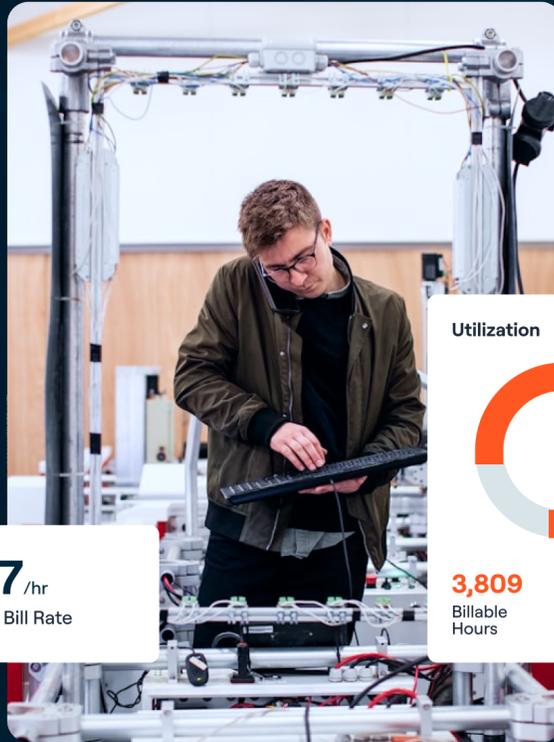




Ebook



\$217 /hr
Effective Bill Rate

Utilization



3,809
Billable
Hours

236
Non-Billable
Hours

The **Insight** Advantage

How High-Performance A/E Firms
Turn Data Into A Competitive Edge



Introduction:

The Quiet Divide Emerging in Architecture and Engineering

Architecture and engineering firms operate in an environment defined by increasing complexity. Labor costs have risen steadily. Project delivery models continue to evolve. Clients expect greater transparency, tighter schedules, and more predictable pricing. At the same time, competitive pressure keeps fees constrained and margins narrow. Meanwhile, the economy is in flux with technological advances, political uncertainty, supply chain disruptions, and other pressures wildly unpredictable.

Within this environment, a noticeable performance divide has emerged. Firms that appear similar on the surface - comparable size, comparable talent, comparable markets - often produce markedly different financial outcomes. Industry benchmarking data from organizations such as the AIA, PSMJ, Zweig Group and here at BQE, consistently shows meaningful dispersion between top-quartile and median firms in areas such as operating profit, net revenue growth, and labor multiplier. The difference is not marginal. It compounds over time.

It is tempting to attribute that dispersion to reputation, specialization, or geography. Those factors matter. But in many cases, the deeper differentiator lies in how leadership teams view, interpret, and act on the information already flowing through their firms.

Every architecture and engineering firm generates significant operational data. Contracts define revenue expectations. Timesheets capture labor deployment. Invoices and collections reflect cash performance. Project budgets reveal exposure. Yet the mere existence of data does not ensure clarity. Leadership teams frequently review

“Data has always existed inside architecture and engineering firms. What has been missing is the ability for leaders to explore it freely and understand what it is really telling them about their business. When that barrier disappears, the conversation about performance changes completely.”



Matt Cooper
CEO, BQE Software

revenue totals, backlog balances, and utilization percentages without gaining a full understanding of the structural drivers beneath those figures.

When profit declines, the immediate explanation may be “market conditions” or “project mix,” but those explanations often lack precision. Which service lines contributed most to the decline? Which project managers consistently outperform their peers? Which clients produce strong revenue yet erode profitability through write-downs or extended collection cycles? These are not academic questions. They directly influence hiring decisions, pricing strategy, capital allocation, business development, and long-term positioning.

Research across industries reinforces the importance of structured analytics in answering such questions. McKinsey & Company has reported that organizations embedding data-driven practices into decision-making processes outperform peers on profitability and productivity metrics. The professional services sector is no exception. We’ve seen similar results in our annual A/E Firm Benchmarking Reports. As complexity increases, intuition alone becomes insufficient. Experience remains valuable, but it becomes far more powerful when paired with accessible, well-structured intelligence.

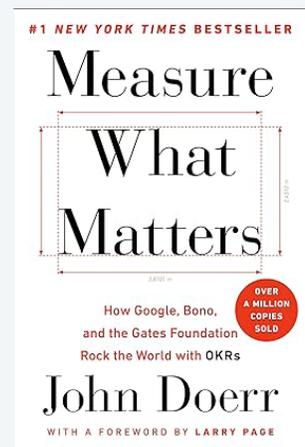
Historically, accessing deeper insight inside firm management systems has not been straightforward. Standard reports provide summary views, but exploring beyond those summaries often requires custom report development, manual exports to various spreadsheets, or external business intelligence tools. Over time, this friction shapes behavior. Leaders focus on the numbers that are easiest to obtain rather than on the ones that have the biggest impact. Finance teams maintain parallel spreadsheets to answer recurring questions. Project managers rely on static views that may not fully reflect current conditions.

The firms that are pulling ahead operate differently. They treat data not as a compliance requirement or an after-the-fact reporting exercise, but as an operating asset. They design systems that allow them to move from summary performance to segmented insight without rebuilding context. They examine drivers across offices, project types, clients, and managers. They shorten the time between detection and correction.

This shift does not require collecting more data. It requires structuring access to the data already present.

The pages that follow explore how architecture and engineering firms can build that capability. We will examine three interrelated advantages: improving access to underlying operational data, increasing visibility into the drivers of performance, and ultimately designing intelligence systems that support executive-level decision-making. Together, these capabilities form the foundation for durable competitive advantage.

In an industry where margins are earned through discipline and foresight, the firms that learn to go deeper into their data will not simply understand their performance more clearly. They will shape it more intentionally.



Measure What Matters John Doerr

Section I: Access

The Foundation of Better Decisions

Leadership teams in architecture and engineering firms ask operational questions constantly. A principal may want to understand why margins declined on a group of recent projects. A project manager may want to identify which jobs are approaching contract burn relative to percent complete. A financial leader may be looking for patterns in revenue, realization, or collections across different clients or service lines.

In most cases, the information needed to answer these questions already exists within the firm's management systems. Project budgets, time entries, invoices, and expense records together form a detailed picture of how work moves through the organization. Yet translating that raw information into useful insight is not always straightforward. Many firms rely on a collection of predefined reports that summarize activity but offer limited flexibility when deeper exploration is required. You may have a specific metric you track, but the data behind the number is opaque or hard to see.

This limitation is rarely intentional. Reporting systems are typically designed to provide consistency and clarity across common metrics such as revenue, backlog, utilization, and margin. Simplicity and speed of access are the design problems that were solved through the firm management software. Leadership teams are able to quickly and consistently monitor performance and maintain financial discipline across the business. The difficulty emerges when leaders need to examine the drivers beneath those summaries. When they want to go a level deeper to understand the root of problems or successes.

Consider a principal reviewing a monthly financial report that shows

“Many firms believe they are data-driven because they review reports every month. But reports are answers to yesterday’s questions. The real advantage appears when leaders can explore the data themselves and ask new questions whenever they need to.”



Lucas Gray,
Director of Content,
BQE Software

margin declining slightly compared to the previous quarter. The number itself is clear, but the explanation may not be. Is the decline concentrated in a particular office or service line? Is it related to a handful of projects running over budget? Are certain client types producing lower realization than others? Is there a project manager who is dragging down firm-wide performance? Answering these questions often requires more than reviewing a single report. It may involve exporting data from several sources, reconciling columns, and reconstructing the analysis externally before the underlying pattern becomes visible.

Over time, this process creates a subtle constraint on how information is used inside a firm. When deeper analysis requires significant effort, teams tend to rely on the metrics that are easiest to obtain. Leadership discussions focus on high-level indicators because they are readily available, while more nuanced questions may be postponed or explored only periodically during formal reporting cycles.

Many firms attempt to address this gap through custom reports or external business intelligence tools. Both approaches can be valuable, but they introduce their own challenges. Custom reports often answer a specific question at a specific moment, yet they remain static once created. When the question changes, the report frequently requires revision or replacement. External analytics platforms offer greater flexibility, but they typically demand additional infrastructure, configuration, cost, and technical expertise to maintain.

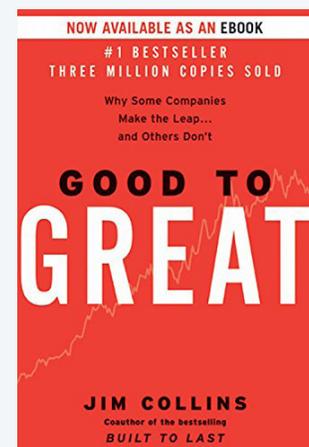
For many mid-sized firms, the result is a patchwork of reporting solutions that operate alongside the core management system rather than within it. Finance teams maintain spreadsheets that reconcile information across multiple exports. Project managers rely on static views that may not fully reflect evolving project conditions. Leadership teams periodically request specialized analyses that require time and effort to assemble.

The underlying data is present, but the path to exploring it remains narrow.

Access, in this context, refers to something more expansive than the ability to retrieve information. It describes the ability to interact with that information directly. Leaders should be able to examine operational data from multiple perspectives without rebuilding the dataset each time a new question arises. A project manager may want to filter performance by project type and then regroup results by client. A financial leader may want to incorporate custom fields that reflect the firm's internal classification system. Executives may want to export structured data that can be analyzed further without extensive formatting or reconciliation.

These capabilities influence how organizations think. When information can be reorganized and examined easily, analysis becomes part of everyday management rather than a specialized exercise reserved for monthly reporting cycles.

Flexibility is central to making this shift possible. Architecture and



Good To Great
Jim Collins

engineering firms rarely share identical organizational structures. Some operate through geographic offices, others through discipline-based studios or market sectors. Many develop internal classification systems that reflect their history, specialties, and strategic priorities. Over time, these structures evolve as firms expand, merge, or reposition themselves in the marketplace.

If an analytics environment cannot adapt to those structures, leaders quickly encounter its limitations. They may see the numbers presented in one format while thinking about the business in another. Bridging that gap often requires exporting data and reconstructing the analysis elsewhere.

A flexible access layer removes that friction. It allows leaders to reorganize operational information according to the structure of their firm rather than the structure of a predefined report. Metrics can be grouped by office, project manager, client type, or custom field depending on the question at hand. Data can be filtered, sorted, and exported without requiring additional technical intervention.

This shift changes the role that information plays in leadership discussions. Instead of reviewing static summaries, teams begin exploring patterns within the data itself. They examine how performance varies across teams, project types, and clients. They identify early signals of emerging risks or opportunities. Over time, this deeper engagement with operational data encourages a more disciplined approach to decision-making.

Access alone does not guarantee insight, but it creates the conditions in which meaningful analysis becomes possible. Once leaders can explore their information freely, the next step is learning how to interpret what those patterns reveal about the drivers of performance.

The following section examines how greater visibility into those drivers begins to reshape how firms understand their own operations.

Section II: Visibility

Understanding What Is Actually Driving Performance

Improving access to operational data allows leaders to explore information more freely, but access alone does not guarantee understanding. The next step is visibility: the ability to see how performance is actually created within the firm.

Most organizations begin with firmwide metrics. Revenue, realization rates, work in progress (WIP), backlog, and operating margin offer a useful overview of the business and provide a shared reference point for leadership discussions. These indicators help establish whether the firm is generally moving in the right direction. They are less effective at explaining why results look the way they do.

Understanding the drivers beneath those summary figures requires segmentation. When performance metrics can be examined across different dimensions — offices, project managers, service lines, or clients — the patterns that shape firm performance begin to emerge.

Consider the experience of a firm operating across several regional offices. Monthly reports may show steady revenue growth across the organization, and at first glance each office appears to be contributing positively. A deeper look, however, may reveal meaningful variation in cost structure and project mix between locations. One office might generate strong revenue but rely heavily on senior staff, resulting in a higher labor cost base. Another office might operate with a leaner staffing structure and consistently deliver stronger contribution margins despite producing slightly lower overall revenue.

Neither office is necessarily underperforming in isolation, yet the

“Financial leadership inside a firm is ultimately about pattern recognition. The sooner leaders can see how project structure, staffing decisions, and client behavior affect outcomes, the sooner they can adjust course. Good analytics shortens the distance between insight and action.”



Dan McCormick,
CFO, BQE Software

comparison provides valuable context for leadership decisions. Understanding how margin varies across locations can influence staffing strategies, project selection, and pricing discipline. Without the ability to examine performance at this level of detail, those differences may remain obscured within the aggregate numbers.

A similar dynamic often appears when examining project management performance. Many firms track project manager workload through realization, utilization, or simply billable hours, but those metrics alone do not capture the full picture of project outcomes. When margin and realization are analyzed across project managers, meaningful variance often appears.

Some managers consistently maintain strong labor multipliers and protect project profitability even when schedules tighten or scope evolves. Others may generate high billable activity yet struggle to maintain margin because of frequent write-downs or inefficient staffing patterns. These differences rarely reflect effort or commitment; they often stem from subtle variations in how projects are scoped, staffed, and communicated with clients.

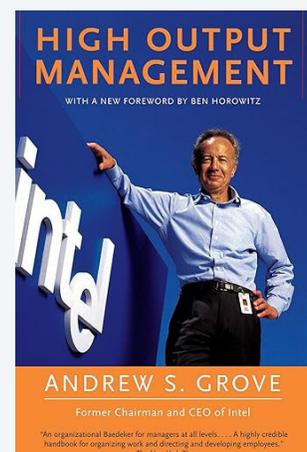
When these patterns become visible, leadership conversations shift. Rather than focusing solely on workload distribution, firms can examine how project management practices influence financial outcomes. Coaching becomes more targeted, and best practices from high-performing managers can be shared across teams.

Client relationships offer another important dimension of visibility. Many firms evaluate their client base primarily through the lens of revenue volume. Long-standing relationships that generate significant work often become central to the firm's identity and reputation. Yet revenue alone does not always capture the full economic contribution of a client.

When profitability, realization, and collection patterns are segmented by client, leadership teams frequently discover that some relationships produce stronger long-term value than others. A mid-sized client with consistent payment behavior and well-defined scopes may contribute more reliable profit margin than a larger client whose projects involve frequent scope changes or extended collection cycles. These insights do not necessarily diminish the importance of high-profile clients, but they provide a more complete understanding of how the client portfolio supports the firm's financial health.

These examples illustrate an important shift in how information is used. Instead of relying solely on summary metrics, leadership teams begin examining the structure of performance itself. Patterns become visible across offices, project managers, and client relationships. Over time, this deeper perspective allows firms to identify the operational drivers that shape their results.

Flexibility remains essential in this process because each firm organizes its work differently. Some firms evaluate performance through geographic



High Output Management
Andrew S. Grove

offices, others through market sectors or technical disciplines. Many rely on custom classifications that reflect the unique way their projects and teams are structured. An effective analytics environment must allow leaders to examine their data across these dimensions without forcing the organization into a rigid reporting hierarchy.

The ability to move from summary metrics to segmented analysis also encourages earlier intervention. When trends become visible sooner, leadership teams can address emerging issues before they compound. A project trending toward budget pressure can be examined while corrective action is still possible. A pattern of write-downs across similar project types may signal the need to revisit pricing assumptions or scope management practices.

Visibility therefore transforms operational data into a management tool rather than a retrospective record. It allows firms to interpret what is happening within their projects, teams, and client relationships while those activities are still unfolding.

As leaders become more comfortable exploring these layers of information, the conversation evolves once again. The goal is no longer simply to understand performance after the fact. The focus shifts toward shaping outcomes proactively.

That shift—from interpreting performance to influencing it—introduces the next stage in the evolution of analytics within a firm. With the right level of insight, leaders can begin designing intelligence systems that actively support the strategic decisions guiding the organization.

The next section explores how this capability moves firms from visibility toward control.

Section II: Control

Designing Intelligence Around How Your Firm Operates

Once leaders gain visibility into true drivers of their firm's performance, information becomes a framework for shaping future decisions, rather than simply looking into the past. This transition marks the difference between observing performance and guiding it.

In architecture and engineering firms, many of the most consequential decisions revolve around resource allocation. Leaders determine when to expand staffing, which project opportunities to pursue, how to price work, and which client relationships deserve deeper investment. These decisions unfold under conditions of uncertainty. Market demand shifts, project scopes evolve, and staffing requirements fluctuate across disciplines and offices.

The availability of structured operational insight provides a stronger foundation for navigating these choices.

Consider the question of hiring. Growth periods frequently create pressure to expand teams quickly in order to meet rising demand. Yet the signals that support hiring decisions are rarely simple. Backlog may appear strong, but the composition of that backlog matters. A portfolio heavily concentrated in a single client or project type may carry more risk than one spread across multiple sectors. Similarly, a surge in short-duration projects may create temporary workload spikes that do not justify long-term staffing commitments.

When leadership teams can examine backlog, project burn rates, and revenue projections, and profitability metrics by project type, office, client, or project manager, together, the conversation becomes more

“Architecture and engineering firms bring extraordinary discipline to the way they design buildings, structures, and systems. The same level of rigor should apply to how they manage the business. When leaders can see how projects, teams, and financial outcomes connect, they gain the ability to guide the firm with intention rather than simply reacting to results.”



Steven Burns,
FAIA, Founder, The
Well-Designed Firm

nuanced. Instead of relying primarily on intuition or high-level workload indicators, firms can evaluate how work is distributed across teams, how long that work is likely to sustain current staffing levels, and how future opportunities are developing in the pipeline. Hiring decisions become more deliberate, grounded in a broader view of the firm's operational trajectory.

Pricing strategy presents another area where deeper operational intelligence can influence outcomes. Architecture and engineering firms frequently refine their pricing approach through experience, adjusting fee structures in response to client expectations and competitive pressures. Over time, however, patterns begin to emerge within the firm's project portfolio.

Certain project types may consistently produce strong margins because their scope is well defined and their delivery process is predictable. Others may generate steady revenue but require significant write-downs or unplanned labor to complete successfully. When these patterns are visible, leadership teams gain the ability to examine how pricing assumptions align with actual project outcomes.

This perspective does not simply influence individual proposals. It informs broader strategic positioning. Firms may decide to concentrate marketing and business development resources in sectors where their expertise produces reliable performance or refine how they scope and structure work in areas where margins tend to erode.

Client strategy benefits from similar analysis. Architecture and engineering firms often build long-term relationships that span many years and numerous projects. These relationships can become foundational to the firm's growth, reputation, and professional network. At the same time, the economic contribution of each relationship may vary in ways that are not immediately obvious.

When leaders examine project outcomes across their client portfolio, they gain a clearer understanding of how different relationships influence the firm's financial health. Some clients consistently engage in projects with well-defined scopes and stable timelines, creating an environment where teams can deliver strong results with profitable outcomes. Others may introduce frequent design revisions, extended schedules, or delayed payment cycles that place pressure on internal resources.

Understanding these patterns allows leadership teams to approach client development more strategically. Instead of evaluating relationships primarily through revenue volume, firms can consider how each client contributes to long-term performance and organizational stability.

These insights become even more valuable when they are integrated into the daily rhythm of management rather than confined to periodic review. When operational intelligence is readily available, leaders can evaluate emerging trends while projects are still in progress and adjust course accordingly.



Good Strategy Bad Strategy
Richard Rumelt

This capability depends heavily on flexibility. Every architecture and engineering firm evolves over time. New service lines emerge, geographic footprints expand, and organizational structures adapt to changing markets. An analytics environment must be capable of evolving alongside these changes, allowing leaders to reorganize information according to the way their firm actually operates.

The ability to create formulas, group metrics across different classifications, and explore relationships between operational indicators allows analytics to reflect the firm's strategic priorities rather than forcing those priorities into rigid reporting templates. Over time, this adaptability encourages a culture in which data becomes part of everyday leadership practice, and a tool everyone in the firm can benefit from.

The objective is not to replace judgment with algorithms. Professional services firms will always rely on the experience and expertise of their leaders and practitioners. Instead, structured intelligence strengthens those judgments by grounding them in a deeper understanding of how the organization performs.

When leaders can explore the relationships between projects, clients, teams, and financial outcomes, they gain the ability to shape the direction of the firm with greater confidence. Decisions about growth, pricing, and investment become more deliberate, supported by a clearer view of the forces influencing performance.

At that point, analytics becomes something more than a reporting capability. It becomes part of the operating system through which the firm guides its future.

Conclusion:

The Power of Going Deeper

Architecture and engineering firms have always relied on expertise to guide their work. Design decisions require experience, technical judgment, and the ability to interpret complex information. Increasingly, the same discipline is required to guide the business itself.

Projects generate a continuous stream of operational information. Time entries, budgets, invoices, staffing allocations, and project outcomes together form a detailed record of how a firm operates. Yet the presence of information alone does not create clarity. The advantage emerges when leaders can explore that information deeply enough to understand the forces shaping their performance.

When operational data can be examined across offices, project managers, clients, and project types, patterns begin to surface. Some teams consistently deliver strong margins. Certain project structures produce predictable outcomes. Some client relationships support stable growth while others introduce operational strain. These insights are difficult to see in summary reports, but they become increasingly clear as leaders gain the ability to explore their data from multiple perspectives.

Flexibility is essential to this process. Every firm organizes its work differently, and those structures evolve over time. An effective analytics environment must allow leaders to examine their information in ways that reflect the realities of their organization rather than forcing analysis into rigid reporting frameworks.

CORE Insights was developed to support this kind of exploration. By allowing leaders to organize metrics across offices, project managers,

“One of the biggest limitations of traditional reporting is that it forces every firm to view their business through the same lens. We wanted to build something different. When leaders can organize data around the way their firm actually operates, the insights become far more meaningful..”



Ryan Harris,
Product Manager,
BQE Software

Conclusion

clients, and custom classifications, the platform creates a flexible environment for examining the operational dynamics of the firm. Data can be filtered, grouped, and analyzed in ways that reveal relationships between projects, teams, and financial outcomes.

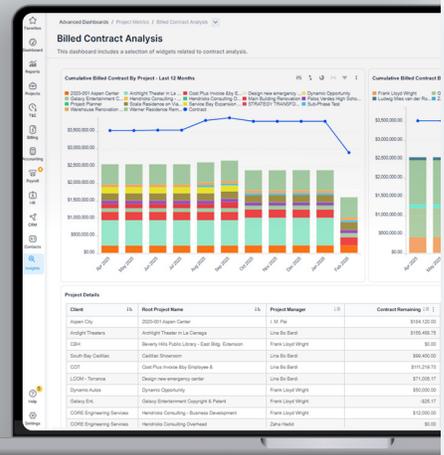
The value of this capability lies in depth. When leaders can move beyond surface metrics and examine the layers beneath them, they gain a clearer understanding of how their organizations actually perform. Over time, that clarity strengthens the decisions that shape the firm's direction.

For firms operating in an increasingly competitive environment, the ability to go deeper into operational data will become an important source of advantage. Leaders who develop this capability will not only understand their businesses more clearly. They will guide them more deliberately.

See What's Driving Your Firm's Performance

CORE Insights gives architecture and engineering leaders a flexible way to explore project, financial, and operational data across their firm. Identify patterns, uncover opportunities, and make decisions with greater confidence.

[BOOK A CORE DEMO →](#)



Additional Resources:

Architecture & Engineering Benchmarking Reports



2025 A/E Benchmarking Reports

A/E Firm Benchmarking Calculator



A/E Firm Benchmarking Calculator

A/E Firm Maturity Index



Firm Maturity Index Quiz

EBOOK

Data Driven Success: Streamlining Your Operations



Data Driven Success: Streamlining Your Operations

EBOOK

Seven Pillars Of Highly Successful AE Firms



Seven Pillars of Highly Successful AE Firms

Revenue Projection Template



Revenue Projection Template

Webinars:

Microeconomics of Firm Performance



Microeconomics of Firm Performance

From Gut Feel to Insight: How Firm Leaders Use Data to Drive Growth



From Gut Feel to Insight: How Firm Leaders Use Data to Drive Growth

Beyond the Numbers: How Benchmarking is Driving Smarter Decisions in AE Firms



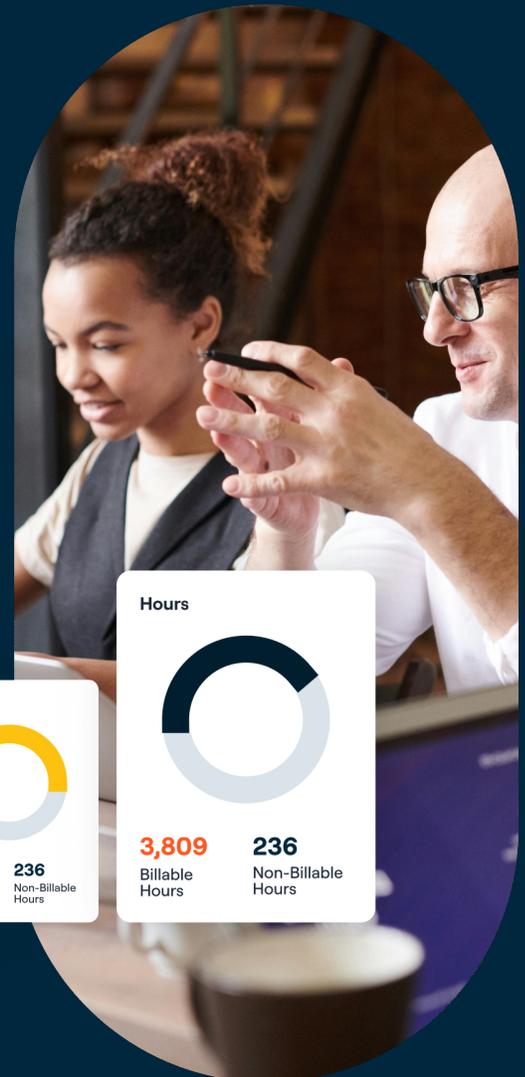
Beyond the Numbers: How Benchmarking is Driving Smarter Decisions in AE Firms

BQE CORE

If you're serious about improving efficiency and profitability, you need access to technology that makes the process of tracking Key Performance Indicators (KPIs) straightforward. BQE CORE is an all-in-one firm management platform with integrated accounting and project management tools that's backed by a company with over 30 years of experience and countless end users worldwide. It was designed by an engineer and architect to give their firms the tools they needed to thrive. Thus all of the built-in features are designed to address the pain points A/E firms typically face.

BQE CORE can streamline your business processes, while simultaneously providing groundbreaking insights that will help grow your firm, all from the convenience of a desktop computer, laptop, or mobile device. BQE CORE makes it easier than ever to collaborate with both your team and clients.

Running your business should be exciting, not chaotic. That's why we're here, and most importantly, why we developed CORE.



[TO LEARN MORE, BOOK A DEMO →](#)