

INDUSTRIAL PATTERNS

Reference Editions

Operating Benchmarks

An annual reference series

MODULE 1 - EDITION 2024

Building Materials

United States - Peer set of 14 subsegments (46 NAICS codes)

2024 Edition

Edition lock date: 31 December 2025

Current conditions through December 2025

SOURCES

IRS Statistics of Income - Bureau of Economic Analysis - Bureau of Labor Statistics

U.S. Census Bureau - Federal Reserve - CPI-U and BEA Chain-Type Price Indexes

Structural anchors: SOI 2022 - Economic Census 2022 (vintage lags disclosed in §8)

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SAMPLE · FREE PREVIEW

About this sample

This document is a free preview of Building Materials Operating Benchmarks — 2024 Edition. It contains the front matter, the methodology summary, one headline page (Family 1 — Margin Behavior), and the limitations section from the full edition. The full edition runs approximately 45 pages and contains four metric families across 46 six-digit NAICS codes, cross-family observations, and a current-conditions overlay through December 2025.

The 2024 edition's structural data is dated to 31 December 2025 and reflects the operating environment of US building-materials industries through the structural-anchor vintages disclosed in the front matter. The current edition reflects the most recent complete year. Both are available at industrialpatterns.com.

Edition

Building Materials Operating Benchmarks · 2024 Edition
Industrial Patterns Module 1

Edition lock date

31 December 2025
Current-conditions data through December 2025.

Peer set

14 subsegments · 46 six-digit NAICS codes · 5 segments
Nonmetallic mineral, wood, plastics, fabricated metals, distribution.

Publisher

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Catalog identifier

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OPERATING BENCHMARKS · 2024 EDITION

Operating Benchmark is an annual reference that examines how operating performance behaves under scale, volatility, and capital intensity in US industries. It is designed for private-equity diligence teams evaluating mid-tier operator targets, and for executive teams at those operators — readers who need a stable, neutral point of comparison, not advice, not forecasts, and not prescriptions. Each edition applies a consistent framework to observed operating data so performance patterns can be assessed over time and across peers. Operating Benchmark exists to support decision-making by describing what tends to occur, not by recommending what should be done.

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● Section included in this sample. ○ Section in the full edition only.

How to Read This Reference

This document is organized as a reference, not as a report. It is built to be used the way a practitioner uses it: find your industry by its NAICS code, then read its operating characteristics against its true peers. The Building Materials peer set comprises 14 subsegments spanning 46 six-digit NAICS codes, grouped into five structural segments — nonmetallic mineral manufacturing, wood product manufacturing, plastics product manufacturing, fabricated and architectural metals, and construction-materials distribution.

The 2024 edition is built in two layers. The first is a set of structural operating benchmarks computed from federal administrative data for the edition's structural year — value-added margins, labor elasticity, capital efficiency, and operating-cost structure. The second is a current-conditions overlay (§7) that places those structural figures against present-day movement in prices, production, permits, design pipeline, labor turnover, and orders, through December 2025.

Each metric family is introduced by a single headline page

built on a fixed structure: it names the operating condition, shows the distribution of the metric across the peer set rather than a single average, and states two to four descriptive patterns. The pages that follow each headline are variations on that structure — distributional summaries, code-level detail, and trailing-window behaviour.

Source vintages and the structural-anchor convention

Two of the sources move slowly by design and their vintage lags the edition year. This lag is disclosed, not hidden. BEA Industry Accounts (Family 1) and BLS QCEW (Family 2) refresh annually and carry the edition year. IRS Statistics of Income (Families 3 and 4) and the U.S. Census Economic Census (structure) are release-keyed and carry forward across editions until their next release. The 2024 edition uses SOI 2022 and Economic Census 2022 as the structural anchors — the same anchors used in the 2022 and 2023 editions — until SOI 2023 releases (~late 2026). The current-conditions appendix (§7) is the overlay through which present-day movement enters the edition.

Scope and intended use

What this is

An annual, descriptive reference on the operating structure of US building-materials industries, computed from primary federal statistical sources at the most granular level each source permits. It is intended for diligence teams, operators, and advisors who need a defensible external benchmark for a specific NAICS code.

What this is not

It is not investment advice, not a forecast, and not a valuation. It describes structural operating characteristics; it does not recommend actions or predict outcomes. Figures are point-in-time at the edition lock date and are not revised once an edition ships; subsequent revisions appear in the next edition. A single firm's figures should be read against its industry's distribution, never treated as a target to be hit.

Peer set

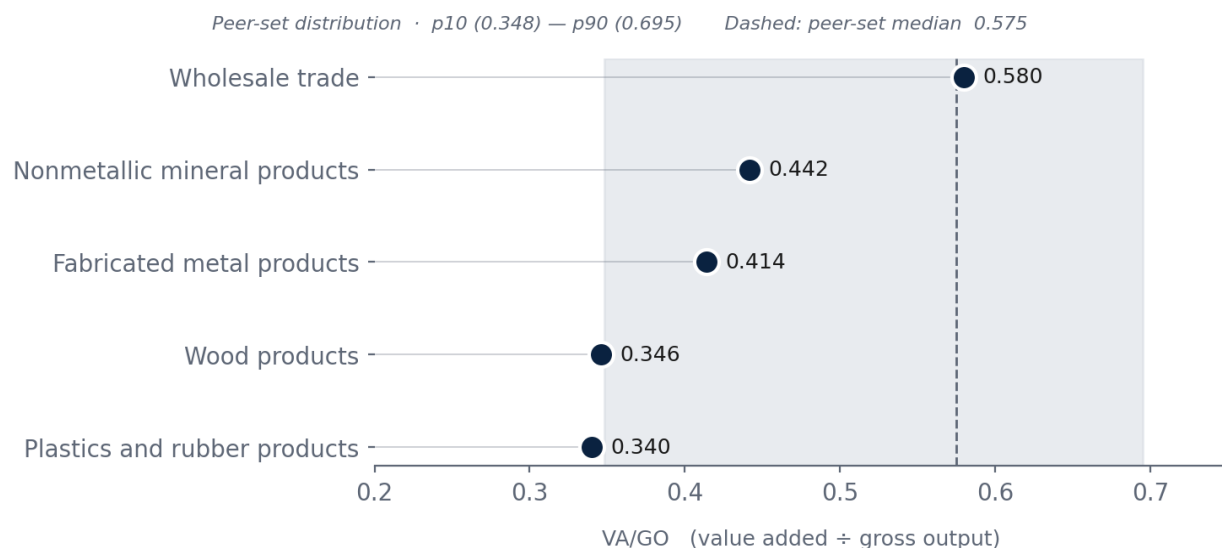
The peer set is fixed across editions: 46 six-digit NAICS codes across 14 subsegments and five segments. Distribution (construction-materials wholesale) is the largest segment by receipts and firm count; mineral and metal manufacturing are the employment-heavy segments; plastics is the smallest on every measure. Three exclusions are notable: construction firms (NAICS 23) are excluded as a different buyer set with different operating dynamics; retail (NAICS 444) is excluded as too diverse for meaningful intra-segment metrics; mining adjacency (NAICS 21231) is excluded for substantially different operating dynamics.

Family 1 — Margin Behavior

Value-added margin under industry structure

This family answers: how do industry operating margins behave under changes in output volume and over time? The primary metric is the value-added margin (VA/GO) — the share of industry gross output not consumed by intermediate inputs. Source: BEA Industry Accounts, shown as a distribution across the peer-set BEA industries plus a trailing time-series.

Distribution of value-added margin (VA/GO) across the five BEA industries that map to the Building Materials peer set, 2024. The shaded band shows the peer-set p10-p90 range; the dashed line marks the peer-set median.



Observations

- Wholesale trade carries the highest value-added margin in the set at 0.580 in 2024, reflecting a distribution model in which purchased goods pass through at scale and value added is concentrated in logistics and service rather than transformation.
- Plastics and rubber products (0.340) and wood products (0.346) sit lowest — material-intensive manufacturing where purchased inputs are a large share of output. Also structural, not performance-driven.

- Nonmetallic mineral (0.442) and fabricated metal (0.414) occupy the middle, recognizable manufacturing margins of 34–44 cents of value added per dollar of gross output.
- The peer-set distribution's p10–p90 spread (0.346) has been stable across the trailing window, indicating that the dispersion of margins across these industries — not just their average — is a persistent structural feature.

Interpretation boundary

Margin level is structural to industry mix and operating model, not a quality signal. Operators in distribution should not expect to operate at manufacturing margins; manufacturers should not expect distribution-like ratios. Margin trajectory over time (§2.2 in the full edition) is more informative than level alone for benchmarking purposes.

Methodology appendix (excerpt)

§8.1 Source vintages and edition lock date

Edition lock date: 31 December 2025. Structural data vintage: calendar year 2024 for BEA and QCEW; SOI 2022 and Economic Census 2022 as the governed structural anchors (see the disclosure table in the front matter). Current-conditions window: through December 2025. Figures are fixed at the lock date and are not revised within an edition.

§8.2 Two-deflator construction

Industry output is deflated to real terms using the BEA Chain-Type Price Index by industry (base 2017); real wages, where used, are deflated by CPI-U rebased to the edition year. The two deflators are applied to their respective domains and are not interchanged. The value-added margin itself is reported nominal, as a ratio of two same-period BEA aggregates, per standard BEA industry-analysis convention.

§8.3 Refined overhead reconstruction (Family 4)

SOI Total Deductions is suppressed at minor-industry granularity for several peer industries and, in any case, is not the correct top-down base because income tax sits outside it. Refined overhead is therefore built bottom-up from published component deduction lines, omitting COGS, depreciation, interest, and income tax. For the industries where Total Deductions IS published, a reconciliation diagnostic confirms the bottom-up figure agrees with the published total within a small tolerance — across the four peer industries with published Total Deductions, the bottom-up reconstruction reproduces the published value within roughly a third of a percent. The diagnostic is retained in the build for audit.

§8.6 Reproducibility and vintage governance

Each edition is produced from a single parameterized pipeline and frozen at ship as a tagged code state, so the published figures can be regenerated from the corresponding code and source vintages. The slow-moving structural anchors — IRS SOI and the Economic Census — carry forward across editions until their next release, and the vintage used in each edition is recorded in the front-matter disclosure table and at the head of each affected section.

Methodology appendix (continued)

§8.7 Distributional benchmarking

Every quantitative pattern in every Operating Benchmarks edition is presented as a distribution across the industry peer set — typically as 10th, 50th (median), and 90th percentiles — rather than as a single industry average or a forecast trajectory. This is the principal way the methodology differs from industry reports built on single-point averages. A reader evaluating a target against these benchmarks locates it within the distribution: the question is not whether a figure beats an average, but where in the peer range it sits, and how wide that range is. The p10–p90 spread is therefore reported alongside the median throughout, because dispersion is itself a structural fact about an industry, not noise around a point estimate.

§8.8 Industry-level inference and its limits

All figures aggregate across firms within a NAICS code or operational segment. Firm-level inference from these aggregates is not supported: a single company's operating characteristics may differ materially from its industry's central tendency, and nothing in this edition should be read as a target a specific firm ought to hit. The peer-set scope, the coverage of each source, and the granularity at which each metric resolves are documented so that a reader knows precisely what population a given figure describes and what it does not.

§8.9 Honest naming and reconciliation

Where the methodology computes a quantity whose conventional name does not match what the computation actually measures, the edition uses the technically accurate name. Family 2's primary metric is labelled an employment-to-wagebill elasticity, not a revenue elasticity, because the source carries employment and wages but not output. Family 4's primary metric is labelled refined overhead intensity, because it is reconstructed bottom-up from component lines rather than read from a published total.

Limitations and closing

This reference is an industry-level document. It describes the operating structure of industries, not of individual firms, and a single firm's figures should be read against its industry's distribution rather than treated as a target. It is descriptive: it does not forecast, value, or recommend.

Source granularity bounds what can be shown — BEA reports at industry rather than six-digit detail for margins, and SOI resolves to minor-industry cells rather than the full subsegment set for capital and scale — and those bounds are disclosed at the point of use rather than papered over. The slow-moving structural anchors (SOI and the Economic Census) lag the edition year by design, and that lag is stated in the front matter and methodology so the reader knows exactly which vintage underlies each figure.

Industry structure is reported at full six-digit detail, including the receipts-class distribution and the formal concentration measures, so that a code-level reader sees not only the operating metrics but the size and competitive shape of the industry those metrics describe.

On the value of restraint

Industrial Patterns operates under a doctrine of restraint. Where the data supports observation, the observation is reported. Where it supports interpretation, the interpretation is reported with its boundaries. Where it does not support causal inference, no causal claim is made. The doctrine is the product's commitment to its readers: every figure can be audited, every observation can be questioned, and every interpretation has a stated limit.

THE FULL EDITION

Building Materials Operating Benchmarks

2024 Edition · Approximately 45 pages · 46 six-digit NAICS codes

The full edition contains all four metric families (Margin Behavior, Labor Elasticity, Capital Efficiency, Scale Penalty) with their headline pages and subsection detail, the structure context section with the complete code-level peer-set table and concentration analysis, the cross-family observations, the current-conditions appendix through December 2025, and the complete methodology appendix and terms of sale and licensing.

Edition	Lock date	Price
2022	31 December 2023	\$2,750
2023	31 December 2024	\$2,750
2024 (current)	31 December 2025	\$2,750

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