

**2008 ELECTRICAL CONTRACTOR PROFILE STUDY
TOPLINE REPORT**

**PREPARED BY:
RENAISSANCE RESEARCH & CONSULTING, INC**

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BACKGROUND and PURPOSE

For over fifty years, ELECTRICAL CONTRACTOR magazine has sponsored its exclusive “ELECTRICAL CONTRACTOR Profile”. This survey is conducted biannually among its subscribers and aims to provide the most complete “picture” of the contracting industry available from the electrical contractor’s point of view. The survey provides electrical contractors with an indication of where their business “fits” into the overall industry, while at the same time providing information that is used to guide and refine the magazine’s editorial content.

METHODOLOGY

The survey was conducted by postal mail and via the Internet among a random sample of ELECTRICAL CONTRACTOR subscribers. As of the deadline for the July 2008 article, 812 completed surveys were received-- 410 via the Internet and 402 via postal mail. The survey was left open for about another month and an additional 345 interviews were completed (172 via the Internet and 173 via postal mail) for a grand total of 1157. Each respondent who received the survey via the Internet was sent two follow-up e-mails. However, follow-up mailings were not made to non-responders in the postal mail sample. An incentive was offered for participation in the survey: For each completed survey, ELECTRICAL CONTRACTOR magazine would contribute \$5 to charity.

The margin of error on the total sample of 1157 is +/- 3.5 for percentages around 50 percent (i.e., the difference between 42 percent and 45 percent would be statistically significant at the 90% level of confidence). Please note that different rules apply to testing of averages, which were also tested at the 90% level of confidence and are also noted in the report. This report is a more detailed version of the July article based on 1157 responses. The research was conducted by New York, NY-based Renaissance Research & Consulting, Inc. (www.renaiss.com), an independent marketing research firm that specializes in market research for the construction industry.

The Internet option was first introduced in 2004. In 2004 and 2006, the proportion of surveys completed via the Internet versus postal mail is approximately 60/40. In the 2008 survey, the proportion is closer to 50/50.

As was the case in 2004 and 2006, the survey was produced in different versions. However, this year, for the first time, there were four versions instead of three. The postal mail portion was conducted as a 5-page booklet, with the first 4 pages containing core questions that were common to each version. The differences among the versions occurred on page 5. The Internet portion of the study was essentially the mail portion of the survey posted on the Internet. The major difference was that in the Internet portion respondents were required in almost all cases to have percentage questions add to 100%

SUMMARY AND CONCLUSIONS

- Energy Efficiency is ‘Hot’
 - Almost one-half of electrical contractors worked on projects in 2007 that included Green/Sustainable Building elements. On average, 9% of revenue is derived from this type of project.
 - In a theme that will be repeated throughout this report, it is the largest firms that are most likely to have engaged in Green Building/Alternative Energy projects.
 - 30% of electrical contractors have worked in one or more of the following areas: LEED Projects, Solar Photovoltaics, Wind Generation, Net Metering and/or Co-Generation.
 - While 26% of firms with 1-9 employees performed this type of work, 6 in 10 firms with 100+ employees engaged in this type of work.
 - Training and Subjects They’d Like to Know More About:
 - Interest in energy jumped dramatically: Energy Use, Green/Sustainable Building and LEED Certification on a pooled (net) basis were mentioned by about 3 in 10 who plan to take training in the next 12 months vs. 17% who took training in the past 12 months.
 - Interest in Lighting on a pooled (net) basis is also dramatically higher among those who plan to take *next* 12 month courses (49%) vs. those who took training in the *past* 12 months (38%).
 - NEC Changes (71%), Green/Sustainable Building Technology (55%) and Residential Automation/Smart Homes (51%) received the most mentions as subjects those surveyed would like to know more about. Not surprisingly, interest in Green/Sustainable Building Technology was way up compared to 2006 (55% vs. 30%).

- Counterfeit Electrical Goods Are Troublesome But Elusive
 - There is a high level of concern about the effectiveness and ability of counterfeit electrical goods to meet codes, but at the same time, there is also a fairly high level of uncertainty about whether the electrical contractor is encountering counterfeit electrical products, tools or materials in their work.
 - 61% are “Extremely” (29%) or “Very” (32%) concerned about the effectiveness of counterfeit products and their ability to meet codes, but 42% say that they are “Not Sure” if they have encountered counterfeit electrical goods in the past year.
 - An additional 33% say that they have “Never” encountered counterfeits – which seems to be unlikely – and, combined with the high percent who say that they are “not sure” may suggest the need for contractor education.

This report is organized to answer the questions: “Who?” “What?” “Where?” and “How?” and “Training”

“WHO” ARE THE CONTRACTORS?

- **Firm Size:** A large majority of the contracting firms interviewed are small in terms of both their number of employees: 67 % have between 1 and 9 employees and also in terms of revenue: 68 % have annual revenues of less than \$1 million.
 - Compared with two years ago, there are more firms with 1-9 employees (67% vs. 62%) although the percent of firms with revenues of less than \$1 million is unchanged versus two years ago.
- **Respondent Age and Industry Tenure:** Overall, the survey respondents tend to be at least middle aged. The average electrical contractor participating in this survey is now 51.2, up significantly from 50.0 in 2006 and from the average age of 48.6 reported in 2004. As noted in earlier reports, younger electrical contractors not appear to be filling the pipeline since such a high proportion of survey respondents are older than 35.
- **Respondent Education:** A majority of survey respondents have some college education. Twenty percent have a BA degree or higher. Between 25% and 30% of survey respondents got their formal training through an Apprenticeship or at Trade or Vocational school.
 - Those in larger firms (10+ employees) are significantly more likely to have attended college than those in firms with 1-9 employees. In contrast, those in smaller firms (1-9 employees) are more likely to have only Apprenticeship, Trade or Vocational School training compared to those in firms with 10+ employees (30% vs. 24%).
- **Race:** About 87% of the electrical contractors surveyed are Caucasian, 7% are Hispanic, 4% are Black or African-American and less than 1% are Asian. Firms with 10+ employees are far more likely to employ Hispanics, Blacks or Asians in field and management positions compared with smaller firms.

“WHAT” TYPES OF WORK DO CONTRACTORS PERFORM?

- Electrical contractors were most likely to have worked on Traditional Power/Lighting projects. About two-thirds said that they had worked on Power Quality, Communications/Systems Connectivity and/or [CII] Automation/Controls in the previous year; almost 6 in 10 said that they had worked on [RES] Automation/Controls in the previous year and about 3 in 10 worked on Alternative Energy/Sustainable Building Technology during that time period.
 - Alternative Energy is cited by about 30% of electrical contractors. Alternative Energy and LEED Projects tend to be bailiwick of very large firms – perhaps because these firms are involved in larger and/or more sophisticated projects. In fact, larger firms tend to perform more types of work compared with smaller firms.
 - However, electrical contracting firms with 10-19 employees are uniquely more likely to work on Whole House Automation.
 - Electrical contracting firms with 1-9 employees are more likely than firms of any other size to work on Home Theater/Sound projects.
- About 4 in 10 electrical contracting firms are actively engaged in Systems Integration and/or Data Centers. Low Voltage systems Integration was mentioned most often (36%), rather than Installation (17%). 11% of electrical contractors design or specify data centers.

“WHERE” DO CONTRACTORS PERFORM THE WORK?

- Fully one-third of electrical contracting firms perform their work in multiple states, suggesting that there may be issues of licensing and certification. Working in multiple states is far more common among larger firms than among smaller firms.
- Across the total sample, on average, more of contractors’ revenue is derived from New Construction (43%) than from Modernization/ Retrofit (27%) or Maintenance (16%) and Repair (14%). New Construction accounts for a larger percentage of average revenue to large, rather than small, firms. These findings are consistent with the 2006 Profile Survey results.

“WHERE” DO CONTRACTORS PERFORM THE WORK?

- Regardless of company size, Electrical/Power Distribution accounts for the largest percent of company sales. However, it is trending down – in the 2004 Profile Survey, it accounted for an average of 69%, in the 2008 Survey, it accounted for 63% across the total sample.
 - Further, electrical power and distribution now accounts for less volume of larger firms compared to smaller firms, a further indication that the largest firms are involved in many different project types.
 - In a similar vein, firms with 20+ employees derive about twice as much revenue from Security/Life Safety work compared to smaller firms.
- Across the total sample, electrical contractors get more of their business from CII (Commercial, Industrial, Institutional and Public Places) than from Residential projects. Non-Building projects (Transportation/Lighting and Utility) account for about 3% of the contractor business, an apparent drop from two years ago when it accounted for 6% of revenue.

“HOW” DO CONTRACTORS PERFORM THEIR WORK?

(The Electrical Contractors’ Roles in Specification/Project Delivery)

There are numerous indications of the far-reaching role(s) that electrical contractors have in brand specification:

- Overall, 46% of electrical contractors’ average revenue was derived from Design/Build or Design/Assist work. (The vast majority was done as Design/Build rather than Design/Assist). Less than one-half of electrical contractors’ average revenue comes from Traditional Bid/Build work and about 7% comes from “other” methods of bidding. Design/Build work is particularly important to firms with 1-9 and 10 – 19 employees.
 - Across the total sample, almost 8 in 10 firms performed **any** Design/Build or Design/Assist work in 2007. In fact, larger firms are even more likely than smaller firms to have engaged in D/B or D/A work, although not necessarily obtaining more revenue from this type of work.
- About 80% of electrical contractors report receiving any plans and specs that are incomplete (that is, where their firm is responsible for completing the design documentation). Electrical contractors say that, on average, plans and specs are incomplete 45% of the time. This question cannot be trended since it was first asked in 2008.
 - About 30% who work on each type of construction say that a *higher* percentage of the plans and specs that they now receive are incomplete compared with 5 years ago. This is consistent across the three construction types of Single Family, Multi-family and Commercial/Institutional and Industrial.
- On average, a “single” brand is specified less than 25% of the time. In all other cases, other factors -- multiple brands, “or equal to” or performance specified – come into play. Note that a “single” brand specification is far more common among electrical contracting firms with 1- 9 employees than among larger firms.
 - Overall, contractors are able to make brand substitutions about 70% of the time.

The Electrical Contractors' Roles in Specification

- 'Price' and 'Availability' emerge as highly important factors both when initially selecting a brand and when making a brand substitution. However, 'Availability' eclipses 'Price' in the brand substitution decision.
 - Compared to two years ago, Manufacturer Reputation was cited significantly more often (43% vs. 37%) as was Word of Mouth (10% vs. 14%) as top reasons for original brand selection.
 - Compared to two years ago, significantly fewer electrical contractors cite Availability as a top reason for brand substitution (80% vs. 83%), while more now cite Manufacturer Reputation (30% vs. 26%) as top reasons for brand substitution.

TRAINING

About two-thirds of electrical contractors say that they, or someone in their firm, has taken training in the past 12 months or plans to take training in the next 12 months to improve or broaden skills or for certification. This training could be in the form of on-line, correspondence or classroom training. There is no statistically significant difference between the percentages that took training (64% or who plan to take training (65%). However, future interest is significantly higher in courses on Energy Use and Design/Build (Next 12 month course work vs. Past 12 month course work). In addition, there is also higher interest in courses on Lighting, Estimating/ Financial Management, and on Commercial and on Residential Automation Systems in the *next* 12 months vs. the *past* 12 months.

The most popular topics among those who have or will take training are:

- NEC Changes are mentioned by at least 6 in 10 electrical contractors
- Lighting (on a pooled or net basis), Safety (Electrical/Personal/On-Site/Jobsite) and Grounding/Bonding are each mentioned by between about 5 and 4 in 10 electrical contractors.
- Energy Use, Green/Sustainable Building and LEED Certification on a pooled (net) basis were mentioned by about 3 in 10 who plan to take training in the next 12 months vs. 17% who took training in the past 12 months.

Topics of Interest: Not surprisingly, interest in Green/Sustainable Building Technology was way up compared to 2006 (55 vs. 30%) as was LEED Certification/ Professional Accreditation (25% vs. 18%). 2004 Master Format Changes: How to Bid/Work With also rose from its 2006 level (23% in 2008 vs. 15% in 2006.)

DETAILED FINDINGS

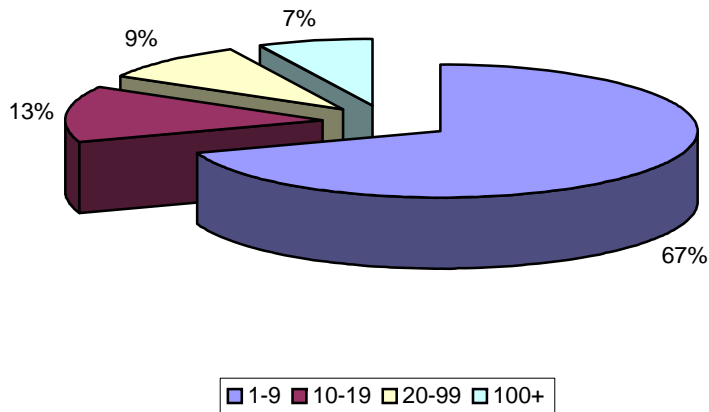
Size of Firms

A large majority of the contracting firms interviewed are small in terms of both their number of employees and their revenue:

67% have between 1 and 9 employees and 68% have annual revenues of less than \$1 million.

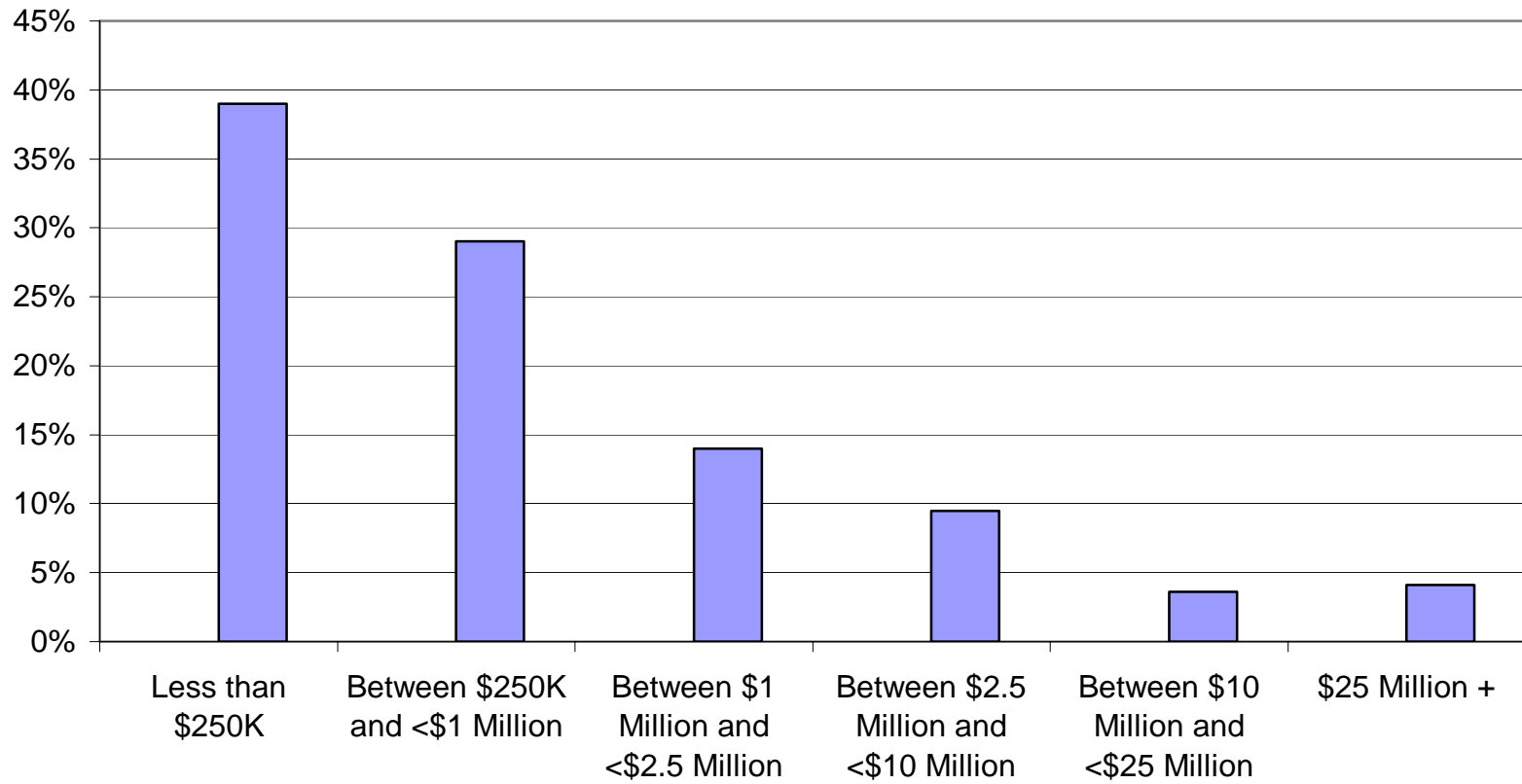
- There are more smaller companies in 2008 (67%) compared to 2006 (62%).
- A related finding is that the percentage of very large firms (100+) has been trending down since 2004 when it was 11%, in 2006, it was 8% and in 2008, it is 7%.

Firm Size: Number of Employees



N=1157

Revenue in 2007



N=1157

Average Number of Employees By Firm’s Revenue

As expected, almost all of the smallest firms have revenue of less than \$1 million, while more than half of the very largest firms have revenue of \$25 million or more.

Average Number of Employees By Firm Revenue 2008 Profile Survey					
	Total	1-9	10-19	20-99	100+
	(1157)	(770)	(147)	(153)	(79)
	%	%	%	%	%
Less than \$ 1 Million	68	94	33	7	0
Less than \$250K	39	58	3	2	0
Between \$250K and <\$1 Million	29	36	30	5	0
\$1 Million or More	31	5	67	93	98
Between \$1 Million and <\$2.5 Million	14	5	57	24	
Between \$2.5 Million and <\$10 Million	10	0	10	58	8
Between \$10 Million and <\$25 Million	4	0	0	12	30
\$25 Million +	4	0	0	0	60

N=1157

Average Number of Employees Per Job Category

The chart on page 13 shows relatively few changes versus two years ago. The main exceptions are as follows:

- There are more electrical workers (particularly electricians, journeymen, etc.) but fewer business office employees in firms with 10-19 employees.
- There are fewer apprentices in firms with 20-99 employees but more apprentices in firms with 100+ employees.

Average Number of Employees Per Category										
	Total Sample		1-9		10-19		20-99		100+	
	2008	2006	2008	2006	2008	2006	2008	2006	2008	2006
	#	#	#	#	#	#	#	#	#	#
Executive Management	6.3	5.6	1.4	1.4	2.8	3.0	7.4	6.4	58.7	42.1
Owner, Partner, President, VP, General Manager	2.0	2.0	1.0	1.0	1.5	1.4	2.0	1.9	12.8	10.7
Other Management: Project Manager, Superintendent, Foremen	4.2	3.6	0.3	0.4	1.3	1.6	5.4	4.5	45.8	31.3
Electrical Workers	30.7	28.8	2.7	2.7	9.8↑	8.6	34.4	31.6	344.1	266.3
Electrician (field), Journeyman, Technician, Installer, Service Person, etc.	20.5	21.7	1.7	1.8	6.3↑	5.6	22.8	21.1	232.4	209.4
Low Voltage Specialists including Integrators	1.8	1.6	0.2	0.3	0.4	0.7	2.7	1.8	18.3	13.5
Lighting Specialists	0.9	--	0.2	--	0.3	--	1.8	--	6.3	--
Apprentices	7.5	5.4	0.5	0.5	2.7	2.3	7.1↓	8.6	87.0↑	43.4
Business Office	5.6	5.9	1.0	1.1	1.9↓	2.3	4.4	4.6	60.1	53.0
Estimators	1.1	1.4	0.4	0.3	0.7	0.7	1.6	1.5	8.0	11.3
Purchasing Agents, Buyers	0.6	0.9	0.3	0.3	0.4	0.5	0.8	0.8	3.4	6.6
Clerical and Others	3.9	3.5	0.4	0.4	0.9↓	1.1	2.0	2.3	48.8	35.1
Engineers:	0.8	1.2	0.1	0.2	0.2	0.4	0.6	0.7	9.3	11.8
Staff, Design and Electrical Engineers	0.8	1.2	0.1	0.2	0.2	0.4	0.6	0.7	9.3	11.8

“WHO” WORKS FOR CONTRACTING FIRMS?

Age of Respondents

Regardless of company size (number of employees), the survey respondents tend to be at least middle aged. Across the total sample, about one-half are between the ages of 35 and 54 and almost 8 in 10 are between the ages of 35 and 64. As noted in 2006, younger contractors do not appear to be filling the pipeline as evidenced by the finding that such a high proportion of survey respondents are older than 35.

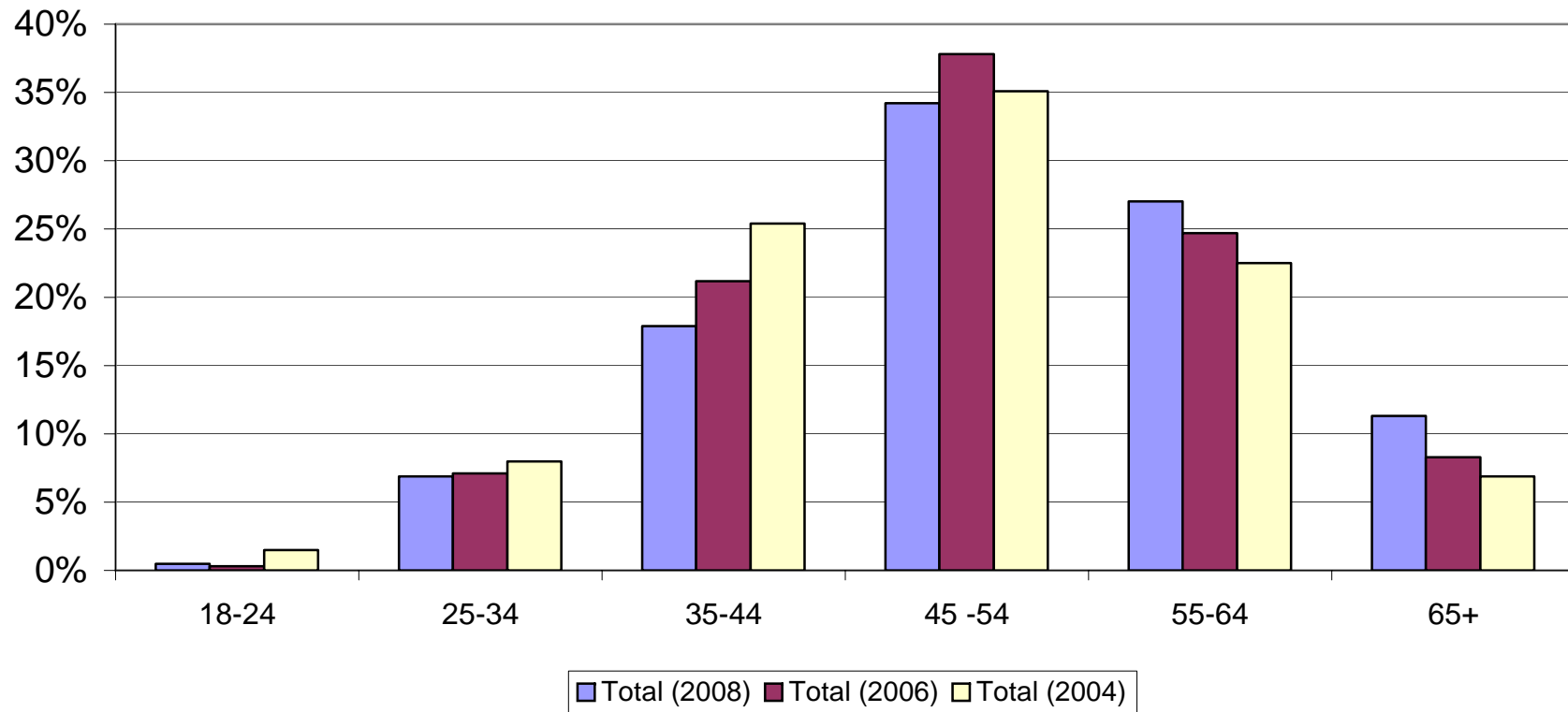
- In addition, as shown on the chart on the next page, the survey participants are trending older. In fact, between 2006 and 2008 there has been a significant drop in the percentage of electrical contractors who are aged 35-54 (from 59% in 2006 to 52% in 2008) and a significant increase in the percent that are now 55 or older (from 33% in 2006 to 38% in 2008) or 65+ (from 8.3% in 2006 to 11% in 2008). [The composite age breaks of 35-54 and 55+ are not shown]
- In addition, the mean age of survey respondents is now 51.5 compared with 50.0 two years ago and 48.6 in 2004. Each of these increases is statistically significant.

Smaller firms tend to have employees with an older average age. One hypothesis is that older electrical contractors may found their own -- smaller firms -- after working for others earlier in their careers.

	Total	Firm Size		
		1-4 (a)	1-9 (b)	10+ (c)
Average Age	51.2	52.6 >c	52.1 >c	49.2

N=1157

Comparison of Age Composition Over Time



N=1157

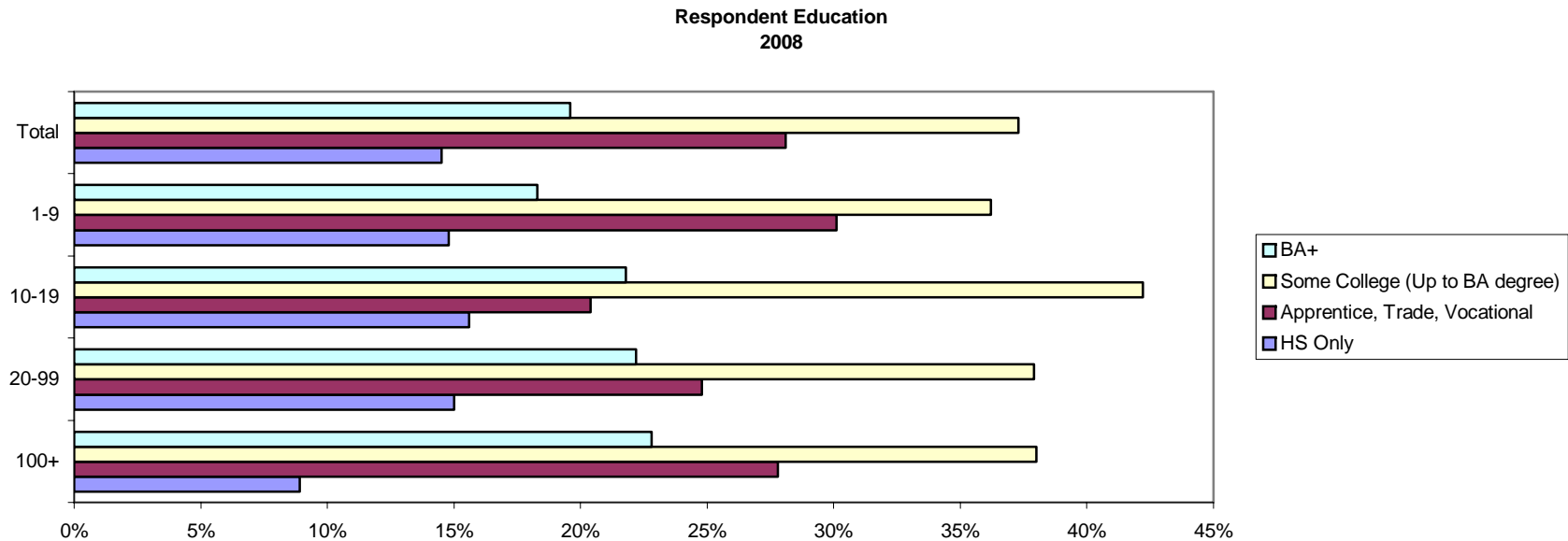
Respondent Education

A majority of survey respondents – 57% across the total sample -- have some college education. Those in larger firms (10+ employees) are significantly more likely to have attended college than those in firms with 1- 9 employees¹ (62% vs. 55%), particularly a BA degree (17% of those in firms with 10+ employees vs. 13% for those in firms with 1-9 employees).

In addition:

- Those in smaller firms (1-9 employees) are more likely to have only Apprenticeship, Trade or Vocational School training compared to those in firms with 10+ employees (30% vs. 24%). Those in very small firms (1-4 employees) are correspondingly less likely to have any college training, particularly a BA (Not shown).

The findings among the total sample are consistent with those reported two years ago. (Not shown)

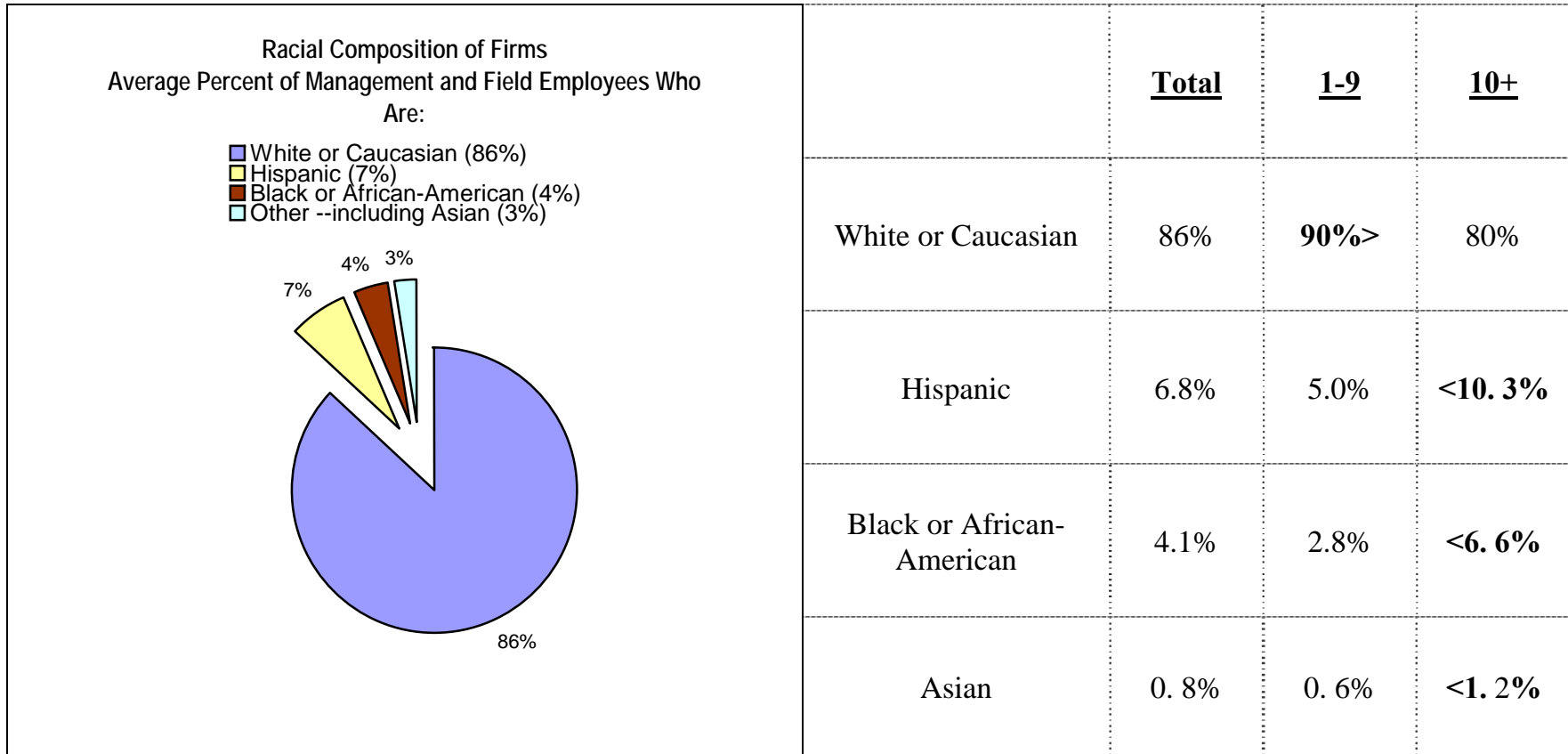


¹ The difference in college education levels between small and large firms emerged in the larger sample (n=1157) but was not evident when the sample was 812 or in 2006.

Diversity: Race

While the vast majority of management and field employees are Caucasian, minorities *are* present in management and field positions. The results among the total sample are consistent with the 2004 results (not shown), which was the last time that this question was asked.

- Larger firms (defined as having 10+ employees) are significantly more likely to employ Hispanics, Blacks and/or Asians compared with firms with 1-9 employees.



N=1157

▲ “WHAT” TYPES OF WORK DO CONTRACTORS PERFORM?

Green/Sustainable Building Elements

In 2008, for the first time, electrical contractors were asked to estimate the percentage of company sales that included Green/Sustainable Building elements.

- Almost one-half (46%) of the total sample said that some portion of their sales included projects with Green or Sustainable building elements.
- On average, about 9% of revenue included projects with Green or Sustainable Building elements.
 - Interestingly, larger firms are more likely to be engaged in Green/Sustainable Building although not necessarily to derive a (statistically significant) higher percentage of their revenue from it.
 - The involvement of the largest firms in Green/Sustainable Building is a theme that runs through a number of sections of this report

	Total Sample	Number of Employees			
		1-9	10-19	20-99	100+
		(a)	(b)	(c)	(d)
	%	%	%	%	%
ANY Revenue from Green or Sustainable Building	46	42	45	a, b<56	a, b, c<72
Average Revenue from Green or Sustainable Building	9	9	10	8	12

Types of Work Currently Performed

Electrical contractors were shown a list of 27 different project types and were asked to indicate which they had performed the previous year. These are shown on the next two pages.

- Eight new project types were included for the first time in the 2008 Profile Study. They are: TVSS/Lightning Surge Suppression, [RES] Fire/Life Safety**, [RES] Security: Access/Motion/CCTV**, [CII] Sound and Video, Data Centers, LEED Projects, Net Metering and Co-Generation.

When asked about the types of work performed in the previous year, electrical contractors were most likely to mention Traditional Power/Lighting cited by 96%.

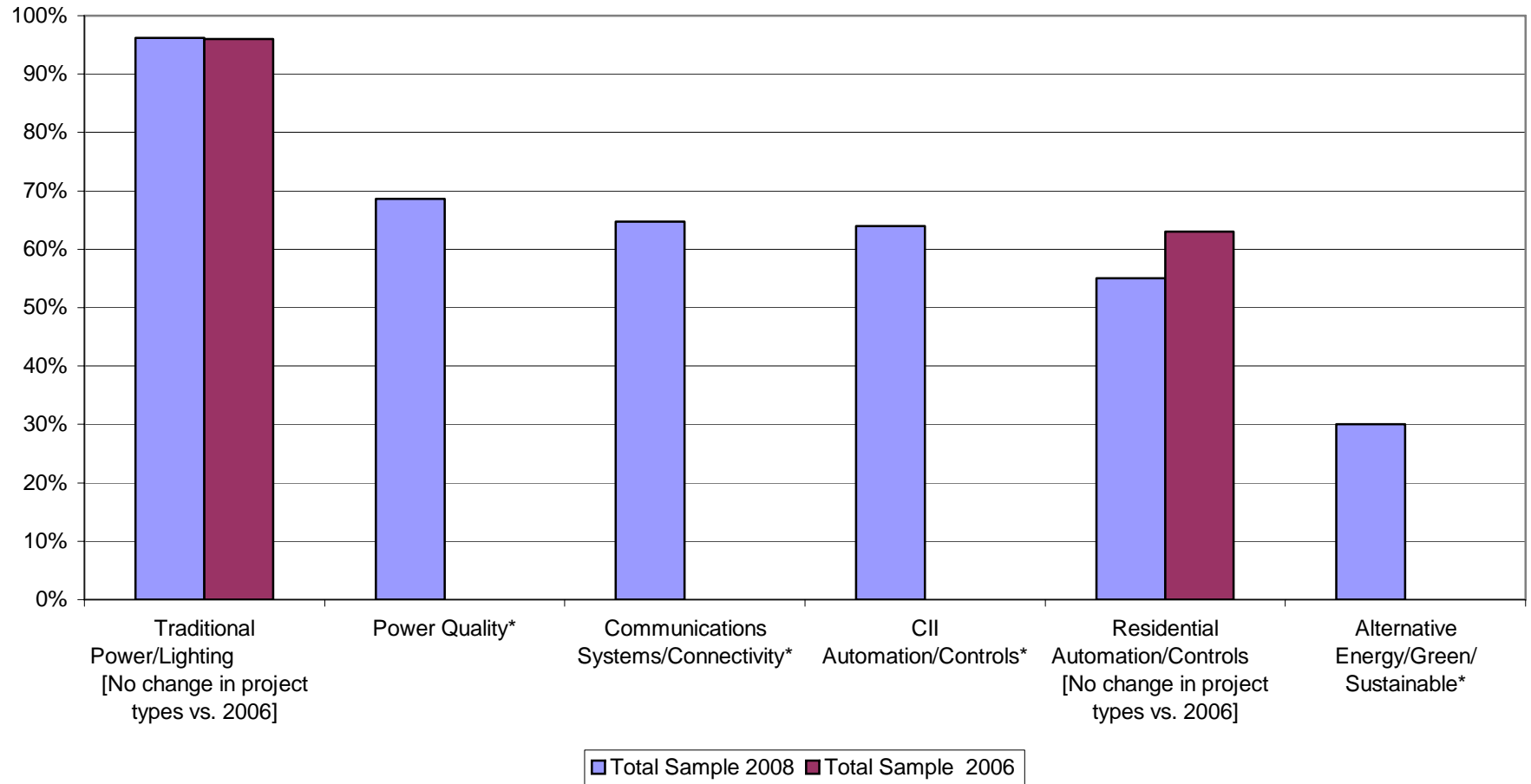
About two-thirds said that they had worked on Power Quality, Communications/Systems Connectivity and/or [CII] Automation/Controls in the previous year; almost 6 in 10 said that they had worked on [RES] Automation/Controls in the previous year and about 3 in 10 worked on Alternative Energy/Sustainable Building Technology during that time period.

. Most of the categories shown on the next page cannot be trended since so many project types were added in 2008.

- There was no change in the percent of electrical contractors that cited past year Traditional Power/Lighting category work compared with 2006.
- The percent that cited Residential Automation/Controls declined significantly from 63% in 2006 to a still substantial 55% in 2008.

** [RES] Security and Fire/Life Safety were asked on a combined basis two years ago; in 2008 they were asked as two separate project types.

Types of Work Performed by Category (Total Sample)

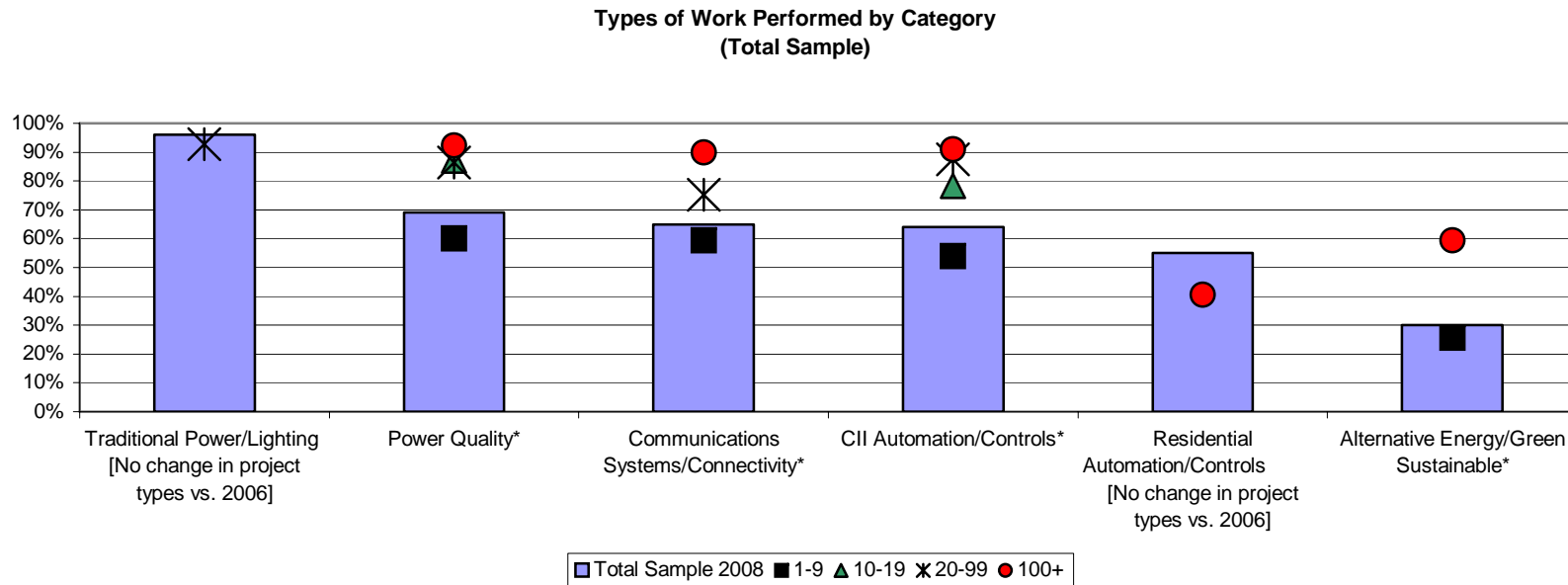


* Indicates that the category contained different project types in the 2008 study than in the 2006 study

N=1157

The differences by company size are shown below:

- In general, larger firms – particularly those with 20-99 and 100+ employees are more likely to perform each of the different types of work shown below.
 - The main exception is that firms with 100+ employees are *less* likely to perform Residential Automation/Controls work²



* Indicates that the category contained different project types in the 2008 study than in the 2006 study

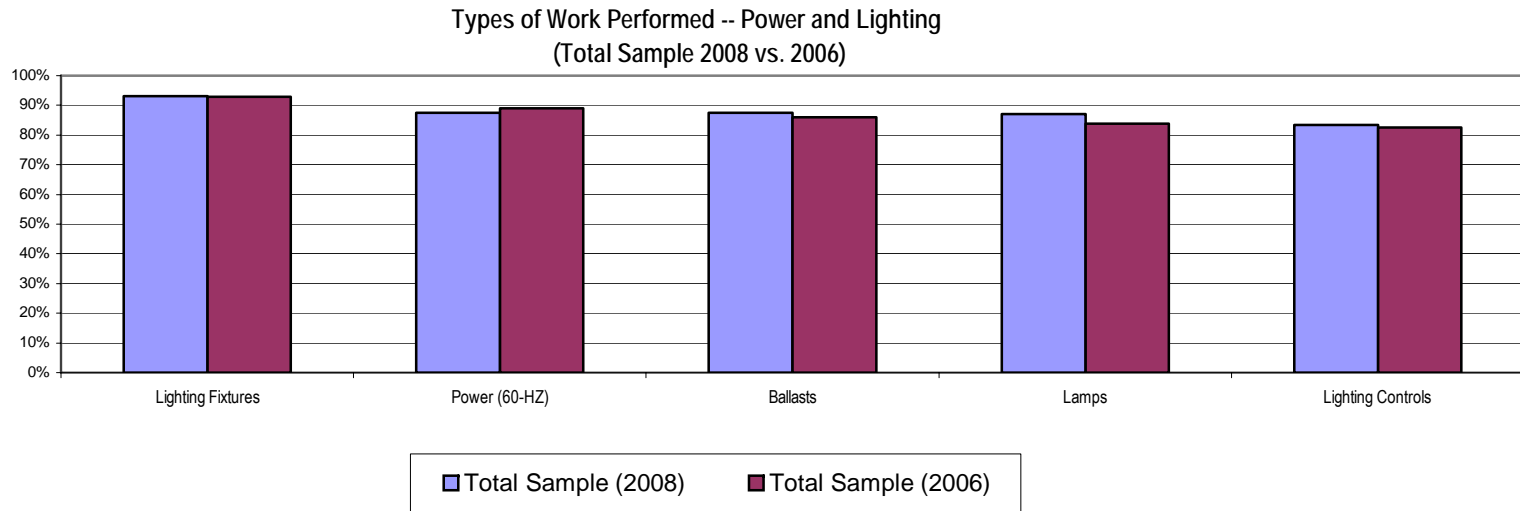
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² The significant difference between firms with 100 + employees vs. smaller firms on performing Residential Automation/Controls work emerged in the larger sample (n=1157) but was not evident when the sample was 812.

Types of Work Performed – Power and Lighting

Very high percentages of electrical contractors reported working in the various aspects of Power and Lighting in both 2008 and 2006.

- In 2008, however, a significantly higher percentage of electrical contractors reported working on lamps versus two years earlier. There are no other significant differences on this chart.



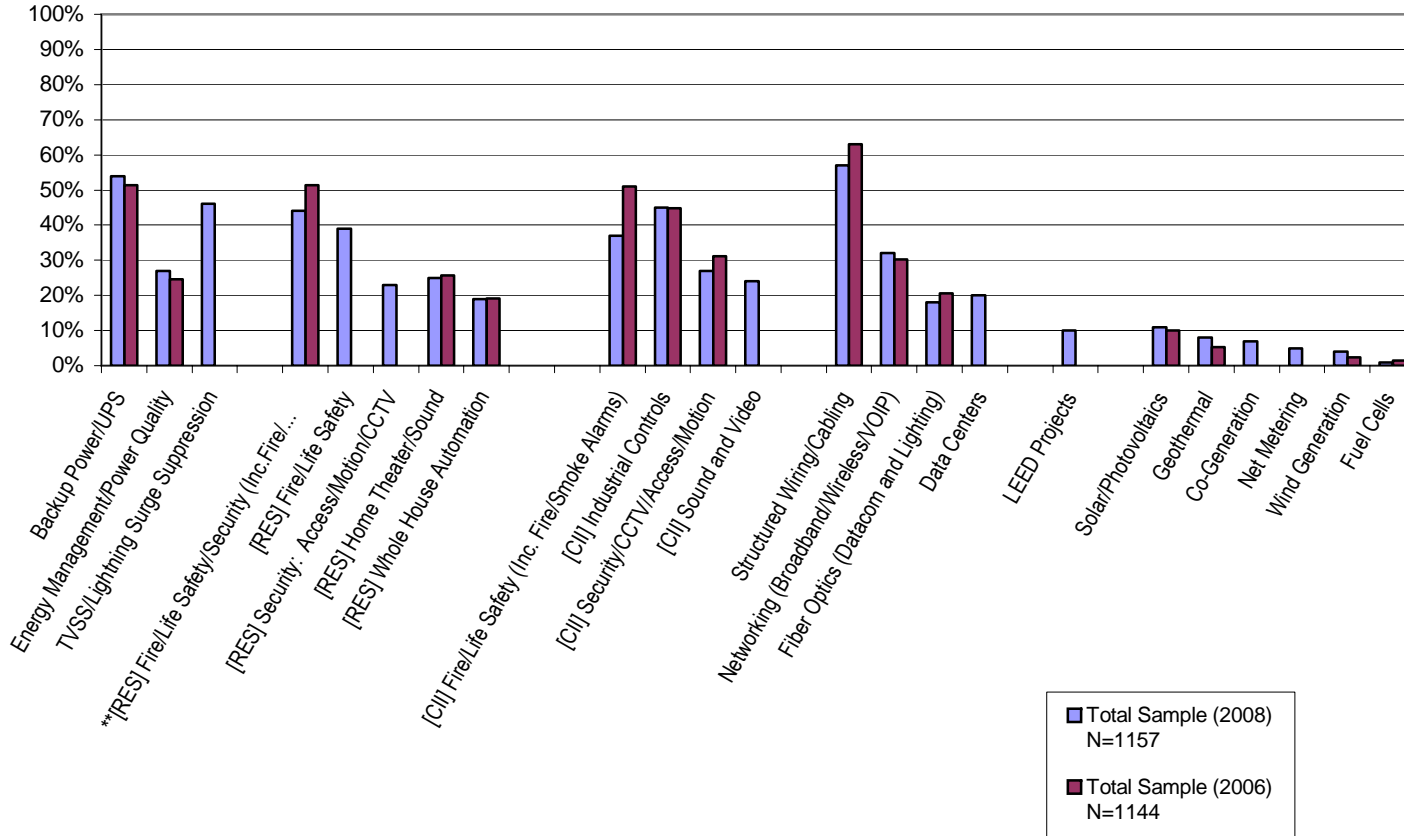
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- There are also relatively few differences shown on the next page; however, compared to two years ago significantly fewer electrical contractors report working on [RES] Security/Life Safety³, [CII] Fire/Life Safety and Structured Wiring/Cabling.
 - The decline in [RES] Security/Life Safety projects among the total sample compared to two years earlier is the result of a significant decline among firms with 1-9 employees, which is driven by firms with 1-4 employees and among firms with 100+ employees (which tend not to work on residential projects).
 - The decline in [CII] Fire and Life Safety projects among the total sample is due to a decline in this type of work among smaller companies compared to two years earlier combined with the fact that there were more small companies in the sample in 2008 vs. 2006. As noted in other sections of this report, small companies are less likely to perform any type of CII work.
 - The decline in Structured Wiring projects is the result of a significant decline among firms with 1-9 employees, which is driven by firms with 1- 4 employees⁴.

³ The difference between the 2006 and 2008 results was not significant in the report based on 812 interviews.

⁴ In the topline report based on 812 interviews, the decrease among firms with 1-4 employees was offset by an increase among firms with 5-9 employees and we noted that this resulted in a series of small, non-significant declines among both small and large firms, which, when combined across 812 respondents, became statistically significant.

Types of Work Performed-- Non-Lighting (Total Sample 2008 vs. 2006)



Types of Work Performed – By Number of Employees

Project types vary by company size. (Each of the project types is listed only once below):

- Firms with 100+ employees are more likely than smaller firms to work on:
 - Solar/Photovoltaics
 - Co-Generation
 - Net Metering
 - Wind Generation
 - Fuel Cells

- In addition, firms with 20 or more employees are more likely than smaller firms to work on:
 - [RES] Security: Access/Motion/CCTV
 - Data Centers
 - Fiber Optics (Datacom and Lighting)
 - LEED Projects

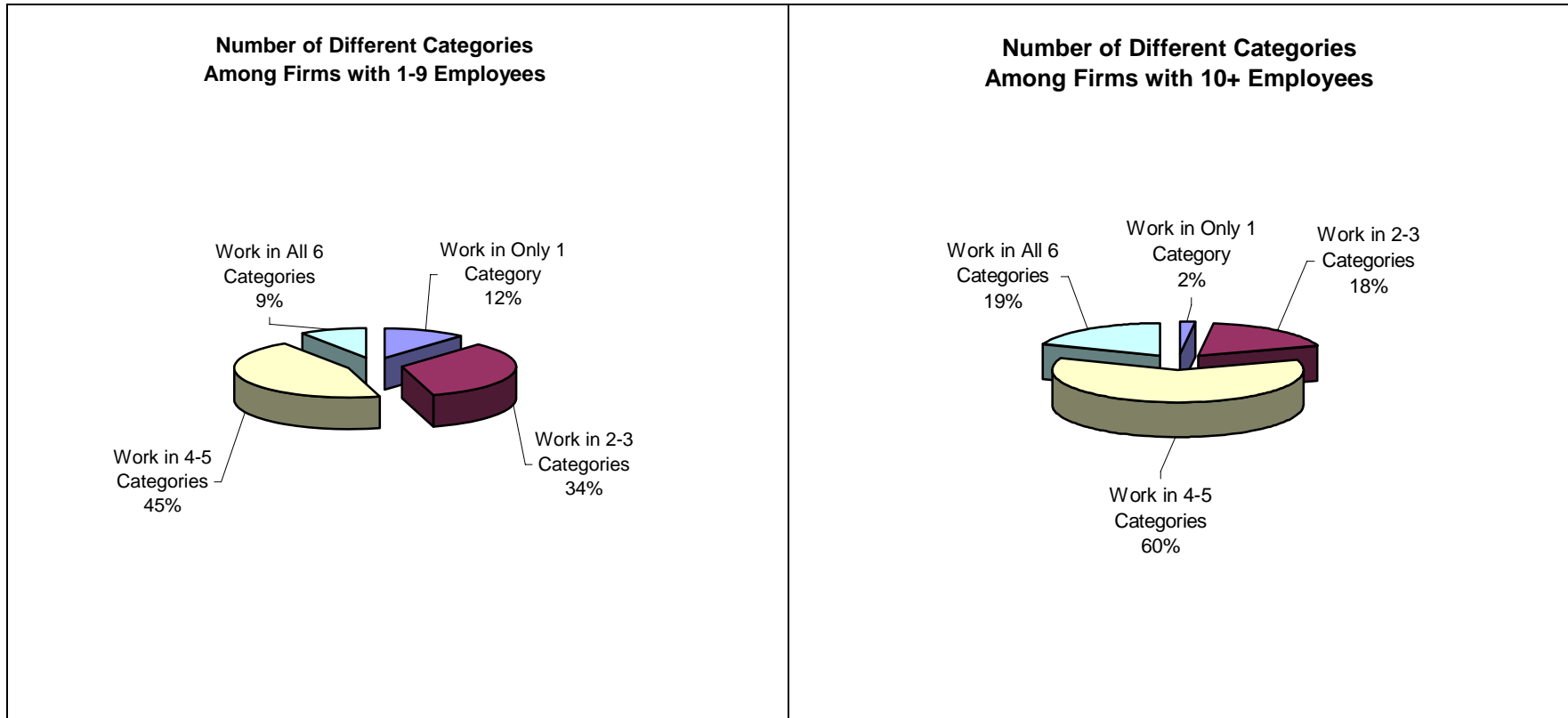
- Firms with 10-99 (but not 100+) employees are more likely to work on Lighting Controls

- Firms with 10-19 employees are more likely to work on:
 - Ballasts
 - Lamps
 - Whole House Automation

- Firms with 10+ employees are more likely than smaller firms to work on the following.
 - Power Quality
 - Backup Power/UPS*
 - TVSS/Lightning Surge Suppression (first asked in 2008)
 - Energy Management/Power Quality*
 - CII Projects
 - [CII] Industrial Controls
 - [CII] Fire/Life Safety
 - [CII] Security: CCTV/Access/Motion*
 - [CII] Sound and Video (first asked in 2008)
 - Structured Wiring/Cabling*
 - Networking (Broadband/Wireless/VOIP)*
 - * The star (*) indicates that in 2006, the break was between firms with 20+ employees (vs. smaller firms) rather than 10+ employees (vs. smaller firms) suggesting that firms with 10-19 employees appear to be acquiring additional higher tech skills compared with smaller firms.
- Firms with 1-9 employees are *more* likely than firms of any other size to work on only one of the tested project types—Home Theater/Sound.
- Power (60HZ), Lighting Fixtures and [RES] Fire/Life Safety do not differ by company size
- There is no firm size that is more likely to work on Geothermal projects (however, firms with 20-99 employees are less likely to work on this kind of project).

Even in small firms electrical contractors are most apt to work in multiple categories.

- While almost 8 in 10 large firms work in 4-6 categories, a very respectable 54% of small firms work in 4- 6 categories. In fact, approximately the same percentage of small firms – about 1 in 10 -- work in only 1 category as work in all 6 categories!



Types of Work Performed By Number of Employees (2008)					
	Total Sample	1-9	10-19	20-99	100+
Lighting Fixtures	93%				
Power (60-HZ)	88%				
Ballasts	88%		92%		
Lamps	87%		91%		
Lighting Controls	84%	<i>81%</i>	91%	89%	
Backup Power/UPS	54%	<i>43%</i>	65%	77%	86%
TVSS/Lightning Surge Suppression	46%	<i>37%</i>	63%	64%	71%
Energy Management/Power Quality	27%	<i>17%</i>	42%	43%	70%
[RES] Fire/Life Safety (Inc. Fire/Smoke Alarms)	39%				
[RES] Home Theater/Sound	25%	28%		<i>15%</i>	<i>9%</i>
[RES] Security: Access/Motion/CCTV	23%	<i>20%</i>		29%	33%
[RES] Whole House Automation	19%		29%		<i>9%</i>
[CII] Industrial Controls	45%	<i>36%</i>	56%	63%	80%
[CII] Fire/Life Safety (Inc. Fire/Smoke Alarms)	37%	<i>24%</i>	44%	67%	84%
[CII] Security/CCTV/Access/Motion	27%	<i>16%</i>	37%	51%	73%
[CII] Sound & Video	24%	<i>16%</i>	33%	41%	52%
Structured Wiring/Cabling	57%	<i>52%</i>	60%	67%	81%
Networking (Broadband/Wireless/VOIP)	32%	<i>26%</i>	42%	39%	61%
Data Centers	20%	<i>13%</i>		33%	58%
Fiber Optics (Datacom and Lighting)	18%	<i>8%</i>		37%	71%
Solar/Photovoltaics	11%				20%
LEED Projects	10%	<i>5%</i>		16%	43%
Geothermal	8%			<i>5%</i>	
Co-Generation	7%	<i>5%</i>			25%
Net Metering	5%	<i>4%</i>			18%
Wind Generation	4%	<i>3%</i>			14%
Fuel Cells	0.9%	<i>0%</i>			5%

*Italics indicate that the percentage shown for this firm size is significantly smaller than its reciprocal** at the 90% level of confidence*

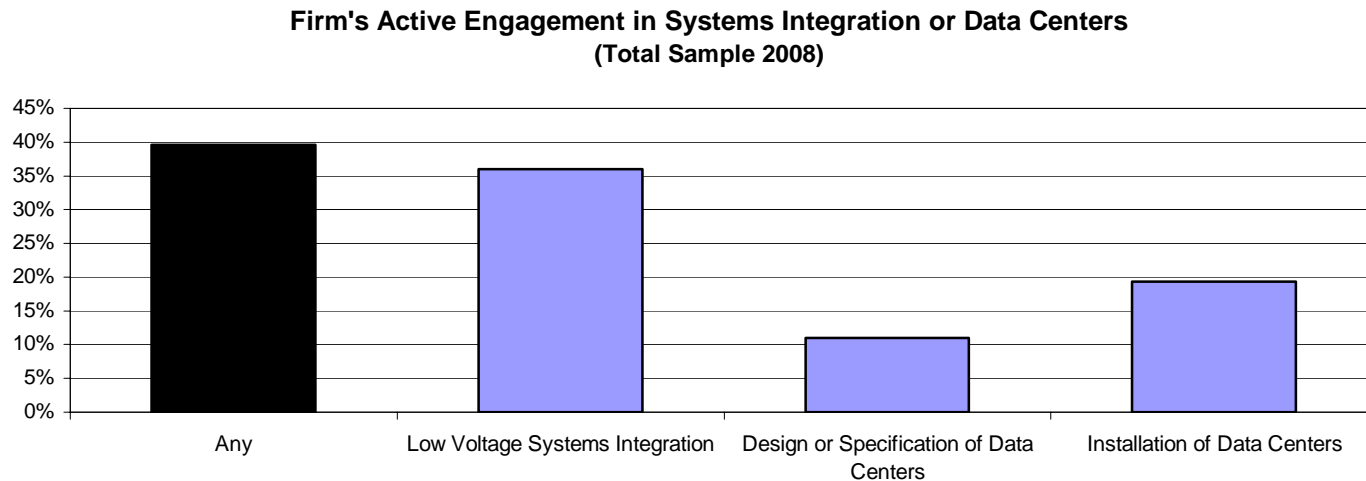
Bold indicates that the percentage shown for this firm size is significantly larger than its reciprocal** at the 90% level of confidence

** Examples of reciprocals: If the total is composed of A+B, the reciprocal of A is B. If the total is composed of A+ B+ C, the reciprocal of A is B + C.

Firm's Active Engagement in Systems Integration or Data Centers

About 4 in 10 electrical contracting firms are actively engaged in Systems Integration and/or Data Centers.

- Low Voltage Systems Integration was mentioned most often.
 - Larger firms (those with 10+ and 20+ employees) are significantly more likely to engage in each of these types of work compared with smaller firms (not shown).
 - Firms with 10+ employees are more likely to work on Low Voltage Systems Integration, while firms with 20+ employees are more likely than smaller firms to work on Design or Specification of Data Centers and/or on Installation of Data Centers.
- This question cannot be trended since it was first asked in 2008.

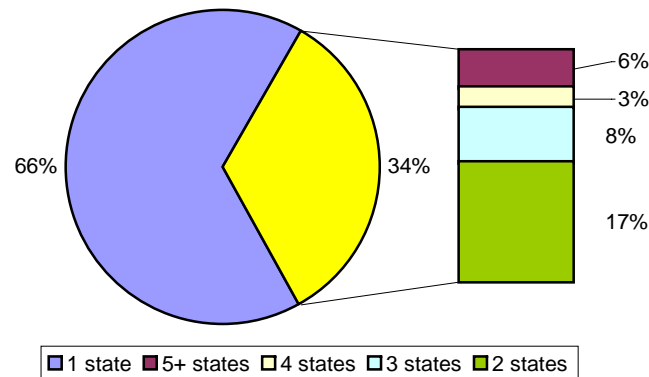


▲ **“WHERE DO CONTRACTORS PERFORM THE WORK?”**

Number of States In Which Electrical Contracting Works

Fully one-third of electrical contracting firms perform their work in multiple states, suggesting that there may be issues of licensing and certification.

Number of States in Which Electrical Contracting Firm Performs Its Work



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Not surprisingly, working in multiple states is higher among larger firms:

	Total	1-4	5-9	10-19	20-99	100+
		(a)	(b)	(c)	(d)	(e)
Work in 2+ States (2008)	33%	23%	a<30%	a<37%	a, b, c <47%	a, b, c, d< 77%

These results are consistent with those reported two years ago.

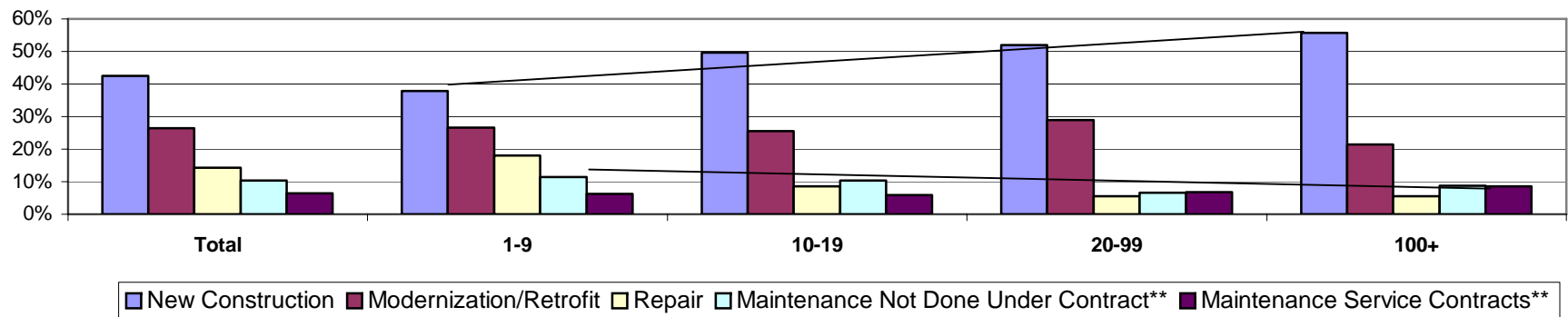
Types of Work: By Sector (New Construction Vs. Modernization Vs. Maintenance and Repair)

On average, New Construction (43%) and Modernization/Retrofit (27%) accounts for the bulk of electrical contractor’s revenue. Average revenue from Repair at 14% is comparable to Maintenance Service Contracts (6%) and Maintenance work not done under contract (10%) on a combined basis.

- However, as shown below, New Construction plays a proportionally greater role among firms with 10 or more employees.
- In contrast, Repair work accounts for an average of 18% of revenue for firms with 1-9 employees but only an average of 7% among firms with 10+ employees.

Compared to two years ago, the average percentage of revenue from Maintenance rose significantly across the total sample from 13% to 16%. Among firms with 10+ employees the average revenue contribution of Repair work dropped from 11% to 7% between 2006 and 2008. (Not shown)

**Types of Work By Sector
2008**



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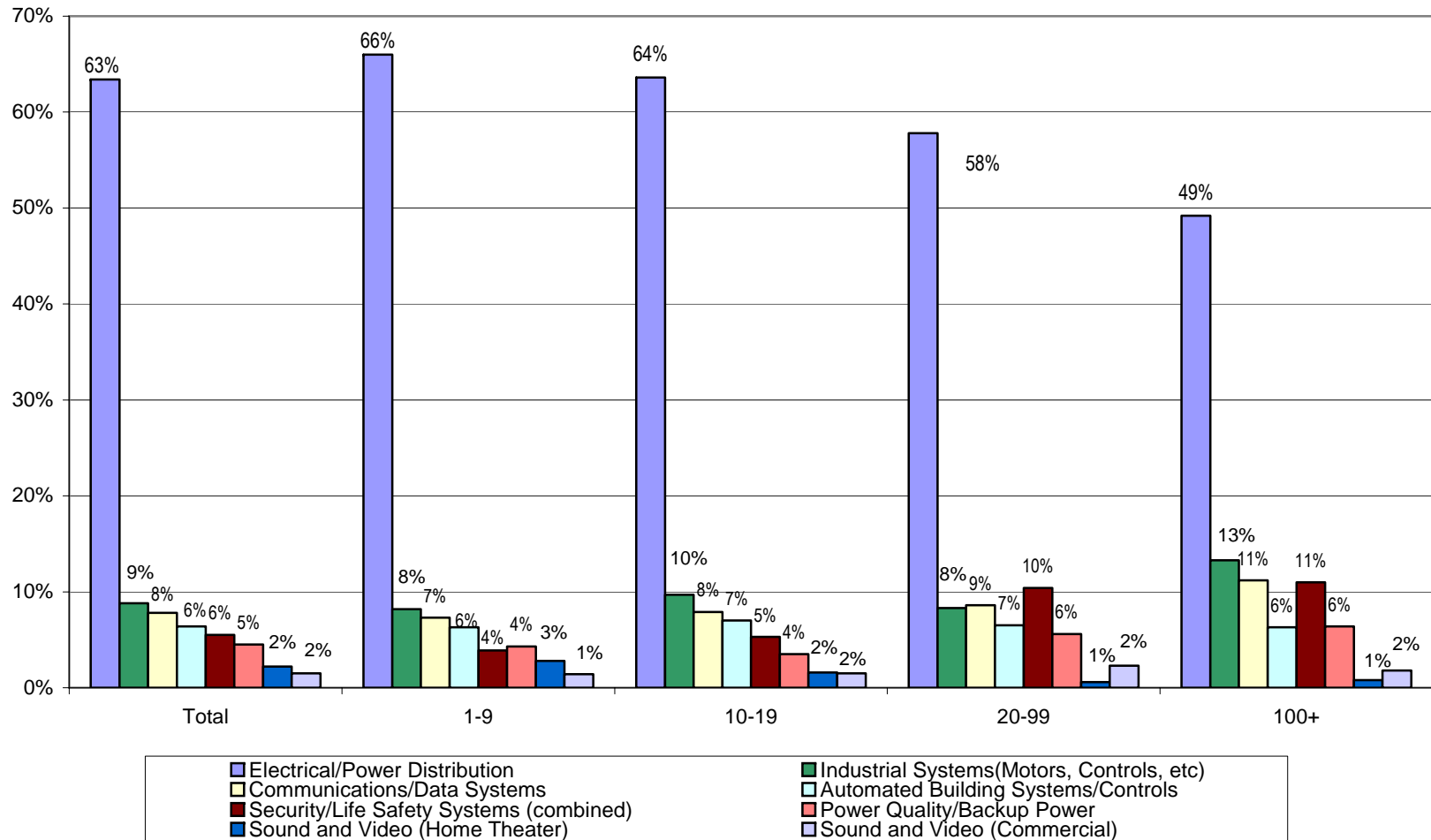
** Maintenance was asked on a combined basis in 2006; in 2008 work done under Maintenance Contract was separated from work not done under contract

Types of Electrical Projects: Sources of Revenue

- Electrical/Power Distribution, at 63%, continues to account for the largest percent of company sales, by far. However, it has been trending down since 2004 when it was 69% (not shown).
 - Further, electrical power and distribution now accounts for less volume of larger firms than of smaller firms; two years ago this was not the case.
 - In contrast, Industrial Systems (Motors, Motor Controls, etc.), first asked in 2008, accounts for about 9% of revenue across the total sample, but for a substantially larger percent of revenue among firms with 100+ employees (13%) (and 50+ employees, not shown).
 - Similarly, Security/Life Safety – on a combined basis -- accounts for a substantially larger average percent of revenue among firms with 20+ employees compared with smaller firms.

Types of Work by Electrical Project – 2008 Profile Study Average Sources of Revenue

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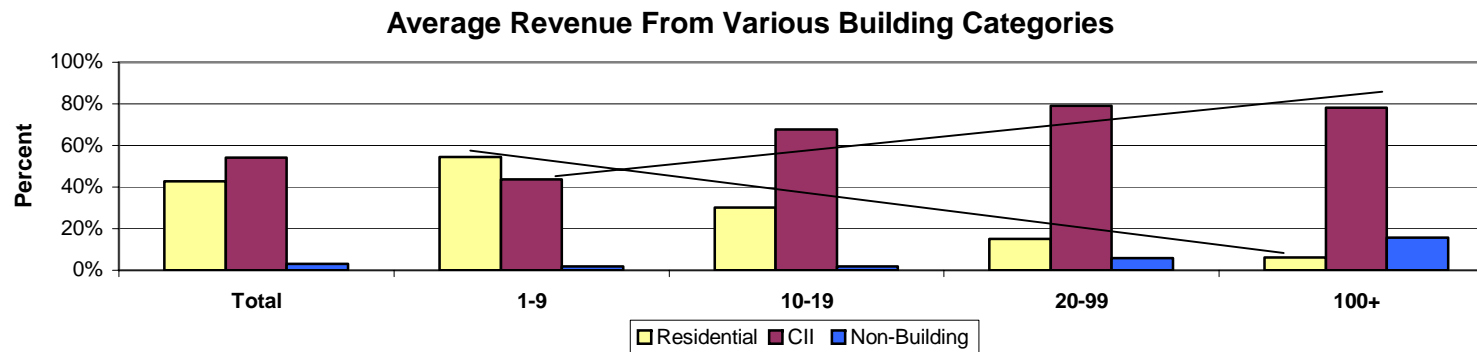
Work in Various Building Categories (Residential vs. CII and Non-Building)

Across the total sample, electrical contractors get more of their business from CII (Commercial, Industrial, Institutional and Public Places) than from Residential projects. Non-Building projects (Transportation/Lighting and Utility) account for about 3% of the contractors’ business.

- However, there are dramatic differences in types of work performed by larger vs. smaller firms. For example, Residential construction accounts for a much greater proportion of work among smaller electrical contractors (those with 1 – 9 employees), while CII projects account for more of the work of larger electrical contracting firms. In addition, Non-Building work is much more the province of large than small firms.

Compared to two years ago, Non-Building projects declined as a percentage of revenue from 6% to 3% among the total sample. Among firms with 20+ employees, the percentage of revenue from CII rose from about 73% in 2006 to almost 80% in 2008 and the percentage of revenue from Residential work declined to 12.1% from 16.7% two years ago. (Not Shown)

N=1157



CII* = **Commercial** (Offices, Stores, Hospitality, etc); **Institutional** (Schools/Hospitals/Stadiums/Parks/Terminal/Cultural/Correctional, etc)

Industrial (Manufacturing Plants/Factories/Warehouses, etc);

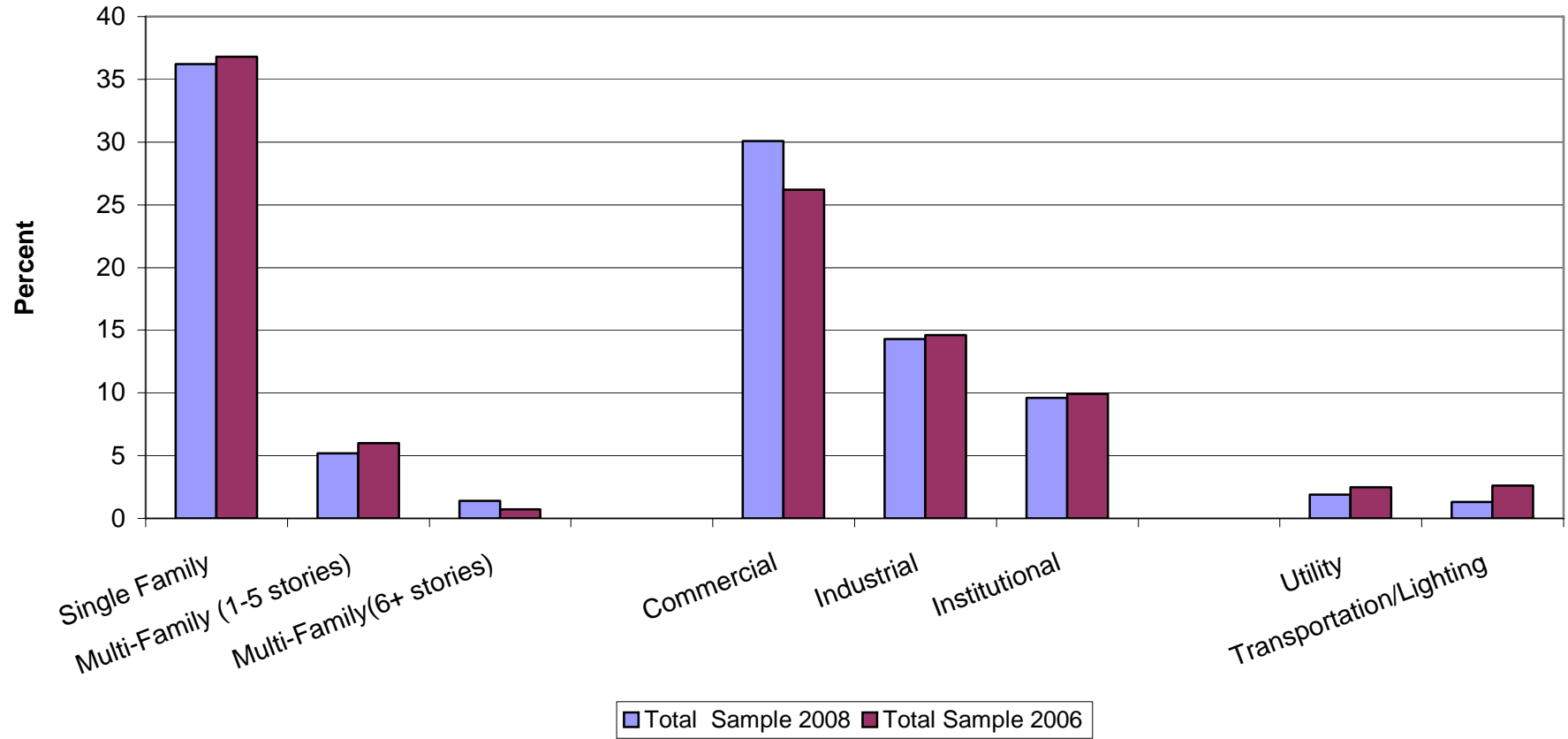
Non-Building = **Transportation/Lighting** (Airport Runway/Highway/Street Lighting including Traffic Controls); **Utility** (Overhead/Underground Power Line Work)

Types of Residential and CII Work Performed

- Although on average, the greatest portion of electrical contractors' revenue comes from CII work, Single Family housing accounts for the *single* largest source of revenue. Within the housing category, a higher percentage of revenue comes from Multi-Family housing with 1-5 stories compared with taller Residential buildings.
- Within the broad CII category, a greater percentage of electrical contractors' revenue is from Commercial construction than from Industrial or Institutional projects.
 - Compared to two years ago, the percentage derived from 6+ story multi-family housing increased slightly but significantly. There is no statistically significant change in the average percentage of revenue from single-family housing or from 1-5 story multifamily buildings⁵.
 - In addition, on average, a higher percentage of revenue came from Commercial projects in 2008 compared to 2006; average revenue from Non-Building (utility and transportation lighting) work declined between 2006 and 2008. There is no change in the average percent of revenue from Industrial or Institutional projects between 2006 and 2008.

⁵ The topline based on 812 interviews reported an increase in average revenue from 1-5 story multi-family buildings.

Average Percentage of Business From Specific Categories (Total Sample 2008)

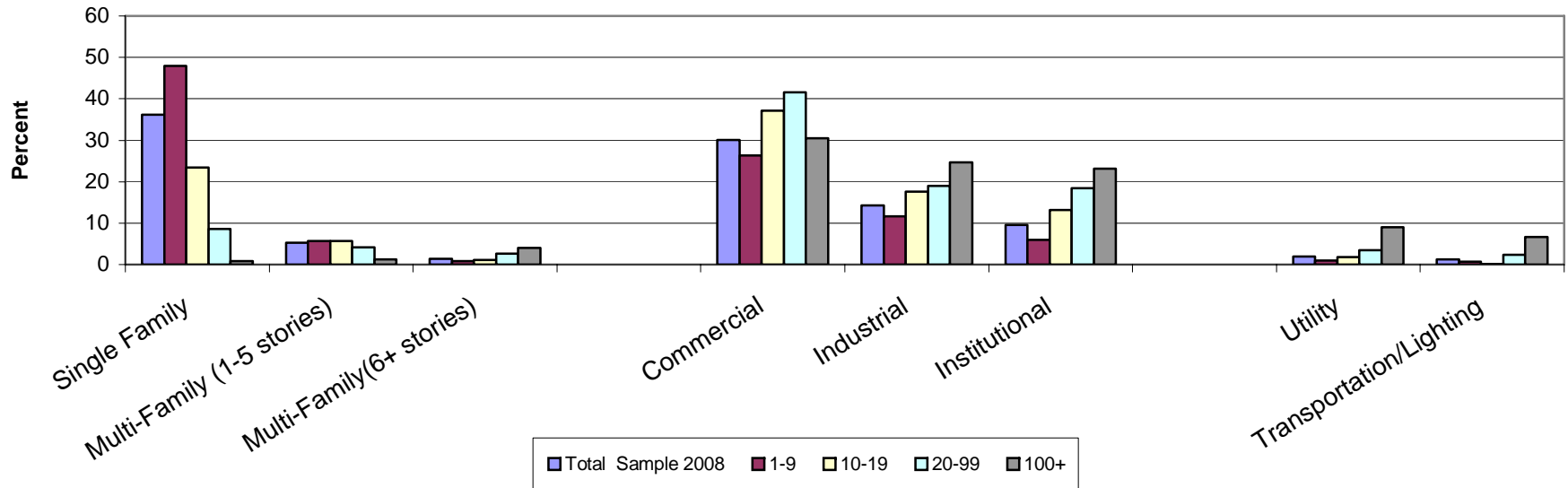


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While Single Family projects account for a high percentage of revenue across the total sample, this type of work is extremely important to electrical contracting firms with 1-9 employees. On average, these small firms derive almost one-half of their revenue from Single Family projects.

- Electrical contracting firms with 10+ employees derive the greatest percentage of their revenue from Commercial projects.
- In addition, electrical contracting firms with 100+ employees get a disproportionate percentage of their revenue from Industrial and Institutional projects and from Non-Building work.

Average Percent of Business From Specific Categories



▲ “HOW” DO CONTRACTORS PERFORM THEIR WORK

Roles in Specification/Types of Project Delivery (Design/Build or Design/Assist)

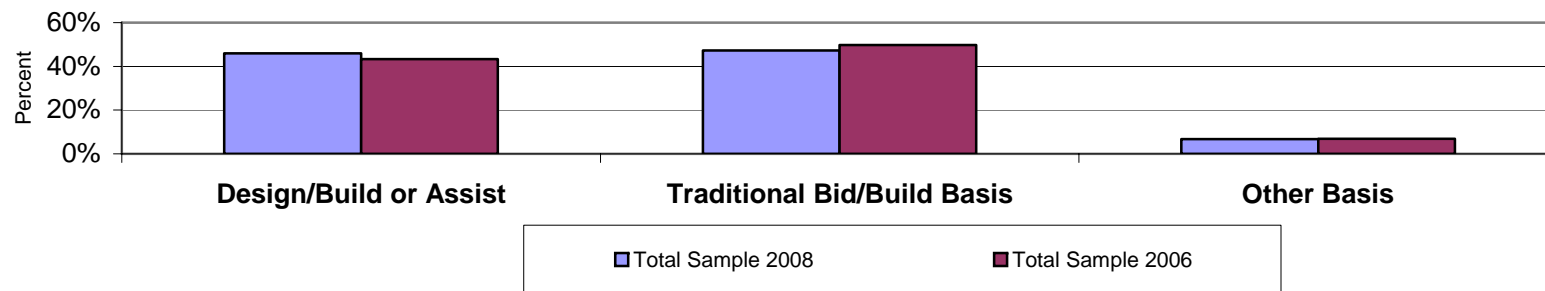
Across the total sample, almost 8 in 10 firms performed any Design/Build or Design/Assist work in 2007. In fact, larger firms are even more likely than smaller firms to have engaged in D/B or D/A work:

- While 72% of firms with 1-9 employees performed any DB or DA work in 2007, any D/B//D/A work was performed by 86% of firms with 10-19 employees, 91% of firms with 20-99 employees and 89% of firms with 100+ employees. [Not shown]

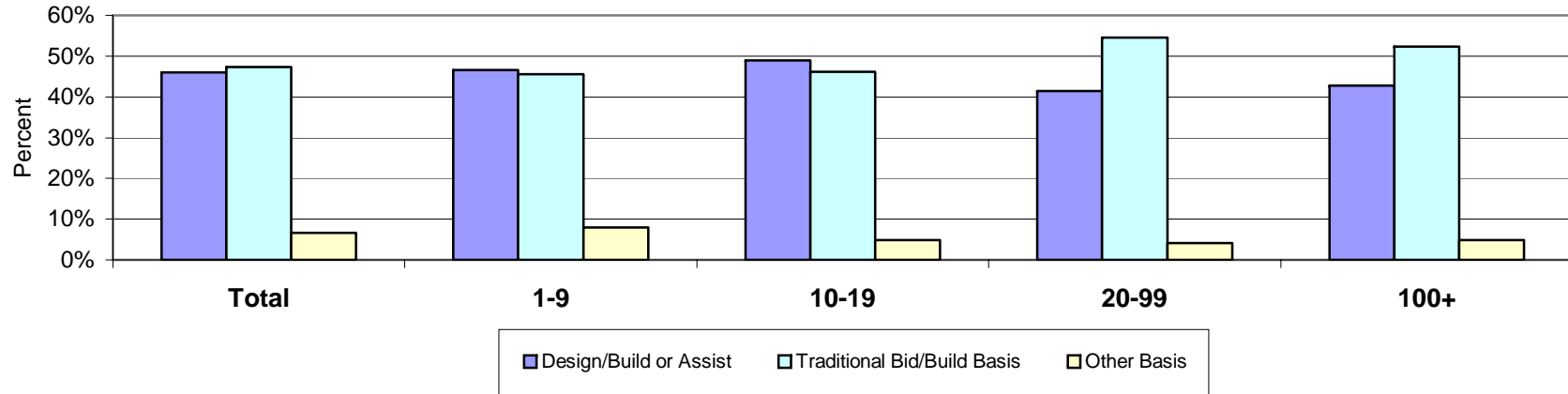
Overall, an average of 46% of electrical contractors’ revenue was done on either a Design/Build or Design/Assist basis. This is a statistically significant increase from the 2006 level of 43%. (The vast majority was done as Design/Build --33%-- rather than Design/Assist –13%). Less than one-half of electrical contractors’ revenue comes from Traditional Bid/Build projects (47%) and about 7% comes from “Other” methods of bidding.

- Design/Build is particularly important to firms with 1-9 and 10-19 employees from a revenue standpoint.

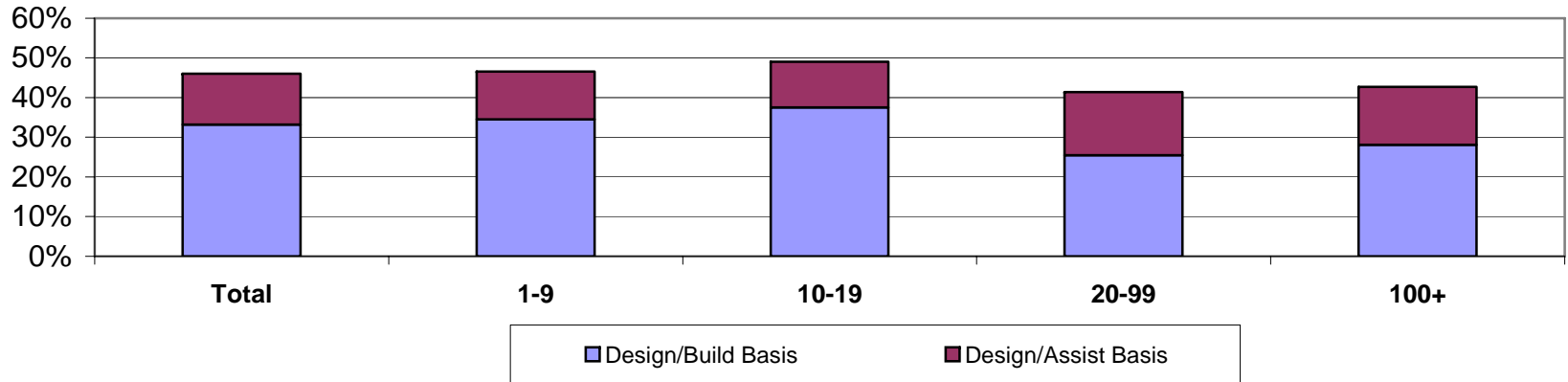
Average Percent of Projects Involving This Type of Project Delivery



Average Percent of Projects Involving This Type of Project Delivery
2008
(N=1157)



Average Percent of Projects Involving Design/Build or Design /Assist
2008
(N=1157)



▲ **"HOW" DO CONTRACTORS PERFORM THEIR WORK**

Completeness of Plans and Specifications

About 80% of electrical contractors report receiving any plans and specs that are incomplete (that is, where their firm is responsible for completing the design documentation).

Electrical contractors say that, on average, plans and specs are incomplete 45% of the time.

- This question cannot be trended since it was first asked in 2008.

About 30% who work on each type of construction say that a *higher* percentage of the plans and specs that they now receive are incomplete compared with 5 years ago. This is consistent across the three construction types of Single Family, Multi-family and Commercial/Institutional and Industrial building.

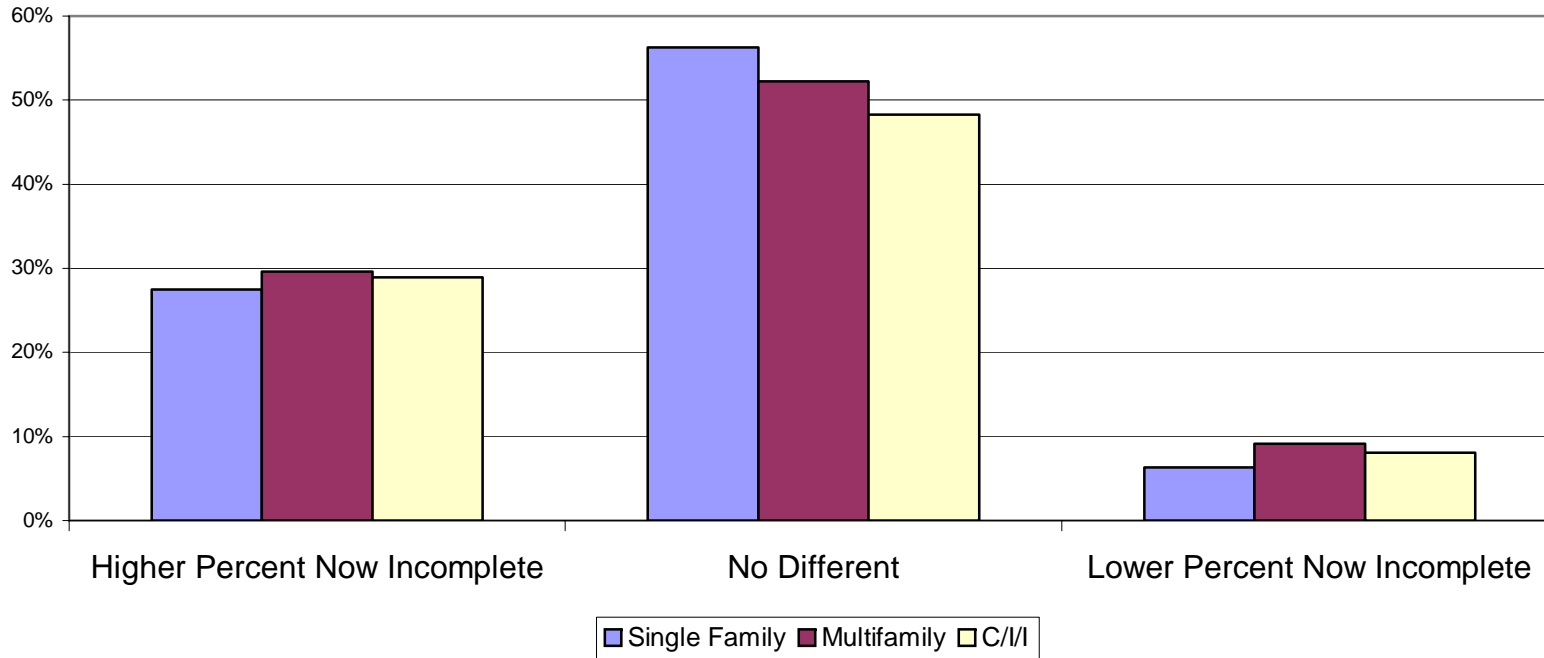
About one-half who work on each of these building types say that the completeness of plans and specs is no different than it was 5 years ago.

Only about 1 in 10 or less who work on each building type say that a *lower* percentage of the plans and specs that they now receive are incomplete compared with 5 years ago.

- The wording of this question was changed in 2008 and cannot be trended.

Firms with 10 or more employees, who tend to derive a higher percentage of their revenue from CII projects, are also more likely to say that a higher percentage of the CII plans and specs that they now receive are incomplete. (Only 21% of firms with 1-9 employees say that a higher percentage of the CII plans and specs they now receive are incomplete vs. 44% of firms with 10+ employees.).

**Completeness of Plans and Specs Compared With 5 Years Ago
(Total Sample Of Those Who work on This Building Type)
2008**

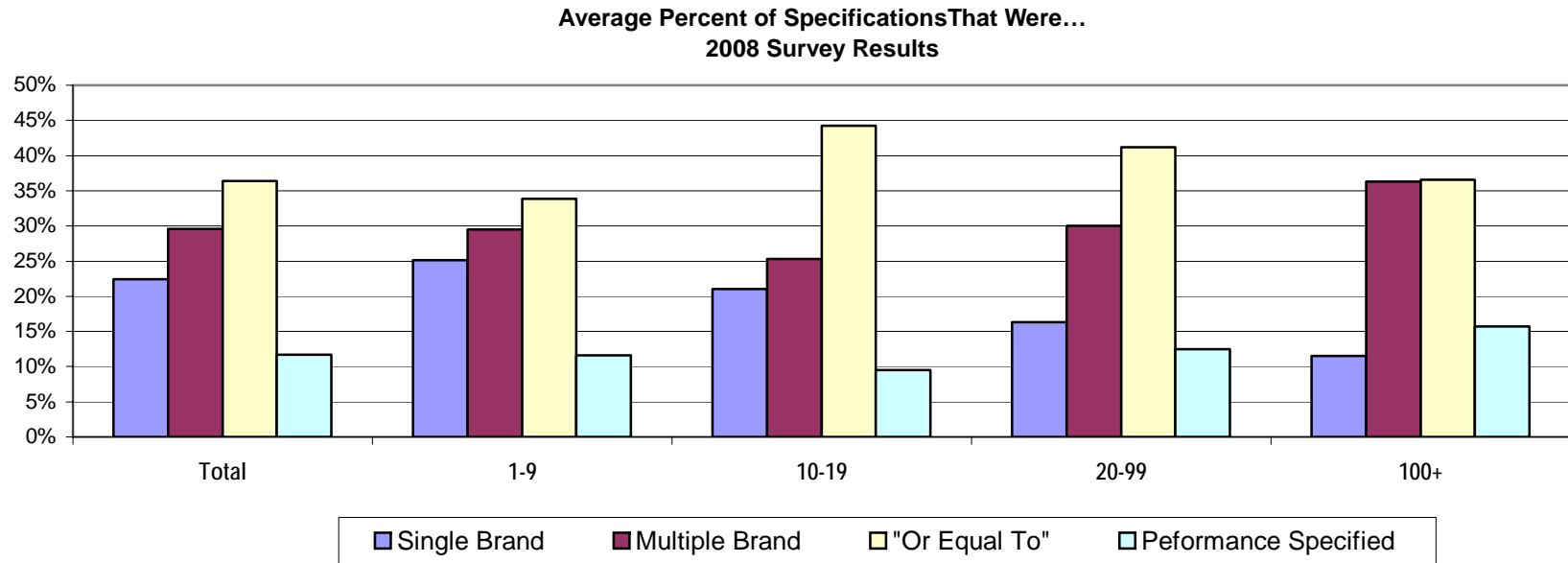


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Brand Specification Options

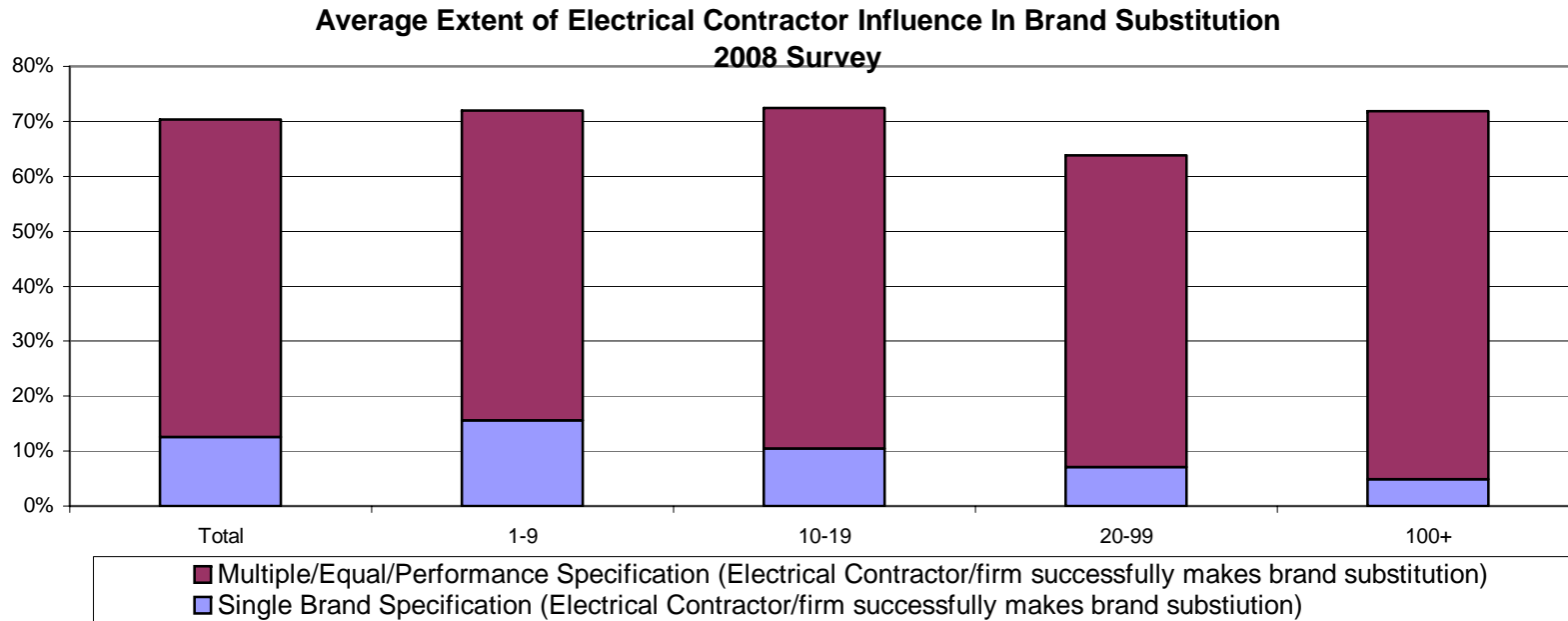
Respondents were shown a list of four options and were asked what percent of the specifications that their company receives fall into each category. On average, a “single” brand is specified less than 25% of the time. In all other cases, other factors -- multiple brands, “or equal to” or performance specified – come into play. Note that a “single” brand specification is far more common among electrical contracting firms with 1- 9 employees than among larger firms.

- The proportion of single brand vs. multiple brands across the total sample is consistent with 2006 results. (Not shown)



N=1157

Respondents were then asked how much discretion they have in making a brand substitution. Overall, contractors are able to make brand substitutions about 70% of the time.



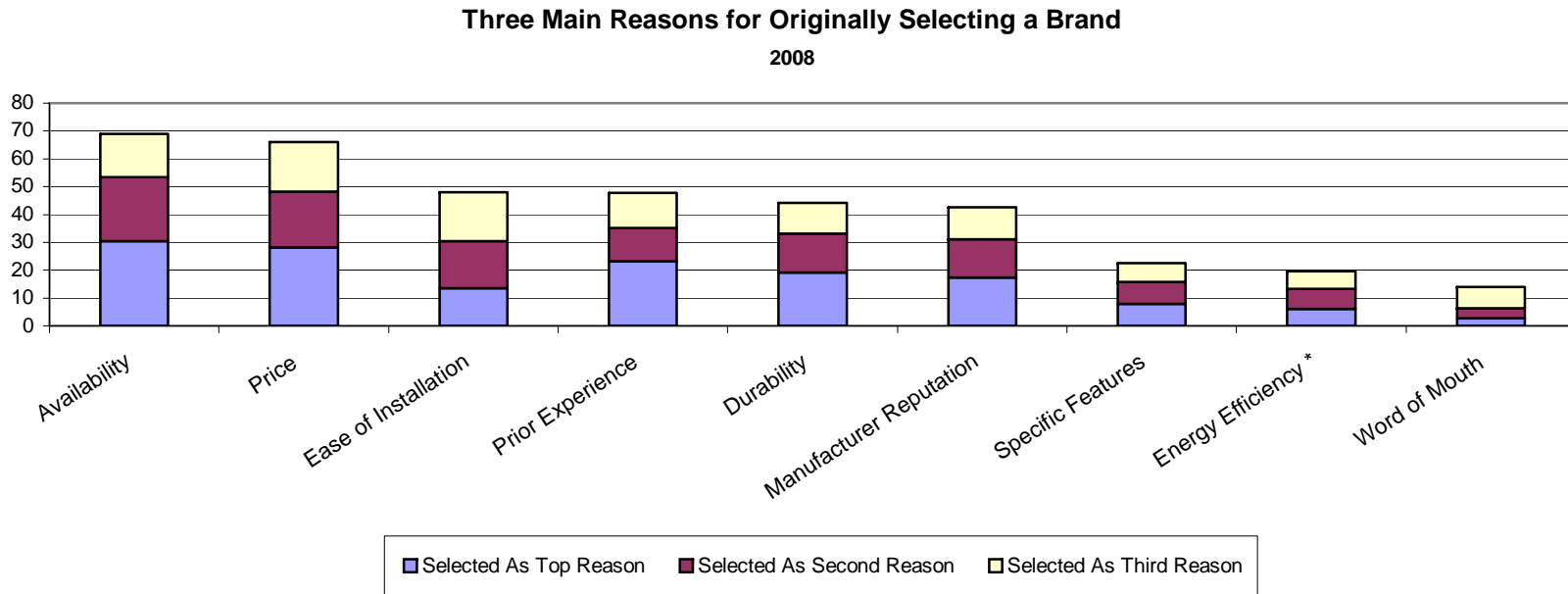
- “Where a ‘single or proprietary’ specification is indicated, what percentage of the time are you or someone in your firm able to successfully make a substitution?”
- “Where ‘multiple or equal or performance’ specification is indicated, what percentage of the time do you or someone in your firm make the brand decision for installation?”

Main Reasons for Original Brand Selection and Substitution

Original Brand Selection: Availability and Price are the top reasons for original brand selection. Availability and Price were chosen by 69% and 66% of electrical contractors as either their first, second or third reason for initially selecting a brand.

Ease of Installation, Prior Experience, Durability and Manufacturer Reputation form a second tier; each was chosen by between 40% and 50% as a top reason for initial brand selection. Interestingly, Energy Efficiency was only chosen by 2 in 10 as a top reason for original brand selection.

- Compared to two years ago, Manufacturer Reputation was cited significantly more often (43% vs. 37%) as was Word of Mouth (10% vs. 14%).



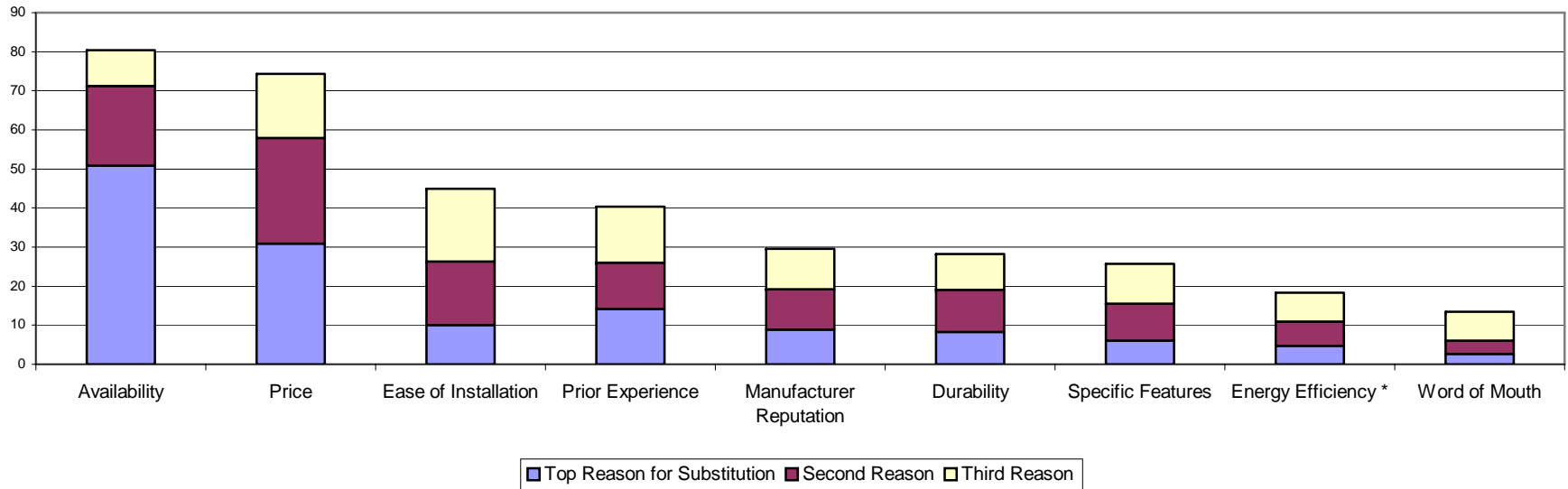
N=1157

* Energy Efficiency was first asked in the 2008 Profile Study

Availability and Price are also the top reasons for brand substitution. Once again, it is somewhat surprising that Energy Efficiency does not play a larger role.

- Compared to two years ago, significantly fewer electrical contractors cite Availability as a top reason (80% in 2008 vs. 83% in 2006), while more now cite Manufacturer Reputation (30% in 2008 vs. 26% in 2006).
 - A hypothesis as to why Availability dropped is that the Internet makes so many items more readily available.

Three Main Reasons for Brand Substitution



* Energy Efficiency was first asked in the 2008 Profile Study

...By Company Size

Reasons for Initial Brand Selection

- Five attributes are significantly more important to firms with 1-9 employees compared with firms with 10+ employees. They are:
 - Durability (47% for firms with 1-9 employees vs. 37% for firms with 10+ employees)
 - Ease of Installation (52% vs. 40%)
 - Energy Efficiency (22% vs. 16%)
 - Specific Features (24% vs. 20%)
 - Word of Mouth (16% vs. 10%).
- Only one attribute, Price, is significantly more important to larger firms (62% among firms with 1-9 employees vs. 74% for firms with 10+ employees. (Not Shown)

Reasons for Brand Substitution

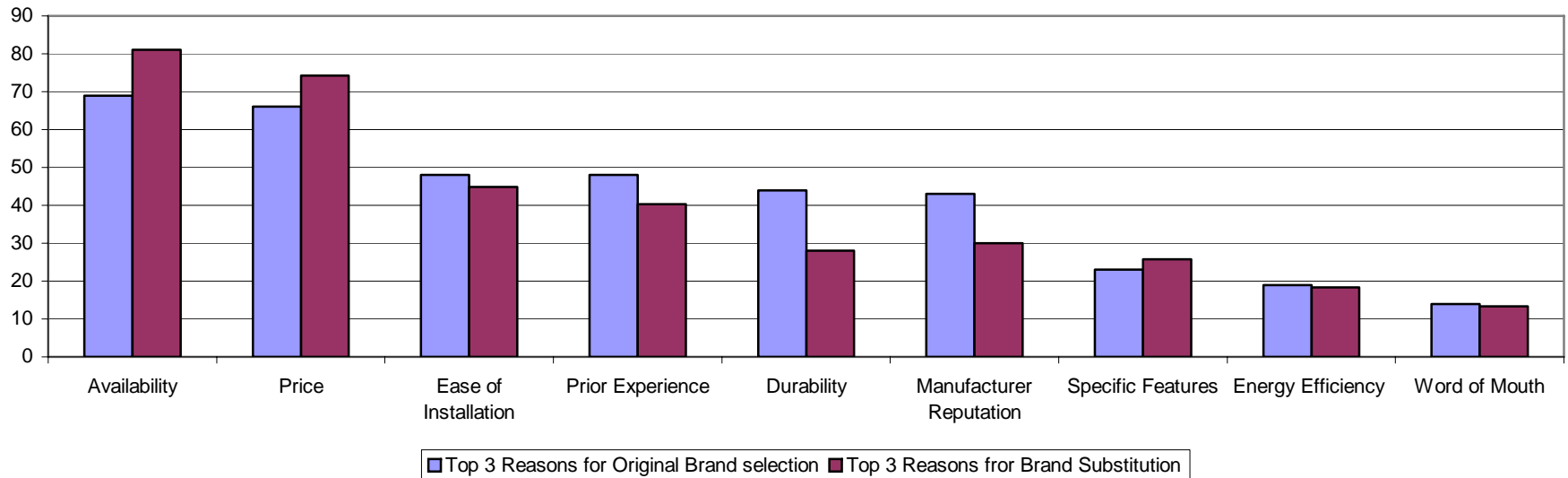
- When making a brand substitution, three attributes are significantly more important to smaller firms than to larger firms. Two are the same attributes as emerged as more important in original brand selection with the addition of Manufacturer Reputation. The differences are as follows:
 - Durability (31% among firms with 1-9 employees vs. 23% among firms with 10+ employees)
 - Ease of Installation (48% vs. 39%)
 - Word of Mouth (16% vs. 8%)
- Again, only one attribute – Price -- is significantly more important to larger firms (71% among firms with 1-9 employees vs. 82% for firms with 10+ employees. (Not Shown)

Comparison of Main Reasons for Brand Selection Vs. Substitution

Availability and Price are even more important as reasons for substituting a brand than for its initial specification. In contrast, Prior Experience, Durability and Manufacturer Reputation assume higher importance in the original specification -when time considerations may play less of a factor.

- These results are consistent with the 2006 Profile Study findings.

Top Reasons for Originally Selecting a Brand Versus Making a Substitution
2008 Total Sample



N=1157

Counterfeit Electrical Products: How Often Encountered and Concerns About their Effectiveness

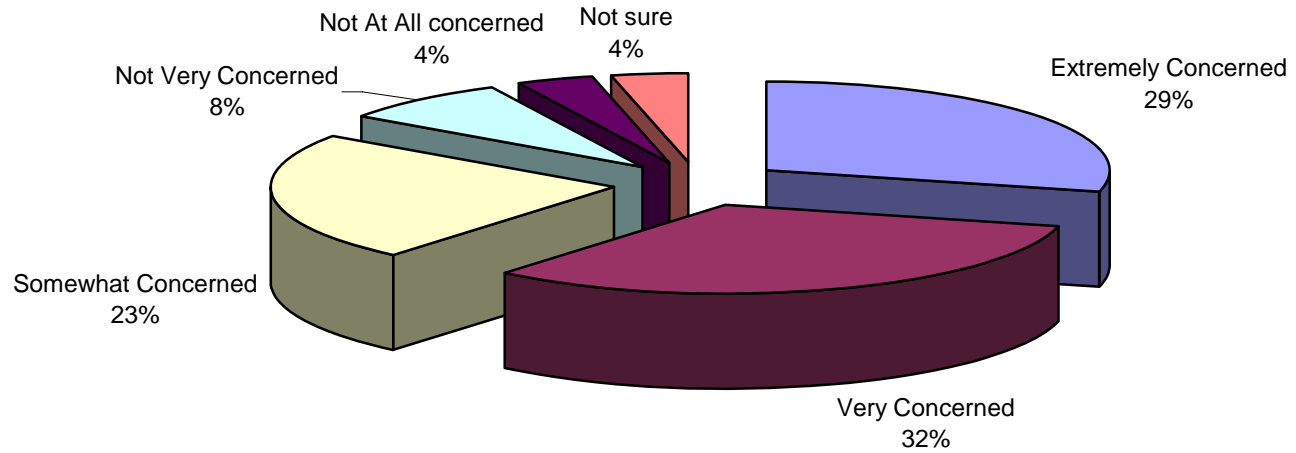
There is a high level of concern about the effectiveness and ability of counterfeit electrical goods to meet codes, but at the same time, there is also a fairly high level of uncertainty about whether the electrical contractor is encountering counterfeit electrical products, tools or materials in their work.

- 61% are “Extremely” (29%) or “Very”(32%) concerned about the effectiveness of counterfeit products and their ability to meet codes, but 42% say that they are “Not Sure” if they have encountered counterfeit electrical goods in the past year.
 - An additional 33% say that they have “Never” encountered counterfeits – which seems to be unlikely – and, combined with the high percent who say that they are “not sure” may suggest the need for contractor education.

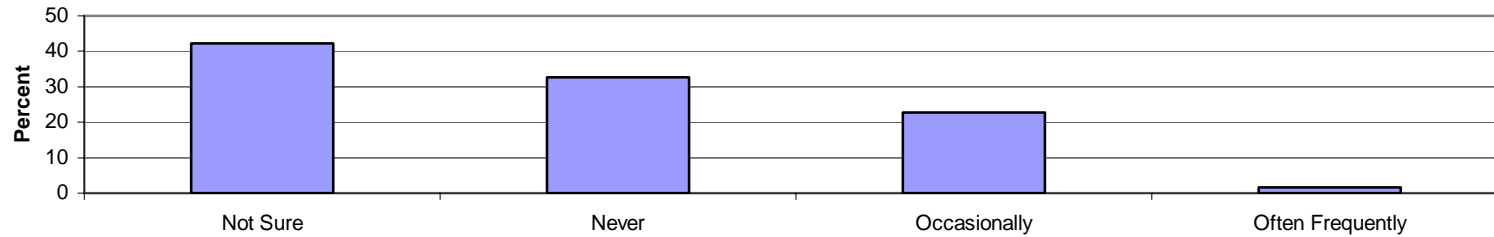
Those in small firms are more likely to be highly concerned about counterfeit electrical goods compared to those in larger firms (63% “Extremely/Very” concerned among firms with 1-9 employees vs. 56% among firms with 10+ employees). A related finding is that electrical contractors in firms with 100+ employees are more likely than other firms to say that they “Never” encounter counterfeit electrical goods (42% -- not shown).

- One hypothesis is that these very largest electrical contracting firms are more likely to purchase *directly* from the manufacturer and/or that larger firms may have quality control departments while smaller firms lack the wherewithal to independently evaluate the products that they use.

More than 60% are "Extremely" or "Very Concerned" About the Effectiveness and Ability of Counterfeit Products to Meet Codes



75% of electrical contractors say either that they are "Not Sure" (43%) or "Never" (33%) have encountered counterfeit electrical products, tools or materials in the past year or so



▲ **TRAINING and TOPICS OF INTEREST**

Will Take/Have Taken Training and What Was Studied

More than 6 in 10 electrical contractors say that they, or someone in their firm, has taken training in the past 12 months or plans to take training in the next 12 months to improve or broaden skills or for certification. This training could be in the form of on-line, correspondence or classroom training. There is no statistically significant difference between the percentages that took training (64%) or who plan to take training (65%).

However, future interest is significantly higher in courses on Energy Use and Design/Build (*next* 12 month course work vs. *past* 12 month course work). In addition, there is also higher interest in courses on Lighting, Estimating and Financial Management, and on Commercial and on Residential Automation Systems in the next 12 months vs. the past 12 months.

The most popular topics among those who have or will take training are:

- NEC Changes are mentioned by at least 6 in 10 electrical contractors
- Lighting, Safety (Electrical/Personal/On-Site/Jobsite) and Grounding/Bonding are each mentioned by about 4 in 10.
- Energy Use, Green/Sustainable Building/LEED Certification on a pooled (net) basis were mentioned by about 3 in 10 who plan to take training in the next 12 months vs. 18% who took training in the past 12 months

Please note that many of the differences that appear on the next few charts are not statistically significant because of the limited base size caused by asking these questions of only a portion of the sample. Limiting certain questions to a portion of the sample allowed the survey to cover a wider range of questions without making the questionnaire too long.⁶

⁶ The respondents were divided into groups and 1/4 were asked about training taken by a firm member in the *past* 12 months and 1/4 were asked about their firm's plans for training over the *next* 12 months. An additional 1/4 was asked about topics that they would like to know more about.

Past 12 Month Training – Trended

- A higher percentage of electrical contractors reported taking past 12-month courses in the 2008 Profile study compared with the 2006 Profile study.
 - Compared to two years ago, a higher percentage of electrical contractors report having taken training in Green/Sustainable Building and/or LEED Certification within the past 12 months compared with two years earlier. Significantly fewer report having taken NEC Changes, Safety (Electrical/Personal/on-Site/Jobsite) and Estimating/Financial Management in the previous year compared with two years earlier.

Next 12 Month Training -- Trended

- Compared to two years earlier, a higher percentage of electrical contractors now plan to take training in Green/Sustainable Building and/or Security/Life Safety while fewer plan to take training in NEC Changes and/or Cabling compared with two years earlier.

	Next 12 Months		Past 12 Months
Will Take/Has Taken Training	65%		64%
And Answered Question About Course Work	(203)		(181)
	%		%
<u>MENTIONED ANY</u>	<u>97</u>		<u>96</u>
NEC Changes	66		62
<u>Lighting (Net)</u>	<u>49</u>	>	<u>38</u>
Lighting: Controls/Systems	41	>	31
Lighting: Fixtures	34	>	23
Lighting: Lamp Technology	27	>	20
Lighting: Ballasts	26	>	19
Safety (Electrical/Personal/On-Site/Jobsite)	43		40
Grounding/Bonding	43		43
Energy Use Regulations Or Green/Sustainable Building <u>Or LEED Certification (Net)</u>	<u>32</u>	>	<u>17</u>
Green/Sustainable Building	23	>	13
Energy Use Regulations	17	>	8
LEED Certification	9		9
<u>Security/Life Safety (Net)</u>	<u>32</u>		<u>28</u>
Life Safety	22		23
Security	18		15
Estimating/Financial Management	31	>	16
<u>Cabling (Net)</u>			
[Asked as Datacom and Telecommunications in 2006]	<u>29</u>		<u>25</u>
Cabling: (Data and Telcom) Cable, Conduit, Trays, etc	22		21
Cabling (Data and Telcom): Testing	20		15
Power Quality	26		22
Building Automation Systems: Commercial	22	>	13
Home Automation Systems	22	>	15
Design/Build: How to Bid/Work on	18	>	9
Increasing Productivity	14		14
2004 Master Format Changes: How to Bid/Work With	8		6
BIM (Building Information Modeling)	4		7
None/Don't Know/Not answered	3		4

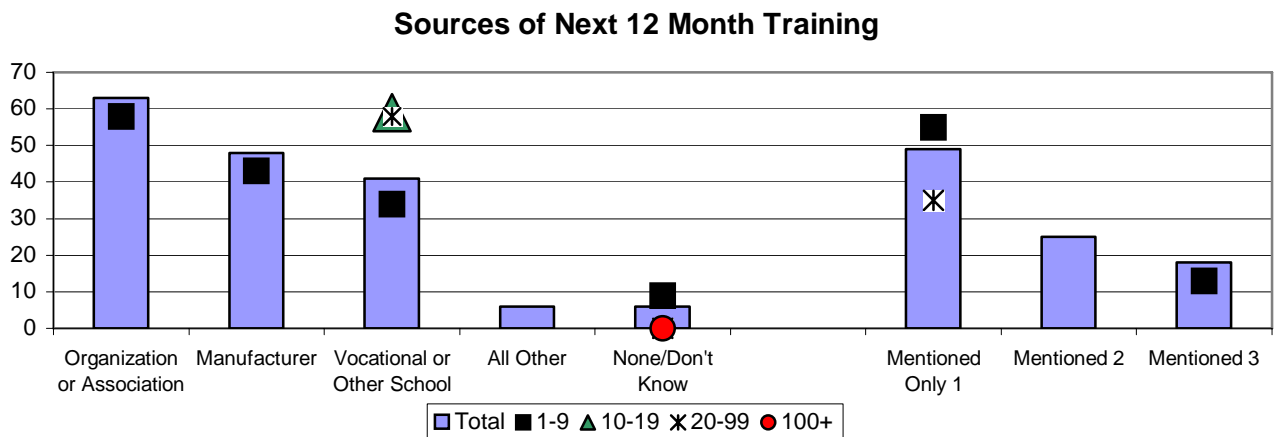
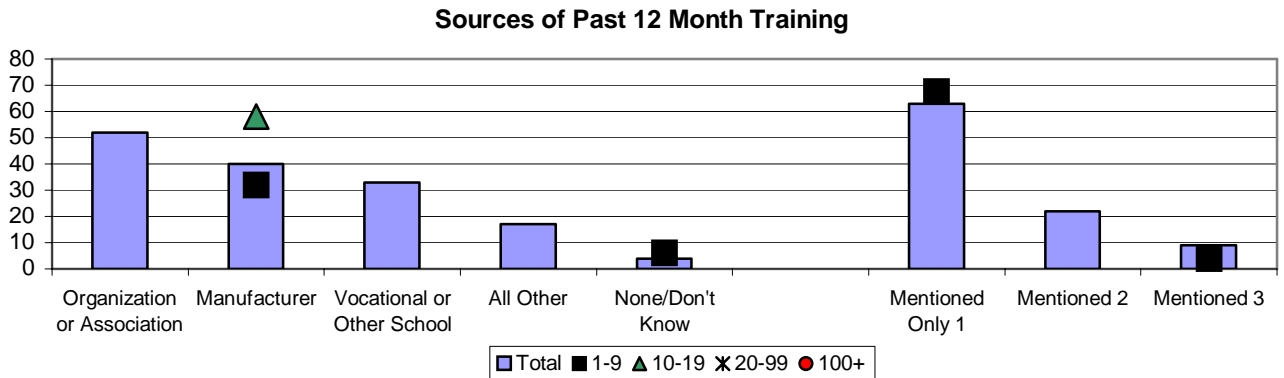
Past 12 Month Training – 2008 Vs. 2006			
	2008		2006
	(283)		(372)
Past 12 Month Training	64%	>	57%
And Answered Question About Subjects Studied	(181)		(211)
	%		%
<u>MENTIONED ANY</u>	<u>96</u>		<u>98</u>
NEC Changes	62	<	73
<u>Lighting (Net)</u>	<u>38</u>		--
Lighting: Controls/Systems	31		--
Lighting: Fixtures	23		--
Lighting: Lamp Technology	20		--
Lighting: Ballasts	19		--
Safety (Electrical/Personal/On-Site/Jobsite)	40	<	58
Grounding/Bonding	43		51
Energy Use Regulations Or Green/Sustainable Building Or LEED Certification (Net)	17		--
Green/Sustainable Building	13	>	4
Energy Use Regulations	8		--
LEED Certification	9	>	3
<u>Security/Life Safety (Net)</u>	<u>28</u>		21
Life Safety	23		--
Security	15		--
Estimating/Financial Management	16	<	24
<u>Cabling (Net)</u>			
[Asked as Datacom and Telcom in 2006]	<u>25</u>		24
Cabling (Data and Telcom): Cable, Conduit, Trays, etc	21		--
Cabling (Data and Telcom): Testing	15		--
Power Quality	22		16
Building Automation Systems: Commercial	13		--
Home Automation Systems	15		--
Design/Build: How to Bid/Work on	9		--
Increasing Productivity	14		16
2004 Master Format Changes: How to Bid/Work With	6		4
BIM (Building Information Modeling)	7		--
None/Don't Know/Not answered	4		2

Next 12 Month Training – 2008 Vs. 2006			
	2008		2006
	(314)		(388)
Will Take/Has Taken Training	65%		62%
And Answered Question About Course Work	(203)		(207)
	%		%
MENTIONED ANY	97		99
NEC Changes	66	<	75
Lighting (Net)	49		--
Lighting: Controls/Systems	41		--
Lighting: Fixtures	34		--
Lighting: Lamp Technology	27		--
Lighting: Ballasts	26		--
Safety (Electrical/Personal/On-Site/Jobsite)	43		48
Grounding/Bonding	43		40
Energy Use Regulations Or Green/Sustainable Building Or LEED Certification (Net)	32		--
Green/Sustainable Building	23	>	12
Energy Use Regulations	17		--
LEED Certification	9		5
Security/Life Safety (Net)	32	>	23
Life Safety	22		--
Security	18		--
Estimating/Financial Management	31		27
Cabling (Net)			
[Asked as Data and Telecommunications in 2006]	29	<	38
Cabling (Data and Telcom): Cable, Conduit, Trays, etc	22		--
Cabling (Data and Telcom): Testing	20		--
Power Quality	26		20
Building Automation Systems: Commercial	22		--
Home Automation Systems	22		--
Design/Build: How to Bid/Work on	18		--
Increasing Productivity	14		18
2004 Master Format Changes: How to Bid/Work With	8		7
BIM (Building Information Modeling)	4		--
None/Don't Know/Not answered	3		1

Sources of Training

Organizations/Associations are among the most frequently mentioned sources of training (particularly for future training).

- Not surprisingly, electrical contractors in small firms (1-9 employees) are far more likely to only mention one training source compared with those in larger firms.



Subjects That Electrical Contractors Would Like to Know More About

NEC Changes (71%), Green/Sustainable Building Technology (55%) and Residential Automation/Smart Homes (51%) received the most mentions as subjects those surveyed would like to know more about.

- Not surprisingly, interest in Green/Sustainable Building Technology was way up compared to 2006 (55% vs. 30%) as was LEED Certification/ Professional Accreditation (25% vs. 18%). 2004 Master Format Changes: How to bid/Work with also rose from its 2006 level (23% in 2008 vs. 15% in 2006.)
- Between 40% and 30% expressed interest in Safety: Personal/Jobsite/ OSHA, Increasing Productivity, Managing Our Business, Automated Building Systems/Controls (Commercial), Communication/Security Systems, How to Work on a Design/Build or Design/Bid Basis and How to Obtain/Grow Maintenance Contracts.
 - Interest learning more about Communication/Security Systems declined between 2006 and 2008.

Subjects That Electrical Contractors Would Like to Know More About			
	Total Sample		
	2008		2006
	(278)		(384)
	%		%
NEC Changes	71		67
Green/Sustainable Building Technology	55	>	30
Residential Automation/ Smart Homes	51		--
Safety: Personal/Jobsite/OSHA	41		43
Increasing Productivity	39		42
Managing Our Business	36		41
Automated Building Systems/Controls (Commercial)*	35		--
How to Work on a Design/Build or Design/Assist Basis	33		38
Communication/Security Systems	31	<	39
How to Obtain/Grow Maintenance Contracts*	30		--
Sound & Video (Residential)*	25		--
Marketing Our Business	27		32
LEED Certification/Professional Accreditation	25	>	18
2004 Master Format changes: How to Bid/Work With	23	>	15
Sound & Video (Commercial)*	18		--
System Integration	20		25
Renovation/Moves, Changes (MAC)	18		--
BIM (Building Information Modeling)	10		--