Clarifying the Construction Outlook by Integrating Architecture Billings with Broader Economic Indicators

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Table of Contents

Introduction	4
Analysis of the relationship between design and construction activity	5
Indicators	10
Applications	11
Summary and conclusions	13
Appendix 1: Glossary and other resources	14
Appendix 2: U.S. Census Bureau's Value of Construction Put in Place	15

Billings at U.S. architecture firms remain an important leading indicator of national trends in building construction. Surveys conducted by The American Institute of Architects (AIA) indicate that, in conjunction with other economic data, it is widely used by the architecture profession and the broader Architecture, Engineering, and Construction (AEC) industry to assess the industry's health and future trends. This update evaluates how the AIA/Deltek Architecture Billings Index® (ABI) performed during recent construction cycles and discusses how the broader construction industry, when integrated with broader economic trends, routinely uses this information to improve business planning.

The relationship between the ABI and future construction spending[1] levels is also updated for this report. The correlation between these two measures was modestly weaker than in previous analyses, largely due to changes in the composition of construction activity. In contrast, the lead in the ABI over future construction spending widened slightly due to longer construction timetables for many projects resulting from supply chain disruptions, inflation in construction costs, volatile interest rates, and unusually high levels of uncertainty about future economic conditions.

Both architecture firms and participants in the wider construction industry rely heavily on broader economic indicators such as interest rates, employment trends, stock market readings, and business confidence levels to monitor economic conditions and plan for future activity. A different set of indicators is typically utilized to monitor trends and predict future conditions for the construction industry. In addition to the ABI, building materials costs, construction spending levels, construction starts, AIA's Consensus Construction Forecast, and real estate trends are also widely followed.

[1] Construction spending throughout this document refers to construction spending put-in-place data from the U. S. Census Bureau, unless otherwise specified.

Introduction

In 1995, AIA launched the Work-on-the-Boards survey, a monthly assessment of business conditions at U.S. architecture firms. The principal purpose of this initiative was to develop a database of national, regional, and sectoral business trends across architecture firms so that they would have a better sense of how their businesses compared with peers.

Since design precedes construction, this information has been incorporated into planning by the broader building materials and construction sector. Although decisions to build residential and nonresidential structures are made by hundreds of thousands of private businesses, nonprofit institutions, and government agencies, the first comprehensive source of planned development typically resides with architecture firms.

In 2005, AIA published *Architecture Billings as a Leading Indicator of Construction* in the journal *Business Economics*, an analysis that documented the relationship between billings at architecture firms—branded as the Architecture Billings Index (ABI) and subsequent spending on nonresidential building projects.

In 2014, an update of this analysis was conducted and presented in a report titled *Designing the Construction Future: Reviewing the Performance and Extending the Applications of AIA's Architecture Billings Index*. This report provided details on the building design process, and a new business indicator was introduced: design contracts. Design contracts and other authorizations to proceed with design activities provide insights into subsequent design billings at architecture firms. The relationship between design activity and construction spending was updated in this report to reflect the severe shock to the broader economy during the global financial crisis. That report provided a few examples of how architecture firms, construction companies, and manufacturers of building-related products used the ABI in their internal planning process.

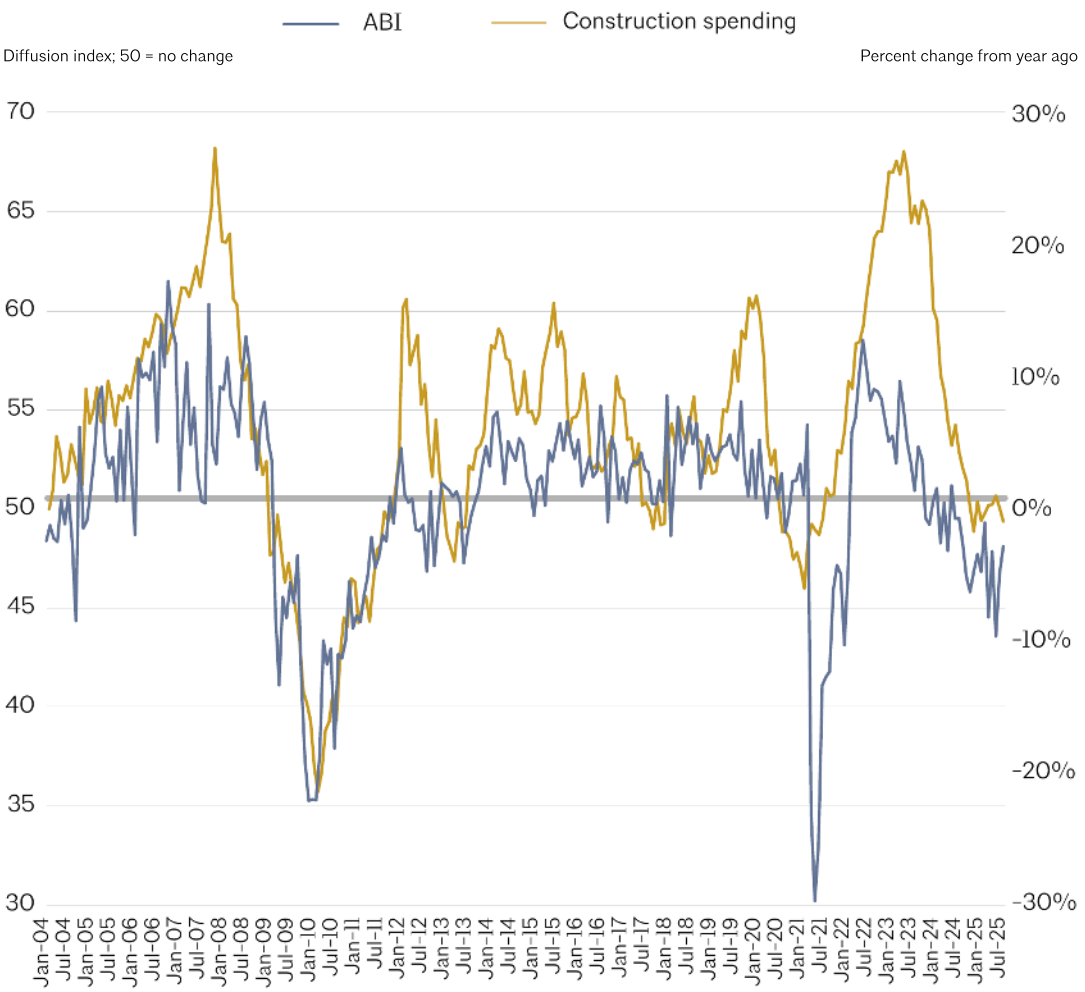
Since the last analysis, there have been several economic events that could affect the timing and magnitude of the relationship between design and construction: the slow recovery of the nonresidential building sector after the Global Financial Crisis, the economic distortions caused by the pandemic shutdown, and the recent period of economic and political uncertainty that has presented challenges for owners and developers in deciding how to proceed with planned construction projects.

Given the recent economic uncertainty and planning challenges, this report examines in more detail how the architecture profession and the broader AEC industry are integrating the ABI and related indicators into their analyses of current design and construction conditions and their outlook for future building activity.

Analysis of the relationship between design and construction activity

The central ABI analysis has focused on the timing and correlation between architecture billings and construction spending. Figure 1 shows the current best fit in the relationship between the ABI and overall spending on nonresidential buildings over the past 30 years.[2] The correlation coefficient between the two data series is 0.67. A correlation coefficient measures the strength and direction of a linear relationship between the two variables. It ranges from -1.0 to +1.0, with 1.0 indicating a perfect positive relationship, 0 indicating no relationship, and -1.0 indicating a perfect negative relationship. A correlation of 0.67 suggests a strong relationship, though lower than the 0.85 correlation coefficient reported in the 2014 AIA analysis for the ABI and construction spending on buildings. (Figure 1)

Figure 1: With Reasonably High Accuracy, Architecture Billings Index Leads Building Construction Spending By More Than A Year



Note: Construction spending for nonresidential building activity. With a 14-month lead, ABI correlation with total nonresidential building construction spending is 0.67.
Source: The American Institute of Architects

[2] Construction spending data for this analysis was pulled in December 2025. Note that the Census Bureau revises historical construction spending data every July, so the data used at the time of this analysis may not exactly match currently available data. ABI data through November 2025 was used in this analysis. Note that ABI data is revised every February, so the data used at the time of this analysis may not exactly match currently available data.

There are two likely causes of the current lower correlation between these two data series. The first concerns the changing composition of construction spending for nonresidential buildings. Though the sectoral shares of construction spending are constantly shifting, the past few years have seen more dramatic shifts for three key sectors: manufacturing facilities, warehouses, and data centers. Manufacturing construction has been boosted by major federal spending initiatives such as the CHIPS and Science Act in 2022, the Inflation Reduction Act in 2022, and, to a lesser extent, the Infrastructure Investment and Jobs Act in 2021. Spending on warehouses increased during the pandemic amid growth in e-commerce, while a dramatic increase in investment in artificial intelligence has driven spending on data centers. In 2020, these three sectors accounted for a quarter of all spending on nonresidential buildings nationally. By 2024, that share had risen to almost 43%. Most architecture firms get only a small share of their billings from these three construction sectors, so the growth in construction spending over this period has not been reflected to the same degree in the change in billings at architecture firms.

Even in construction sectors with significant architect involvement, the growth in spending on construction has far outpaced the growth in spending on design services. Since 2020, the cost of materials for nonresidential buildings has risen by more than 40%, while construction labor costs have also increased significantly. In contrast, increases in the cost of design services have been less than 10% over this period, according to data on producer prices from the U.S. Bureau of Labor Statistics.

While the correlation between the ABI and construction spending has decreased, the calculated lead of the ABI over construction spending has increased to 14 months from 11 months in the 2014 analysis, indicating that ABI values from 14 months ago produce the highest correlation with current construction spending. A likely reason for the increased lead in the ABI is increased uncertainty about future economic conditions and their impact on design and construction progress.

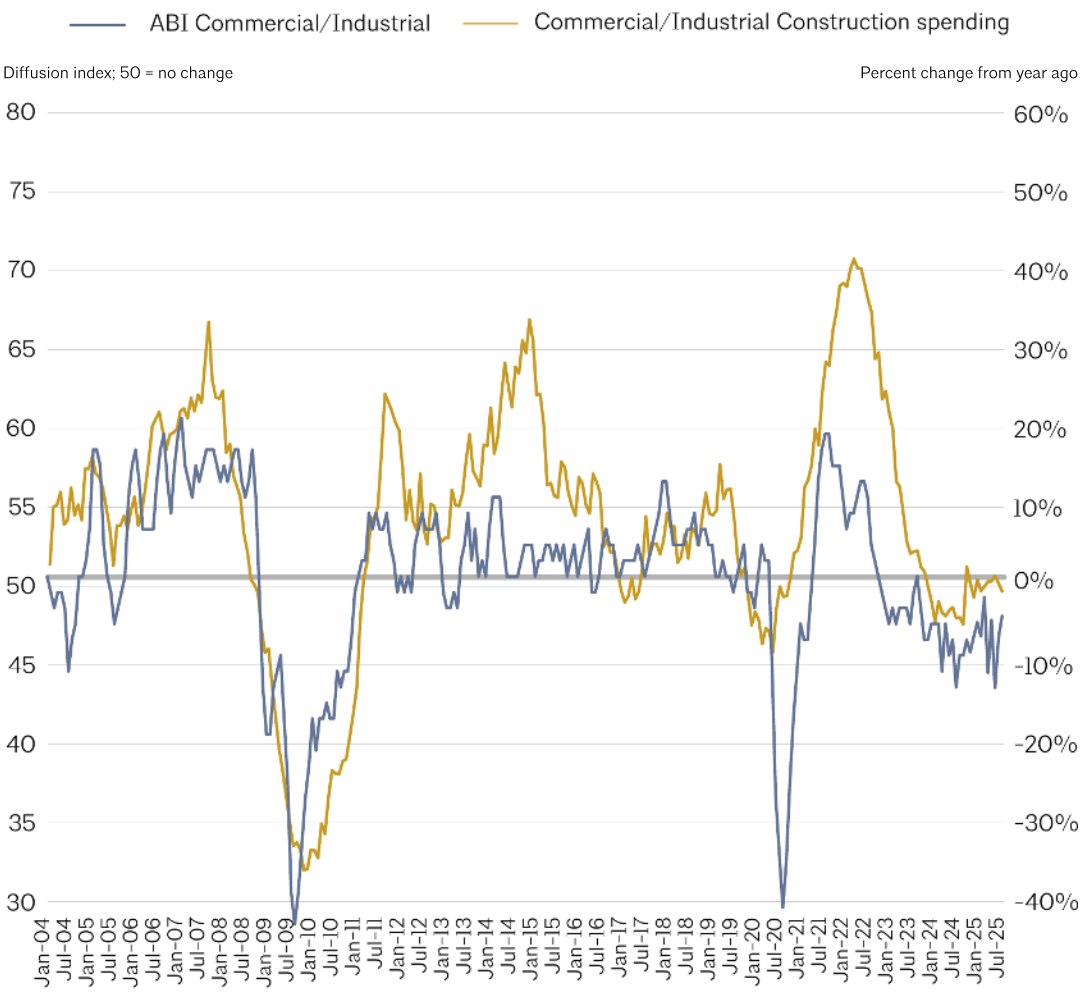
For example, ConstructConnect's Project Stress Index measures the change in the share of construction projects that are delayed, on hold, or abandoned during the design phase. There has been unusually high volatility in this index in recent years, which has lengthened the design phase for many projects. This finding is confirmed by an AIA survey of architecture firms in early 2026, which found that almost a third of projects (on a dollar basis) over the prior six months had been significantly delayed, indefinitely stalled, or canceled. Projects delayed or stalled would increase the design time and, therefore, increase the time between design billings and construction spending.

The measured increase in the lead of the ABI over construction spending is likely more a function of cyclical than structural economic conditions. The 2014 analysis of the ABI reported that ABI's lead over construction spending varied over the construction cycle. Though difficult to confirm, it is expected that the lead in design activity over construction spending will return to the historical 9–12-month average once this period of economic uncertainty settles down.

Though the correlation between the overall ABI and total nonresidential building construction spending weakened somewhat with the current analysis, the leads shortened slightly, and the correlations improved marginally for individual construction sectors. For this analysis, architecture firms are classified by whether they get most of their billings from either the multifamily residential, commercial/industrial, or institutional sectors. In this analysis, billings

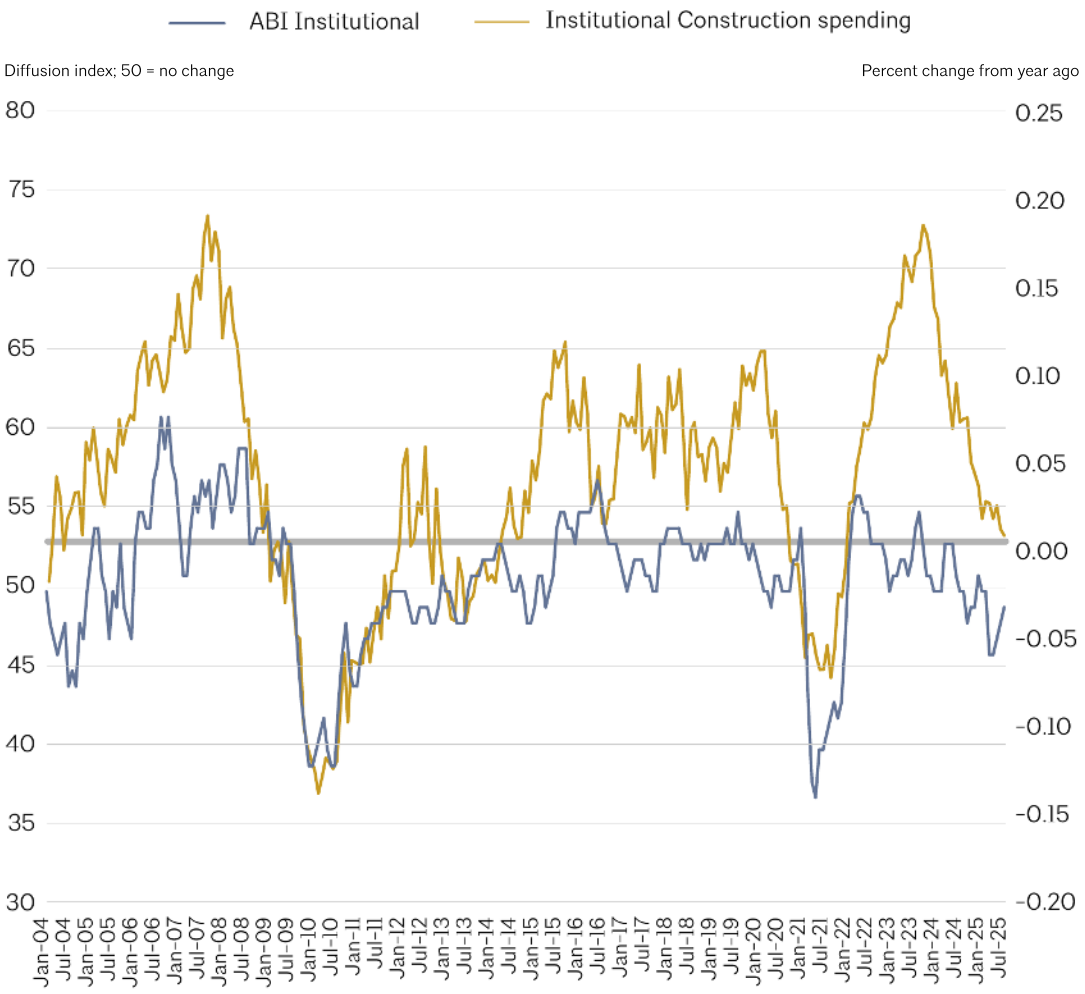
for these specialized firms are correlated with spending on building projects in that sector. Computed leads for firms specializing in either the commercial/industrial or institutional sectors were a bit shorter—12 months in each case—while correlations were stronger with correlation coefficients at 0.69 in both cases compared to 0.67 for the overall ABI analysis. This suggests that even though the overall construction market has been more volatile, individual sectors have been somewhat more predictable. (Figures 2 and 3)

Figure 2: Commercial/Industrial ABI Accurately Anticipates Commercial/Industrial Construction Spending



Note: Construction spending for commercial and industrial building activity. ABI figure for firms with a commercial/industrial specialization. With a 12-month lead, ABI correlation with commericial and industrial building construction spending is 0.69.
Source: The American Institute of Architects

Figure 3: Institutional ABI Accurately Anticipates Institutional Construction Spending



Note: Construction spending for institutional building activity. ABI figure for firms with an institutional specialization. With a 12-month lead, ABI correlation with institutional building construction spending is 0.69.
Source: The American Institute of Architects

That has not been the case for the multifamily construction sector. The correlation coefficient between billings at firms with a multifamily specialization and construction spending for multifamily projects is a disappointing 0.52, with billings leading spending by 15 months. This is likely because multifamily residential architects are less involved in key sectors of this market. While heavily involved in the affordable rental sector, they are also heavily involved in upper-end projects. A recent AIA survey of architecture firms found that 10% of firm activity for multifamily projects involved designing units of 1,800 square feet or more, while only 3% of overall multifamily projects fell in this size range.

An additional national design indicator—new design contracts at architecture firms—was added to the monthly ABI surveys beginning in late 2010. This analysis incorporates the first assessment of how well this indicator provides insights into ABI readings. The results were somewhat disappointing. While the correlation between new design projects and ongoing billings was very strong (correlation coefficient of 0.89), the best fit was with no lead. The interpretation is that new project work immediately leads to increased billings at firms. Likewise, the correlation between project inquiries and new design contracts was even stronger (correlation coefficient of 0.93), but again, the best fit was with no lead. (Figure 4)

Figure 4: Correlations and Leads Between ABI and Construction Spending For Major ABI Components

	Correlation coefficient	Months lead
National ABI and nonresidential building construction spending	0.67	14
Commercial/industrial ABI and commercial/industrial construction spending	0.69	12
Institutional ABI and institutional construction spending	0.69	12
Multifamily ABI and multifamily construction spending	0.52	15
Design contracts and national ABI	0.89	0
Project inquiries and design contracts	0.93	0

Note: Calculated over 11/1995 to 11/2025 period
Source: The American Institute of Architects

Still, project inquiries and new design contracts can provide useful insights into future design activity and future construction spending. Increased project inquiries signal that there is interest in construction projects, although the probability of an inquiry resulting in a new project is uncertain. Inquiries provide directional signals but are difficult to directly translate into design billings.

Likewise, new design contracts provide useful information but typically are not a precise measure of future design or construction activity. An architecture firm may get a firm commitment to proceed on a design project, but there are several variables that influence how quickly the design process proceeds—things like successfully arranging project financing, soliciting client feedback on design options, and getting zoning approvals and building permits.

A design contract is a one-time event while billings are a flow of activity over a period of several months or years. For this reason, design contracts offer useful insight into the direction of future billings. The timing of those billings—and of construction spending—is harder to predict. In general, "point in time" economic indicators—indicators that measure the current level of project activity but are not revised if the status of projects change—will not always align with "flow of services" indicators. The ABI, as a measure of the flow of design services devoted to a project, will reflect changes in the status of a project. If a project is put on hold or canceled, for example, design services will cease temporarily or permanently even though it was initially recorded as an inquiry and new design contract. Therefore, flow of services indicators provide better insights as to the likely level and timing of eventual construction spending.

Given the local nature of construction activity, many users of ABI data would like to see more geographical detail in architecture firm billings. Metro level billings data would be ideal, but even data at the Census Bureau divisional or regional level is thought to be very helpful. However, there are several challenges to providing design billings data with more geographical detail. The first is that the Census Bureau provides only national data on construction spending in its monthly releases. Regional data are reported only annually, which would make any correlation analysis with billings data of modest value. Additionally, architecture firms report billings of data for the ABI on an office basis rather than on a project basis. They report the movement in billings across all projects that are coordinated by that office. Many of these projects are in the same metro area where the office is , and most in the same region. However, some projects may be in other regions of the country, which would distort any analysis that attempted to correlate billings at that firm with local or regional construction activity.

Indicators

For businesses interested in tracking industry conditions, design and construction indicators are key. Monitoring the condition of the broader economy is also critical. In a survey conducted in April 2025, architecture firm leaders participating in the monthly ABI survey reported using a variety of general business climate and design/construction indicators to monitor economic conditions and help manage their firms.

Nearly all firm leaders on the ABI panel that responded to the survey reported that interest rates, employment trends, unemployment rate, market trends, and business confidence scores are the general business climate indicators they are most likely to track. When asked to choose the most useful general business climate indicator, nearly half (43%) selected interest rates, followed by almost a quarter choosing business confidence scores.

We asked the same question in a December 2025 survey of companies that subscribe to receive ABI data monthly. These companies primarily include building product manufacturers, financial institutions, and others in the construction/contracting/engineering industries. More than half of the respondents reported using interest rates, business confidence scores, employment trends and the unemployment rate, and consumer confidence and sentiment scores to evaluate the business climate and conditions in the AEC industry. When asked to select the most useful general business climate indicator, one-third chose business confidence scores, and 14% chose interest rates.

Both groups were also surveyed about the design and construction industry indicators that they track to help them evaluate the business climate and business conditions in the AEC industry. While nearly all reported using ABI data, they also track several other indicators regularly to develop a holistic picture of business conditions. Firm leaders closely track construction materials costs, construction spending levels, and the biannual AIA's Consensus Construction Forecast. In addition to the ABI, companies engaged in the AEC industry also closely follow construction spending levels and construction starts/construction contract awards. Fewer report tracking AIA Consensus Construction Forecast, construction materials costs, construction project planning data, and real estate prices/trends, but those are still important indicators for many of them—with real estate prices/trends being of the most important indicators.

Applications

To better understand how the ABI is used in practice, AIA conducted a series of interviews with long-time ABI users representing architecture firms, financial institutions, consultants, and organizations across the AEC industry. Interviews with these industry participants indicate that the ABI is used in ways that extend beyond architectural practice. While applications vary, the ABI consistently serves as a forward-looking indicator that provides context for planning, analysis, and decision-making, and as a shared reference point connecting architectural activity to financial performance, product demand, and broader economic trends.

At architecture firms, the ABI is commonly used to benchmark firm performance against broader market conditions and to inform business planning. Firm leaders compare internal project activity with ABI trends to assess whether changes in backlog or demand reflect firm-specific dynamics or broader shifts in the architectural economy. In some cases, the ABI highlights shifts in market conditions that are not yet visible within a firm's own project pipeline. As one firm leader described, *"We were comparing what we were seeing in our own markets against what we were seeing in the ABI… Changes were happening… that we weren't seeing with our own clientele."—AEC technology professional*.

The ABI is also used as a market intelligence tool by consultants and organizations serving building product manufacturers. In practice, these insights are often used to inform tangible business decisions, such as adjusting product offerings, shifting market focus, or adopting a more conservative planning approach. Here, the index helps translate architectural activity into expected downstream demand for materials and products. Users also recognize that the ABI is most effective as a high-level, directional indicator rather than a tool for project-level or highly localized analysis.

Beyond architecture firms, financial and advisory organizations incorporate the ABI into valuation and investment analysis. In these cases, the ABI serves as a standardized reference point for industry conditions at a given moment in time, supporting financial assumptions and enabling retrospective validation of decisions. As one financial analyst noted, *"This is one of the economic indicators we use to say this is where industry conditions were at that moment in time."—Finance and investment professional*.

In an environment with a wide range of economic indicators, subscribers also rely on the ABI to filter through market noise and identify a consistent signal of underlying construction activity. *"There's a lot of noise out there... we've found the ABI to have one of the better correlations."—Finance and investment professional*.

Because architectural billings precede construction activity, the index offers an early signal of demand shifts, allowing firms and industry stakeholders to anticipate changes before they are reflected in project pipelines or construction spending. Users often supplement the ABI with more granular data to account for regional variation or sector-specific dynamics. As one subscriber observed, *"I use the ABI as a gauge of future construction activity and evaluating the pipeline."—Finance and investment professional*.

In addition, some users incorporate the ABI into broader economic-tracking frameworks that monitor conditions across the entire construction pipeline. In these applications, the ABI represents the design-phase component of the cycle, complementing indicators tied to construction activity and macroeconomic conditions, particularly those described in the previous section. In these applications, the ABI is not used in isolation, but as part of a broader set of indicators that together provide a more complete view of the construction cycle. As one firm leader described, *"I track 30 specific economic indicators for the AEC industry, of which three come out of the ABI report."—Architecture firm principal*.

Despite differences in application, subscribers consistently value the ABI for its ability to provide early, reliable insight into the direction of the construction market. Most notably, the ABI is valued as a leading indicator. The ABI's long historical record further strengthens its value to those using the data. Its multi-decade continuity allows users to evaluate trends across economic cycles, providing a level of context and comparability that many other indicators lack. As one financial analyst noted, *"Most other indicators don't have the historical depth."—Finance and investment professional.*

Subscribers also value the ABI for its grounding in real-time industry activity. The index reflects monthly input from practicing architects, offering a direct and timely view into business conditions at the earliest stage of the construction: *"It's tracking new contracts and leads, which gives you a forward-looking view of activity."—Architecture firm leader*.

Finally, the ABI's clarity and ease of interpretation enhance its usability across a wide range of audiences. Its consistent structure enables users to assess whether conditions are improving or declining quickly and to communicate those insights effectively. As one consultant explained, *"The mechanics of it—over 50, under 50—that's what I try to explain to people."—Consultant.*

Summary and conclusions

Architecture firms and the broader AEC industry rely on a broad range of economic information to track current conditions and plan for future levels of activity. Amid growing economic uncertainty and volatile design and construction activity, the industry has needed to track a wider range of indicators—both broader economic measures and industry-specific ones.

This uncertainty and volatility have affected the relationship between design billings and construction spending. The correlation between these two indicators has been lower in recent years as the composition of construction spending has shifted, and inflation has increased construction costs faster than design billings. The lead of design billings over construction spending has increased somewhat as delayed, stalled, and canceled projects have increased. All of which points to the need for more information for industry participants as they navigate these challenging economic times.

Appendix I: Glossary and other resources

Construction spending put-in-place: The key statistics produced for construction spending are monthly estimates of the total dollar value of construction work done in the U.S. The survey covers construction work done each month on new structures or improvements to existing structures for private and public sectors (in 50 states and the District of Columbia).

Dodge Momentum Index: The DMI is a monthly measure based on the three-month moving value of nonresidential building projects going into planning, shown to lead construction spending for nonresidential buildings by a full year to 18 months.

Project Stress Index: Tracks delayed, on-hold, and abandoned preconstruction projects over the past 30 days.

Billings: The value of gross billings/billable work collected by architecture firms.

Inquiries: Conversations about new projects between architects and clients, but no contract signed, e.g., bids, RFPs, solicitations, and invitations for interviews.

Design contracts: The value of new design/design-build contracts (or formal authorizations to proceed, letters of agreement) including any agreement, either formal or informal, that gives an assurance of a client's commitment to a new project.

Construction starts: The actual beginning of construction on a project. Dodge Construction Network and ConstructConnect are two major providers of construction starts.

Appendix 2: U.S. Census Bureau's Value of Construction Put in Place

The construction data used for this analysis are intended to encompass nonresidential buildings that may be designed by architects. The specific building types used are defined to include/exclude the following categories from the U.S. CensusBureau's Value of Construction Put in Place (CPIP) in the United States data series (C-30).The categories used were consistent with the past analyses of the ABI.

Nonresidential	
Lodging	Commercial/industrial
Office • General • Data center • Financial	Commercial/industrial
Commercial • Automotive ◦ Sales ◦ Service/parts ◦ Parking • Food/beverage ◦ Food ◦ Dining/drinking ◦ Fast food • Multi-retail ◦ General merchandise ◦ Shopping center ◦ Shopping mall • Other commercial ◦ Drug store ◦ Building supply store ◦ Other stores • Warehouse ◦ General commercial ◦ Mini storage • Farm • Manufacturing ◦ Food/beverage/tobacco ◦ Textile/apparel/leather/furniture ◦ Wood ◦ Paper ◦ Print/publishing ◦ Petroleum/coal ◦ Chemical ◦ Plastic/rubber	Commercial/industrial

◦ Nonmetallic mineral ◦ Primary mineral ◦ Fabricated metal ◦ Machinery ◦ Computer/electronic electrical ◦ Transportation ◦ Miscellaneous	Commercial/industrial
Healthcare • Hospital • Medical building • Special care	Institutional
Educational • Preschool • Primary/secondary schools ◦ Elementary schools ◦ Middle/junior high schools ◦ High schools • Higher education ◦ Instructional ◦ Parking ◦ Administration ◦ Dormitory ◦ Library ◦ Student union/cafeteria ◦ Sports/recreation ◦ Infrastructure • Other educational ◦ Gallery/museum ◦ Library/archive	Institutional
Religious • House of worship • Other religious ◦ Auxiliary building	Institutional
Public safety • Correctional • Detention • Police/sheriff • Other public safety • Fire/rescue	Institutional
Amusement and recreation • Theme/amusement park • Sports • Fitness • Performance/meeting center ◦ Convention centers • Social center ◦ Neighborhood center • Park/camp • Movie theater/studio	Institutional

Transportation • Air ◦ Passenger terminal ◦ Runway • Land ◦ Passenger terminal ◦ Mass transit ◦ Railroad • Water ◦ Dock/marina ◦ Dry dock/marine terminal	Institutional
Communication	Institutional
Residential • New single family • New multifamily • Improvements	Excluded
Power • Electric ◦ Distribution • Gas • Oil	Excluded
Highway and street • Pavement • Lighting • Retaining wall • Tunnel • Bridge • Toll/weigh • Maintenance building • Rest facility	Excluded
Conservation and development • Dam/levee • Breakwater/jetty • Dredging	Excluded