

CFE Media & Technology

Electrical & Power Systems

November 2019

Introduction & Methodology

Objective

The study was conducted by *Consulting-Specifying Engineer* to identify trending information as it relates to the buying and specifying habits of engineering professionals involving electrical and power.

Sample

The sample was selected from qualified subscribers of *Consulting-Specifying Engineer* with valid email addresses who purchase, specify or use electrical and power products and systems.

Method

Subscribers were sent an email asking them to participate in this study. The email included a URL linked to the questionnaire.

- **Data collected:** August 26, 2019, through September 13, 2019
- **Number of respondents:** 121
 - *Margin of error: +/- 9.0% at a 95% confidence level*
- **Incentive:** Survey participants were offered the opportunity to enter a drawing for a chance to receive a \$100 VISA gift card.

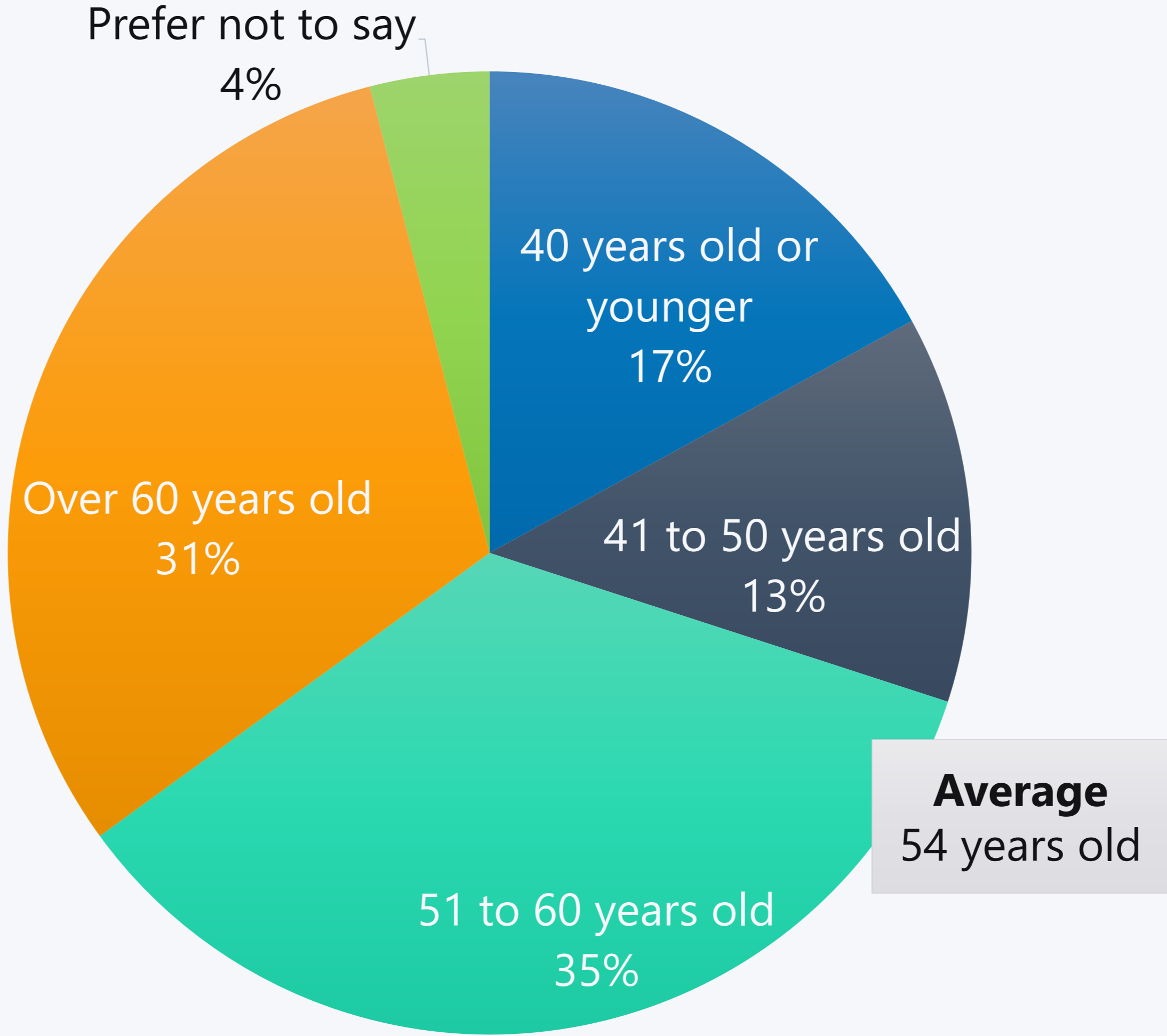
Key Findings

- **Electrical, power revenue:** The average engineering firm specifies about \$3.6 million annually for electrical and power systems in new and existing buildings, up 21% over 2018 data.
- **Systems specified:** Eight in 10 engineers currently specify circuit breakers, fuses, etc.; cable, wire, etc.; and cable management, raceways, busways, etc.
- **Selection involvement:** Ninety-two percent of respondents are responsible for determining the requirements/writing specifications for electrical or power systems. Another 69% research and evaluate options, while 68% recommend the brand and 64% supervise or consult on projects.
- **Specifications:** Twenty-eight percent of respondents always write performance electrical or power specifications, and another 45% frequently write this type of specification.
- **Design factors:** Ninety-nine percent of engineers agree that product quality is the most important factor to their specification of one electrical or power system over another, followed by manufacturer's reputation (88%), previous experience with a manufacturer (88%), design support offerings (87%) and technical advantage (87%).
- **Top challenges:** Eighty-four percent of engineers agree that an inadequate budget for high-quality design is a difficult challenge affecting the future of electrical and power systems, engineers, and/or the industry; other top challenges include speed of project delivery (77%) and the subjective interpretation of regulations by code authorities (70%).

Respondent Profile

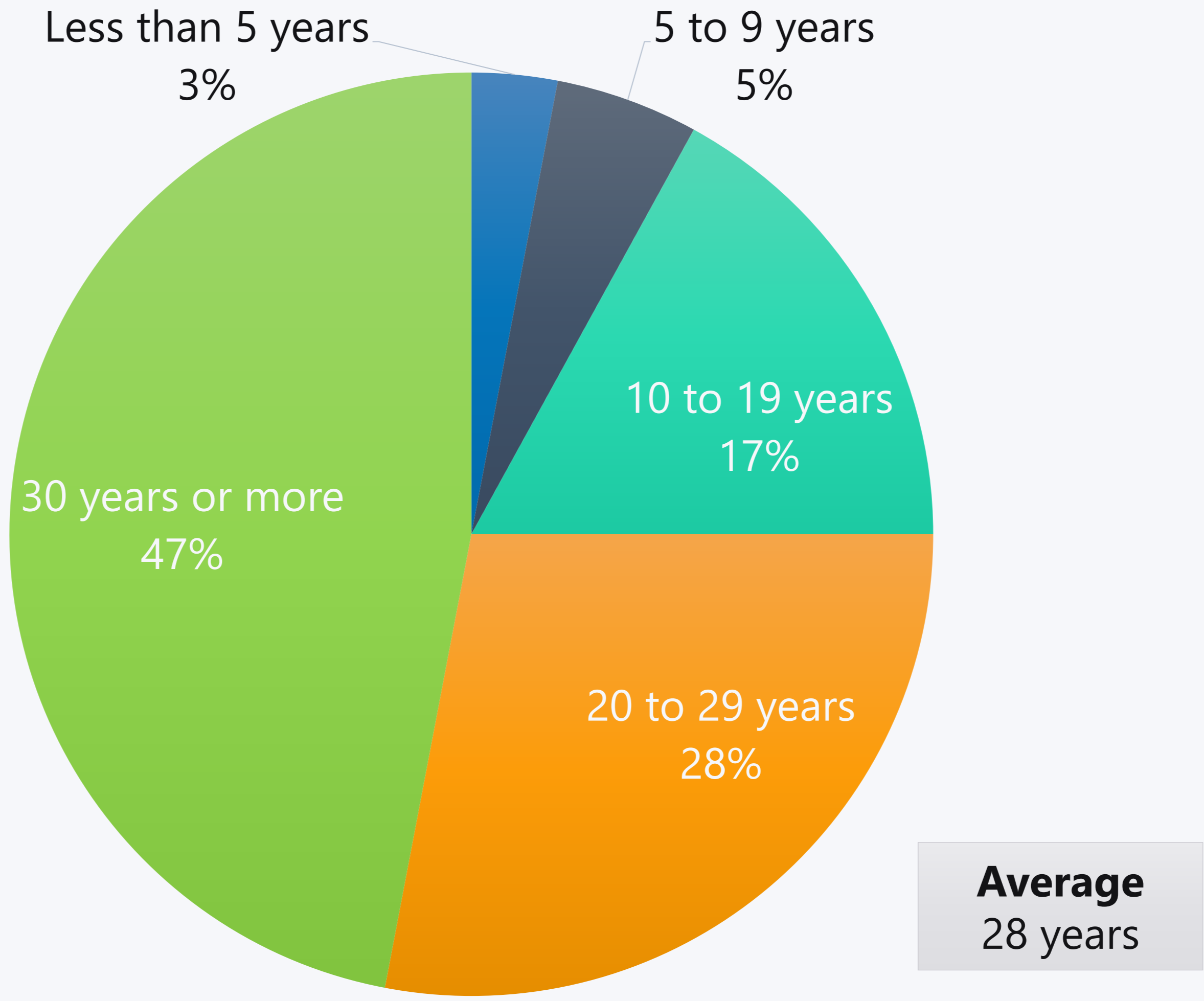
Respondent Profile

Current Age



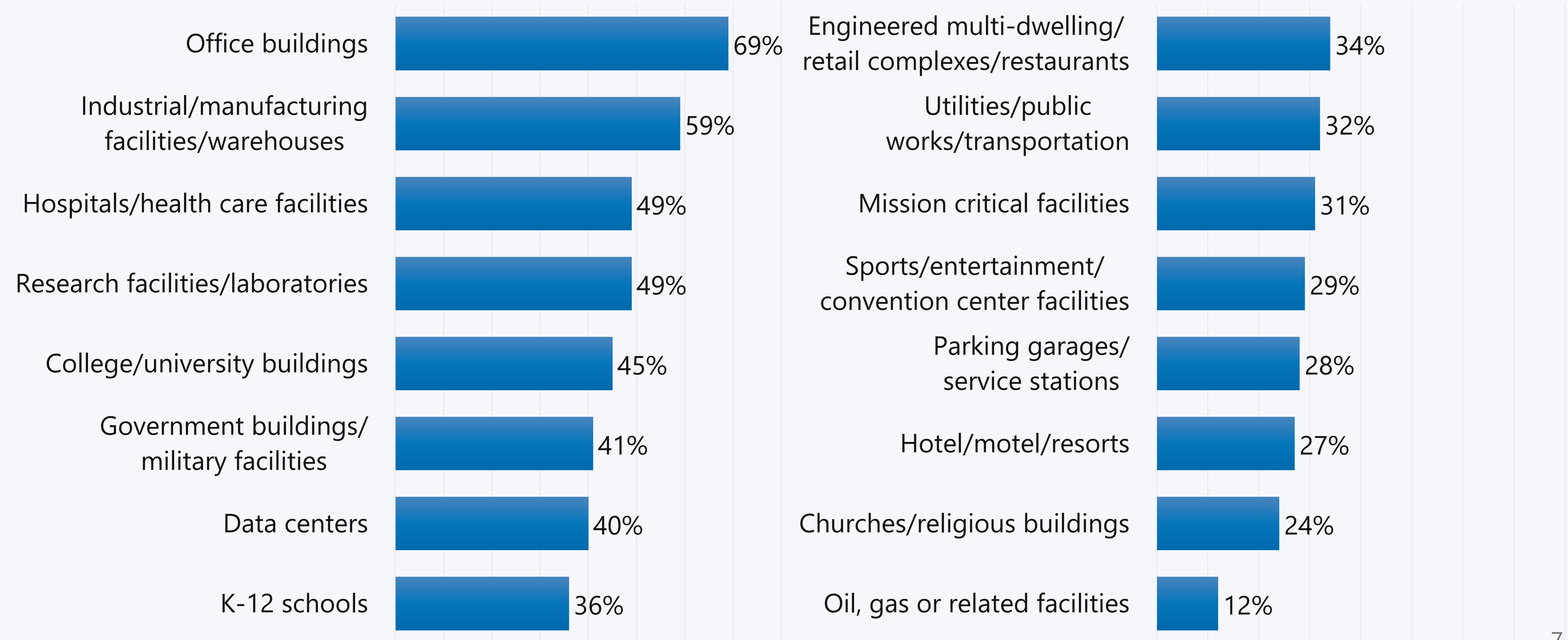
Respondent Profile

Industry Experience



Respondent Profile

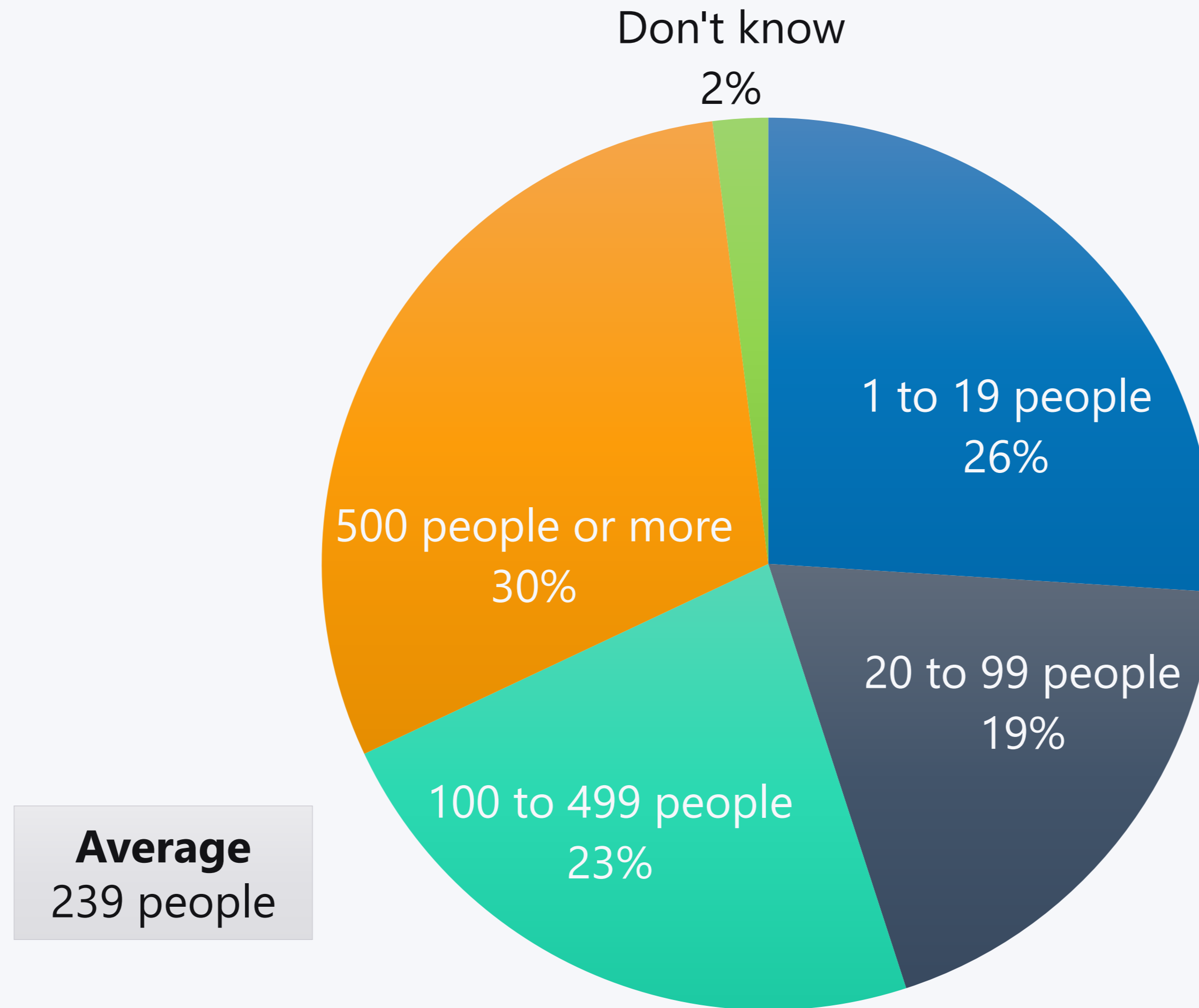
Building Structures



Respondent Profile

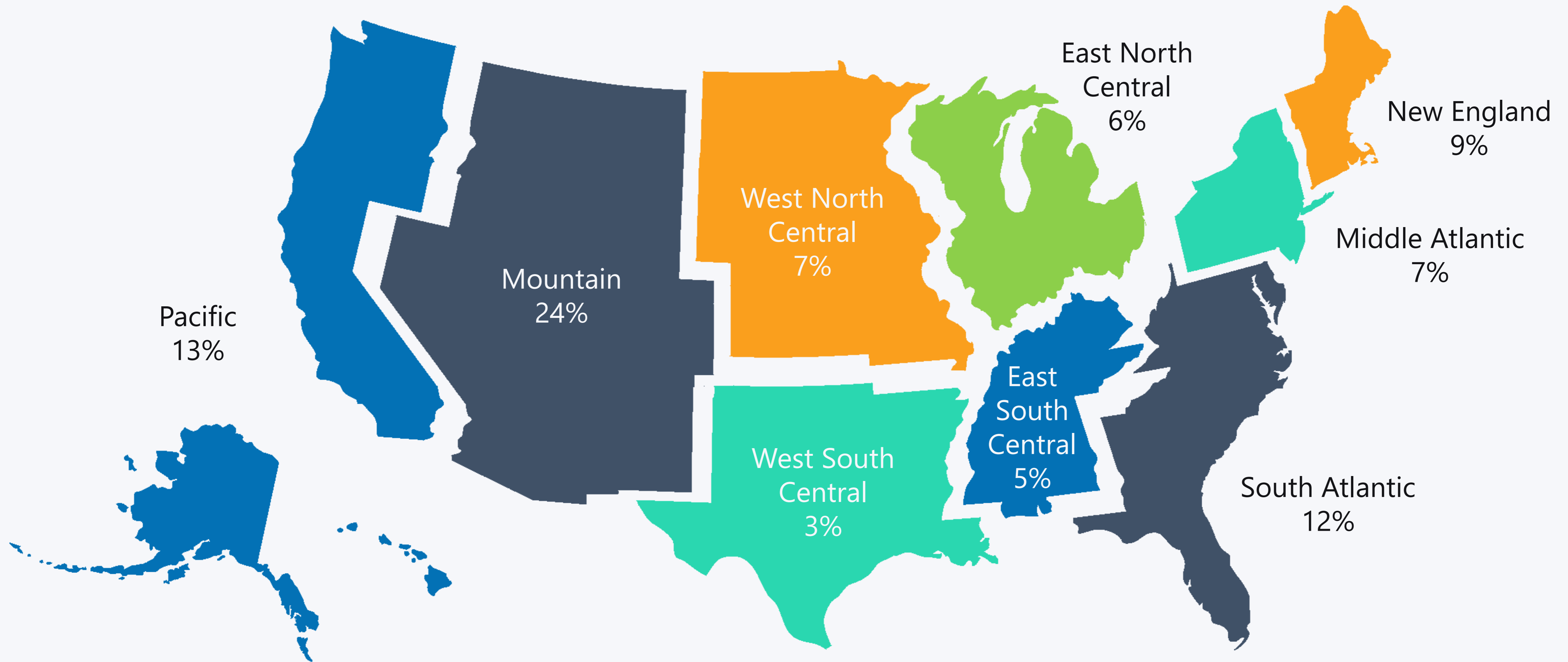
Company Size

Number of Employees



Respondent Profile

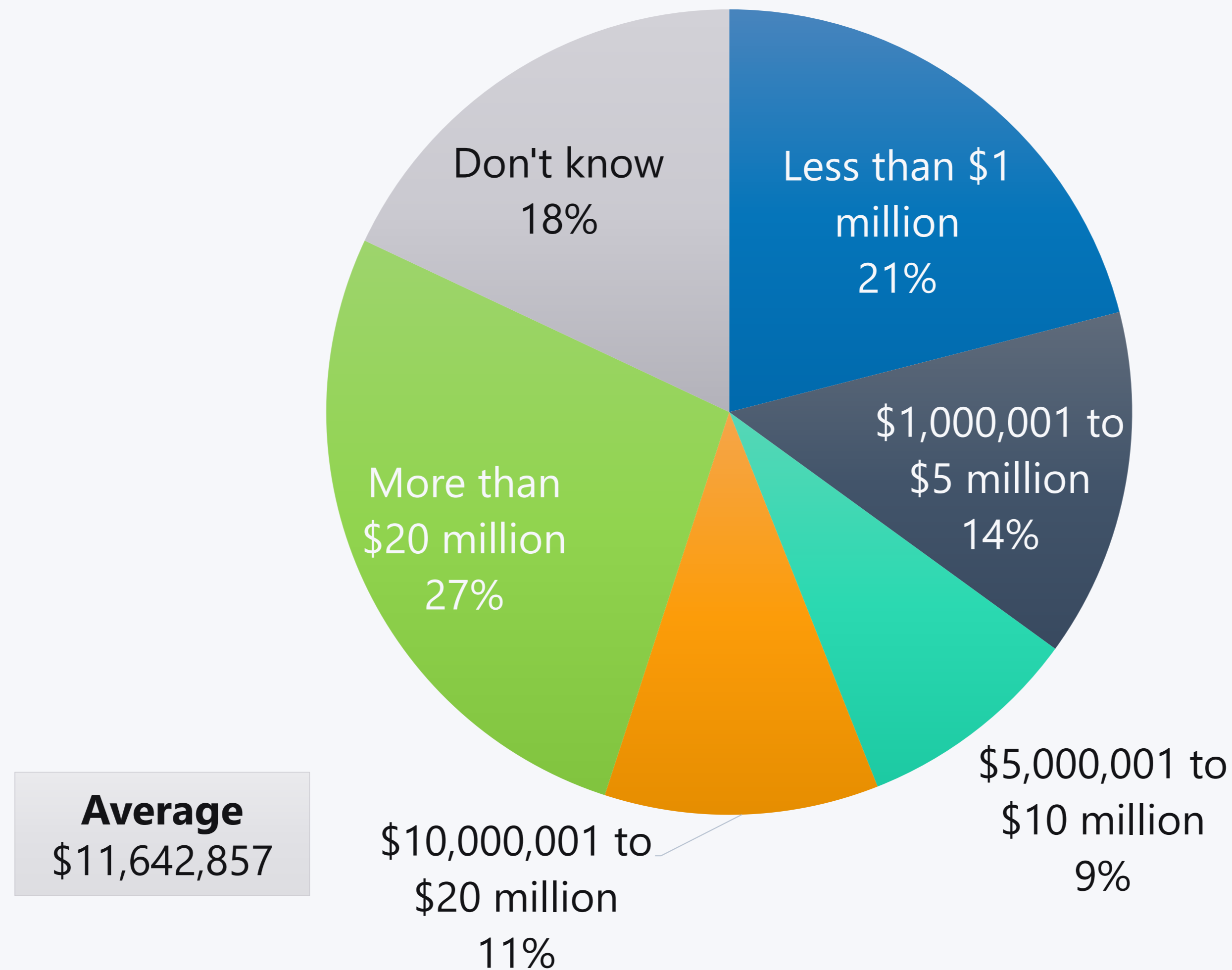
Location



11% of respondents are based outside of the U.S.; 3% are based in the U.S. but region is unknown. 9

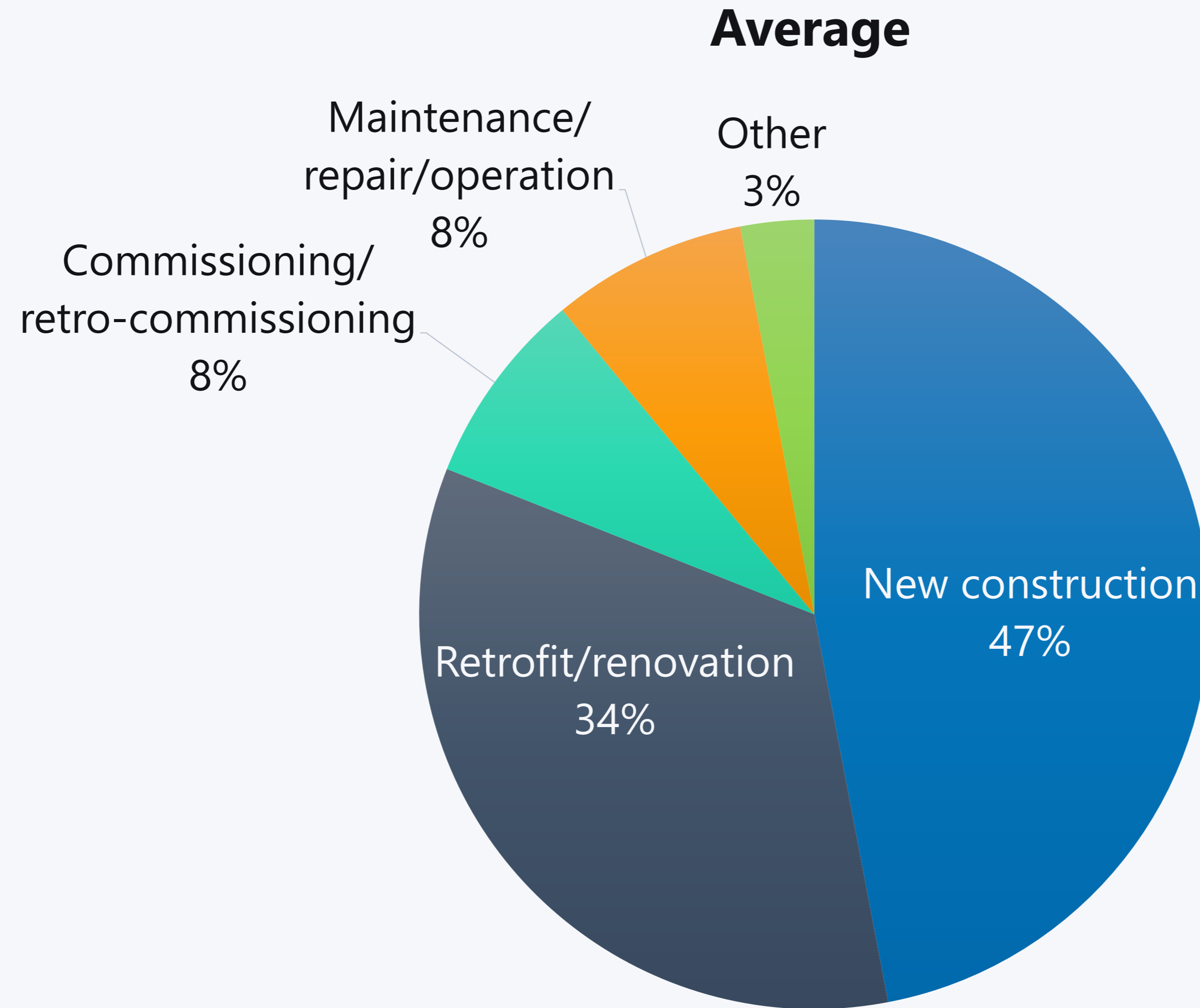
Respondent Profile

Total MEP/FP Design Revenue



Respondent Profile

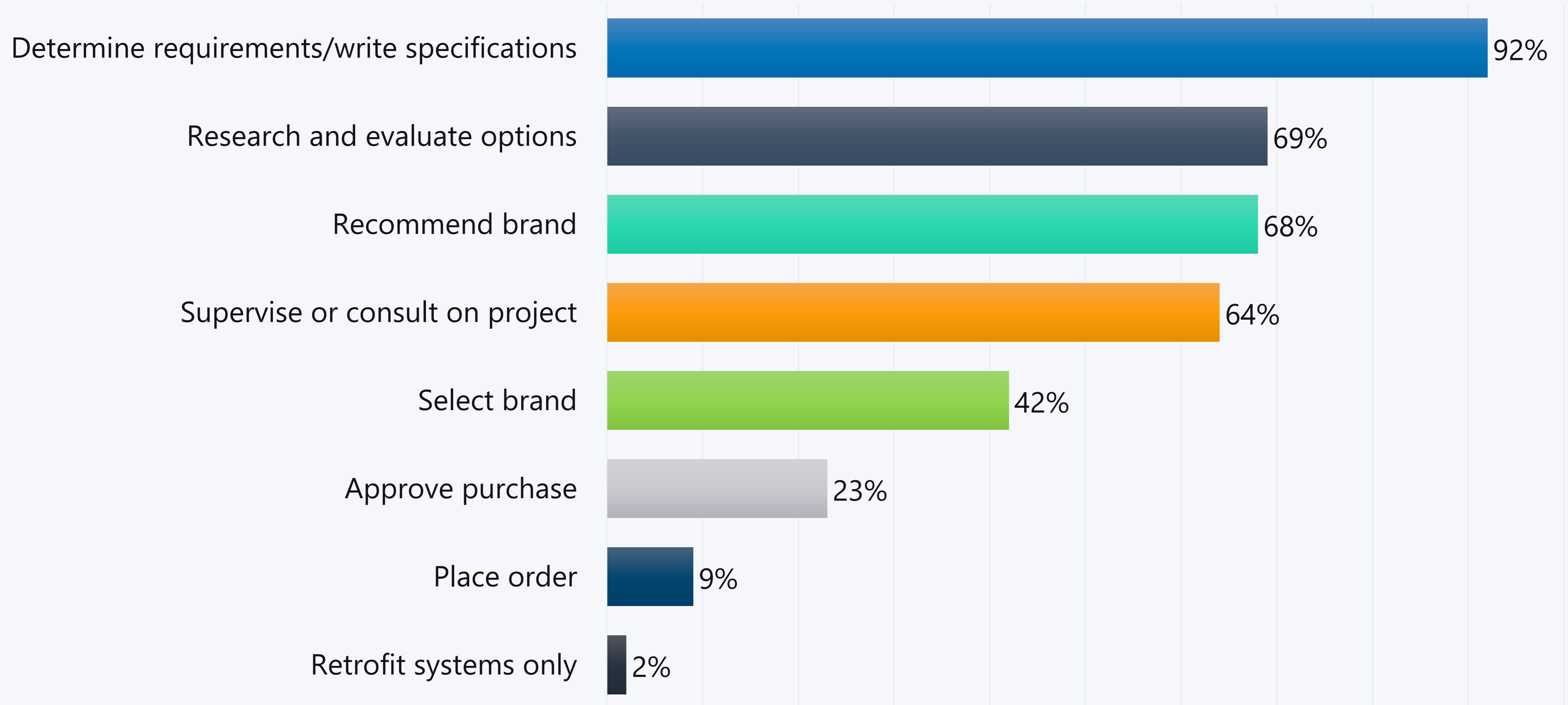
MEP/FP Design Billings



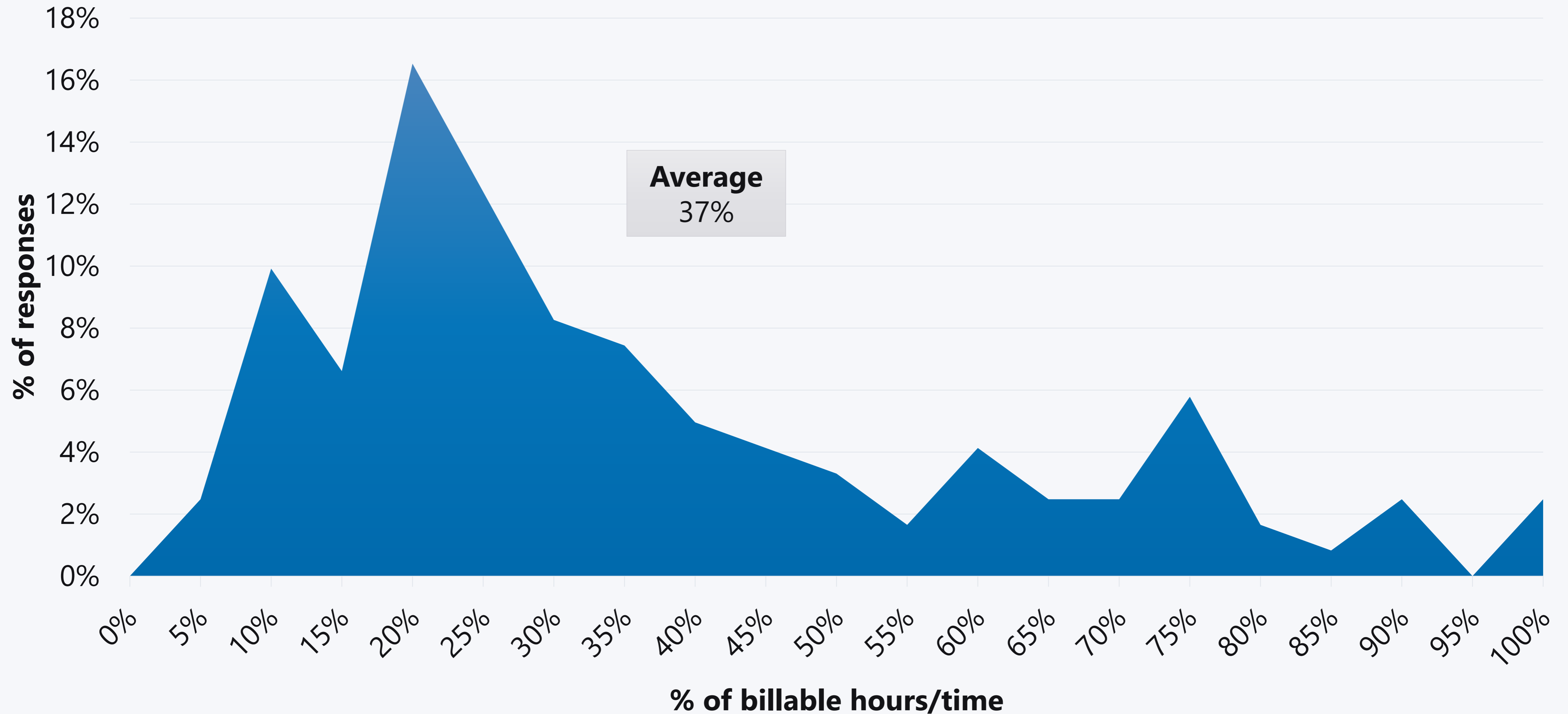
Electrical & Power Systems

Electrical & Power Systems

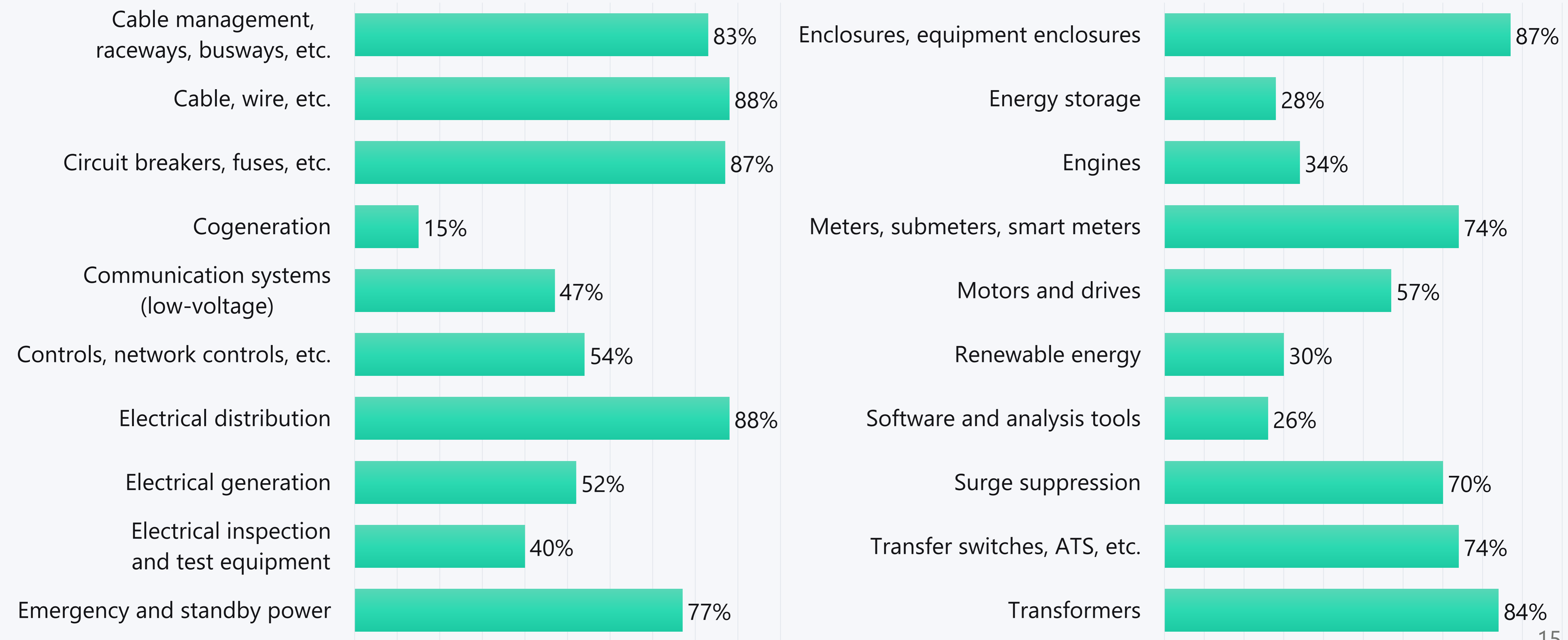
Involvement in Product Selections



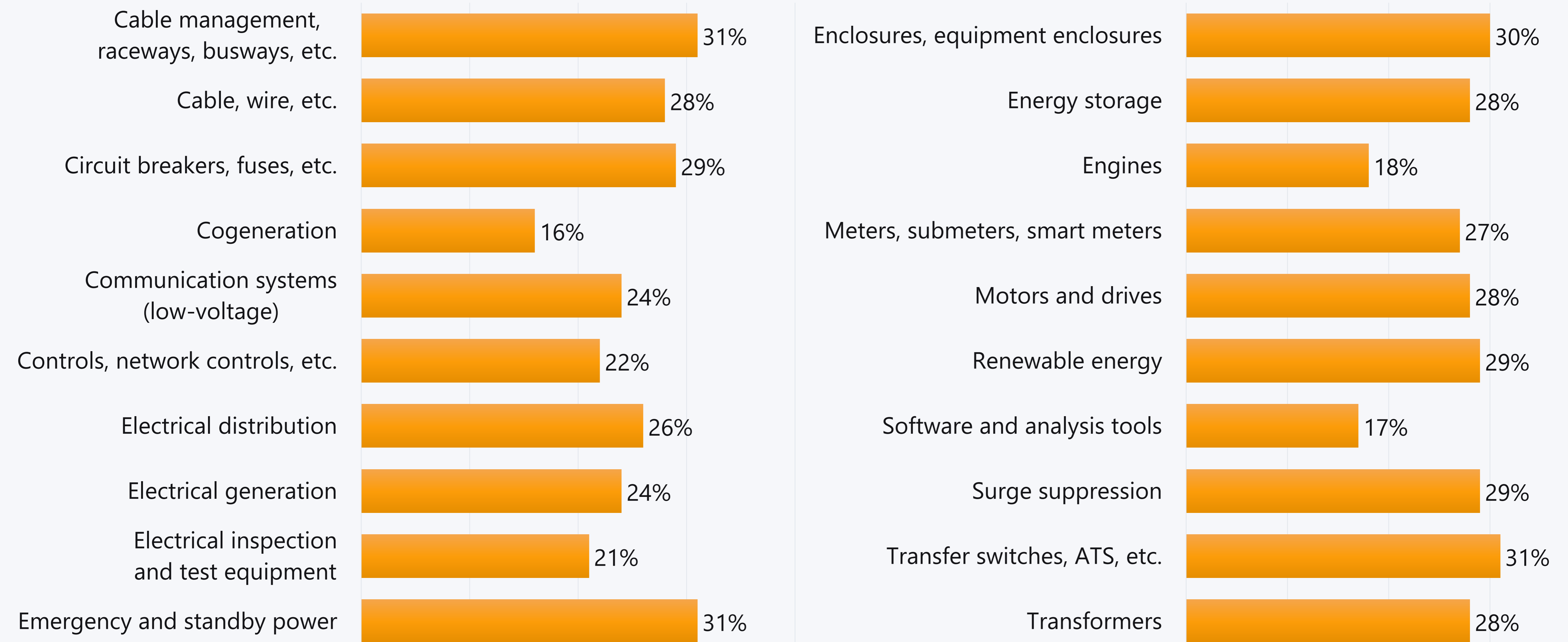
Time Spent Researching/specifying



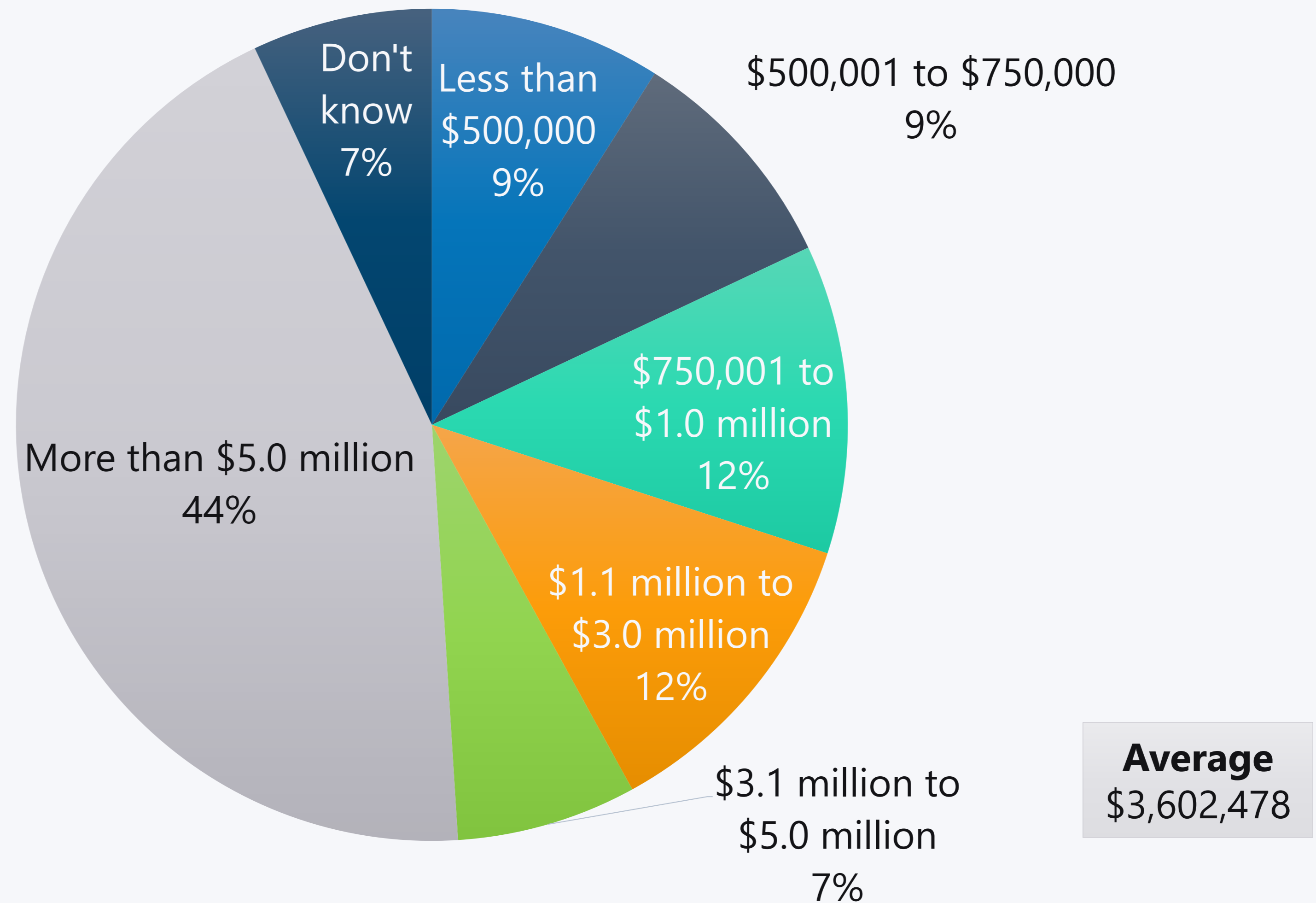
Electrical, Power Systems Currently Specified



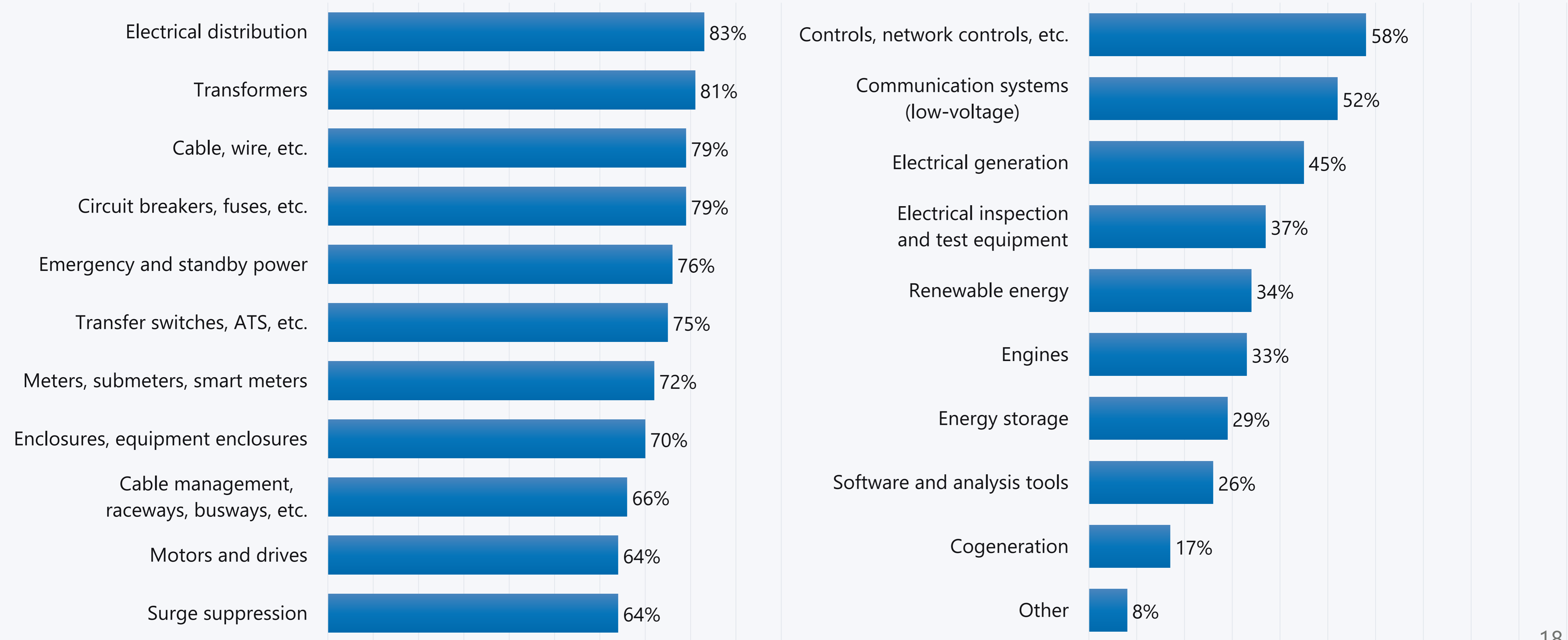
Electrical, Power Systems Expected to Specify



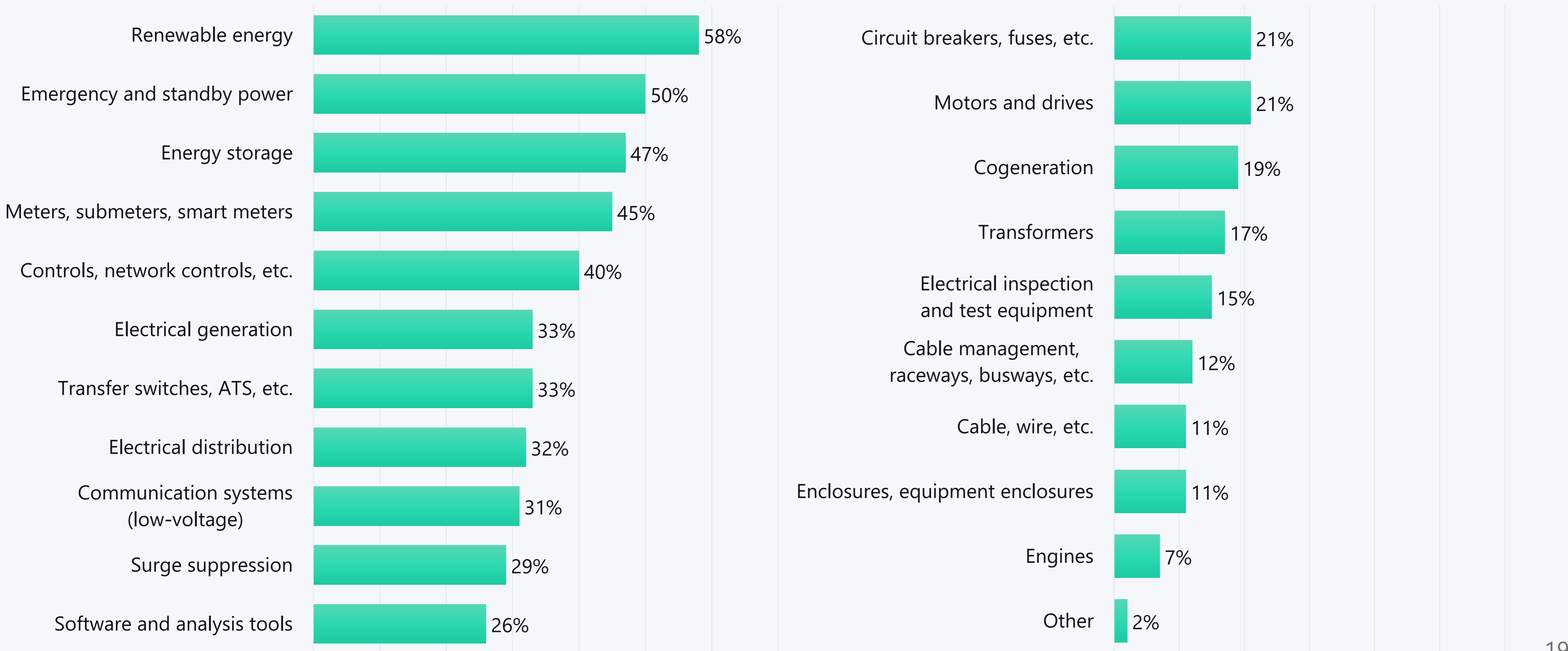
Dollar Amount Specified for Electrical, Power Systems



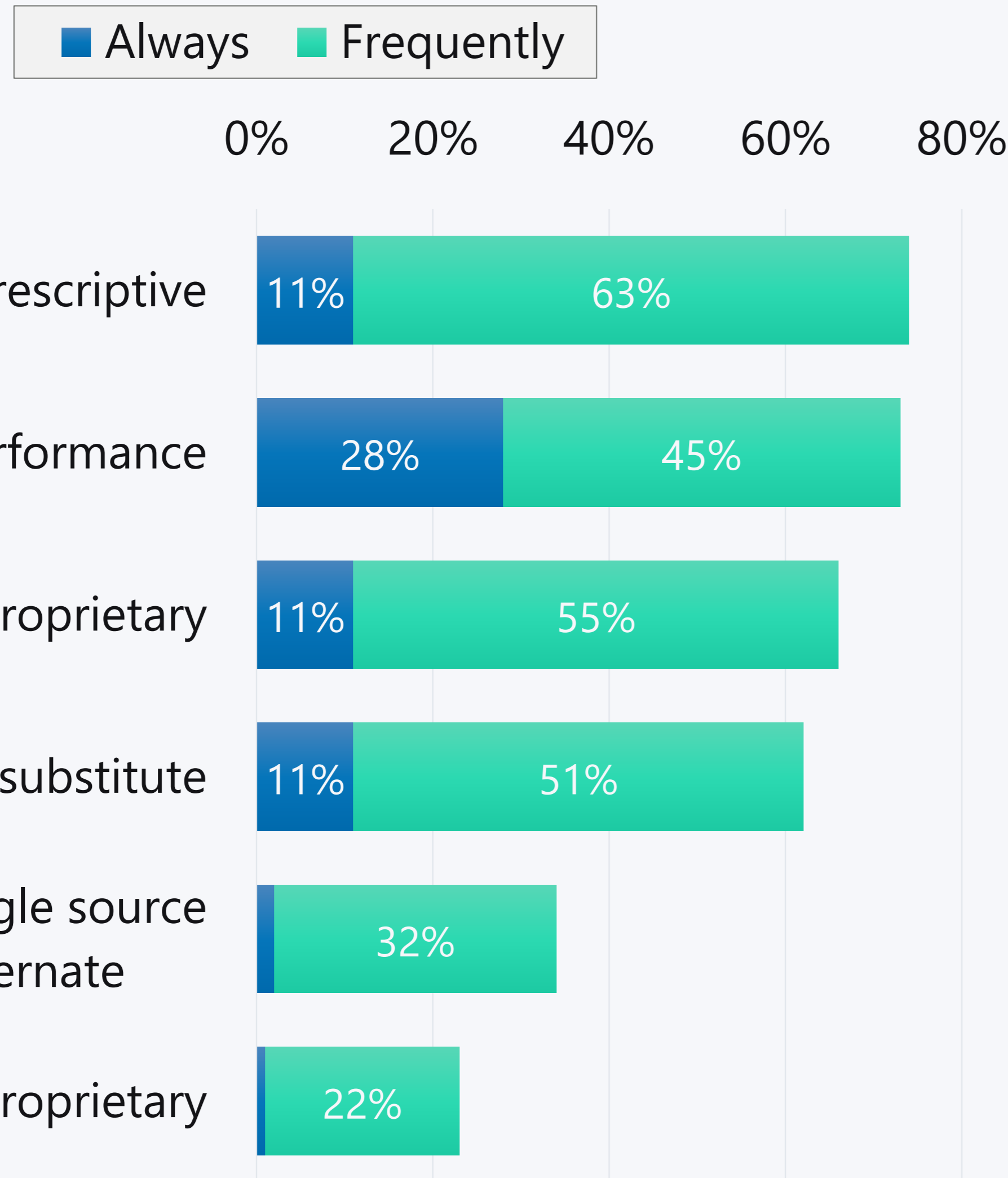
Electrical & Power Systems Revenue Generation



Electrical & Power Systems Technologies in Demand



Types of Electrical, Power Specifications Written



Performance

The engineer or specifier restricts the text to stating the performance that must be achieved by the completed work.

Prescriptive

The engineer or specifier indicates specific products, vendors, and even contractors that are acceptable for each work scope.

Open: proprietary

Describes a single product or system but allows the bidder to suggest an alternate or substitute product.

Open: alternate or substitute

A request to substitute one product for another product described in a specification. This could be in the form of a proposed substitution, where the specification does not name alternate products or manufacturers but allows submittal of substitute products or a controlled substitution, where the desired products or systems are described and named, but substituted products with equal functionality may be submitted for review and approval.

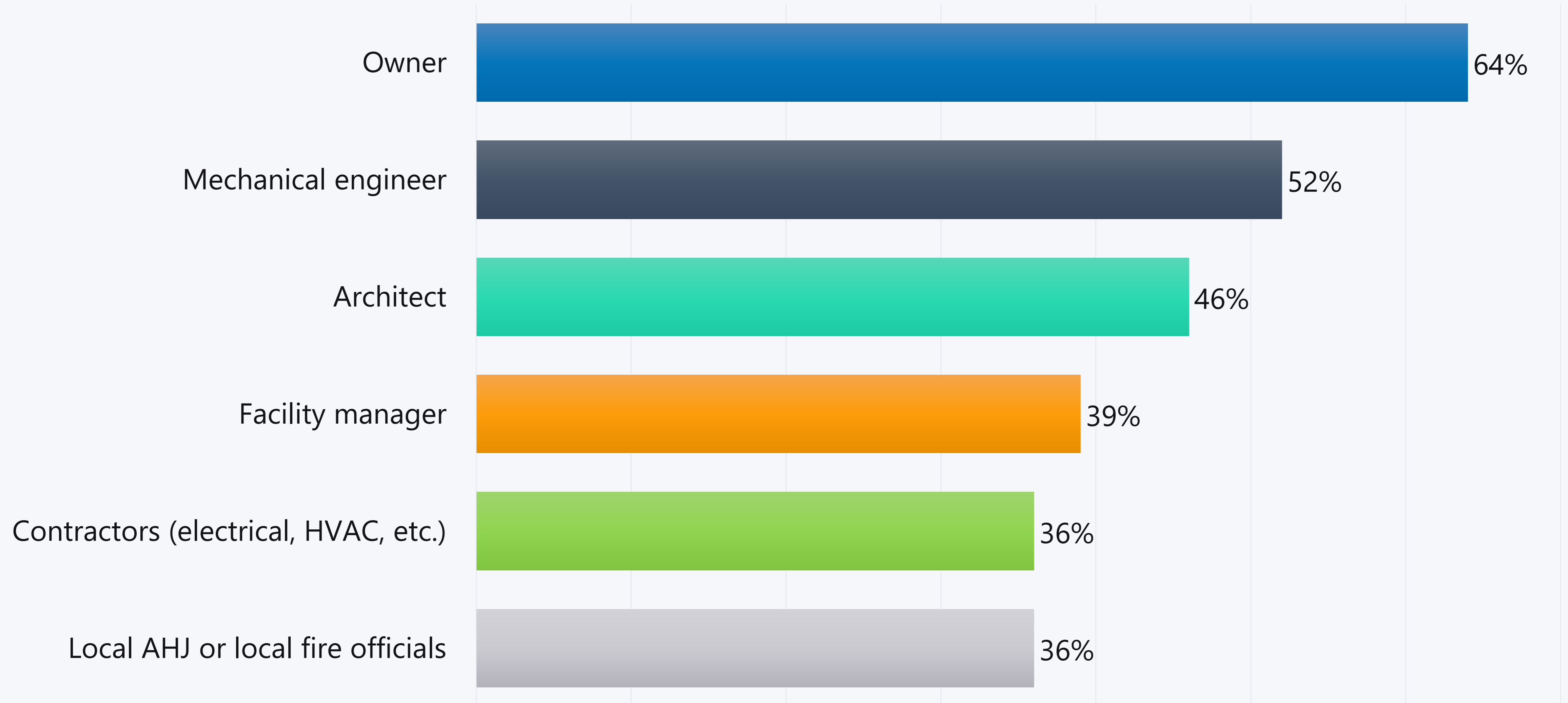
Closed: single source and alternate

Products acceptable to the engineer or specification writer for which the bidder submits alternative pricing

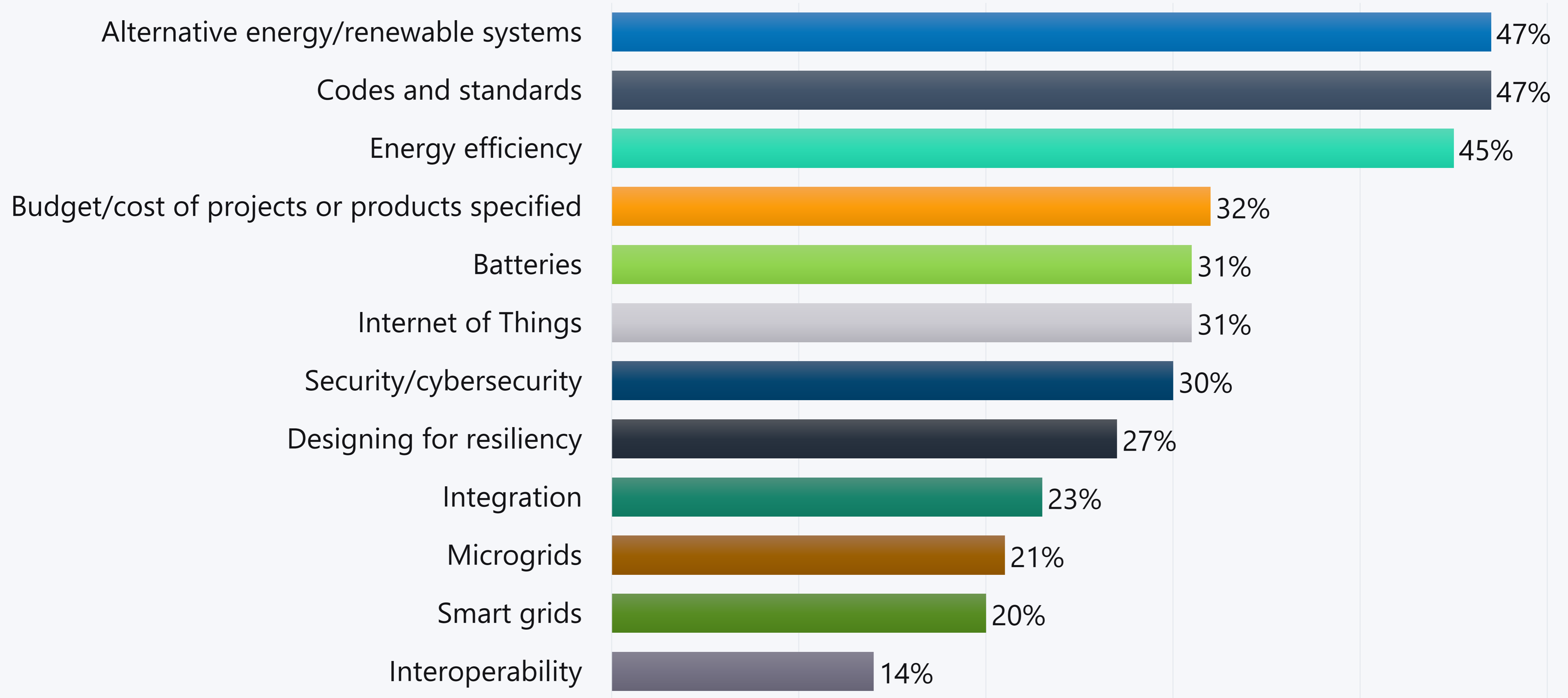
Closed: proprietary

Names, describes, and lists a single product or system.

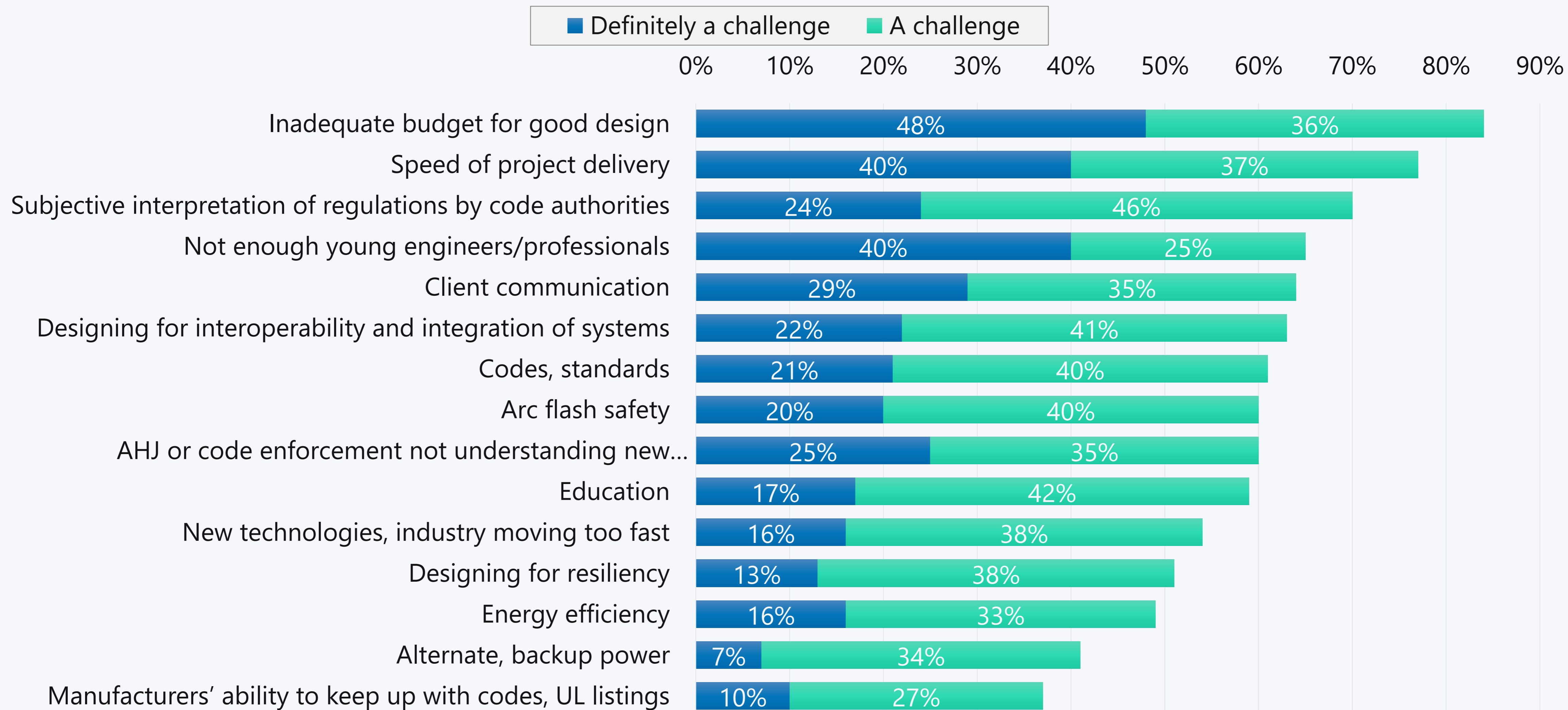
Electrical & Power Systems Design Coordination



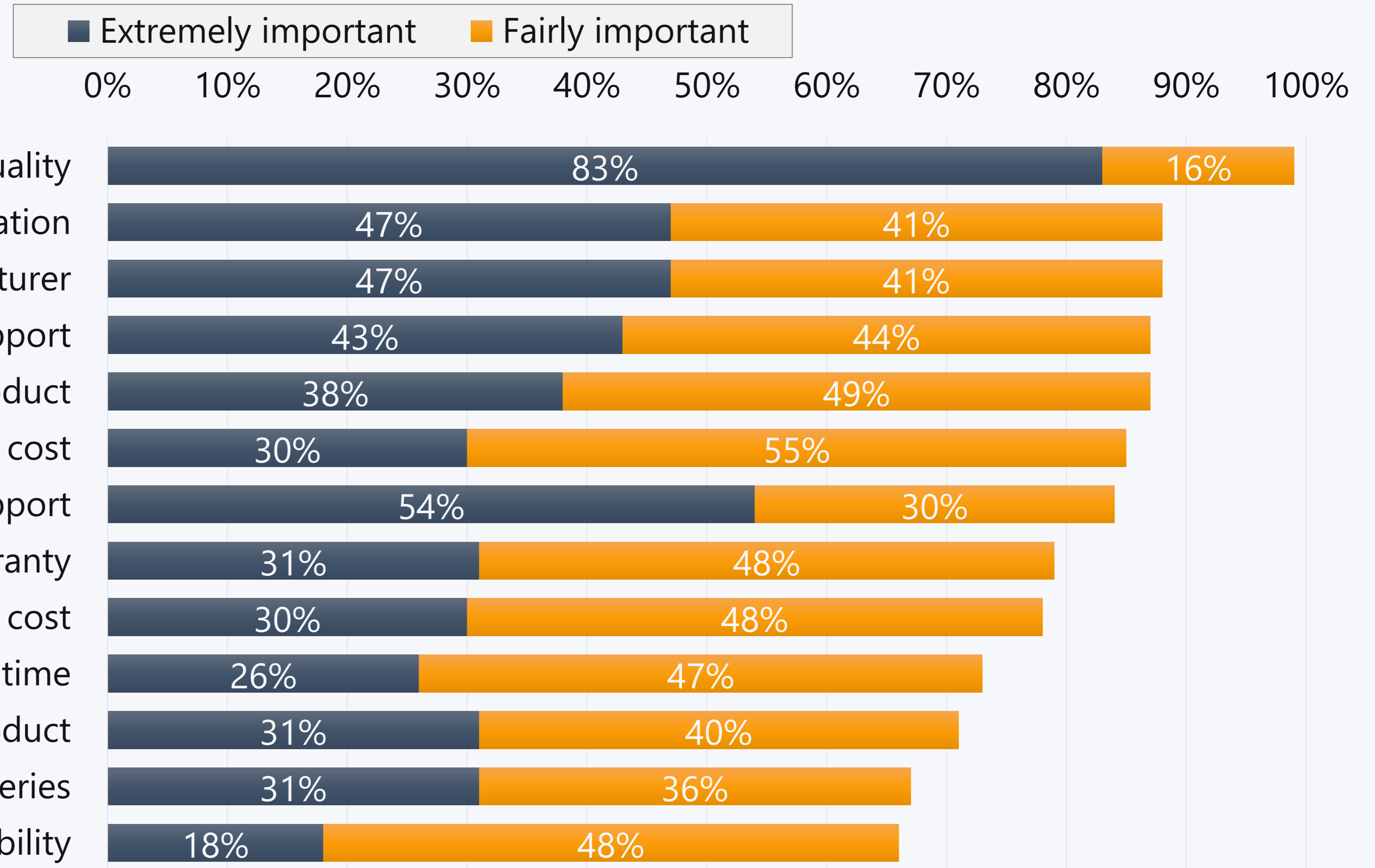
Recent Changes in Electrical, Power System Design



Electrical & Power Systems Challenges Facing Engineers



Important Product Factors



Additional Resources

Thank you for downloading the *Consulting-Specifying Engineer* 2019 Electrical & Power Systems Study. Use the links below to access additional information on electrical and power systems news, products and research.

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- Additional studies available at www.csemag.com/research

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