this report and identified as soft costs (preconstruction).
- **Services to buildings** multipliers are utilized to represent the bundle of building operations services (including building management, repair and maintenance, custodial, security, and sales and marketing, but excluding financing costs).

Operations Costs

Building maintenance costs were generated using the per square foot costs from the NCREIF Property Index (NPI). National aggregated operation costs by property type were utilized, as well as state-level data. A regional average was used when states were not represented in the NPI, with regional areas mapped from the BEA. Historic data sets from reports published before 2023 are expected to differ from data reported in this report, as cost estimates in those reports utilized Building Owners and Managers Association (BOMA) International survey data.

Survey of NAIOP Members

Since 2006, NAIOP has conducted member surveys to determine the distribution of construction costs across the four major categories of building development—soft costs, site development, hard costs and tenant improvements—by type of building. The results of these surveys are shown in Table 11.

TABLE 11 **Survey of NAIOP Members' Building Cost Allocation Percentages (%), by Building Type, 2006, 2008, 2013, 2016, 2018, 2021, 2023**

Building Type	Soft Construction Costs[1]	Site Development Costs	Building Construction Costs	Tenant Improvement Costs
Office				
2023	15.9%	13.8%	48.9%	21.4%
2021	15.1	10.2	53.0	21.8
2018	18.1	11.6	52.4	17.9
2016	16.4	13.7	49.2	20.6
2013	14.4	14.5	49.5	21.6
2008	17.4	14.2	49.7	18.6
2006	17.1	15.8	49.5	17.6
Manufacturing				
2023	14.2	16.2	49.2	20.5
2021	12.6	13.8	51.0	22.7
2018	10.0	14.9	56.2	18.9
2016	12.3	9.4	57.1	21.3
2013	16.9	13.8	54.0	15.3
2008	14.3	19.3	52.6	13.8
2006	12.1	18.6	55.7	13.7
Warehouse/Flex				
2023	16.9	18.4	52.5	12.2
2021	14.2	18.3	54.5	13.0
2018	14.7	17.5	54.9	12.9
2016	14.1	15.5	57.9	12.6
2013	14.6	19.0	53.3	13.1
2008	17.1	18.5	53.6	13.7
2006	14.2	16.8	55.0	14.1
Retail				
2023	10.8	16.6	56.6	16.0
2021	15.3	15.9	47.6	21.3
2018	19.1	13.7	46.0	21.3
2016	17.7	14.4	49.3	18.6
2013	17.0	21.8	44.3	16.9
2008	15.8	20.8	47.0	16.4
2006	17.7	16.1	52.4	13.8
Combined[2]				
2023	15.8	17.2	52.1	15.0
2021	14.3	15.6	53.1	17.1
2018	15.5	14.4	52.4	17.7
2016	15.4	14.2	53.2	17.2
2013	15.2	17.3	49.1	17.3
2008	15.6	17.2	51.2	15.9
2006	16.3	16.4	52.5	14.9

Source: NAIOP survey.

[1] Professional services and administrative and management processes required to support the construction project.

[2] Weighted average reflecting the number of responses by type.

Definitions

Area of Analysis – the geographic unit of analysis, normally a political unit, for which economic, demographic and fiscal information is reported.

Building Value – construction value would include hard costs (costs of the structure) and soft costs (management, architecture and engineering, legal fees, communications); the finished commercial value would reflect cash flow potential or current performance. Assessed valuation for tax purposes may be accepted as an appropriate substitute for actual market value.

Development Costs – includes all of the construction-related expenditures associated with developing a building, which include soft construction costs, site development costs, hard construction costs and tenant improvement expenditures.

Direct Expenditures – all spending in support of all phases of new construction required to deliver the final product as well as the operation phase (after the building delivers), including payroll of the workers directly involved and all nonpayroll spending for materials, management, overhead, utilities, equipment leasing or purchases for or by subcontractors, suppliers and vendors.

Economic Impact – the generation of new spending within a jurisdiction as a result of investing in and operating new economic activity; in this case, office, industrial, warehouse and retail buildings.

Fiscal Impact – the effect of real estate development on the revenues and expenditures of the jurisdiction where the building is located.

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

Gross Square Feet – a measure of an individual building size or aggregate inventory of building space reflecting the total envelope of the structure, which is typically larger than the occupied or usable building area.

Hard Construction Costs – a category of construction costs that reflects the expenditures for the building's hard construction phase. Costs for labor, materials and construction management are the three basic types of hard costs. Soft construction costs, site development costs and tenant improvement expenditures are reported independently from hard construction costs.

Indirect Benefit – the additional economic benefits (measured in dollars or jobs) resulting from the accumulated additional value generated by direct expenditures, as these dollars are re-spent within the economy. Indirect effects are calculated using **Multipliers** and include sales and purchases by businesses supplying goods and services in support of building construction and operation as well as the re-spending of payroll by workers (**Induced Effects**) associated with the new building.

Induced Effects – the contributions of the payroll spending by workers in a specific industry or sector on local businesses providing goods and services to households.

Infrastructure – utilities, roads, parking lots, storm drainage structures; other site improvements could be included in estimating these costs if not included elsewhere. If these improvements are financed by the private sector, whether on-site or off-site, their costs should be included in the base values for calculating industry economic contributions.

Interstate Spillovers – economic contributions that are generated by direct construction expenditures in a given state that are realized by another state due to workers commuting across state lines (i.e., earning wages in one state and spending these earnings in their home state) and the importation of building materials from another state. These economic impacts are not reflected in the benefiting states' multipliers but are captured in the U.S. multipliers and reported in the U.S. totals.

Multiplier – a number used to calculate the final economic impact of one dollar spent. Types of multipliers include:

- **output multiplier** measures the contribution of a direct expenditure on the overall economy (gross domestic product or gross state product).
- **employment multiplier** measures the total number of jobs that can be supported by a direct expenditure (expressed in jobs supported per $1 million in direct spending).
- **personal earnings multiplier** measures the total personal earnings (wages and salaries) generated within the state or nation as a result of a direct expenditure and the jobs it supports.

Operating Costs – costs (expenditures) associated with the day-to-day operation of an office, industrial, warehouse or retail building including building management, utilities, normal maintenance and repair, custodial services and security. These costs do not include the operating costs of building tenants.

Output – the goods and services produced for sale to other firms or industries as intermediate goods or services or for sale to consumers as final goods or services.

Personal Earnings – wages and salaries (payroll) paid out to all workers related directly or indirectly to the construction activity (pre-construction, construction, post-construction) for which direct expenditures are made. These wages and salaries include payment to the workers directly related to construction work being performed, employees of suppliers and vendors related to that work, and employees of businesses and organizations benefiting from the spending of these new wages and salaries generated as a result of these direct expenditures; that is, employees working in retail and consumer services, health care, education, local government and so on, whose business sales and cash flow have increased because of the new wages and salaries paid to workers in construction-related activities.

Sector – industries or firms grouped by similar characteristics of operations (e.g., retail trade sector, manufacturing sector, construction sector, services sector, government sector, etc.).

Site Development – a category of construction costs that reflects improvements made to the site before a building can be constructed. These costs include grading, infrastructure, landscaping, surface and structured parking, and other costs to prepare the site to support the functions of the building constructed on the site.

Soft Construction Costs – a category of development costs that reflects the professional services and administrative and management processes required to support the construction project. These may precede actual on-site construction by several years and may include legal and other consultant services, architectural and engineering services, management and administration.

Tenant Improvement Costs – a category of construction costs that reflects improvements made to the interior of a building to meet the needs of a specific tenant. Costs may include interior walls and partitions, floor coverings and cabinets, but excludes furnishings. The building owner or the tenant may pay for these improvements.

Total Output – the sum of the direct and indirect benefits (expenditures) reflecting the combination of the initial expenditures by a firm and its subsequent accumulated value as this spending is recirculated throughout the economy. This includes benefits (induced) generated by the re-spending of personal earnings. This represents the total contribution to gross domestic product or gross state product.

Value Added – a measure of the incremental dollar value created by an industry, firm or individual employee as a result of its production process (work performed); the value created beyond the value of the individual inputs.

Appendix A-1: Impacts of Soft Costs on State Economies (Office), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.59	$1.14	$0.42	6,648
Alaska	0.05	0.08	0.03	414
Arizona	0.62	1.33	0.49	7,426
Arkansas	0.15	0.26	0.10	1,600
California	0.99	2.11	0.78	10,544
Colorado	0.27	0.59	0.22	3,054
Connecticut	0.05	0.10	0.03	459
Delaware	0.01	0.02	0.01	106
District of Columbia	0.07	0.09	0.01	137
Florida	0.94	2.00	0.74	12,617
Georgia	0.84	1.87	0.67	10,924
Hawaii	0.03	0.06	0.02	344
Idaho	0.06	0.11	0.04	672
Illinois	0.35	0.79	0.28	4,078
Indiana	0.77	1.55	0.56	8,902
Iowa	0.60	1.05	0.38	5,863
Kansas	0.12	0.24	0.08	1,191
Kentucky	0.11	0.21	0.07	1,168
Louisiana	0.12	0.23	0.09	1,415
Maine	0.01	0.02	0.01	103
Maryland	0.08	0.16	0.05	791
Massachusetts	0.28	0.57	0.20	2,744
Michigan	0.09	0.20	0.07	1,094
Minnesota	0.41	0.83	0.30	4,418
Mississippi	0.58	1.02	0.38	6,256
Missouri	0.22	0.45	0.14	2,232
Montana	0.03	0.05	0.02	281
Nebraska	0.23	0.42	0.15	2,359
Nevada	0.16	0.30	0.11	1,634
New Hampshire	0.02	0.03	0.01	147
New Jersey	0.19	0.42	0.14	2,017
New Mexico	0.06	0.11	0.04	673
New York	1.27	2.36	0.77	10,697
North Carolina	0.74	1.62	0.59	9,491
North Dakota	0.11	0.18	0.06	955
Ohio	1.11	2.33	0.83	13,261
Oklahoma	0.18	0.35	0.13	2,247
Oregon	0.39	0.78	0.28	4,409
Pennsylvania	0.25	0.52	0.18	2,747
Rhode Island	0.00	0.01	0.00	39
South Carolina	0.09	0.19	0.07	1,136
South Dakota	0.07	0.12	0.04	706
Tennessee	0.26	0.59	0.21	3,041
Texas	3.15	7.56	2.71	42,426
Utah	0.12	0.26	0.09	1,582
Vermont	0.00	0.00	0.00	15
Virginia	1.53	3.06	1.03	15,235
Washington	0.38	0.76	0.28	3,790
West Virginia	0.02	0.04	0.01	232
Wisconsin	0.36	0.70	0.26	3,955
Wyoming	0.26	0.42	0.16	2,600
Total	**$19.40**	**$54.30**	**$21.60**	**262,257**

Sources: Dodge Construction Network, BEA, and NAIOP.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix A-2: Impacts of Soft Costs on State Economies (Industrial), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.14	$0.26	$0.10	1,532
Alaska	0.01	0.01	0.00	57
Arizona	0.66	1.41	0.52	7,904
Arkansas	0.16	0.28	0.10	1,710
California	0.14	0.29	0.11	1,461
Colorado	0.02	0.05	0.02	243
Connecticut	0.01	0.02	0.01	79
Delaware	0.00	0.00	0.00	13
District of Columbia	0.01	0.01	0.00	11
Florida	0.26	0.54	0.20	3,437
Georgia	0.94	2.10	0.76	12,264
Hawaii	0.00	0.01	0.00	37
Idaho	2.22	4.21	1.58	26,184
Illinois	0.41	0.92	0.32	4,738
Indiana	0.58	1.15	0.41	6,633
Iowa	0.26	0.45	0.17	2,547
Kansas	0.14	0.27	0.09	1,368
Kentucky	0.33	0.63	0.22	3,550
Louisiana	0.66	1.26	0.48	7,796
Maine	0.00	0.01	0.00	46
Maryland	0.02	0.04	0.01	219
Massachusetts	0.11	0.23	0.08	1,086
Michigan	0.59	1.25	0.46	6,780
Minnesota	0.13	0.27	0.10	1,455
Mississippi	0.54	0.95	0.35	5,814
Missouri	0.22	0.44	0.14	2,159
Montana	0.00	0.00	0.00	8
Nebraska	0.03	0.05	0.02	306
Nevada	0.01	0.02	0.01	122
New Hampshire	0.03	0.05	0.02	233
New Jersey	0.01	0.02	0.01	105
New Mexico	0.03	0.05	0.02	319
New York	0.41	0.76	0.25	3,434
North Carolina	0.96	2.10	0.76	12,286
North Dakota	0.00	0.00	0.00	24
Ohio	0.54	1.14	0.41	6,459
Oklahoma	0.03	0.07	0.03	424
Oregon	0.12	0.24	0.09	1,333
Pennsylvania	0.09	0.19	0.07	987
Rhode Island	0.01	0.02	0.00	75
South Carolina	1.08	2.29	0.81	13,995
South Dakota	0.08	0.13	0.05	791
Tennessee	0.89	2.01	0.70	10,307
Texas	2.69	6.45	2.31	36,198
Utah	1.75	3.74	1.37	23,116
Vermont	–	–	–	–
Virginia	0.27	0.55	0.19	2,729
Washington	0.16	0.32	0.12	1,573
West Virginia	0.54	0.91	0.32	5,190
Wisconsin	0.22	0.42	0.15	2,356
Wyoming	0.02	0.04	0.01	243
Total	**$18.51**	**$51.81**	**$20.61**	**250,242**

Sources: Dodge Construction Network, BEA, and NAIOP.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix A-3: Impacts of Soft Costs on State Economies (Warehouse), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.09	$0.17	$0.06	989
Alaska	0.01	0.02	0.01	114
Arizona	0.90	1.92	0.71	10,760
Arkansas	0.06	0.11	0.04	702
California	1.02	2.18	0.80	10,859
Colorado	0.12	0.28	0.10	1,435
Connecticut	0.05	0.10	0.04	494
Delaware	0.03	0.05	0.01	206
District of Columbia	–	–	–	–
Florida	1.32	2.80	1.04	17,683
Georgia	0.48	1.08	0.39	6,300
Hawaii	0.05	0.10	0.04	526
Idaho	0.06	0.12	0.04	735
Illinois	0.45	1.03	0.36	5,290
Indiana	0.23	0.46	0.16	2,625
Iowa	0.10	0.18	0.07	1,022
Kansas	0.16	0.30	0.10	1,509
Kentucky	0.12	0.23	0.08	1,303
Louisiana	0.09	0.18	0.07	1,095
Maine	0.02	0.03	0.01	196
Maryland	0.10	0.20	0.07	1,021
Massachusetts	0.19	0.38	0.13	1,814
Michigan	0.15	0.31	0.11	1,679
Minnesota	0.15	0.30	0.11	1,620
Mississippi	0.04	0.07	0.03	438
Missouri	0.29	0.59	0.19	2,895
Montana	0.02	0.03	0.01	168
Nebraska	0.08	0.14	0.05	811
Nevada	0.27	0.51	0.19	2,822
New Hampshire	0.01	0.02	0.01	87
New Jersey	0.56	1.21	0.41	5,805
New Mexico	0.03	0.05	0.02	275
New York	0.50	0.93	0.30	4,207
North Carolina	0.43	0.94	0.34	5,508
North Dakota	0.02	0.03	0.01	171
Ohio	0.33	0.68	0.24	3,890
Oklahoma	0.08	0.15	0.06	950
Oregon	0.12	0.23	0.08	1,299
Pennsylvania	0.52	1.10	0.38	5,808
Rhode Island	0.02	0.04	0.01	222
South Carolina	0.23	0.48	0.17	2,916
South Dakota	0.03	0.06	0.02	354
Tennessee	0.32	0.72	0.25	3,662
Texas	2.33	5.61	2.01	31,445
Utah	0.13	0.28	0.10	1,753
Vermont	0.00	0.01	0.00	49
Virginia	0.32	0.65	0.22	3,216
Washington	0.36	0.73	0.27	3,629
West Virginia	0.00	0.00	0.00	16
Wisconsin	0.21	0.41	0.15	2,320
Wyoming	0.00	0.00	0.00	24
Total	**$13.23**	**$37.03**	**$14.73**	**178,856**

Sources: Dodge Construction Network, BEA, and NAIOP.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix A-4: Impacts of Soft Costs on State Economies (Retail and Entertainment), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.06	$0.11	$0.04	640
Alaska	0.00	0.00	0.00	22
Arizona	0.12	0.25	0.09	1,423
Arkansas	0.03	0.05	0.02	284
California	0.20	0.43	0.16	2,156
Colorado	0.06	0.14	0.05	705
Connecticut	0.04	0.07	0.02	336
Delaware	0.01	0.01	0.00	42
District of Columbia	0.01	0.01	0.00	11
Florida	0.51	1.07	0.40	6,775
Georgia	0.20	0.45	0.16	2,604
Hawaii	0.01	0.01	0.00	65
Idaho	0.02	0.04	0.02	272
Illinois	0.07	0.15	0.05	776
Indiana	0.05	0.10	0.04	563
Iowa	0.04	0.07	0.02	371
Kansas	0.03	0.07	0.02	328
Kentucky	0.05	0.09	0.03	496
Louisiana	0.07	0.13	0.05	824
Maine	0.01	0.01	0.00	76
Maryland	0.04	0.09	0.03	440
Massachusetts	0.06	0.13	0.05	620
Michigan	0.05	0.10	0.04	565
Minnesota	0.04	0.07	0.03	384
Mississippi	0.02	0.04	0.02	271
Missouri	0.05	0.10	0.03	493
Montana	0.01	0.01	0.01	83
Nebraska	0.02	0.03	0.01	177
Nevada	0.04	0.07	0.03	409
New Hampshire	0.02	0.04	0.01	173
New Jersey	0.08	0.16	0.06	785
New Mexico	0.03	0.05	0.02	317
New York	0.18	0.34	0.11	1,523
North Carolina	0.13	0.28	0.10	1,623
North Dakota	0.01	0.02	0.01	118
Ohio	0.12	0.25	0.09	1,442
Oklahoma	0.05	0.10	0.04	658
Oregon	0.03	0.05	0.02	281
Pennsylvania	0.08	0.17	0.06	882
Rhode Island	0.00	0.00	0.00	23
South Carolina	0.05	0.11	0.04	667
South Dakota	0.01	0.02	0.01	129
Tennessee	0.11	0.26	0.09	1,318
Texas	0.74	1.77	0.63	9,921
Utah	0.04	0.09	0.03	568
Vermont	0.00	0.01	0.00	30
Virginia	0.10	0.19	0.06	955
Washington	0.07	0.13	0.05	671
West Virginia	0.01	0.01	0.00	55
Wisconsin	0.05	0.09	0.03	499
Wyoming	0.00	0.01	0.00	34
Total	**$3.80**	**$10.63**	**$4.23**	**51,330**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix A-5: Impacts of Soft Costs on State Economies (in Four Categories), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.86	$1.69	$0.62	9,809
Alaska	0.07	0.11	0.04	607
Arizona	2.31	4.91	1.81	27,512
Arkansas	0.39	0.70	0.26	4,297
California	2.35	5.02	1.85	25,021
Colorado	0.47	1.05	0.39	5,436
Connecticut	0.15	0.28	0.10	1,368
Delaware	0.05	0.08	0.02	367
District of Columbia	0.08	0.11	0.01	160
Florida	3.02	6.42	2.38	40,512
Georgia	2.46	5.49	1.98	32,092
Hawaii	0.09	0.18	0.07	972
Idaho	2.36	4.48	1.68	27,863
Illinois	1.28	2.88	1.01	14,882
Indiana	1.63	3.26	1.17	18,723
Iowa	1.00	1.75	0.64	9,803
Kansas	0.46	0.87	0.29	4,396
Kentucky	0.60	1.15	0.40	6,517
Louisiana	0.95	1.80	0.68	11,131
Maine	0.04	0.07	0.03	421
Maryland	0.25	0.49	0.17	2,470
Massachusetts	0.64	1.30	0.46	6,265
Michigan	0.87	1.86	0.68	10,118
Minnesota	0.73	1.48	0.54	7,877
Mississippi	1.18	2.09	0.77	12,779
Missouri	0.78	1.58	0.50	7,779
Montana	0.05	0.09	0.03	540
Nebraska	0.36	0.65	0.24	3,653
Nevada	0.48	0.91	0.34	4,988
New Hampshire	0.07	0.14	0.05	640
New Jersey	0.84	1.82	0.61	8,712
New Mexico	0.15	0.26	0.10	1,585
New York	2.36	4.39	1.43	19,861
North Carolina	2.26	4.95	1.78	28,907
North Dakota	0.14	0.24	0.09	1,268
Ohio	2.10	4.40	1.57	25,052
Oklahoma	0.35	0.67	0.25	4,278
Oregon	0.65	1.30	0.47	7,322
Pennsylvania	0.94	1.97	0.69	10,424
Rhode Island	0.04	0.07	0.02	358
South Carolina	1.45	3.06	1.08	18,715
South Dakota	0.19	0.33	0.13	1,980
Tennessee	1.58	3.58	1.25	18,328
Texas	8.91	21.39	7.65	119,989
Utah	2.04	4.37	1.60	27,019
Vermont	0.01	0.02	0.01	94
Virginia	2.22	4.45	1.50	22,135
Washington	0.97	1.94	0.71	9,663
West Virginia	0.57	0.96	0.34	5,494
Wisconsin	0.84	1.62	0.60	9,130
Wyoming	0.29	0.47	0.18	2,901
Total	**$54.93**	**$153.77**	**$61.18**	**742,685**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix B-1: Impacts of Site Development on State Economies (Office), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.51	$1.12	$0.33	6,227
Alaska	0.04	0.06	0.02	321
Arizona	0.54	1.12	0.35	5,768
Arkansas	0.13	0.26	0.08	1,427
California	0.86	1.73	0.54	8,279
Colorado	0.23	0.49	0.15	2,418
Connecticut	0.04	0.08	0.02	374
Delaware	0.01	0.02	0.01	86
District of Columbia	0.06	0.06	0.00	58
Florida	0.81	1.69	0.53	10,066
Georgia	0.72	1.68	0.50	9,037
Hawaii	0.03	0.05	0.02	254
Idaho	0.05	0.10	0.03	550
Illinois	0.30	0.70	0.21	3,411
Indiana	0.67	1.50	0.43	7,376
Iowa	0.52	1.02	0.30	5,370
Kansas	0.11	0.22	0.06	1,105
Kentucky	0.09	0.20	0.06	1,029
Louisiana	0.10	0.20	0.06	1,170
Maine	0.01	0.02	0.00	87
Maryland	0.07	0.12	0.04	608
Massachusetts	0.24	0.45	0.13	2,052
Michigan	0.08	0.18	0.06	987
Minnesota	0.35	0.75	0.22	3,597
Mississippi	0.50	0.99	0.29	5,538
Missouri	0.19	0.42	0.12	2,098
Montana	0.02	0.04	0.01	237
Nebraska	0.20	0.38	0.11	2,080
Nevada	0.14	0.25	0.08	1,268
New Hampshire	0.01	0.03	0.01	121
New Jersey	0.17	0.35	0.10	1,608
New Mexico	0.05	0.09	0.03	534
New York	1.10	1.91	0.55	8,659
North Carolina	0.64	1.45	0.43	7,798
North Dakota	0.09	0.16	0.04	787
Ohio	0.96	2.23	0.65	11,308
Oklahoma	0.16	0.33	0.10	1,907
Oregon	0.34	0.69	0.20	3,226
Pennsylvania	0.21	0.49	0.14	2,320
Rhode Island	0.00	0.01	0.00	28
South Carolina	0.08	0.17	0.05	943
South Dakota	0.06	0.11	0.03	596
Tennessee	0.23	0.55	0.16	2,552
Texas	2.72	6.73	2.03	35,747
Utah	0.10	0.22	0.07	1,193
Vermont	0.00	0.00	0.00	13
Virginia	1.32	2.59	0.74	13,197
Washington	0.33	0.66	0.20	3,140
West Virginia	0.02	0.04	0.01	190
Wisconsin	0.31	0.67	0.20	3,394
Wyoming	0.23	0.36	0.11	2,035
Total	**$16.76**	**$49.37**	**$17.39**	**246,210**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix B-2: Impacts of Site Development on State Economies (Industrial), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.15	$0.34	$0.10	1,895
Alaska	0.01	0.01	0.00	58
Arizona	0.76	1.57	0.49	8,109
Arkansas	0.18	0.36	0.11	2,014
California	0.16	0.32	0.10	1,516
Colorado	0.02	0.05	0.02	254
Connecticut	0.01	0.02	0.01	85
Delaware	0.00	0.00	0.00	14
District of Columbia	0.01	0.01	0.00	6
Florida	0.29	0.61	0.19	3,622
Georgia	1.07	2.49	0.75	13,401
Hawaii	0.00	0.01	0.00	36
Idaho	2.53	4.92	1.51	28,279
Illinois	0.46	1.08	0.31	5,235
Indiana	0.66	1.48	0.43	7,259
Iowa	0.30	0.58	0.17	3,082
Kansas	0.16	0.33	0.09	1,678
Kentucky	0.37	0.80	0.22	4,128
Louisiana	0.76	1.48	0.45	8,515
Maine	0.00	0.01	0.00	52
Maryland	0.03	0.05	0.01	222
Massachusetts	0.13	0.24	0.07	1,073
Michigan	0.67	1.50	0.46	8,086
Minnesota	0.15	0.33	0.10	1,565
Mississippi	0.61	1.21	0.36	6,799
Missouri	0.25	0.54	0.15	2,680
Montana	0.00	0.00	0.00	9
Nebraska	0.03	0.06	0.02	357
Nevada	0.01	0.03	0.01	125
New Hampshire	0.03	0.06	0.02	253
New Jersey	0.01	0.02	0.01	111
New Mexico	0.03	0.06	0.02	334
New York	0.47	0.81	0.23	3,673
North Carolina	1.10	2.48	0.74	13,334
North Dakota	0.00	0.01	0.00	26
Ohio	0.62	1.43	0.42	7,276
Oklahoma	0.04	0.08	0.02	475
Oregon	0.14	0.28	0.08	1,288
Pennsylvania	0.10	0.23	0.07	1,101
Rhode Island	0.01	0.02	0.00	73
South Carolina	1.23	2.76	0.80	15,344
South Dakota	0.09	0.16	0.05	882
Tennessee	1.02	2.44	0.70	11,424
Texas	3.07	7.58	2.29	40,290
Utah	1.99	4.33	1.32	23,022
Vermont	–	–	–	–
Virginia	0.31	0.61	0.18	3,122
Washington	0.18	0.36	0.11	1,721
West Virginia	0.62	1.09	0.30	5,602
Wisconsin	0.25	0.53	0.16	2,671
Wyoming	0.03	0.04	0.01	251
Total	**$21.12**	**$62.23**	**$21.93**	**310,342**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix B-3: Impacts of Site Development on State Economies (Warehouse), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.09	$0.21	$0.06	1,168
Alaska	0.01	0.02	0.01	112
Arizona	0.98	2.04	0.63	10,540
Arkansas	0.07	0.14	0.04	789
California	1.11	2.24	0.70	10,753
Colorado	0.14	0.29	0.09	1,433
Connecticut	0.06	0.11	0.03	508
Delaware	0.03	0.05	0.01	210
District of Columbia	–	–	–	–
Florida	1.44	2.98	0.93	17,793
Georgia	0.53	1.22	0.37	6,573
Hawaii	0.06	0.10	0.03	489
Idaho	0.07	0.13	0.04	758
Illinois	0.49	1.15	0.34	5,580
Indiana	0.25	0.56	0.16	2,743
Iowa	0.11	0.22	0.06	1,181
Kansas	0.17	0.35	0.10	1,767
Kentucky	0.13	0.28	0.08	1,447
Louisiana	0.10	0.20	0.06	1,142
Maine	0.02	0.04	0.01	210
Maryland	0.11	0.20	0.06	989
Massachusetts	0.20	0.38	0.11	1,711
Michigan	0.16	0.35	0.11	1,911
Minnesota	0.16	0.35	0.10	1,664
Mississippi	0.04	0.09	0.03	489
Missouri	0.32	0.69	0.19	3,432
Montana	0.02	0.03	0.01	179
Nebraska	0.09	0.16	0.05	902
Nevada	0.30	0.55	0.17	2,761
New Hampshire	0.01	0.02	0.01	90
New Jersey	0.61	1.29	0.37	5,838
New Mexico	0.03	0.05	0.01	275
New York	0.54	0.95	0.27	4,295
North Carolina	0.47	1.06	0.32	5,707
North Dakota	0.02	0.04	0.01	178
Ohio	0.35	0.82	0.24	4,183
Oklahoma	0.08	0.17	0.05	1,017
Oregon	0.13	0.26	0.07	1,199
Pennsylvania	0.57	1.31	0.38	6,184
Rhode Island	0.03	0.05	0.01	206
South Carolina	0.25	0.55	0.16	3,053
South Dakota	0.04	0.07	0.02	377
Tennessee	0.34	0.83	0.24	3,876
Texas	2.54	6.29	1.90	33,416
Utah	0.14	0.31	0.10	1,667
Vermont	0.01	0.01	0.00	51
Virginia	0.35	0.69	0.20	3,514
Washington	0.40	0.80	0.24	3,792
West Virginia	0.00	0.00	0.00	17
Wisconsin	0.23	0.50	0.15	2,511
Wyoming	0.00	0.00	0.00	24
Total	**$14.41**	**$42.46**	**$14.96**	**211,778**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix B-4: Impacts of Site Development on State Economies (Retail and Entertainment), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.09	$0.19	$0.06	1,073
Alaska	0.00	0.01	0.00	31
Arizona	0.18	0.38	0.12	1,978
Arkansas	0.04	0.08	0.02	453
California	0.31	0.63	0.20	3,031
Colorado	0.09	0.20	0.06	999
Connecticut	0.06	0.11	0.03	491
Delaware	0.01	0.01	0.00	60
District of Columbia	0.01	0.01	0.00	8
Florida	0.78	1.62	0.51	9,676
Georgia	0.31	0.72	0.21	3,856
Hawaii	0.01	0.02	0.01	86
Idaho	0.04	0.07	0.02	398
Illinois	0.10	0.24	0.07	1,162
Indiana	0.08	0.17	0.05	835
Iowa	0.06	0.12	0.03	609
Kansas	0.05	0.11	0.03	546
Kentucky	0.07	0.15	0.04	781
Louisiana	0.11	0.21	0.06	1,220
Maine	0.01	0.02	0.01	115
Maryland	0.07	0.12	0.04	605
Massachusetts	0.10	0.18	0.05	830
Michigan	0.08	0.17	0.05	914
Minnesota	0.05	0.12	0.03	559
Mississippi	0.04	0.08	0.02	430
Missouri	0.08	0.17	0.05	829
Montana	0.01	0.02	0.01	125
Nebraska	0.03	0.05	0.02	280
Nevada	0.06	0.11	0.03	568
New Hampshire	0.03	0.06	0.02	256
New Jersey	0.12	0.25	0.07	1,121
New Mexico	0.05	0.08	0.02	450
New York	0.28	0.49	0.14	2,207
North Carolina	0.20	0.44	0.13	2,387
North Dakota	0.02	0.04	0.01	174
Ohio	0.19	0.43	0.13	2,201
Oklahoma	0.08	0.17	0.05	1,000
Oregon	0.04	0.08	0.02	368
Pennsylvania	0.12	0.28	0.08	1,333
Rhode Island	0.00	0.01	0.00	30
South Carolina	0.08	0.18	0.05	991
South Dakota	0.02	0.04	0.01	195
Tennessee	0.18	0.42	0.12	1,979
Texas	1.14	2.82	0.85	14,964
Utah	0.07	0.14	0.04	767
Vermont	0.00	0.01	0.00	43
Virginia	0.15	0.29	0.08	1,480
Washington	0.10	0.21	0.06	994
West Virginia	0.01	0.02	0.00	80
Wisconsin	0.07	0.15	0.05	767
Wyoming	0.01	0.01	0.00	48
Total	**$5.87**	**$17.30**	**$6.09**	**86,269**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix B-5: Impacts of Site Development on State Economies (in Four Categories), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.84	$1.86	$0.55	10,363
Alaska	0.07	0.10	0.03	522
Arizona	2.46	5.11	1.59	26,395
Arkansas	0.41	0.84	0.25	4,683
California	2.44	4.92	1.54	23,579
Colorado	0.48	1.03	0.32	5,104
Connecticut	0.17	0.32	0.09	1,459
Delaware	0.05	0.09	0.02	370
District of Columbia	0.07	0.08	0.00	73
Florida	3.33	6.89	2.15	41,156
Georgia	2.63	6.10	1.83	32,867
Hawaii	0.10	0.17	0.05	865
Idaho	2.69	5.22	1.60	29,985
Illinois	1.36	3.18	0.93	15,388
Indiana	1.65	3.72	1.07	18,213
Iowa	0.98	1.94	0.56	10,242
Kansas	0.50	1.01	0.28	5,096
Kentucky	0.67	1.42	0.40	7,385
Louisiana	1.07	2.09	0.64	12,048
Maine	0.04	0.08	0.03	463
Maryland	0.27	0.50	0.14	2,424
Massachusetts	0.67	1.25	0.37	5,667
Michigan	0.98	2.20	0.67	11,898
Minnesota	0.72	1.55	0.46	7,385
Mississippi	1.19	2.37	0.69	13,255
Missouri	0.84	1.82	0.50	9,038
Montana	0.05	0.09	0.03	550
Nebraska	0.34	0.66	0.20	3,618
Nevada	0.51	0.95	0.29	4,723
New Hampshire	0.08	0.16	0.05	720
New Jersey	0.91	1.91	0.54	8,678
New Mexico	0.16	0.27	0.08	1,594
New York	2.39	4.15	1.19	18,835
North Carolina	2.40	5.44	1.62	29,226
North Dakota	0.14	0.24	0.07	1,165
Ohio	2.12	4.91	1.44	24,969
Oklahoma	0.36	0.75	0.23	4,399
Oregon	0.64	1.31	0.38	6,082
Pennsylvania	1.01	2.31	0.67	10,938
Rhode Island	0.04	0.08	0.02	338
South Carolina	1.63	3.66	1.06	20,330
South Dakota	0.20	0.38	0.12	2,050
Tennessee	1.76	4.24	1.21	19,831
Texas	9.47	23.42	7.07	124,417
Utah	2.31	5.01	1.53	26,648
Vermont	0.01	0.02	0.01	107
Virginia	2.13	4.18	1.20	21,314
Washington	1.01	2.03	0.62	9,648
West Virginia	0.65	1.15	0.31	5,889
Wisconsin	0.87	1.85	0.56	9,344
Wyoming	0.26	0.42	0.12	2,358
Total	**$58.16**	**$171.36**	**$60.38**	**854,599**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix C-1: Impacts of Construction (Hard Costs) on State Economies (Office), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$1.80	$3.97	$1.18	22,152
Alaska	0.14	0.22	0.07	1,142
Arizona	1.91	3.98	1.24	20,519
Arkansas	0.45	0.91	0.27	5,075
California	3.05	6.14	1.92	29,453
Colorado	0.82	1.73	0.54	8,601
Connecticut	0.15	0.29	0.09	1,331
Delaware	0.04	0.07	0.02	305
District of Columbia	0.20	0.23	0.01	206
Florida	2.89	6.00	1.87	35,810
Georgia	2.58	5.97	1.79	32,148
Hawaii	0.10	0.18	0.06	903
Idaho	0.18	0.34	0.10	1,955
Illinois	1.07	2.50	0.73	12,134
Indiana	2.38	5.35	1.54	26,239
Iowa	1.84	3.62	1.05	19,105
Kansas	0.38	0.78	0.21	3,933
Kentucky	0.33	0.71	0.20	3,659
Louisiana	0.37	0.72	0.22	4,164
Maine	0.03	0.05	0.02	310
Maryland	0.24	0.44	0.13	2,162
Massachusetts	0.86	1.61	0.47	7,300
Michigan	0.29	0.65	0.20	3,512
Minnesota	1.25	2.68	0.80	12,796
Mississippi	1.77	3.52	1.03	19,702
Missouri	0.69	1.50	0.42	7,463
Montana	0.08	0.14	0.04	843
Nebraska	0.71	1.34	0.40	7,399
Nevada	0.49	0.91	0.28	4,510
New Hampshire	0.05	0.10	0.03	430
New Jersey	0.60	1.26	0.36	5,721
New Mexico	0.19	0.32	0.10	1,899
New York	3.90	6.78	1.94	30,806
North Carolina	2.28	5.17	1.54	27,741
North Dakota	0.33	0.58	0.16	2,801
Ohio	3.41	7.92	2.31	40,230
Oklahoma	0.56	1.16	0.36	6,785
Oregon	1.21	2.46	0.71	11,478
Pennsylvania	0.76	1.74	0.50	8,252
Rhode Island	0.01	0.02	0.01	101
South Carolina	0.27	0.60	0.17	3,354
South Dakota	0.21	0.39	0.12	2,119
Tennessee	0.81	1.94	0.55	9,077
Texas	9.68	23.93	7.23	127,172
Utah	0.37	0.80	0.24	4,242
Vermont	0.00	0.01	0.00	45
Virginia	4.69	9.21	2.64	46,950
Washington	1.16	2.35	0.72	11,171
West Virginia	0.07	0.13	0.04	675
Wisconsin	1.12	2.39	0.72	12,076
Wyoming	0.81	1.29	0.38	7,239
Total	**$59.61**	**$175.63**	**$61.88**	**875,911**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix C-2: Impacts of Construction (Hard Costs) on State Economies (Industrial), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.47	$1.03	$0.31	5,763
Alaska	0.02	0.03	0.01	178
Arizona	2.30	4.78	1.48	24,662
Arkansas	0.54	1.10	0.32	6,124
California	0.48	0.96	0.30	4,610
Colorado	0.07	0.16	0.05	773
Connecticut	0.03	0.06	0.02	259
Delaware	0.01	0.01	0.00	43
District of Columbia	0.02	0.02	0.00	19
Florida	0.89	1.85	0.58	11,017
Georgia	3.27	7.57	2.27	40,756
Hawaii	0.01	0.02	0.01	109
Idaho	7.70	14.98	4.58	86,004
Illinois	1.41	3.29	0.96	15,921
Indiana	2.00	4.50	1.30	22,078
Iowa	0.90	1.77	0.52	9,372
Kansas	0.50	1.01	0.28	5,104
Kentucky	1.14	2.42	0.68	12,556
Louisiana	2.30	4.49	1.37	25,896
Maine	0.01	0.03	0.01	158
Maryland	0.08	0.14	0.04	675
Massachusetts	0.39	0.72	0.21	3,263
Michigan	2.03	4.55	1.39	24,590
Minnesota	0.47	1.00	0.30	4,759
Mississippi	1.86	3.69	1.08	20,678
Missouri	0.75	1.64	0.46	8,149
Montana	0.00	0.00	0.00	27
Nebraska	0.10	0.20	0.06	1,084
Nevada	0.04	0.08	0.02	382
New Hampshire	0.09	0.18	0.05	770
New Jersey	0.04	0.07	0.02	337
New Mexico	0.10	0.17	0.05	1,017
New York	1.41	2.46	0.70	11,170
North Carolina	3.34	7.55	2.25	40,553
North Dakota	0.01	0.02	0.00	80
Ohio	1.88	4.36	1.27	22,129
Oklahoma	0.12	0.25	0.08	1,445
Oregon	0.41	0.84	0.24	3,918
Pennsylvania	0.31	0.71	0.20	3,349
Rhode Island	0.03	0.05	0.01	223
South Carolina	3.75	8.39	2.43	46,664
South Dakota	0.27	0.50	0.15	2,683
Tennessee	3.09	7.43	2.11	34,744
Texas	9.32	23.06	6.96	122,532
Utah	6.06	13.16	4.02	70,015
Vermont	–	–	–	–
Virginia	0.95	1.86	0.53	9,496
Washington	0.55	1.10	0.34	5,234
West Virginia	1.88	3.31	0.91	17,037
Wisconsin	0.75	1.61	0.48	8,124
Wyoming	0.09	0.14	0.04	764
Total	**$64.23**	**$189.25**	**$66.68**	**943,825**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix C-3: Impacts of Construction (Hard Costs) on State Economies (Warehouse), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.27	$0.60	$0.18	3,326
Alaska	0.04	0.06	0.02	318
Arizona	2.80	5.82	1.81	30,016
Arkansas	0.20	0.40	0.12	2,248
California	3.17	6.39	2.00	30,623
Colorado	0.39	0.82	0.26	4,081
Connecticut	0.17	0.31	0.09	1,447
Delaware	0.09	0.14	0.04	598
District of Columbia	–	–	–	–
Florida	4.09	8.49	2.65	50,669
Georgia	1.50	3.48	1.04	18,719
Hawaii	0.16	0.27	0.09	1,394
Idaho	0.19	0.38	0.11	2,158
Illinois	1.41	3.28	0.96	15,891
Indiana	0.71	1.59	0.46	7,811
Iowa	0.32	0.64	0.18	3,362
Kansas	0.49	1.00	0.27	5,031
Kentucky	0.37	0.79	0.22	4,120
Louisiana	0.29	0.56	0.17	3,253
Maine	0.05	0.10	0.03	597
Maryland	0.32	0.58	0.16	2,817
Massachusetts	0.58	1.08	0.32	4,873
Michigan	0.45	1.01	0.31	5,443
Minnesota	0.46	0.99	0.30	4,738
Mississippi	0.13	0.25	0.07	1,391
Missouri	0.90	1.97	0.55	9,773
Montana	0.05	0.09	0.03	509
Nebraska	0.24	0.47	0.14	2,568
Nevada	0.85	1.58	0.48	7,863
New Hampshire	0.03	0.06	0.02	257
New Jersey	1.74	3.66	1.04	16,626
New Mexico	0.08	0.13	0.04	785
New York	1.55	2.69	0.77	12,232
North Carolina	1.34	3.03	0.90	16,253
North Dakota	0.06	0.11	0.03	506
Ohio	1.01	2.34	0.68	11,913
Oklahoma	0.24	0.50	0.15	2,895
Oregon	0.36	0.73	0.21	3,414
Pennsylvania	1.63	3.72	1.08	17,612
Rhode Island	0.08	0.13	0.04	587
South Carolina	0.70	1.56	0.45	8,693
South Dakota	0.11	0.20	0.06	1,074
Tennessee	0.98	2.36	0.67	11,037
Texas	7.24	17.91	5.41	95,162
Utah	0.41	0.89	0.27	4,747
Vermont	0.01	0.03	0.01	145
Virginia	1.00	1.96	0.56	10,007
Washington	1.13	2.27	0.69	10,799
West Virginia	0.01	0.01	0.00	48
Wisconsin	0.66	1.42	0.43	7,152
Wyoming	0.01	0.01	0.00	68
Total	**$41.04**	**$120.93**	**$42.61**	**603,098**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix C-4: Impacts of Construction (Hard Costs) on State Economies (Retail and Entertainment), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.30	$0.66	$0.19	3,656
Alaska	0.01	0.02	0.01	105
Arizona	0.63	1.31	0.41	6,737
Arkansas	0.14	0.28	0.08	1,544
California	1.07	2.15	0.67	10,324
Colorado	0.32	0.68	0.21	3,402
Connecticut	0.19	0.36	0.11	1,674
Delaware	0.03	0.05	0.01	206
District of Columbia	0.03	0.03	0.00	29
Florida	2.66	5.52	1.72	32,955
Georgia	1.05	2.44	0.73	13,135
Hawaii	0.03	0.06	0.02	294
Idaho	0.12	0.24	0.07	1,357
Illinois	0.35	0.82	0.24	3,959
Indiana	0.26	0.58	0.17	2,845
Iowa	0.20	0.39	0.11	2,075
Kansas	0.18	0.37	0.10	1,859
Kentucky	0.24	0.51	0.14	2,661
Louisiana	0.37	0.72	0.22	4,156
Maine	0.04	0.07	0.02	391
Maryland	0.23	0.42	0.12	2,060
Massachusetts	0.33	0.63	0.18	2,829
Michigan	0.26	0.58	0.18	3,112
Minnesota	0.19	0.40	0.12	1,905
Mississippi	0.13	0.26	0.08	1,464
Missouri	0.26	0.57	0.16	2,825
Montana	0.04	0.07	0.02	426
Nebraska	0.09	0.17	0.05	953
Nevada	0.21	0.39	0.12	1,936
New Hampshire	0.10	0.20	0.06	871
New Jersey	0.40	0.84	0.24	3,817
New Mexico	0.16	0.26	0.08	1,533
New York	0.95	1.66	0.47	7,519
North Carolina	0.67	1.51	0.45	8,131
North Dakota	0.07	0.12	0.03	593
Ohio	0.64	1.48	0.43	7,498
Oklahoma	0.28	0.58	0.18	3,405
Oregon	0.13	0.27	0.08	1,255
Pennsylvania	0.42	0.96	0.28	4,539
Rhode Island	0.01	0.02	0.01	103
South Carolina	0.27	0.61	0.18	3,376
South Dakota	0.07	0.12	0.04	663
Tennessee	0.60	1.44	0.41	6,741
Texas	3.88	9.59	2.90	50,968
Utah	0.23	0.49	0.15	2,612
Vermont	0.01	0.03	0.01	148
Virginia	0.50	0.99	0.28	5,042
Washington	0.35	0.71	0.22	3,387
West Virginia	0.03	0.05	0.01	274
Wisconsin	0.24	0.52	0.16	2,612
Wyoming	0.02	0.03	0.01	164
Total	**$20.00**	**$58.92**	**$20.76**	**293,833**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix C-5: Impacts of Construction (Hard Costs) on State Economies (in Four Categories), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$2.84	$6.26	$1.85	34,897
Alaska	0.22	0.34	0.11	1,744
Arizona	7.64	15.88	4.93	81,934
Arkansas	1.33	2.69	0.79	14,990
California	7.77	15.65	4.89	75,011
Colorado	1.60	3.39	1.06	16,858
Connecticut	0.54	1.02	0.30	4,710
Delaware	0.17	0.27	0.07	1,152
District of Columbia	0.25	0.28	0.02	254
Florida	10.54	21.85	6.81	130,451
Georgia	8.40	19.45	5.82	104,759
Hawaii	0.31	0.53	0.17	2,699
Idaho	8.19	15.93	4.87	91,474
Illinois	4.24	9.89	2.88	47,906
Indiana	5.34	12.03	3.47	58,974
Iowa	3.26	6.42	1.86	33,915
Kansas	1.55	3.16	0.87	15,927
Kentucky	2.08	4.44	1.24	22,995
Louisiana	3.32	6.49	1.98	37,470
Maine	0.13	0.25	0.08	1,456
Maryland	0.87	1.58	0.45	7,714
Massachusetts	2.16	4.04	1.18	18,265
Michigan	3.03	6.79	2.07	36,657
Minnesota	2.37	5.06	1.51	24,198
Mississippi	3.89	7.72	2.27	43,235
Missouri	2.61	5.68	1.58	28,210
Montana	0.17	0.30	0.10	1,805
Nebraska	1.14	2.18	0.65	12,004
Nevada	1.58	2.95	0.90	14,690
New Hampshire	0.27	0.53	0.15	2,329
New Jersey	2.77	5.84	1.66	26,502
New Mexico	0.53	0.88	0.28	5,234
New York	7.82	13.59	3.89	61,727
North Carolina	7.62	17.26	5.15	92,677
North Dakota	0.47	0.83	0.23	3,979
Ohio	6.94	16.09	4.70	81,770
Oklahoma	1.21	2.49	0.76	14,531
Oregon	2.11	4.31	1.24	20,065
Pennsylvania	3.12	7.12	2.06	33,752
Rhode Island	0.13	0.23	0.06	1,015
South Carolina	4.99	11.17	3.23	62,087
South Dakota	0.65	1.21	0.37	6,540
Tennessee	5.48	13.17	3.75	61,599
Texas	30.12	74.50	22.50	395,834
Utah	7.07	15.35	4.68	81,617
Vermont	0.03	0.06	0.02	338
Virginia	7.14	14.02	4.02	71,496
Washington	3.19	6.43	1.96	30,591
West Virginia	1.99	3.51	0.96	18,034
Wisconsin	2.78	5.93	1.79	29,963
Wyoming	0.92	1.46	0.43	8,236
Total	**$184.89**	**$544.73**	**$191.93**	**2,716,666**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix D: Tenant Improvement Impacts by State

Appendix D-1: Impacts of Tenant Improvements on State Economies (Office), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.79	$1.74	$0.51	9,698
Alaska	0.06	0.10	0.03	500
Arizona	0.84	1.74	0.54	8,983
Arkansas	0.20	0.40	0.12	2,222
California	1.34	2.69	0.84	12,895
Colorado	0.36	0.76	0.24	3,766
Connecticut	0.07	0.13	0.04	583
Delaware	0.02	0.03	0.01	134
District of Columbia	0.09	0.10	0.01	90
Florida	1.27	2.63	0.82	15,678
Georgia	1.13	2.61	0.78	14,075
Hawaii	0.05	0.08	0.02	395
Idaho	0.08	0.15	0.05	856
Illinois	0.47	1.10	0.32	5,313
Indiana	1.04	2.34	0.68	11,488
Iowa	0.80	1.58	0.46	8,365
Kansas	0.17	0.34	0.09	1,722
Kentucky	0.15	0.31	0.09	1,602
Louisiana	0.16	0.32	0.10	1,823
Maine	0.01	0.02	0.01	136
Maryland	0.11	0.19	0.05	946
Massachusetts	0.38	0.71	0.21	3,196
Michigan	0.13	0.28	0.09	1,538
Minnesota	0.55	1.17	0.35	5,602
Mississippi	0.78	1.54	0.45	8,626
Missouri	0.30	0.66	0.18	3,267
Montana	0.03	0.06	0.02	369
Nebraska	0.31	0.59	0.18	3,239
Nevada	0.21	0.40	0.12	1,974
New Hampshire	0.02	0.04	0.01	188
New Jersey	0.26	0.55	0.16	2,505
New Mexico	0.08	0.14	0.04	831
New York	1.71	2.97	0.85	13,488
North Carolina	1.00	2.26	0.67	12,145
North Dakota	0.14	0.26	0.07	1,226
Ohio	1.49	3.47	1.01	17,613
Oklahoma	0.25	0.51	0.16	2,971
Oregon	0.53	1.08	0.31	5,025
Pennsylvania	0.33	0.76	0.22	3,613
Rhode Island	0.01	0.01	0.00	44
South Carolina	0.12	0.26	0.08	1,469
South Dakota	0.09	0.17	0.05	928
Tennessee	0.35	0.85	0.24	3,974
Texas	4.24	10.48	3.16	55,678
Utah	0.16	0.35	0.11	1,857
Vermont	0.00	0.00	0.00	20
Virginia	2.05	4.03	1.16	20,556
Washington	0.51	1.03	0.31	4,891
West Virginia	0.03	0.06	0.02	296
Wisconsin	0.49	1.05	0.32	5,287
Wyoming	0.36	0.56	0.17	3,170
Total	**$26.10**	**$76.89**	**$27.09**	**383,491**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix D-2: Impacts of Tenant Improvements on State Economies (Industrial), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.20	$0.43	$0.13	2,403
Alaska	0.01	0.01	0.00	74
Arizona	0.96	1.99	0.62	10,283
Arkansas	0.23	0.46	0.14	2,553
California	0.20	0.40	0.13	1,922
Colorado	0.03	0.06	0.02	322
Connecticut	0.01	0.02	0.01	108
Delaware	0.00	0.00	0.00	18
District of Columbia	0.01	0.01	0.00	8
Florida	0.37	0.77	0.24	4,593
Georgia	1.36	3.16	0.94	16,993
Hawaii	0.01	0.01	0.00	45
Idaho	3.21	6.24	1.91	35,859
Illinois	0.59	1.37	0.40	6,638
Indiana	0.83	1.88	0.54	9,205
Iowa	0.38	0.74	0.21	3,908
Kansas	0.21	0.42	0.12	2,128
Kentucky	0.47	1.01	0.28	5,235
Louisiana	0.96	1.87	0.57	10,797
Maine	0.01	0.01	0.00	66
Maryland	0.03	0.06	0.02	281
Massachusetts	0.16	0.30	0.09	1,361
Michigan	0.85	1.90	0.58	10,253
Minnesota	0.19	0.42	0.12	1,984
Mississippi	0.77	1.54	0.45	8,622
Missouri	0.31	0.68	0.19	3,398
Montana	0.00	0.00	0.00	11
Nebraska	0.04	0.08	0.02	452
Nevada	0.02	0.03	0.01	159
New Hampshire	0.04	0.07	0.02	321
New Jersey	0.01	0.03	0.01	141
New Mexico	0.04	0.07	0.02	424
New York	0.59	1.03	0.29	4,657
North Carolina	1.39	3.15	0.94	16,908
North Dakota	0.00	0.01	0.00	33
Ohio	0.78	1.82	0.53	9,227
Oklahoma	0.05	0.10	0.03	603
Oregon	0.17	0.35	0.10	1,634
Pennsylvania	0.13	0.29	0.09	1,396
Rhode Island	0.01	0.02	0.01	93
South Carolina	1.56	3.50	1.01	19,457
South Dakota	0.11	0.21	0.06	1,119
Tennessee	1.29	3.10	0.88	14,486
Texas	3.89	9.62	2.90	51,090
Utah	2.53	5.49	1.68	29,193
Vermont	–	–	–	–
Virginia	0.40	0.78	0.22	3,959
Washington	0.23	0.46	0.14	2,182
West Virginia	0.78	1.38	0.38	7,104
Wisconsin	0.31	0.67	0.20	3,387
Wyoming	0.04	0.06	0.02	319
Total	**$26.78**	**$78.91**	**$27.80**	**393,527**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix D-3: Impacts of Tenant Improvements on State Economies (Warehouse), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.06	$0.14	$0.04	772
Alaska	0.01	0.01	0.00	74
Arizona	0.65	1.35	0.42	6,970
Arkansas	0.05	0.09	0.03	522
California	0.74	1.48	0.46	7,111
Colorado	0.09	0.19	0.06	948
Connecticut	0.04	0.07	0.02	336
Delaware	0.02	0.03	0.01	139
District of Columbia	–	–	–	–
Florida	0.95	1.97	0.61	11,766
Georgia	0.35	0.81	0.24	4,347
Hawaii	0.04	0.06	0.02	324
Idaho	0.04	0.09	0.03	501
Illinois	0.33	0.76	0.22	3,690
Indiana	0.16	0.37	0.11	1,814
Iowa	0.08	0.15	0.04	781
Kansas	0.11	0.23	0.06	1,168
Kentucky	0.09	0.18	0.05	957
Louisiana	0.07	0.13	0.04	755
Maine	0.01	0.02	0.01	139
Maryland	0.07	0.13	0.04	654
Massachusetts	0.13	0.25	0.07	1,132
Michigan	0.10	0.23	0.07	1,264
Minnesota	0.11	0.23	0.07	1,100
Mississippi	0.03	0.06	0.02	323
Missouri	0.21	0.46	0.13	2,269
Montana	0.01	0.02	0.01	118
Nebraska	0.06	0.11	0.03	596
Nevada	0.20	0.37	0.11	1,826
New Hampshire	0.01	0.01	0.00	60
New Jersey	0.40	0.85	0.24	3,861
New Mexico	0.02	0.03	0.01	182
New York	0.36	0.63	0.18	2,840
North Carolina	0.31	0.70	0.21	3,774
North Dakota	0.01	0.02	0.01	117
Ohio	0.23	0.54	0.16	2,766
Oklahoma	0.06	0.12	0.04	672
Oregon	0.08	0.17	0.05	793
Pennsylvania	0.38	0.86	0.25	4,090
Rhode Island	0.02	0.03	0.01	136
South Carolina	0.16	0.36	0.10	2,019
South Dakota	0.02	0.05	0.01	249
Tennessee	0.23	0.55	0.16	2,563
Texas	1.68	4.16	1.26	22,098
Utah	0.10	0.21	0.06	1,102
Vermont	0.00	0.01	0.00	34
Virginia	0.23	0.46	0.13	2,324
Washington	0.26	0.53	0.16	2,508
West Virginia	0.00	0.00	0.00	11
Wisconsin	0.15	0.33	0.10	1,661
Wyoming	0.00	0.00	0.00	16
Total	**$9.53**	**$28.08**	**$9.89**	**140,045**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix D-4: Impacts of Tenant Improvements on State Economies (Retail and Entertainment), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.08	$0.19	$0.05	1,033
Alaska	0.00	0.01	0.00	30
Arizona	0.18	0.37	0.11	1,904
Arkansas	0.04	0.08	0.02	436
California	0.30	0.61	0.19	2,917
Colorado	0.09	0.19	0.06	961
Connecticut	0.05	0.10	0.03	473
Delaware	0.01	0.01	0.00	58
District of Columbia	0.01	0.01	0.00	8
Florida	0.75	1.56	0.49	9,312
Georgia	0.30	0.69	0.21	3,711
Hawaii	0.01	0.02	0.01	83
Idaho	0.03	0.07	0.02	383
Illinois	0.10	0.23	0.07	1,119
Indiana	0.07	0.16	0.05	804
Iowa	0.06	0.11	0.03	586
Kansas	0.05	0.10	0.03	525
Kentucky	0.07	0.15	0.04	752
Louisiana	0.10	0.20	0.06	1,174
Maine	0.01	0.02	0.01	110
Maryland	0.07	0.12	0.03	582
Massachusetts	0.09	0.18	0.05	799
Michigan	0.07	0.16	0.05	879
Minnesota	0.05	0.11	0.03	538
Mississippi	0.04	0.07	0.02	414
Missouri	0.07	0.16	0.04	798
Montana	0.01	0.02	0.01	120
Nebraska	0.03	0.05	0.01	269
Nevada	0.06	0.11	0.03	547
New Hampshire	0.03	0.06	0.02	246
New Jersey	0.11	0.24	0.07	1,079
New Mexico	0.04	0.07	0.02	433
New York	0.27	0.47	0.13	2,124
North Carolina	0.19	0.43	0.13	2,297
North Dakota	0.02	0.03	0.01	168
Ohio	0.18	0.42	0.12	2,119
Oklahoma	0.08	0.16	0.05	962
Oregon	0.04	0.08	0.02	355
Pennsylvania	0.12	0.27	0.08	1,282
Rhode Island	0.00	0.01	0.00	29
South Carolina	0.08	0.17	0.05	954
South Dakota	0.02	0.03	0.01	187
Tennessee	0.17	0.41	0.12	1,905
Texas	1.10	2.71	0.82	14,402
Utah	0.06	0.14	0.04	738
Vermont	0.00	0.01	0.00	42
Virginia	0.14	0.28	0.08	1,425
Washington	0.10	0.20	0.06	957
West Virginia	0.01	0.02	0.00	77
Wisconsin	0.07	0.15	0.04	738
Wyoming	0.01	0.01	0.00	46
Total	**$5.65**	**$16.65**	**$5.87**	**83,026**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix D-5: Impacts of Tenant Improvements on State Economies (in Four Categories), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$1.13	$2.49	$0.74	13,907
Alaska	0.09	0.13	0.04	678
Arizona	2.62	5.45	1.69	28,140
Arkansas	0.51	1.03	0.30	5,733
California	2.57	5.18	1.62	24,846
Colorado	0.57	1.21	0.38	5,997
Connecticut	0.17	0.32	0.10	1,500
Delaware	0.05	0.08	0.02	349
District of Columbia	0.10	0.12	0.01	106
Florida	3.34	6.93	2.16	41,349
Georgia	3.14	7.27	2.18	39,127
Hawaii	0.10	0.17	0.05	847
Idaho	3.37	6.55	2.00	37,600
Illinois	1.48	3.46	1.01	16,760
Indiana	2.11	4.75	1.37	23,311
Iowa	1.31	2.58	0.75	13,639
Kansas	0.54	1.10	0.30	5,543
Kentucky	0.77	1.65	0.46	8,546
Louisiana	1.29	2.52	0.77	14,550
Maine	0.04	0.08	0.02	451
Maryland	0.28	0.50	0.14	2,464
Massachusetts	0.77	1.43	0.42	6,488
Michigan	1.15	2.58	0.79	13,934
Minnesota	0.90	1.93	0.58	9,225
Mississippi	1.62	3.21	0.94	17,984
Missouri	0.90	1.96	0.54	9,733
Montana	0.06	0.10	0.03	619
Nebraska	0.43	0.83	0.25	4,557
Nevada	0.49	0.90	0.28	4,506
New Hampshire	0.10	0.19	0.05	815
New Jersey	0.79	1.67	0.48	7,585
New Mexico	0.19	0.32	0.10	1,871
New York	2.93	5.09	1.46	23,110
North Carolina	2.89	6.54	1.95	35,125
North Dakota	0.18	0.32	0.09	1,544
Ohio	2.69	6.24	1.82	31,725
Oklahoma	0.43	0.89	0.27	5,208
Oregon	0.82	1.68	0.48	7,806
Pennsylvania	0.96	2.19	0.63	10,381
Rhode Island	0.04	0.07	0.02	303
South Carolina	1.92	4.30	1.24	23,898
South Dakota	0.25	0.46	0.14	2,483
Tennessee	2.04	4.90	1.40	22,928
Texas	10.90	26.96	8.14	143,267
Utah	2.85	6.18	1.89	32,891
Vermont	0.01	0.02	0.01	95
Virginia	2.82	5.54	1.59	28,264
Washington	1.10	2.21	0.68	10,538
West Virginia	0.83	1.46	0.40	7,488
Wisconsin	1.03	2.19	0.66	11,073
Wyoming	0.40	0.63	0.19	3,550
Total	**$68.06**	**$200.53**	**$70.66**	**1,000,089**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix E-1: Total Impacts of Soft Costs, Site Development, Hard Costs and Tenant Improvements on State Economies (Office), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$3.68	$7.97	$2.44	44,725
Alaska	0.29	0.46	0.16	2,377
Arizona	3.91	8.16	2.61	42,695
Arkansas	0.92	1.83	0.56	10,324
California	6.23	12.68	4.08	61,172
Colorado	1.67	3.56	1.14	17,839
Connecticut	0.31	0.59	0.18	2,746
Delaware	0.09	0.15	0.04	631
District of Columbia	0.41	0.48	0.04	491
Florida	5.91	12.31	3.96	74,172
Georgia	5.27	12.13	3.75	66,184
Hawaii	0.21	0.37	0.12	1,896
Idaho	0.36	0.69	0.22	4,033
Illinois	2.20	5.09	1.53	24,936
Indiana	4.86	10.75	3.21	54,005
Iowa	3.76	7.26	2.19	38,703
Kansas	0.78	1.58	0.45	7,950
Kentucky	0.68	1.42	0.41	7,458
Louisiana	0.76	1.47	0.46	8,573
Maine	0.06	0.11	0.04	636
Maryland	0.50	0.92	0.27	4,507
Massachusetts	1.76	3.34	1.01	15,292
Michigan	0.59	1.32	0.41	7,131
Minnesota	2.56	5.43	1.68	26,414
Mississippi	3.62	7.07	2.15	40,122
Missouri	1.41	3.04	0.86	15,061
Montana	0.16	0.29	0.09	1,731
Nebraska	1.44	2.73	0.84	15,077
Nevada	0.99	1.85	0.59	9,386
New Hampshire	0.10	0.20	0.06	887
New Jersey	1.22	2.59	0.76	11,852
New Mexico	0.39	0.66	0.21	3,937
New York	7.98	14.02	4.11	63,650
North Carolina	4.66	10.51	3.24	57,174
North Dakota	0.68	1.18	0.34	5,770
Ohio	6.98	15.94	4.81	82,412
Oklahoma	1.15	2.35	0.75	13,909
Oregon	2.47	5.02	1.51	24,140
Pennsylvania	1.56	3.51	1.05	16,932
Rhode Island	0.03	0.05	0.01	213
South Carolina	0.55	1.22	0.37	6,902
South Dakota	0.43	0.79	0.25	4,349
Tennessee	1.65	3.93	1.16	18,644
Texas	19.78	48.70	15.13	261,022
Utah	0.75	1.63	0.51	8,874
Vermont	0.01	0.02	0.01	93
Virginia	9.59	18.89	5.57	95,938
Washington	2.38	4.79	1.51	22,992
West Virginia	0.15	0.27	0.08	1,393
Wisconsin	2.29	4.81	1.50	24,712
Wyoming	1.66	2.63	0.81	15,044
Total	**$121.86**	**$356.20**	**$127.97**	**1,767,869**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix E-2: Total Impacts of Soft Costs, Site Development, Hard Costs and Tenant Improvements on State Economies (Industrial), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.95	$2.07	$0.63	11,593
Alaska	0.05	0.07	0.02	367
Arizona	4.68	9.75	3.11	50,958
Arkansas	1.10	2.20	0.67	12,401
California	0.97	1.97	0.63	9,510
Colorado	0.15	0.32	0.10	1,593
Connecticut	0.06	0.11	0.03	531
Delaware	0.01	0.02	0.01	88
District of Columbia	0.04	0.04	0.00	44
Florida	1.81	3.77	1.21	22,670
Georgia	6.64	15.31	4.71	83,414
Hawaii	0.03	0.04	0.01	227
Idaho	15.67	30.35	9.57	176,327
Illinois	2.87	6.65	1.99	32,532
Indiana	4.07	9.02	2.68	45,175
Iowa	1.83	3.55	1.07	18,909
Kansas	1.01	2.04	0.57	10,278
Kentucky	2.31	4.86	1.40	25,469
Louisiana	4.67	9.09	2.86	53,004
Maine	0.03	0.06	0.02	322
Maryland	0.15	0.28	0.08	1,397
Massachusetts	0.78	1.48	0.45	6,784
Michigan	4.13	9.20	2.88	49,709
Minnesota	0.95	2.01	0.62	9,764
Mississippi	3.78	7.40	2.24	41,913
Missouri	1.53	3.30	0.93	16,385
Montana	0.01	0.01	0.00	56
Nebraska	0.21	0.40	0.12	2,199
Nevada	0.08	0.16	0.05	788
New Hampshire	0.18	0.36	0.11	1,578
New Jersey	0.07	0.15	0.04	694
New Mexico	0.21	0.35	0.11	2,095
New York	2.88	5.05	1.48	22,934
North Carolina	6.78	15.29	4.69	83,081
North Dakota	0.02	0.03	0.01	163
Ohio	3.82	8.74	2.63	45,092
Oklahoma	0.24	0.50	0.16	2,947
Oregon	0.84	1.71	0.51	8,172
Pennsylvania	0.63	1.42	0.42	6,833
Rhode Island	0.06	0.10	0.03	465
South Carolina	7.63	16.94	5.04	95,460
South Dakota	0.54	1.00	0.31	5,476
Tennessee	6.28	14.99	4.39	70,962
Texas	18.96	46.71	14.47	250,110
Utah	12.33	26.72	8.39	145,345
Vermont	–	–	–	–
Virginia	1.93	3.80	1.12	19,307
Washington	1.11	2.24	0.70	10,711
West Virginia	3.83	6.69	1.91	34,934
Wisconsin	1.53	3.23	1.00	16,538
Wyoming	0.17	0.28	0.08	1,578
Total	**$130.64**	**$382.20**	**$137.02**	**1,897,937**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix E-3: Total Impacts of Soft Costs, Site Development, Hard Costs and Tenant Improvements on State Economies (Warehouse), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.52	$1.11	$0.34	6,254
Alaska	0.08	0.12	0.04	618
Arizona	5.33	11.13	3.57	58,285
Arkansas	0.38	0.75	0.23	4,261
California	6.04	12.29	3.96	59,347
Colorado	0.74	1.58	0.51	7,897
Connecticut	0.32	0.60	0.18	2,785
Delaware	0.16	0.27	0.07	1,153
District of Columbia	0.00	0.00	0.00	1
Florida	7.80	16.24	5.23	97,911
Georgia	2.86	6.58	2.04	35,939
Hawaii	0.30	0.53	0.17	2,733
Idaho	0.37	0.71	0.23	4,151
Illinois	2.68	6.22	1.87	30,452
Indiana	1.35	2.98	0.89	14,993
Iowa	0.62	1.19	0.36	6,346
Kansas	0.93	1.88	0.53	9,474
Kentucky	0.71	1.49	0.43	7,826
Louisiana	0.55	1.07	0.34	6,247
Maine	0.10	0.20	0.06	1,141
Maryland	0.60	1.12	0.33	5,481
Massachusetts	1.10	2.08	0.63	9,530
Michigan	0.86	1.90	0.60	10,297
Minnesota	0.88	1.87	0.58	9,122
Mississippi	0.24	0.46	0.14	2,641
Missouri	1.72	3.70	1.05	18,369
Montana	0.09	0.16	0.05	973
Nebraska	0.47	0.88	0.27	4,877
Nevada	1.62	3.01	0.95	15,272
New Hampshire	0.06	0.11	0.03	494
New Jersey	3.31	7.02	2.06	32,130
New Mexico	0.15	0.25	0.08	1,518
New York	2.95	5.19	1.53	23,574
North Carolina	2.55	5.74	1.77	31,242
North Dakota	0.11	0.20	0.06	971
Ohio	1.93	4.40	1.33	22,753
Oklahoma	0.46	0.94	0.30	5,534
Oregon	0.68	1.39	0.42	6,704
Pennsylvania	3.10	6.98	2.09	33,693
Rhode Island	0.14	0.25	0.07	1,152
South Carolina	1.33	2.95	0.88	16,680
South Dakota	0.20	0.37	0.12	2,054
Tennessee	1.87	4.45	1.31	21,138
Texas	13.80	33.96	10.57	182,121
Utah	0.78	1.70	0.54	9,269
Vermont	0.03	0.05	0.02	279
Virginia	1.91	3.75	1.11	19,061
Washington	2.15	4.32	1.37	20,728
West Virginia	0.01	0.02	0.01	92
Wisconsin	1.26	2.65	0.83	13,644
Wyoming	0.01	0.02	0.01	132
Total	**$78.22**	**$228.51**	**$82.20**	**1,133,777**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix E-4: Total Impacts of Soft Costs, Site Development, Hard Costs and Tenant Improvements on State Economies (Retail and Entertainment), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$0.53	$1.14	$0.35	6,403
Alaska	0.02	0.04	0.01	188
Arizona	1.11	2.31	0.73	12,041
Arkansas	0.24	0.48	0.15	2,717
California	1.89	3.83	1.22	18,429
Colorado	0.57	1.21	0.39	6,066
Connecticut	0.34	0.64	0.19	2,974
Delaware	0.05	0.09	0.02	366
District of Columbia	0.05	0.06	0.00	56
Florida	4.70	9.77	3.11	58,717
Georgia	1.86	4.29	1.31	23,307
Hawaii	0.06	0.10	0.03	528
Idaho	0.21	0.42	0.13	2,410
Illinois	0.62	1.44	0.43	7,016
Indiana	0.46	1.01	0.30	5,048
Iowa	0.35	0.69	0.20	3,642
Kansas	0.32	0.65	0.18	3,259
Kentucky	0.43	0.90	0.26	4,690
Louisiana	0.65	1.27	0.40	7,375
Maine	0.06	0.12	0.04	692
Maryland	0.41	0.75	0.22	3,686
Massachusetts	0.59	1.11	0.33	5,079
Michigan	0.45	1.01	0.32	5,470
Minnesota	0.33	0.70	0.21	3,386
Mississippi	0.23	0.46	0.14	2,579
Missouri	0.46	1.00	0.28	4,945
Montana	0.07	0.13	0.04	755
Nebraska	0.16	0.30	0.09	1,679
Nevada	0.37	0.69	0.21	3,461
New Hampshire	0.18	0.35	0.10	1,546
New Jersey	0.70	1.49	0.43	6,802
New Mexico	0.27	0.46	0.15	2,734
New York	1.68	2.95	0.86	13,374
North Carolina	1.18	2.66	0.81	14,438
North Dakota	0.12	0.22	0.06	1,053
Ohio	1.12	2.58	0.77	13,260
Oklahoma	0.50	1.02	0.32	6,025
Oregon	0.23	0.47	0.14	2,259
Pennsylvania	0.74	1.68	0.50	8,036
Rhode Island	0.02	0.04	0.01	185
South Carolina	0.48	1.07	0.32	5,988
South Dakota	0.12	0.21	0.07	1,174
Tennessee	1.06	2.53	0.74	11,943
Texas	6.85	16.89	5.20	90,255
Utah	0.40	0.87	0.27	4,686
Vermont	0.03	0.05	0.01	263
Virginia	0.89	1.75	0.51	8,902
Washington	0.62	1.26	0.39	6,009
West Virginia	0.05	0.09	0.03	486
Wisconsin	0.43	0.90	0.28	4,616
Wyoming	0.03	0.05	0.02	293
Total	**$35.32**	**$103.49**	**$36.95**	**514,457**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix E-5: Total Impacts of Soft Costs, Site Development, Hard Costs and Tenant Improvements on State Economies (in Four Categories), 2024

State	Direct Spending (In Billions of Dollars)	Total Output (In Billions of Dollars)	Personal Earnings (In Billions of Dollars)	Jobs Supported
Alabama	$5.68	$12.30	$3.76	68,976
Alaska	0.44	0.69	0.23	3,551
Arizona	15.03	31.35	10.02	163,980
Arkansas	2.64	5.26	1.61	29,703
California	15.14	30.77	9.90	148,457
Colorado	3.12	6.67	2.14	33,395
Connecticut	1.03	1.94	0.59	9,037
Delaware	0.32	0.53	0.14	2,239
District of Columbia	0.50	0.59	0.04	592
Florida	20.23	42.09	13.50	253,469
Georgia	16.63	38.31	11.81	208,845
Hawaii	0.60	1.04	0.34	5,384
Idaho	16.61	32.18	10.15	186,922
Illinois	8.36	19.41	5.83	94,935
Indiana	10.73	23.75	7.08	119,221
Iowa	6.56	12.69	3.82	67,599
Kansas	3.05	6.14	1.73	30,961
Kentucky	4.13	8.66	2.50	45,443
Louisiana	6.63	12.90	4.06	75,199
Maine	0.25	0.48	0.16	2,790
Maryland	1.67	3.07	0.90	15,071
Massachusetts	4.23	8.02	2.43	36,684
Michigan	6.04	13.43	4.21	72,607
Minnesota	4.71	10.02	3.09	48,684
Mississippi	7.87	15.39	4.67	87,254
Missouri	5.12	11.04	3.13	54,760
Montana	0.32	0.59	0.19	3,515
Nebraska	2.28	4.32	1.33	23,832
Nevada	3.06	5.71	1.80	28,907
New Hampshire	0.52	1.02	0.30	4,504
New Jersey	5.31	11.25	3.30	51,477
New Mexico	1.03	1.73	0.56	10,284
New York	15.49	27.21	7.98	123,532
North Carolina	15.18	34.20	10.51	185,936
North Dakota	0.93	1.63	0.47	7,956
Ohio	13.85	31.66	9.53	163,517
Oklahoma	2.35	4.81	1.52	28,415
Oregon	4.23	8.59	2.57	41,275
Pennsylvania	6.02	13.59	4.05	65,494
Rhode Island	0.25	0.44	0.12	2,015
South Carolina	9.99	22.18	6.61	125,030
South Dakota	1.29	2.38	0.75	13,053
Tennessee	10.86	25.90	7.60	122,686
Texas	59.39	146.27	45.36	783,508
Utah	14.27	30.91	9.70	168,175
Vermont	0.06	0.11	0.04	635
Virginia	14.31	28.19	8.31	143,208
Washington	6.26	12.61	3.97	60,439
West Virginia	4.04	7.07	2.02	36,905
Wisconsin	5.51	11.60	3.61	59,509
Wyoming	1.88	2.98	0.92	17,046
Total	**$366.04**	**$1,070.39**	**$384.14**	**5,314,039**

Sources: Dodge Construction Network, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix F-1: Impacts of Operations on State Economies (Office), 2024

State	Direct Spending (In Thousands of Dollars)	Total Output (In Thousands of Dollars)	Personal Earnings (In Thousands of Dollars)	Jobs Supported
Alabama	$49,270	$100,954	$33,159	991
Alaska	5,175	8,414	2,948	90
Arizona	44,775	95,299	32,095	792
Arkansas	2,316	4,386	1,455	44
California	87,738	186,794	62,820	1,468
Colorado	46,281	101,134	34,114	811
Connecticut	4,691	9,126	2,888	70
Delaware	4,696	8,222	2,282	63
District of Columbia	5,640	7,298	745	22
Florida	137,493	290,426	98,225	2,845
Georgia	64,867	148,748	48,352	1,293
Hawaii	2,483	4,627	1,575	41
Idaho	10,103	19,183	6,487	191
Illinois	27,907	65,260	20,732	497
Indiana	29,296	62,296	19,939	501
Iowa	28,436	51,623	16,749	491
Kansas	10,486	20,321	6,034	161
Kentucky	16,029	32,634	9,961	273
Louisiana	13,481	25,909	8,748	263
Maine	792	1,504	508	14
Maryland	3,199	6,247	1,940	51
Massachusetts	16,966	33,604	10,772	258
Michigan	8,242	18,089	5,996	150
Minnesota	24,705	50,740	16,824	410
Mississippi	20,941	39,013	12,680	388
Missouri	5,147	10,944	3,318	92
Montana	6,769	12,097	4,196	128
Nebraska	17,637	32,579	10,688	308
Nevada	10,158	19,017	6,334	169
New Hampshire	2,146	4,061	1,235	29
New Jersey	15,122	32,862	10,021	240
New Mexico	5,182	9,016	3,093	95
New York	42,981	80,137	24,503	611
North Carolina	58,120	129,217	41,933	1,155
North Dakota	11,022	18,784	5,903	180
Ohio	24,744	55,155	17,702	454
Oklahoma	16,905	33,728	11,372	337
Oregon	22,707	45,457	14,769	362
Pennsylvania	14,040	29,948	9,556	233
Rhode Island	649	1,199	353	9
South Carolina	7,909	17,364	5,512	164
South Dakota	13,104	22,585	7,410	225
Tennessee	20,020	46,927	14,785	368
Texas	307,799	747,120	244,392	6,572
Utah	8,342	17,853	5,960	164
Vermont	474	831	273	8
Virginia	102,857	205,653	63,556	1,635
Washington	35,636	71,643	23,869	571
West Virginia	2,308	3,948	1,230	36
Wisconsin	35,601	71,604	23,632	632
Wyoming	13,161	21,011	7,018	225
Total	**$1,466,551**	**$4,052,941**	**$1,317,514**	**27,180**

Sources: Dodge Construction Network, NCREIF, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix F-2: Impacts of Operations on State Economies (Industrial), 2024

State	Direct Spending (In Thousands of Dollars)	Total Output (In Thousands of Dollars)	Personal Earnings (In Thousands of Dollars)	Jobs Supported
Alabama	$4,147	$8,498	$2,791	83
Alaska	238	387	136	4
Arizona	7,869	16,749	5,641	139
Arkansas	2,590	4,905	1,627	49
California	4,288	9,129	3,070	72
Colorado	614	1,341	453	11
Connecticut	450	875	277	7
Delaware	138	241	67	2
District of Columbia	–	–	–	–
Florida	11,323	23,917	8,089	234
Georgia	9,983	22,891	7,441	199
Hawaii	16	31	10	0
Idaho	20,197	38,349	12,969	382
Illinois	2,306	5,392	1,713	41
Indiana	5,187	11,029	3,530	89
Iowa	4,081	7,409	2,404	71
Kansas	919	1,781	529	14
Kentucky	2,497	5,083	1,552	43
Louisiana	5,391	10,360	3,498	105
Maine	381	723	244	7
Maryland	149	291	90	2
Massachusetts	2,178	4,314	1,383	33
Michigan	8,644	18,969	6,287	157
Minnesota	5,781	11,874	3,937	96
Mississippi	3,253	6,061	1,970	60
Missouri	2,745	5,838	1,770	49
Montana	121	216	75	2
Nebraska	974	1,799	590	17
Nevada	312	583	194	5
New Hampshire	1,564	2,959	900	21
New Jersey	622	1,351	412	10
New Mexico	973	1,693	581	18
New York	9,469	17,656	5,399	135
North Carolina	8,380	18,631	6,046	167
North Dakota	172	293	92	3
Ohio	7,849	17,495	5,615	144
Oklahoma	384	767	258	8
Oregon	1,654	3,312	1,076	26
Pennsylvania	1,430	3,051	974	24
Rhode Island	57	105	31	1
South Carolina	16,075	35,291	11,203	333
South Dakota	1,547	2,666	875	27
Tennessee	6,612	15,498	4,883	122
Texas	19,949	48,422	15,839	426
Utah	11,829	25,317	8,452	233
Vermont	–	–	–	–
Virginia	8,004	16,003	4,946	127
Washington	4,881	9,812	3,269	78
West Virginia	6,202	10,607	3,304	96
Wisconsin	4,841	9,736	3,213	86
Wyoming	102	162	54	2
Total	**$219,366**	**$606,238**	**$197,073**	**4,060**

Sources: Dodge Construction Network, NCREIF, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix F-3: Impacts of Operations on State Economies (Warehouse), 2024

State	Direct Spending (In Thousands of Dollars)	Total Output (In Thousands of Dollars)	Personal Earnings (In Thousands of Dollars)	Jobs Supported
Alabama	$6,776	$13,884	$4,560	136
Alaska	328	533	187	6
Arizona	52,014	110,706	37,284	921
Arkansas	1,728	3,273	1,086	33
California	88,712	188,868	63,518	1,484
Colorado	17,335	37,881	12,778	304
Connecticut	2,531	4,925	1,559	38
Delaware	1,850	3,239	899	25
District of Columbia	–	–	–	–
Florida	152,988	323,157	109,295	3,165
Georgia	24,831	56,940	18,509	495
Hawaii	3,690	6,874	2,340	61
Idaho	7,318	13,895	4,699	138
Illinois	22,060	51,587	16,388	393
Indiana	12,043	25,609	8,197	206
Iowa	6,882	12,494	4,054	119
Kansas	14,592	28,277	8,396	223
Kentucky	4,171	8,493	2,592	71
Louisiana	3,376	6,488	2,191	66
Maine	1,208	2,293	775	21
Maryland	6,383	12,465	3,871	103
Massachusetts	12,765	25,283	8,104	194
Michigan	5,769	12,660	4,196	105
Minnesota	16,750	34,401	11,407	278
Mississippi	713	1,329	432	13
Missouri	8,275	17,595	5,335	149
Montana	1,880	3,359	1,165	36
Nebraska	3,773	6,970	2,287	66
Nevada	14,246	26,671	8,884	236
New Hampshire	824	1,559	474	11
New Jersey	42,854	93,130	28,399	681
New Mexico	1,888	3,286	1,127	35
New York	34,882	65,038	19,886	496
North Carolina	31,369	69,742	22,632	624
North Dakota	1,093	1,862	585	18
Ohio	15,006	33,448	10,735	276
Oklahoma	8,700	17,358	5,852	173
Oregon	8,672	17,361	5,640	138
Pennsylvania	30,461	64,973	20,732	505
Rhode Island	2,461	4,542	1,336	33
South Carolina	15,323	33,640	10,679	318
South Dakota	2,572	4,434	1,455	44
Tennessee	8,911	20,887	6,581	164
Texas	213,095	517,245	169,197	4,550
Utah	11,256	24,091	8,043	222
Vermont	194	341	112	3
Virginia	28,158	56,299	17,399	448
Washington	35,942	72,258	24,074	576
West Virginia	99	170	53	2
Wisconsin	7,590	15,266	5,038	135
Wyoming	219	350	117	4
Total	**$996,557**	**$2,754,072**	**$895,283**	**18,538**

Sources: Dodge Construction Network, NCREIF, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix F-4: Impacts of Operations on State Economies (Retail and Entertainment), 2024

State	Direct Spending (In Thousands of Dollars)	Total Output (In Thousands of Dollars)	Personal Earnings (In Thousands of Dollars)	Jobs Supported
Alabama	$12,938	$26,510	$8,707	260
Alaska	204	332	117	4
Arizona	28,584	60,839	20,489	506
Arkansas	4,202	7,957	2,640	80
California	55,183	117,484	39,511	923
Colorado	18,437	40,290	13,590	323
Connecticut	6,534	12,712	4,023	97
Delaware	2,362	4,135	1,148	31
District of Columbia	1,045	1,352	138	4
Florida	129,625	273,808	92,604	2,682
Georgia	47,228	108,298	35,204	941
Hawaii	1,279	2,384	811	21
Idaho	6,015	11,420	3,862	114
Illinois	14,151	33,092	10,513	252
Indiana	15,469	32,892	10,528	264
Iowa	7,698	13,975	4,534	133
Kansas	4,742	9,190	2,729	73
Kentucky	15,695	31,954	9,753	267
Louisiana	9,271	17,818	6,016	181
Maine	1,227	2,329	788	21
Maryland	11,237	21,943	6,814	181
Massachusetts	6,234	12,347	3,958	95
Michigan	14,267	31,310	10,378	259
Minnesota	5,614	11,531	3,823	93
Mississippi	4,828	8,995	2,924	89
Missouri	6,894	14,659	4,445	124
Montana	1,372	2,451	850	26
Nebraska	5,121	9,460	3,104	89
Nevada	12,183	22,809	7,597	202
New Hampshire	4,271	8,080	2,458	59
New Jersey	21,862	47,510	14,488	347
New Mexico	8,939	15,554	5,335	164
New York	51,675	96,347	29,460	734
North Carolina	22,386	49,771	16,151	445
North Dakota	3,250	5,540	1,741	53
Ohio	32,901	73,335	23,537	604
Oklahoma	10,344	20,638	6,958	206
Oregon	4,696	9,400	3,054	75
Pennsylvania	14,732	31,423	10,026	244
Rhode Island	695	1,284	377	9
South Carolina	11,150	24,479	7,771	231
South Dakota	4,042	6,967	2,286	69
Tennessee	16,822	39,430	12,423	310
Texas	192,408	467,033	152,772	4,108
Utah	11,989	25,659	8,566	236
Vermont	882	1,547	508	15
Virginia	15,711	31,413	9,708	250
Washington	11,153	22,423	7,471	179
West Virginia	884	1,512	471	14
Wisconsin	13,204	26,557	8,765	235
Wyoming	1,632	2,605	870	28
Total	**$905,269**	**$2,501,791**	**$813,272**	**16,953**

Sources: Dodge Construction Network, NCREIF, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix F-5: Impacts of Operations on State Economies (in Four Categories), 2024

State	Direct Spending (In Thousands of Dollars)	Total Output (In Thousands of Dollars)	Personal Earnings (In Thousands of Dollars)	Jobs Supported
Alabama	$73,131	$149,846	$49,217	1,471
Alaska	5,945	9,666	3,387	103
Arizona	133,242	283,593	95,508	2,358
Arkansas	10,837	20,521	6,808	206
California	235,921	502,275	168,919	3,946
Colorado	82,668	180,646	60,934	1,448
Connecticut	14,206	27,639	8,747	212
Delaware	9,046	15,837	4,396	120
District of Columbia	6,685	8,650	883	26
Florida	431,429	911,308	308,213	8,926
Georgia	146,909	336,877	109,506	2,928
Hawaii	7,469	13,915	4,737	124
Idaho	43,633	82,846	28,017	825
Illinois	66,423	155,330	49,346	1,183
Indiana	61,995	131,826	42,194	1,059
Iowa	47,098	85,501	27,740	814
Kansas	30,739	59,569	17,687	471
Kentucky	38,393	78,164	23,857	654
Louisiana	31,519	60,576	20,452	614
Maine	3,609	6,848	2,316	63
Maryland	20,968	40,946	12,715	337
Massachusetts	38,143	75,549	24,217	580
Michigan	36,921	81,027	26,857	671
Minnesota	52,851	108,546	35,992	877
Mississippi	29,736	55,399	18,005	551
Missouri	23,060	49,036	14,867	414
Montana	10,142	18,123	6,286	192
Nebraska	27,506	50,808	16,668	480
Nevada	36,898	69,081	23,010	612
New Hampshire	8,805	16,658	5,067	121
New Jersey	80,459	174,854	53,320	1,278
New Mexico	16,983	29,549	10,136	312
New York	139,007	259,179	79,248	1,975
North Carolina	120,254	267,360	86,763	2,391
North Dakota	15,537	26,479	8,321	253
Ohio	80,500	179,434	57,590	1,478
Oklahoma	36,333	72,491	24,441	725
Oregon	37,729	75,530	24,539	602
Pennsylvania	60,663	129,394	41,287	1,006
Rhode Island	3,862	7,130	2,097	52
South Carolina	50,457	110,774	35,164	1,046
South Dakota	21,266	36,651	12,026	365
Tennessee	52,365	122,743	38,671	964
Texas	733,251	1,779,819	582,201	15,656
Utah	43,416	92,920	31,021	855
Vermont	1,551	2,719	893	27
Virginia	154,730	309,368	95,608	2,460
Washington	87,612	176,136	58,683	1,404
West Virginia	9,494	16,237	5,058	148
Wisconsin	61,235	123,163	40,648	1,088
Wyoming	15,114	24,127	8,059	258
Total	**$3,587,743**	**$9,915,041**	**$3,223,142**	**66,730**

Sources: Dodge Construction Network, NCREIF, BEA, NAIOP, author's calculations.

Note: Appendices include data for the District of Columbia, resulting in 51 jurisdictions. State data may not sum to the total due to interstate spillover effects.

Appendix G-1: Output, Earnings and Employment Multipliers: Non-Residential Construction

	MULTIPLIERS		
State	Output	Earnings	Jobs
Alabama	2.20	0.65	12.30
Alaska	1.56	0.51	7.92
Arizona	2.08	0.65	10.73
Arkansas	2.03	0.60	11.29
California	2.01	0.63	9.66
Colorado	2.12	0.66	10.54
Connecticut	1.88	0.56	8.71
Delaware	1.64	0.42	6.95
District of Columbia	1.13	0.07	1.02
Florida	2.07	0.65	12.38
Georgia	2.32	0.69	12.48
Hawaii	1.71	0.55	8.76
Idaho	1.94	0.59	11.16
Illinois	2.33	0.68	11.30
Indiana	2.25	0.65	11.04
Iowa	1.97	0.57	10.40
Kansas	2.03	0.56	10.26
Kentucky	2.13	0.59	11.04
Louisiana	1.95	0.59	11.27
Maine	1.90	0.60	10.98
Maryland	1.82	0.51	8.88
Massachusetts	1.87	0.55	8.47
Michigan	2.24	0.68	12.10
Minnesota	2.14	0.64	10.23
Mississippi	1.99	0.58	11.13
Missouri	2.18	0.60	10.82
Montana	1.83	0.58	10.89
Nebraska	1.91	0.57	10.49
Nevada	1.86	0.57	9.27
New Hampshire	1.96	0.56	8.56
New Jersey	2.11	0.60	9.57
New Mexico	1.67	0.52	9.86
New York	1.74	0.50	7.89
North Carolina	2.27	0.68	12.16
North Dakota	1.76	0.48	8.48
Ohio	2.32	0.68	11.79
Oklahoma	2.07	0.63	12.05
Oregon	2.04	0.59	9.50
Pennsylvania	2.29	0.66	10.83
Rhode Island	1.75	0.47	7.81
South Carolina	2.24	0.65	12.44
South Dakota	1.87	0.57	10.08
Tennessee	2.40	0.68	11.24
Texas	2.47	0.75	13.14
Utah	2.17	0.66	11.55
Vermont	1.78	0.54	10.03
Virginia	1.96	0.56	10.01
Washington	2.01	0.62	9.59
West Virginia	1.76	0.48	9.06
Wisconsin	2.13	0.64	10.78
Wyoming	1.59	0.47	8.93
Total	**2.95**	**1.04**	**14.69**

Sources: BEA and IMPLAN.

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

Appendix G-2: Output, Earnings and Employment Multipliers: Soft Costs

	MULTIPLIERS		
State	**Output**	**Earnings**	**Jobs**
Alabama	1.95	0.72	11.34
Alaska	1.67	0.65	8.82
Arizona	2.13	0.78	11.93
Arkansas	1.79	0.67	10.94
California	2.13	0.79	10.63
Colorado	2.21	0.82	11.50
Connecticut	1.92	0.68	9.23
Delaware	1.68	0.48	7.44
District of Columbia	1.37	0.17	2.08
Florida	2.12	0.79	13.40
Georgia	2.23	0.80	13.03
Hawaii	1.88	0.70	10.27
Idaho	1.90	0.71	11.80
Illinois	2.26	0.80	11.67
Indiana	2.00	0.72	11.51
Iowa	1.75	0.64	9.81
Kansas	1.89	0.62	9.54
Kentucky	1.92	0.66	10.83
Louisiana	1.90	0.72	11.78
Maine	1.89	0.71	11.18
Maryland	1.98	0.67	9.98
Massachusetts	2.03	0.72	9.78
Michigan	2.13	0.78	11.57
Minnesota	2.04	0.75	10.86
Mississippi	1.78	0.65	10.86
Missouri	2.02	0.64	9.95
Montana	1.79	0.69	11.17
Nebraska	1.83	0.67	10.28
Nevada	1.88	0.70	10.32
New Hampshire	1.94	0.67	8.97
New Jersey	2.17	0.73	10.36
New Mexico	1.76	0.67	10.75
New York	1.86	0.61	8.42
North Carolina	2.19	0.79	12.78
North Dakota	1.70	0.60	8.88
Ohio	2.10	0.75	11.94
Oklahoma	1.93	0.73	12.27
Oregon	1.99	0.72	11.21
Pennsylvania	2.09	0.73	11.08
Rhode Island	1.83	0.58	9.14
South Carolina	2.11	0.75	12.94
South Dakota	1.73	0.65	10.32
Tennessee	2.26	0.79	11.58
Texas	2.40	0.86	13.47
Utah	2.14	0.79	13.23
Vermont	1.79	0.67	10.53
Virginia	2.01	0.68	9.98
Washington	2.01	0.74	10.00
West Virginia	1.68	0.60	9.58
Wisconsin	1.93	0.71	10.85
Wyoming	1.59	0.60	9.85
Total	**2.80**	**1.11**	**13.52**

Sources: BEA and IMPLAN.

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

Appendix G-3: Output, Earnings and Employment Multipliers: Operations

	MULTIPLIERS		
State	**Output**	**Earnings**	**Jobs**
Alabama	2.05	0.67	20.11
Alaska	1.63	0.57	17.39
Arizona	2.13	0.72	17.70
Arkansas	1.89	0.63	19.05
California	2.13	0.72	16.73
Colorado	2.19	0.74	17.52
Connecticut	1.95	0.62	14.91
Delaware	1.75	0.49	13.31
District of Columbia	1.29	0.13	3.83
Florida	2.11	0.71	20.69
Georgia	2.29	0.75	19.93
Hawaii	1.86	0.63	16.60
Idaho	1.90	0.64	18.91
Illinois	2.34	0.74	17.81
Indiana	2.13	0.68	17.09
Iowa	1.82	0.59	17.28
Kansas	1.94	0.58	15.31
Kentucky	2.04	0.62	17.02
Louisiana	1.92	0.65	19.49
Maine	1.90	0.64	17.44
Maryland	1.95	0.61	16.07
Massachusetts	1.98	0.63	15.21
Michigan	2.19	0.73	18.18
Minnesota	2.05	0.68	16.60
Mississippi	1.86	0.61	18.53
Missouri	2.13	0.64	17.95
Montana	1.79	0.62	18.91
Nebraska	1.85	0.61	17.45
Nevada	1.87	0.62	16.60
New Hampshire	1.89	0.58	13.73
New Jersey	2.17	0.66	15.88
New Mexico	1.74	0.60	18.38
New York	1.86	0.57	14.21
North Carolina	2.22	0.72	19.88
North Dakota	1.70	0.54	16.29
Ohio	2.23	0.72	18.37
Oklahoma	2.00	0.67	19.94
Oregon	2.00	0.65	15.96
Pennsylvania	2.13	0.68	16.59
Rhode Island	1.85	0.54	13.57
South Carolina	2.20	0.70	20.73
South Dakota	1.72	0.57	17.15
Tennessee	2.34	0.74	18.40
Texas	2.43	0.79	21.35
Utah	2.14	0.71	19.69
Vermont	1.75	0.58	17.41
Virginia	2.00	0.62	15.90
Washington	2.01	0.67	16.03
West Virginia	1.71	0.53	15.55
Wisconsin	2.01	0.66	17.76
Wyoming	1.60	0.53	17.06
Total	**2.76**	**0.90**	**16.77**

Sources: BEA and IMPLAN.

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

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