

The Data Center Construction Boom

Freight Demand Implications Across the Data Center Buildout

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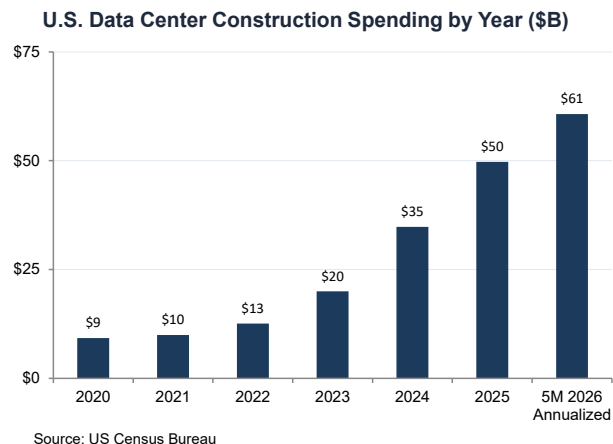
Steven Fox, Principal

Total U.S. construction spending was flat in 2025 and is forecast by FMI to decline in 2026. Residential Construction and major non-residential building construction categories Manufacturing and Commercial Buildings, are forecast to decline in 2026.

But data centers are a glaring exception. When the Census Bureau first began tracking data center construction as a separate category in 2014, annual spending was \$1.8 billion. By 2025, that number had reached \$49.7 billion - a more than 2,600% increase over the period. The growth has been strong over the last few years: spending grew 74% in 2024 and another 43% in 2025, and between 2021 and 2025 alone it increased about 400%.

Data center construction starts spending is exploding in early 2026 according to ConstructConnect.

Through the first three months of this year, estimated starts spend is up more than 500% over the first three months of last year. Amazon, Google, Meta, and Microsoft spent a combined \$130B in Q1, 2026 on capex building out their AI data center capacity, up 71% from Q1, 2025 reports the Wall Street Journal. This isn't a blip, it's structural.



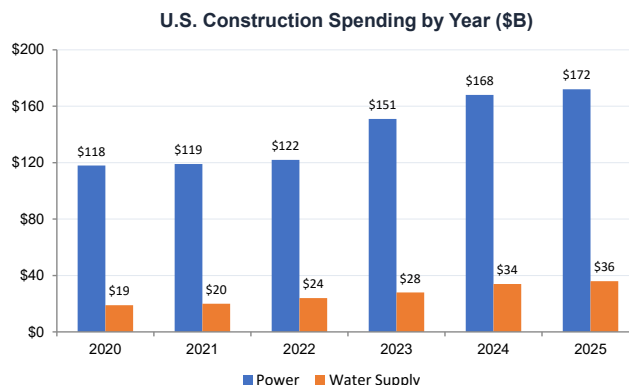
Data Centers Don't Just Need Buildings

Most of the data center construction conversation focuses on the buildings and what goes in them. But the infrastructure required to support these facilities is generating its own massive demand cycle.

Data centers are becoming a real power hog. U.S. data center power demand is forecast by EPRI to increase from ~4.5% of total U.S. power demand in 2025 to ~13% (medium scenario) in 2030. The construction spending to support that demand tells the story: power industry construction spend stood at \$118 billion in 2020. By 2025 it had grown to \$172 billion, and FMI forecasts it will grow at a 10% CAGR from 2025 to 2030. That means new generation stations, transmission lines, substations, and more, each with its own freight logistics chain.

Transformer lead times are running 2–4 years. Generators, switchgear, and substation equipment are heavy, oversized, and project-specific. The power infrastructure alone is a multi-year freight demand driver.

Water requirements are an underappreciated story. Large data centers consume millions of gallons of water annually for cooling. A single 100-megawatt hyperscale data center in the U.S. consumes around 528,000 gallons of water per day, equivalent to about 6,500 households. The IEA forecasts global data center water consumption to more than double from around 148 billion gallons per year currently to 317 billion gallons by 2030. Water supply construction spending has followed a similar trajectory: \$19 billion in 2020, growing to \$36 billion by 2025, and forecast to reach ~\$50 billion by 2030 — a more than 150% increase over the full period and with FMI forecasting a 7% CAGR from 2025 to 2030. This growth drives water distribution and treatment infrastructure, all generating freight.

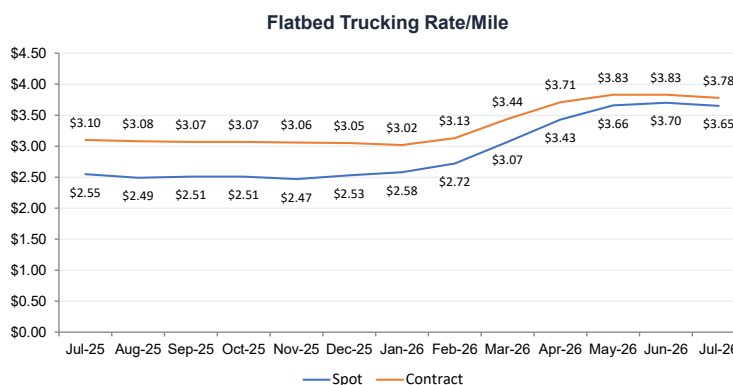


Before a single server rack ships, the power and water infrastructure behind these campuses is already moving goods across the country.

Data Centers - So Much Freight to Move

Each new data center is a truck freight mecca. A single 100-megawatt campus requires an estimated 6,000 truckloads of raw materials, structural components, and heavy equipment. Across the full pipeline of data centers planned and in construction, FreightWaves forecasts it will require an estimated 18.9 million incremental truckloads over the 2026–2031 period. In total, we estimate data center construction will generate almost \$7B in for-hire trucking spend in 2026. FMI forecasts a 15% CAGR in data center construction spend from 2026-2029, which should support continued trucking spend growth.

As with many other types of construction, for-hire flatbed/open deck trucking will be the biggest beneficiary, across a range of materials and products. Based on our estimates for the trucking spend by trailer type by facility, we estimate ~\$4.5B of flatbed/open deck transportation spend in 2026 to support data center construction. This spending accounts for an estimated ~6.4% of the flatbed/open deck market, and is already being felt across the industry. Flatbed loads posted on DAT were up 70% year-over-year in June, 2026. The load-to-truck ratio reached 89:1 in June, up from 59:1 in February. Flatbed rates/mile are also up significantly year-over-year, even taking into account the increase in diesel fuel prices. Spot flatbed rates are up 43% year-over-year in July, and contract rates are up 22%.



There is still some benefit to the dry van trucking market from the data center boom, but it is less pronounced. We estimate ~\$2.1B of for-hire dry van transportation spend in 2026 to support data center

construction. This includes shipments of inputs to manufactured products or assemblies that go into data centers. Since the dry van market is much larger than the flatbed market, it will provide less support overall, but is a rare bright spot in the current trucking landscape.

Air freight and high value transport, while much smaller markets, will also benefit. The technology that goes into making a data center work, and keeping it online, will support these more critical shipments. Best of all, it will be the gift that keeps giving, as old servers cycle out and new ones replace them for years to come.

With the AI boom and continued growth in internet traffic fueling an ever-expanding need for data center capacity, this will be *the* sweet spot in the freight transportation market over the next half decade.

Understanding how to benefit from it, whether as a supplier, carrier, or 3PL/intermediary, will be critical to strong financial performance.