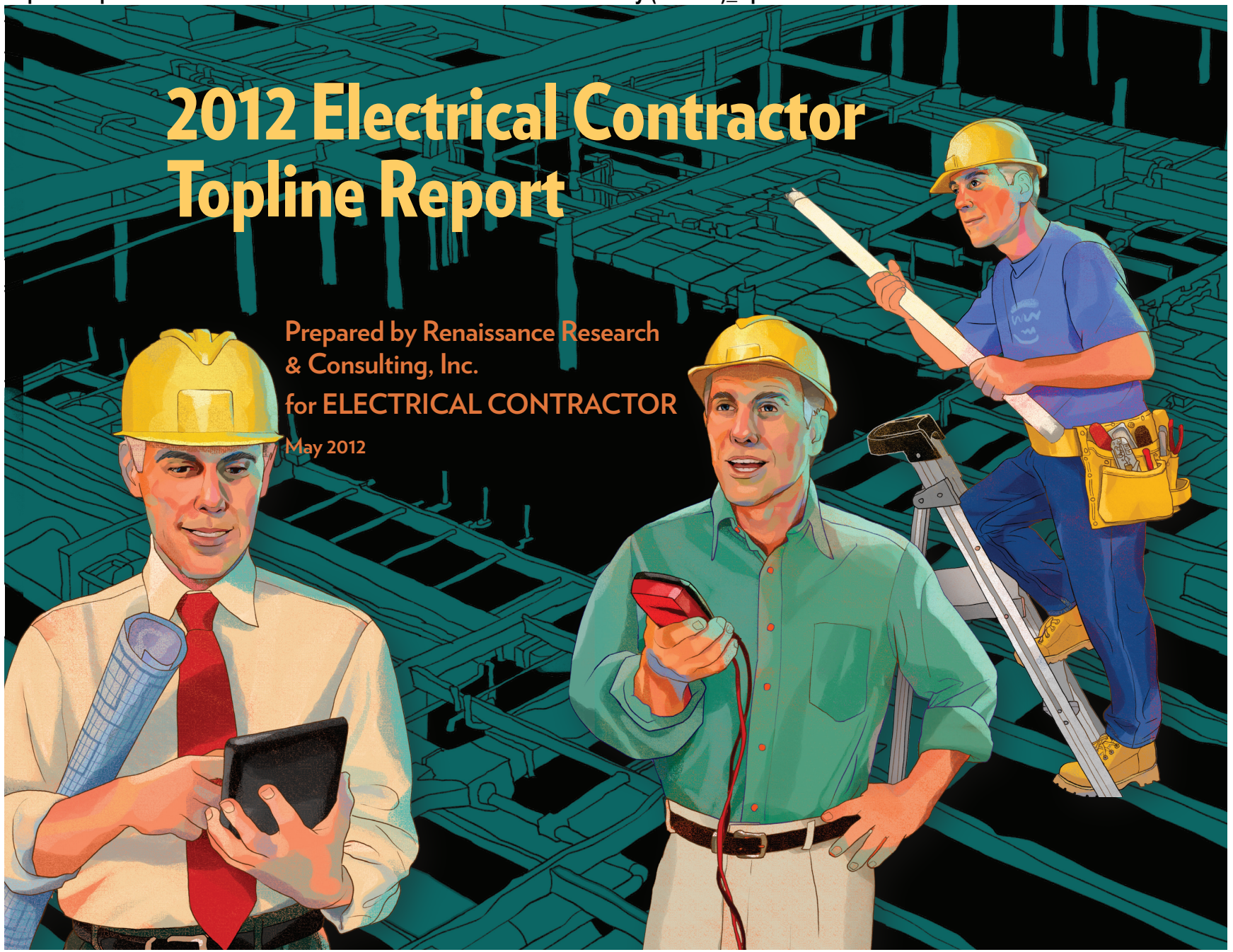

2012 Electrical Contractor
Topline Report
Prepared by Renaissance Research
& Consulting, Inc.
for ELECTRICAL CONTRACTOR
May 2012

CONTENTS

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. The survey was fielded in March 2012 and as of the deadline for the July 2012 article, 1024 completed surveys were received-- 508 via the Internet and 516 via postal mail.

Each respondent who received the survey via the Internet was sent two follow-up e-mails. (In addition, a portion of the Internet sample also received either a reminder postcard or a printed letter containing their unique survey link.) 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 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. Since 2008, the proportion has been closer to 50/50.

As was the case since 2004, the survey was produced in different versions. Starting with the 2008 Profile study, there were four versions of the survey, which differed from each other on fewer than 10 questions. The postal mail portion was conducted as a 5-page booklet, with the first 4 pages containing core questions that were common to all versions. 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%.

As first introduced in 2010, in 2012 a series of questions relating to the Internet and social media was asked only of the Internet sample.

Tables and figures contained in this article come from the data generated by this year's ELECTRICAL CONTRACTOR Survey, which 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.

Statistics

The margin of error on the total sample of 1024 is +/- 3.0 for percentages around 50 percent (i.e., we are confident that a reported 50% will fall between 53 on the plus side and 47 on the minus side 90% of the time. 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.

The report uses a few different graphics to indicate significant differences:

- In this example, the electrical contractors working in firms with 1- 4 (column 'a') or 1-9 employees (column 'b') are significantly older than those who work in firms with 10+ employees.

Average Age of Electrical Contractor in 2012 and 2010 Profile				
		Firm Size		
	Total	1-4	1-9	10+
		(a)	(b)	(c)
Average Age (2012 Study) N=1024	56.1	**57.5**	**57.2>**	52.6
Average Age (2010 Study) N=1077	53	**53.8**	**53.8>**	50.4

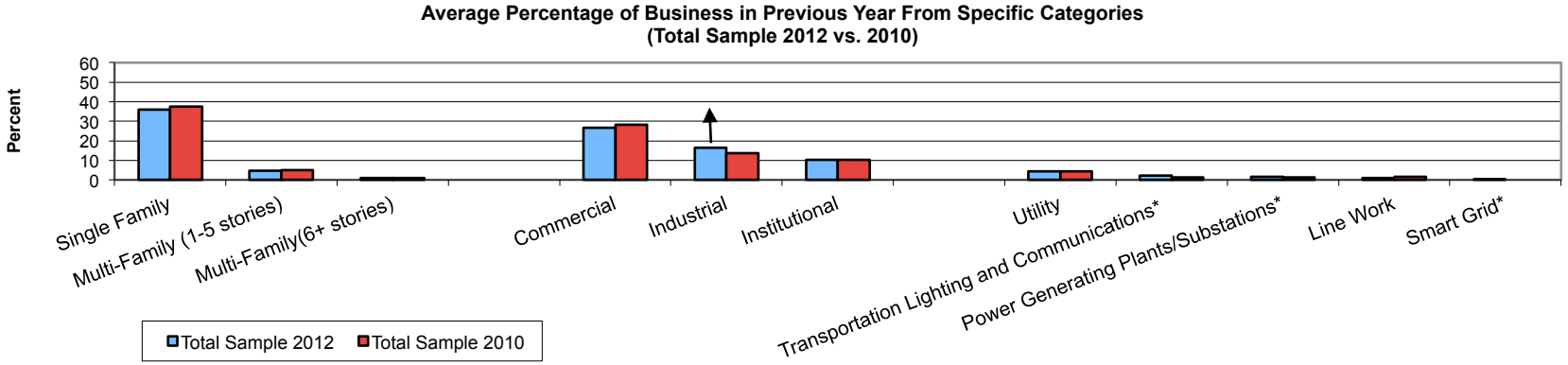
In examples with pairs of numbers (from 2012 vs. 2010), significant differences are shown in the following way:

- In this case, the highlighted percentage from 2010 (55%) is significantly greater than the highlighted percentage from 2012 (51%).

	Average Revenue in Previous Year From Specific Categories									
	Total		1-9		10-19		20-99		100+	
	2012	2010	2012	2010	2012	2010	2012	2010	2012	2010
	(1024)	(1077)	(759)	(780)	(78)	(101)	(97)	(103)	(83)	(81)
Residential	42%	44%	51%	<55%	23%	17%	13%	12%	4%	6%

The bolding and the arrow indicate significant difference and the direction of the difference. The highlighting is used to draw attention to a particular pair of numbers when the chart contains many numbers.

Finally, an arrow indicates a significant difference compared to its pair, either using the type of arrow shown in the example or a stick arrow (↑). In this case, the percent of ecs working on Industrial projects rose compared to two years earlier.



How to read scatter plots: Subgroups that are shown above the blue bar are significantly larger than average while those within the bar are smaller than average. Subgroups that are average are not shown.

KEY FINDINGS

- There are signs of economic recovery or at least of stabilization (fewer firms are shedding employees while more firms are adding workers or staying the same).
    - While most firms say that they stayed the same over the past 12 – 18 months and more firms still reported decreasing than increasing, there is a statistically significant *increase* in the percentage of firms that *'stayed the same'* coupled with a statistically significant *increase* in the percent of firms that '*added employees'* and a statistically significant *decline* in the percent of firms that say that they '*decreased the number of employees'*.
        - The percentage of firms reporting that they added staff rose to 12% from 7%, but more importantly the percent of firms that reported shedding employees dropped to 24% (still too high) from an even higher 36% two years ago.
            - The changes are particularly dramatic among large firms **(10+ employees)**, where the percent reporting a decline dropped almost in half from 61% to 35% while the percent reporting an increase in the number of employees jumped to 27% from 15%. (Two years ago, it was firms with 10+ employees who were hit the hardest)
            - The story among firms with **1-9 employees** is one of stabilization: more firms shifted into the "stayed the same" category from the "declined" category.
    - The distribution of annual revenue also stabilized among the total sample and among firms with 1-9 employees, while more larger firms now say that they are in the $1 million + revenue category. (In 2010, a significantly higher percentage of electrical contractors said that their annual revenue was under $250,000 compared with 2008 while fewer reported having annual revenues of between $1 million to just under $10 million.)
- Overall, however, the sample closely matches that of the 2010 Profile Study: about three-quarters of the sample work for firms with 1-9 employees and about three-quarters of electrical contracting firms interviewed have annual revenues of under $1 million. Therefore, the differences discussed are not based on sampling differences.

Other Notable Findings:

- There appears to be a larger- than- expected jump in the average age of the electrical contractor. While the average age had increased by + 1 or + 2 every two years, in this wave, there appears to be a +3 increase versus two years ago (from 53 to 56). The average age appears to have increased more among the smaller firms (with 1-9 employees, now 57.2, from 53.8 in 2010) than among firms with 10+ employees, now 52.6 from 50.4) .
    - By level or responsibility: However, the situation does not appear to be quite as dire when viewed by level of responsibility. Not surprisingly, it is the Owners/Top Managers who are far more likely to be aged 55+ (63% compared with only 40% of Field Managers). The average age of Owners/Top Managers is 56.8 compared with 50.5 for Field Management.

- Electrical/Power Distribution dropped again, this time from 56% to 39% of average revenue. However, while some of this huge decline may be tied to the (decreased) level of New construction, it may also be due to the fact that the 2012 Profile Study added a number of categories, such as Lighting, which, by itself, accounted for 20% of average revenue. In addition, some of the decline may be due to the fact that electrical contractors continue to do more value added work. Note that Electrical/Power Distribution has been dropping steadily since 2004 when it was 69%.

- About 20% of electrical contractors say that they currently use BIM (Building Information Modeling) and that on average, it is used on about 6% of projects. Firms with 100+ employees are the most likely to make use of BIM at all -- Any -- and to report using BIM a higher percentage of the time. It is also interesting to note that past and current BIM use appears to be particularly low among firms with 10-19 employees.

- "Availability" has now emerged as the single most mentioned reason for original brand selection and for brand substitution. It even swamps price! This finding suggests that there is a problem with electrical contractors getting what they need in a timely manner.
    - "Made in America", an attribute that was added in 2012 emerges as quite important to small electrical contractors (1-9 employees). In fact, it ranks on a par with price as a key reason for original brand selection or brand substitution (on a combined basis) among firms with 1-9 employees.

Types of Work Performed in Previous Year

- As in the past, almost all of the firms performed Traditional Power and Lighting (95%), 92% Lighting; about 6 in 10 worked in Power Quality, Communications Systems/Connectivity and/or CII Automation/Controls. About 5 in 10 worked on Residential Automation/Controls and/or Green/Sustainable Building/Alternative Energy.

    - Of the types of work added in 2012, about 8% of the total sample reported working on Electrical Vehicle Charging Stations. About 2% said that their firm works on Smart Grid Technology

        - Not surprisingly, the percentages are substantially higher among the largest firms (15% of firms with 100+ employees said that they work on Electrical Vehicle Charging Stations; 13% on Smart Grid Technology.) 6% of those who work in the very largest firms said that they worked on Nuclear power compared with 1% of the total sample

- As a continuation of the poor economy that was discussed in the previous tracking study, the average percentage of revenue from Maintenance/Service and Repair on a combined basis jumped significantly again to 42% from 38% in the 2010 study and from 31% in the 2008 study. The increase was driven significant increases in both Repair work and Maintenance work while the average percent from New Construction dropped significantly to 31% in 2012, down from 34% in the 2010 study and from 43% as reported in the 2008 study.

- Modernization/Retrofit at 27% is statistically unchanged from both the 2010 study and the 2008 study

- Across the total sample, electrical contractors continue to get more of their average revenue from CII (Commercial, Industrial, Institutional and Public Places), 53% on average, than from Residential projects, 42% on average. Non-Building projects (Transportation/Lighting and Utility) continue to account for about 5% of the contractors' business. These results are consistent with the 2010 Profile Study findings.

- There are numerous indications of the far-reaching role(s) that electrical contractors have in brand specification:
    - About 8 in 10 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 46% of the time. These results are consistent with the 2010 findings.
        - Survey respondents were asked how the percentage of incomplete plans and specs compared to 5 years ago. Among those who work in a given category, the most frequent answer is "about the same" followed by "*more* often now" and then by "*less* often now"
    - Across the total sample, 7 in 10 firms performed (**any**) Design/Build or Design/Assist work in the previous year. As in the past, larger firms are even more likely than smaller firms to have engaged in D/B or D/A work. On average, 43% of revenue comes from Design/Build or Design/Assist work, unchanged from 2010.
    - 8 in 10 electrical contractors report having a "medium" or "high" ability to influence the overall electrical design. Only 10% report having a "low" level of influence. The results are unchanged from two years ago
    - Current Level of Project Collaboration Compared with 3-5 Years Ago: 20% report getting involved earlier; 55% report "no change"; 12% say that they now get involved later in the process and the remainder say that the question is "not applicable" (11%) or that they "don't know". These results among the total sample are unchanged from two years ago.
    - Brand Specification Options: Electrical contractors continue to have a high level of brand choice. As in earlier tracking waves, only about one-quarter of the specs indicate a single or proprietary brand, while the remainder are some variation of multiple brands.

DETAILED FINDINGS

▲*"WHO" ARE THE ELECTRICAL CONTRACTORS?*

Size of Firms

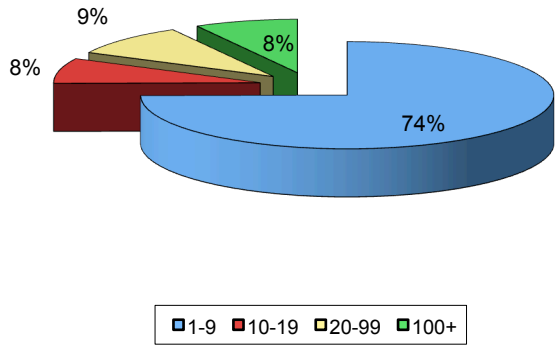
A large majority of the electrical contracting firms interviewed are small in terms of both their number of employees and their revenue:

74% have between 1 and 9 employees and 73% have annual revenues of less than $1 million, both are statistically unchanged compared with 2010.

In fact, all of the breaks shown below are statistically unchanged versus two years ago.

- Although the rise in the percent of small companies may have leveled off in the latest tracking wave, the number of small companies has risen dramatically from 62% in 2006 to 74% in 2012. (In the interim, 67% of firms in the 2008 Profile Study had 1-9 employees and, as noted, small firms accounted for 72% of ecs in the 2010 Profile Study).

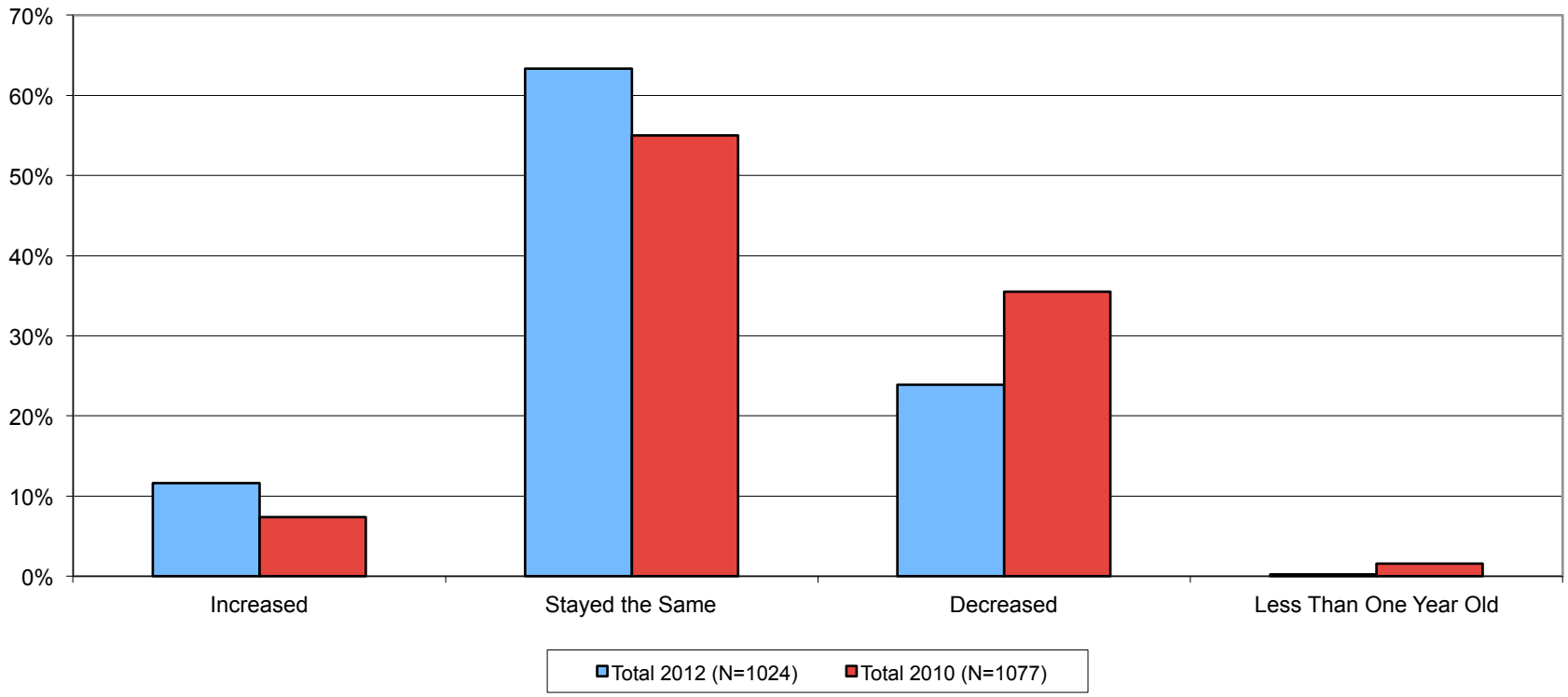
Firm Size: Number of Employees in 2012
Total Sample (N=1024)



Change in Company Size During Past 12 - 18 Months

While most firms say that they stayed the same over the past 12 – 18 months and more firms still reported decreasing than increasing, there is a statistically significant *increase* in the percentage of firms that *'stayed the same'* coupled with a statistically significant *increase* in the percent of firms that *added employees* and a statistically significant *decline* in the percent of firms that say that they *decreased the number of employees*

Change in Number of Employees Among Total Sample
(All Changes Shown Below Are Statistically Significant)



Change in Company Size During Past 12 - 18 Months, continued

The changes are particularly dramatic among large firms **(10+ employees)**, where the percent reporting a decline dropped almost in half from 61% to 35% while the percent reporting an increase in the number of employees jumped to 27% from 15%.

The story among firms with **1-9 employees** is one of stabilization: more firms shifted into the "stayed the same" category from the "declined" category. However, the percent of firms that added an employee remains small and is statistically unchanged versus two years ago.

Change in Company Size During Past 12 - 18 Months								
	Total			1-9 Employees			10+ Employees	
	2012	2010		2012	2010		2012	2010
	(1024)	(1077)		(759)	(780)		(258)	(285)
Increased	12%>	7%		6%	5%		27%>	15%
Stayed the Same	63%>	55%		72%>	67%		37%>	23%
Decreased	24%	<36%		20%	<26%		35%	<61%

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.

- The high percent of "don't know/no answer" among firms 100+ employees with is the reason that only 84% of these firms report annual revenue of $1 million or more.

Average Number of Employees By Firm Revenue 2012 Profile Study					
	Total	1-9	10-19	20-99	100+
	(1024)	(759)	(78)	(97)	(83)
	%	%	%	%	%
Less than $ 1 Million	**73**	**94**	**32**	**3**	**0**
Less than $250K	49	64	4	0	0
Between $250K and <$1 Million	25	30	28	0	0
$1Million or More	**23**	**3**	**67**	**95**	**84**
Between $1 Million and <$2.5 Million	8	3	46	24	2
Between $2.5 Million and <$10 Million	7	0	21	55	8
Between $10 Million and <$25 Million	3	0	0	17	12
$25 Million +	5	0	0	0	61
Don't Know/No Answer	3	3	1	2	16

Q3 N=1024

There are no significant changes in the revenue among the total sample or among firms with 1-9 employees, suggesting economic stabilization.

- In contrast, a higher percentage of firms reported an annual revenue of less than $250,000 in 2010 than in 2008, while fewer firms reported revenues of between $1 million and (just under) $10 million (not shown)

In the most recent wave, as shown below, companies with 10-19 and 20-99 are now more likely than two years ago to have revenues above $1 million per year.

- The apparent decline among firms with 100 or more employees is most likely due to a smaller percentage of respondents answering this question in the most recent Profile Study compared with two years ago.

Average Number of Employees By Firm Revenue
2012 Profile Study Vs. 2010 Profile Study

	Total		1-9		10-19		20-99		100+	
	2012	2010	2012	2010	2012	2010	2012	2010	2012	2010
	(1024)	(1077)	(759)	(780)	(78)	(101)	(97)	(103)	(83)	(81)
	%	%	%	%	%	%	%	%	%	%
Less than $ 1 Million	**73**	**75**	**94**	**94**	**32**	**<45**	**3**	**11**	**0**	**0**
Less than $250K	49	47	64	64	4	2	0	4	0	0
Between $250K and <$1 Million	25	27	30	31	28	<43	0	7	0	0
$1Million or More	**23**	**24**	**3**	**5**	**67 >**	**55**	**95>**	**87**	**84**	**<95**
Between $1 Million and <$2.5 Million	8	10	3	5	46	42	24	19	2	5
Between $2.5 Million and <$10 Million	7	7	0	0	21 >	12	55	53	8	9
Between $10 Million and <$25 Million	3	3	0	0	0	1	17	14	12	26
$25 Million +	5	4	0	0	0	0	0	1	61	57
Don't Know/No Answer	3	1	3		1		2	1	16	5

"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, 35% are between the ages of 35 -54 (down from 47% in the 2010) and 72% are between the ages of 35 and 64 (down from about 80% in 2010). As noted at least since 2008, 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 2010 there has been a significant *decline* in the percentage of electrical contractors who are aged 35-54 (from 59% in 2006 to 35% in 2012) and a significant *increase* in the percent that are now 55 or older (from 33% in 2006 to 60% in 2012) or 65+ (from 8.3% in 2006 to 23% in 2011). [The composite age breaks of 35-54 and 55+ are not shown]

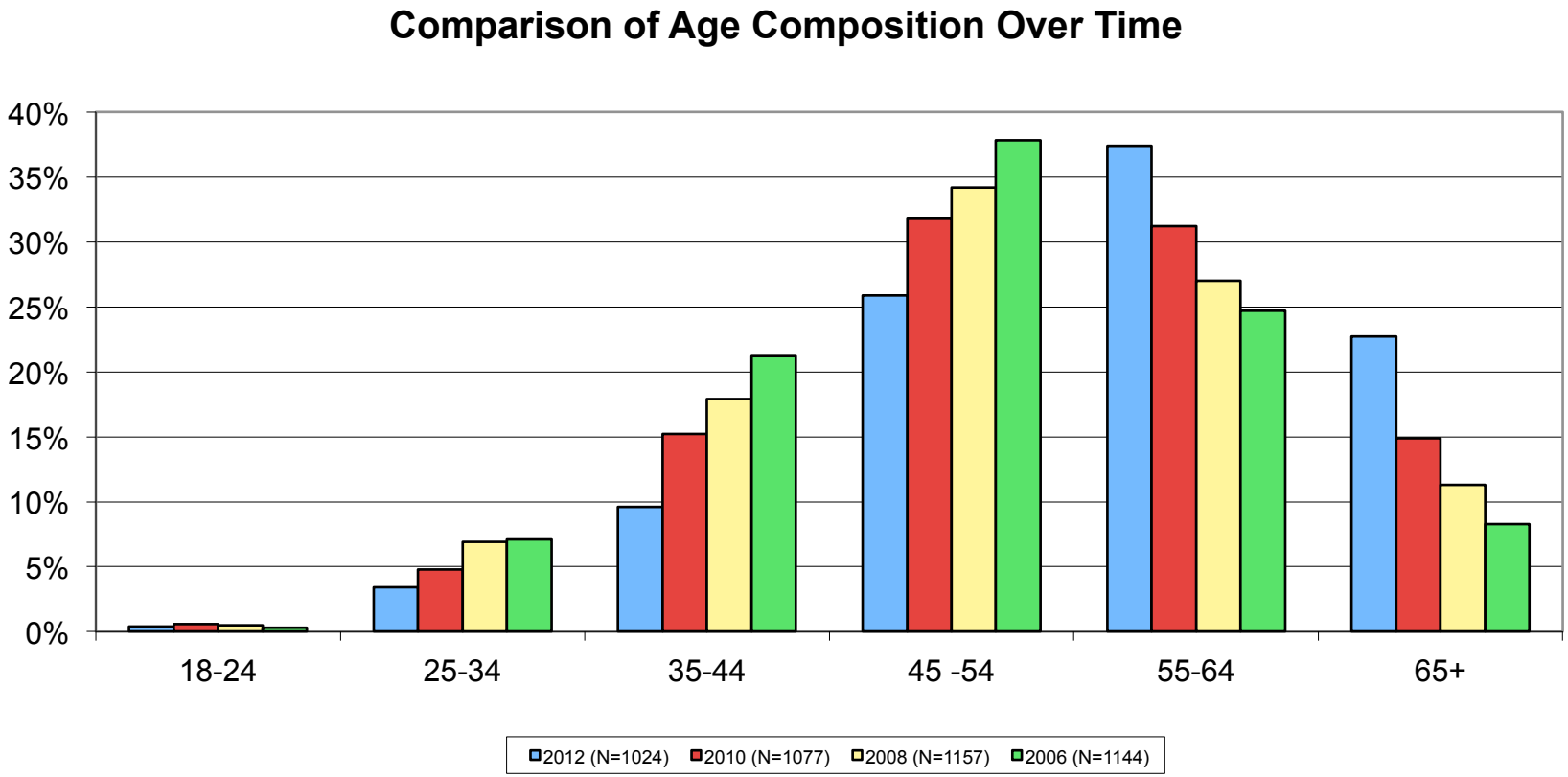
- In addition, the mean age of survey respondents is now 56.1 compared with 53 in the 2010 Profile Study, 51.2 in the 2008 Profile Study and 50 in 2005.

However, the situation is *somewhat* less dire when the level of responsibility is taken into account, the average age of field management is 50.5 (still not young) while the average age of the owners/top management is 56.8 (not shown).

As noted in previous reports, 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.

Average Age of Electrical Contractor in 2012 and 2010 Profile				
		Firm Size		
	Total	1-4	1-9	10+
		(a)	(b)	(c)
Average Age (2012 Study) N=1024	56.1	**57.5**	**57.2>**	52.6
Average Age (2010 Study) N=1077	53	**53.8**	**53.8>**	50.4

As shown on the chart below, the survey participants have been **steadily** trending older. In fact, between 2006 and 2012 there has been a significant *decline* in the percentage of electrical contractors who are aged 35-54 (from 59% in 2006 to 52% in 2008 to 47% in 2010 and 35% in 2012) and a significant *increase* in the percent that are now 55 or older (from 33% in 2006 to 38% in 2008 to 46% in 2010 to 60% in 2012) or 65+ (from 8.3% in 2006 to 11% in 2008 and 15% in 2010 to 23% in 2012). [The composite age breaks of 35-54 and 55+ are not shown]



Respondent Education

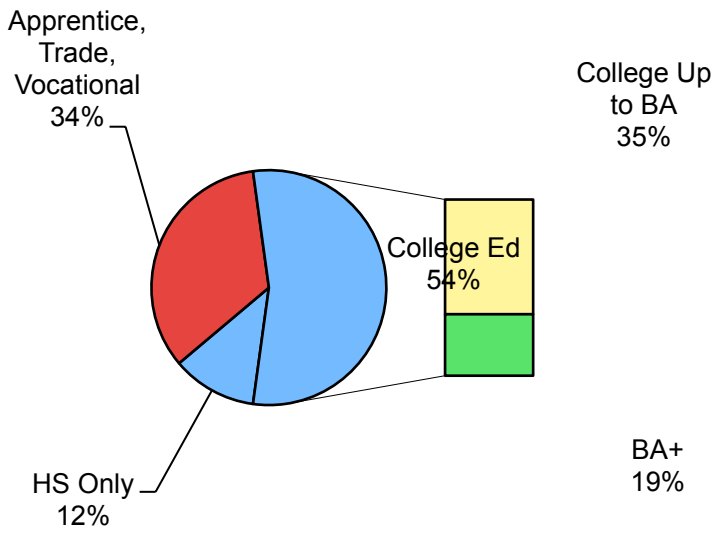
A majority of survey respondents –54% across the total sample -- have some college education. Those in larger firms (10+ employees) are significantly more likely to have attended college than those in firms with 1- 9 employees (64% vs. 51%), particularly a BA degree (26% of those in firms with 10+ employees versus 11% 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 (35% vs. 30%).

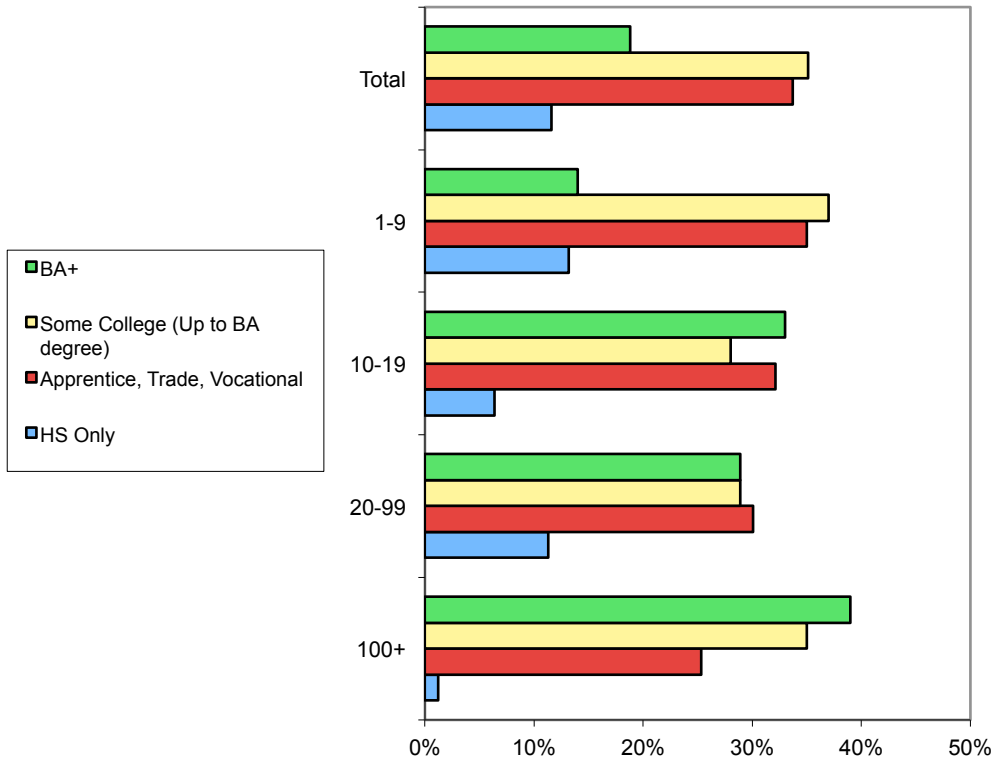
.
The findings among the total sample are consistent with those reported two years ago. (Not shown)

- However, in the 2012 Profile Study, 39% of ecs working in firms with 100+ employees have at least a BA degree, compared with 33% in the 2010 Profile Study and 23% in the 2008 Profile Study. The increase versus the 2008 results is significant.

Respondent Education Among Total Sample 2012



Respondent Education 2012



▲*"WHAT" TYPES OF WORK DO CONTRACTORS PERFORM?*

Green/Sustainable Building Elements

Electrical contractors were asked to estimate the percentage of company sales that included Green/Sustainable Building elements. The results shown below provide a general understanding of where electrical contractors think that the market has been and where it is going.

Electrical contractors were asked to estimate this for the past year (2011), the current year (2012) and the following year (2013). Here are the results from the 2012 Profile Study

- 2013 Future Estimate: Any: 64%; Mean 17.6%
- 2012 Future Estimate: Any: 66%; Mean: 13.8%
- 2011 (Past): Any: 55%; Mean: 10.9%

These results closely match the results from the 2010 Profile Study in that the future projection is higher than that of the previous year.

- 2010 Future Estimate: Any: 66%; Mean: 16.8%
- 2009 (Past): Any: 58%; Mean: 11.5%

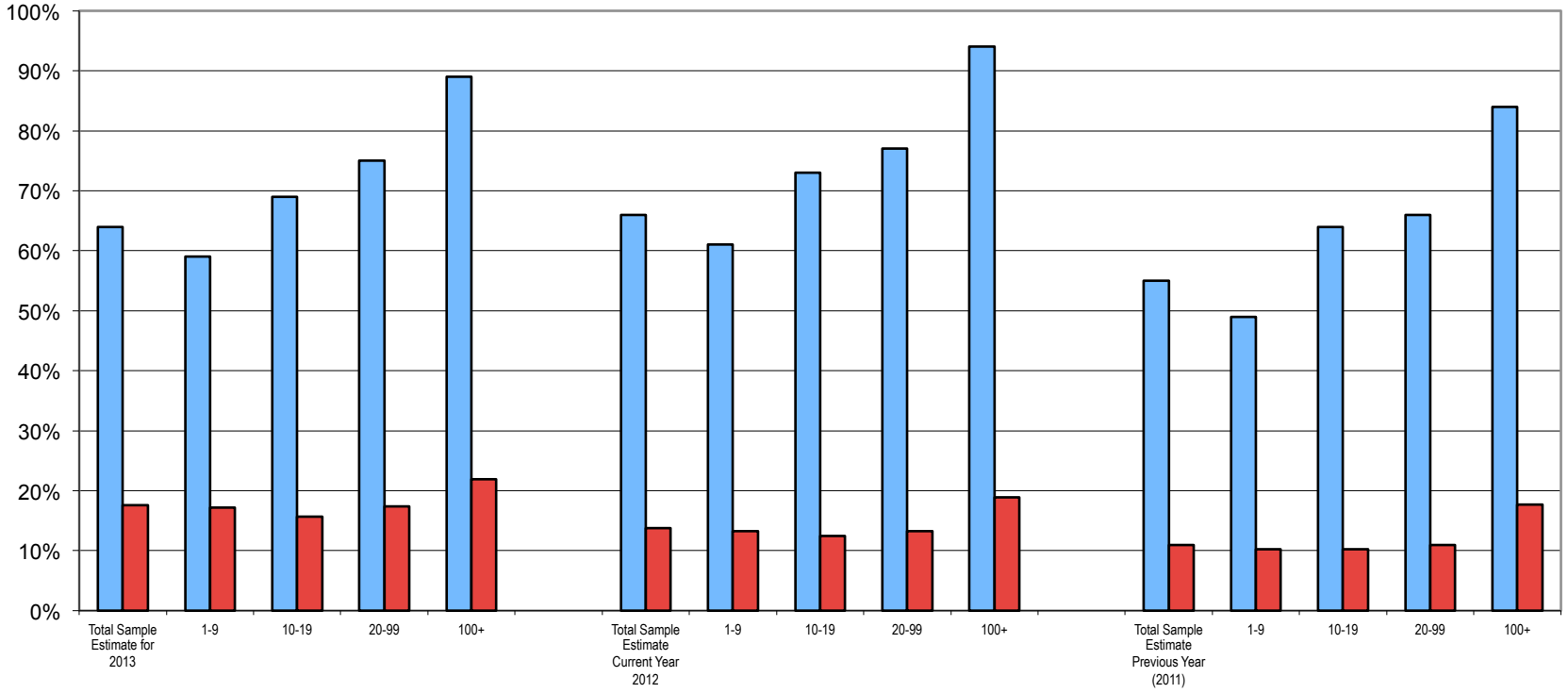
Note that the 2008 Profile Study results are substantially lower than results from 2010 or 2012.

- 2007 (Past): Any: 45%; Mean: 9%

As shown on the next two pages, larger firms are more likely to be engaged in Green/Sustainable Building and are also more likely than smaller firms to actually --or predict to --derive a higher percentage of their revenue from it.

- Firms with 100+ employees derive the highest percentage of revenue from Green/Sustainable Building elements.
- As was also the case in both 2010 and in 2008, the involvement of the largest firms in Green/Sustainable Building is a theme that runs through a number of sections of this report

Revenue from Green/Sustainable Building Elements
-- ANY and Mean Percent Revenue
From 2012 Profile Study
(N = 1024)



Types of Work Performed in Previous Year

Electrical contractors were shown a list of 35 different project types and were asked to indicate which they had performed the previous year. These are shown on the next few pages.

- Two new project types were included for the first time in the 2012 Profile Study. They are: Smart Grid Technology and Electric Vehicle Charging Stations. One project type was dropped: Radiant and/or Electrical Heat.

When asked about the types of work performed in the previous year, electrical contractors were most likely to mention Traditional Power/Lighting cited by 95% (Lighting is performed by 92%).

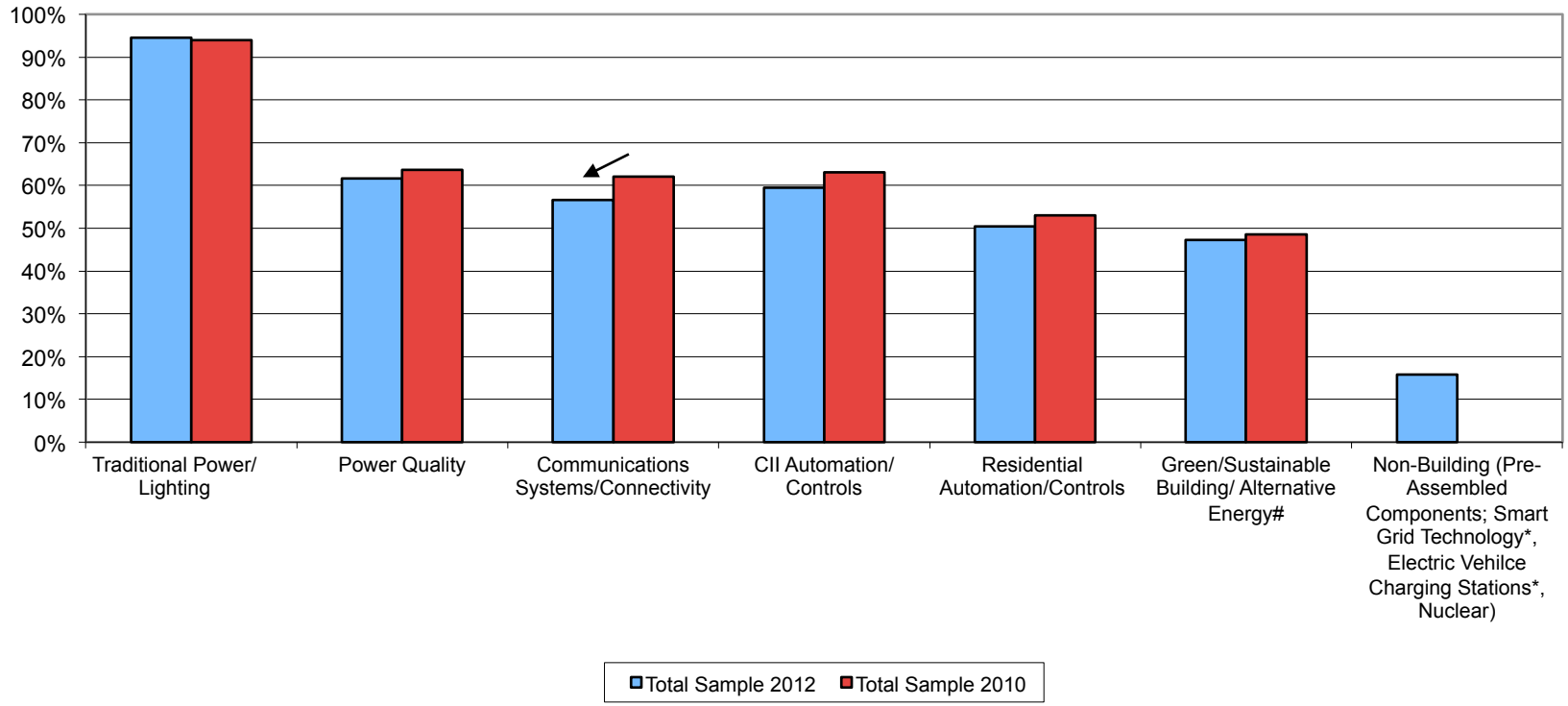
- About 6 in 10 ecs said that they had worked on Power Quality, Communications/Systems Connectivity and/or [CII] Automation/Controls in the previous year

- About 5 in 10 ecs said that they had worked on [RES] Automation/Controls in the previous year and/or on Green Sustainable Building/Alternative Energy during that time period. 16% worked Non-Building (a new category in the 2012 study), which includes Pre-Assembly/Pre-Fabrication of Electrical Components, Smart Grid Technology*, Electric Vehicle Charging Stations* and Nuclear.

Compared to the 2010 Profile study, the percentage that reported working on Communications Systems/Connectivity declined significantly. All of the other categories are statistically unchanged from two years ago; Non-Building as a **category** was first added in 2012.

* Added in the 2012 Profile

Types of Work Performed in Previous Year by Category (Total Sample)



Single blue bar indicates a new category

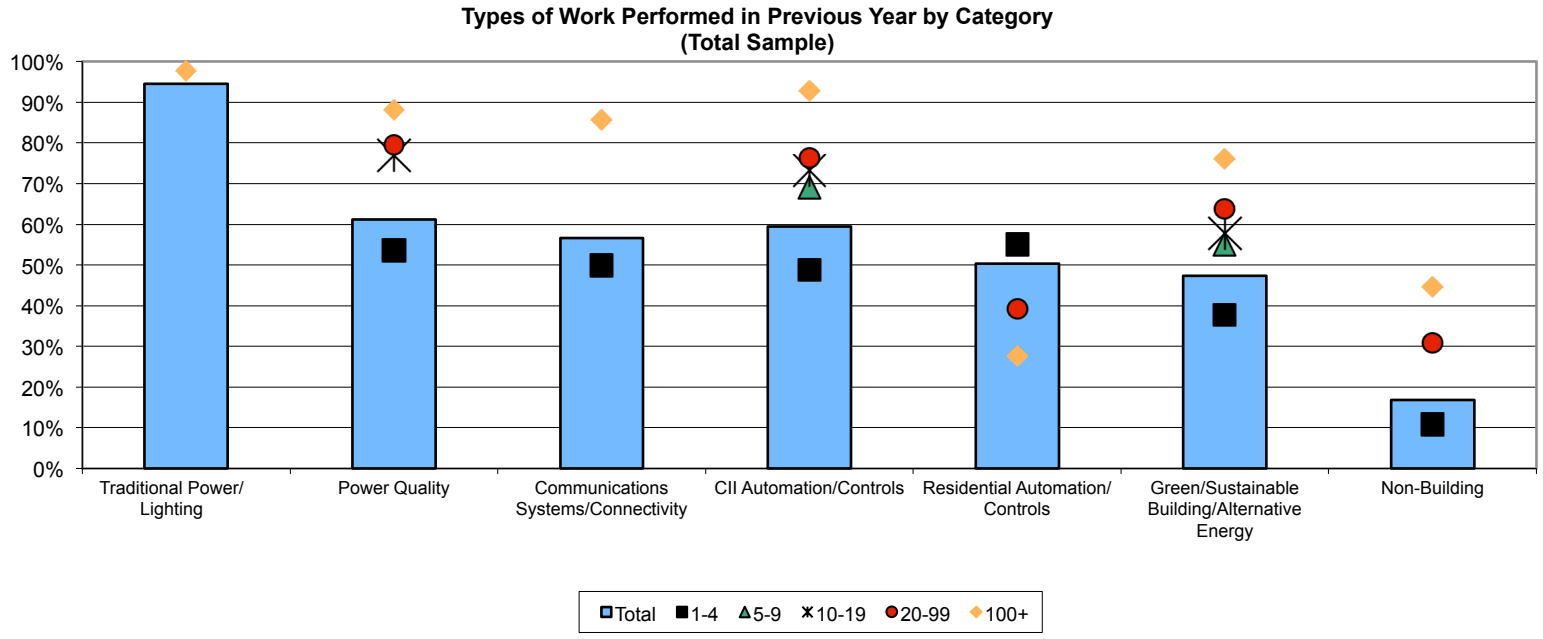
* Indicates project types that were added in 2012 study
# Energy Storage is now included in this category

Q6: 2012 total Sample Size = 1024

Q7 2010 Sample Size =1077

The differences by company size are shown below:

- In general, larger firms – particularly those with 100+ but also those with 20-99 employees -- are more likely to perform most of the different types of work shown below. In addition, firms with 10+ employees are also more likely than smaller firms to perform Power Quality, CII Automation/Controls work and/or Green Sustainable Energy/Alternative Energy work.
    - What is interesting is that firms with 5-9 employees are acting like larger firms in that they are also more likely to work on CII Automation/Controls (which was also the case two years ago) and/or Green/Sustainable Building/Alternative Energy (which is a difference first observed in this tracking wave).
- The only exception is Residential Automation/Controls, which is more likely to be performed by smaller firms



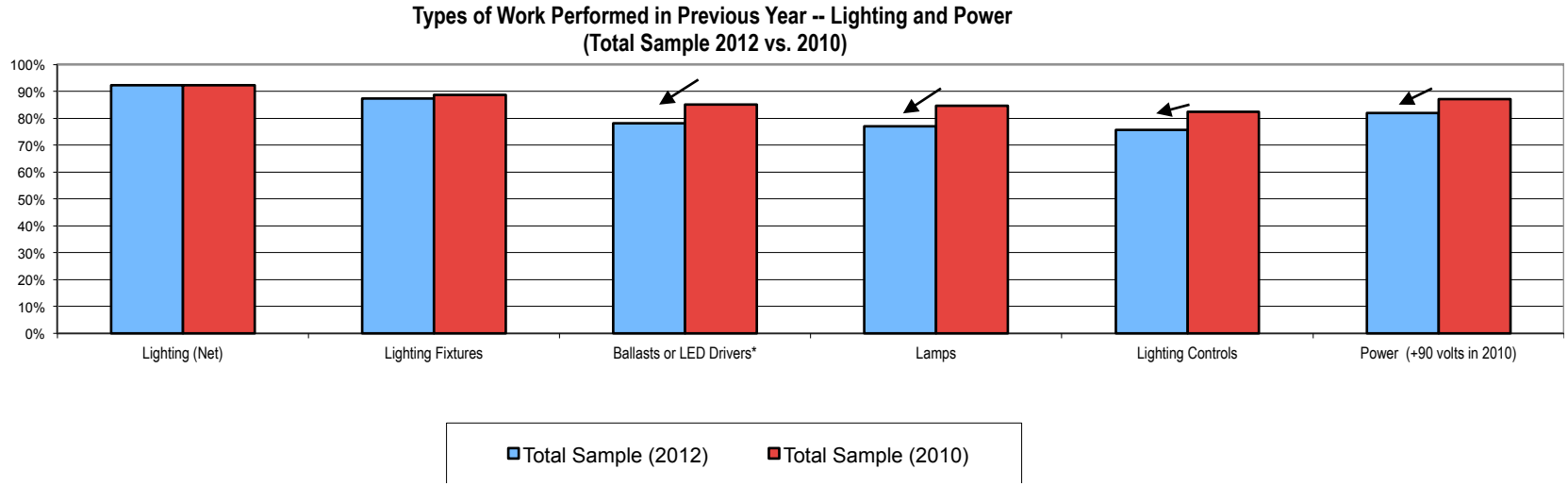
Q6 2012 Sample Size = 1024

Types of Work Performed – Power and Lighting

Very high percentages of electrical contractors reported working in the various aspects of Lighting and in Power in both 2012 and 2010.

- While the percentage of ecs who did any lighting work or who did work involving lighting fixtures is unchanged from two years ago, three of the lighting categories posted declines: Ballasts or LED Drivers*, Lamps and Lighting Controls.

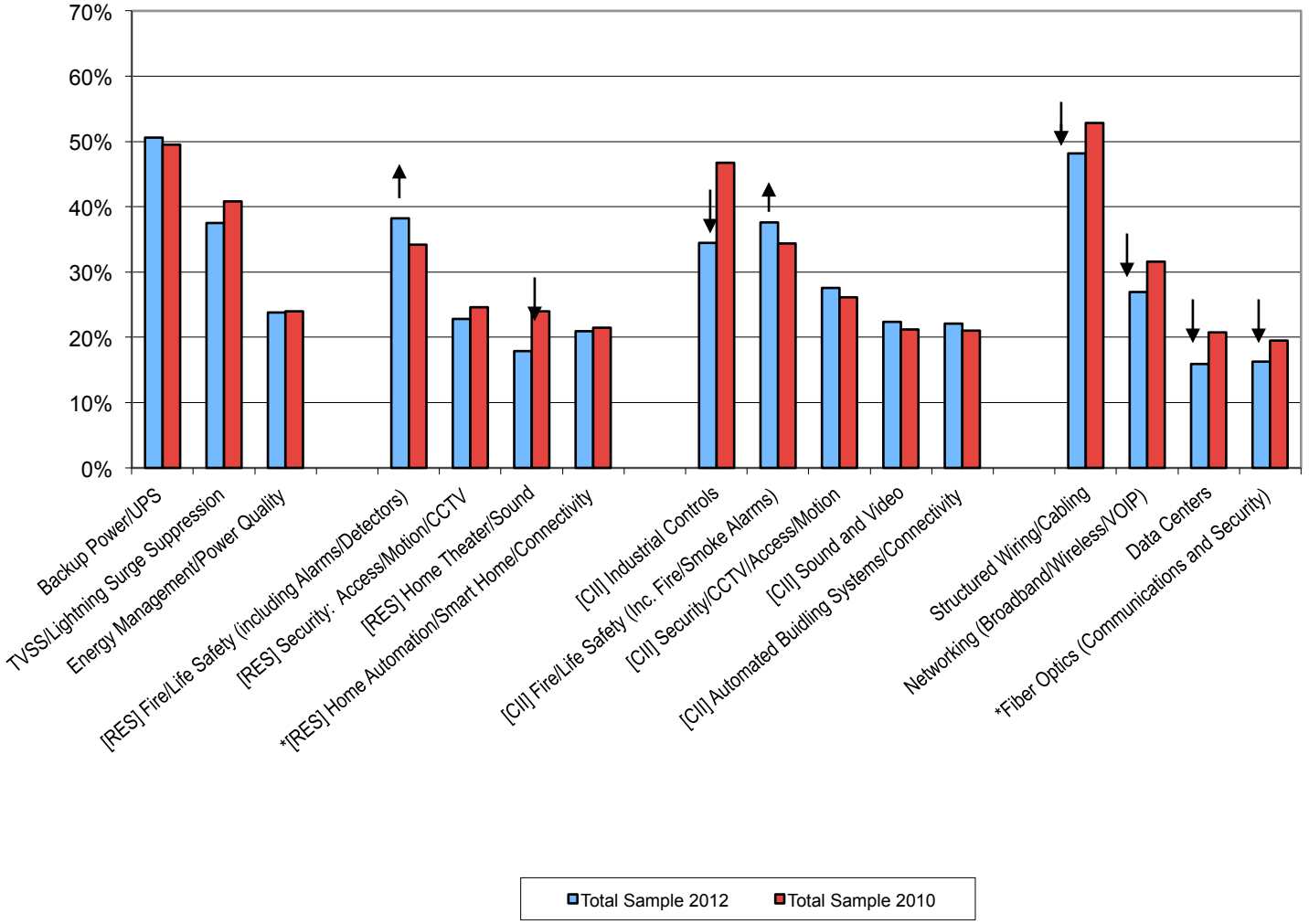
- The percent of ecs who reported working on projects involving Power also declined from two years ago.



* LED Drivers was added to 'Ballasts' in 2012

- Compared to two years ago, a significantly:
    - higher percentage of electrical contractors report having worked on [RES] Fire/Life Safety (including alarms/Detectors) while fewer report having worked on [RES] Home Theater/Sound.
    - higher percentage of electrical contractors report having worked on [CII] Fire/Life Safety (including alarms/Detectors) while fewer report having worked on Industrial Controls.
    - lower percentage of electrical contractors report having worked on each of the four components of Communications/Connectivity: Structured Wiring/Cabling, Networking, Data Centers and Fiber Optics.
        - None of these findings is a continuation of what was reported in the 2010 Profile Study.

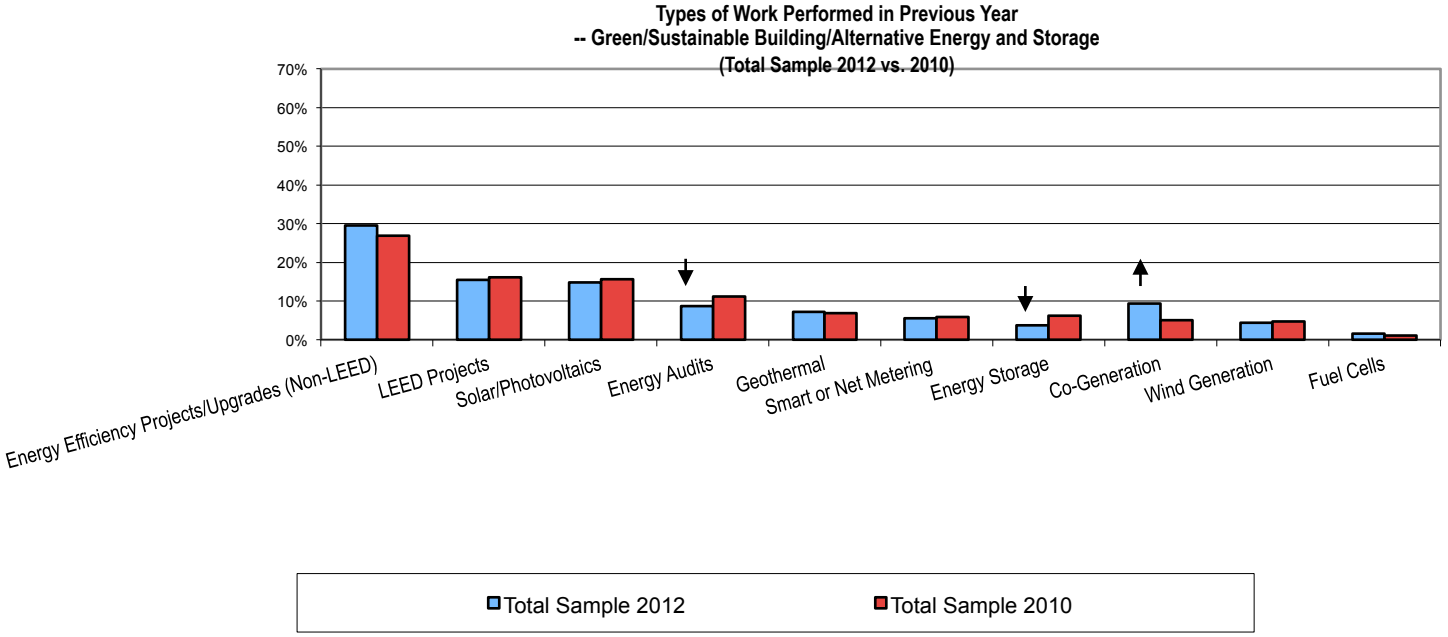
Types of Work Performed in Previous Year -- Not Including Lighting or Energy
(Total Sample 2012 vs. 2010)



Three types of alternative energy projects showed statistical changes over the past two years:

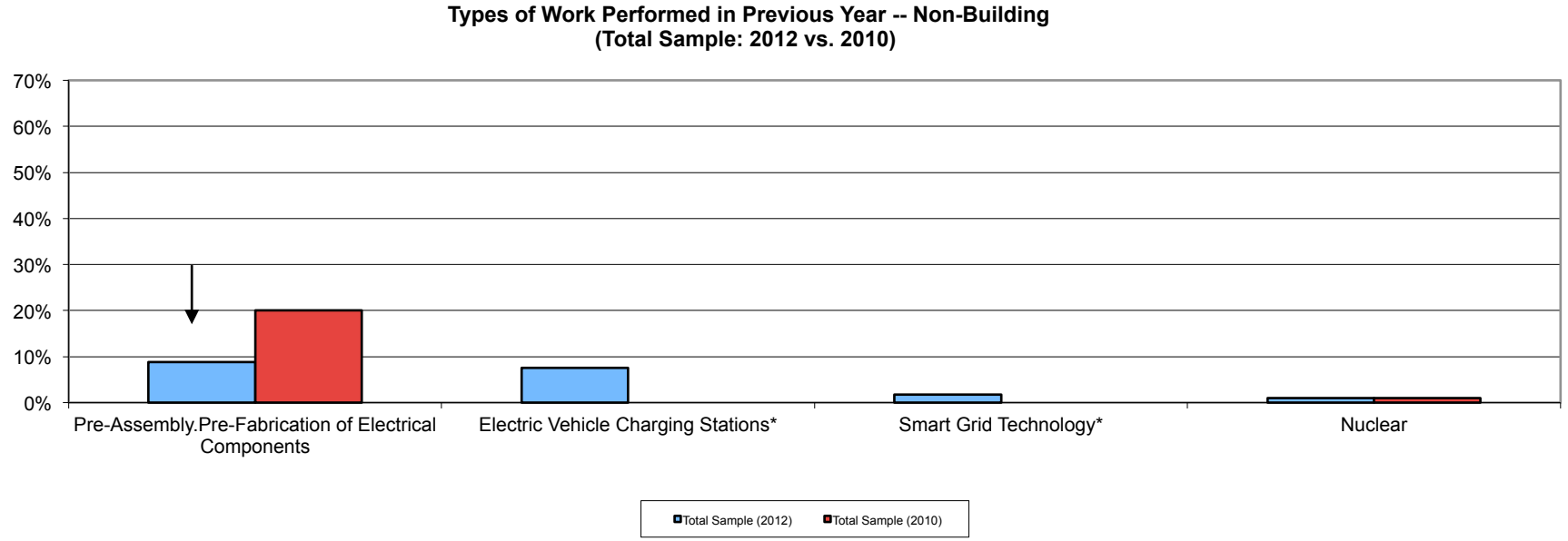
- Co-Generation was more likely to be performed in 2012 than in 2010 (to 9% from 5%).
- Energy Storage declined between 2010 and 2012 from 6% to 4%.
    - One might hypothesize that there is competition between co-generation and energy storage; that is if co-generation is 'running the meter backwards', then there may be less need for energy storage. However, as shown in the next few pages, co-generation is more likely to be done by smaller firms, suggesting that it is being done in Residential construction, whereas larger firms do energy storage work, suggesting that that work is done in CII construction.
- Energy Audits were slightly, but significantly, less likely to be performed in 2012 than in 2010.

LEED and Non-LEED Energy Upgrades (on a pooled basis) were performed by 34% of the total sample, unchanged from two years ago (not shown).



Although the category of Non-Building is new in 2012, two of the project types were included in the 2010 Profile Study:

- Pre-Assembly/Pre-Fabrication of Electrical Components and Nuclear
  - Compared with 2010, significantly fewer ecs worked on Pre-Assembly/Pre-Fabrication in 2012 than in 2010.
  - There is no change in the percent of electrical contracting firms that worked on Nuclear projects in the previous year.



* Added in 2012

Types of Work Performed – By Number of Employees

Project types generally 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:
  - Power
  - Structured Wiring/Cabling
  - Solar/Photovoltaics
  - Co-Generation
  - Wind Generation
  - Fuel Cells
  - Smart Grid Technology
  - Nuclear
- In addition, firms with 20 or more employees are more likely than smaller firms to work on:
  - Lamps (20-99, but not 100+)
  - Lighting Controls
  - [CII] Industrial Controls
  - [CII] Security/CCTV/Access/Motion, etc.
  - [CII] Sound and Video
  - Energy Management/Power Quality
  - Networking (VOIP, Wireless, Broadband, etc)
  - Fiber Optics (Communications and Security)
  - Energy Efficiency Projects (non-LEED)
  - Energy Audits
  - Smart or Net Metering
  - Pre-Assembly/Pre-Fabrication of Electrical Components
  - Electric Vehicle Charging Stations

Firms with 10+ employees are more likely to work on:

- Lighting Fixtures (10-19 only)
- [CII] Fire/Life Safety (including Alarms)
- [CII] Automated Building Systems/Connectivity
- Backup Power/UPS
- TVSS/Lightning/Surge Suppression
- Data Centers
- LEED Projects

Firms with 1-9 employees are more likely than larger firms to work on:

- [RES] Fire/Life Safety (including Alarms/Detectors)
- [RES] Home Theater/Sound
- [RES] Home Automation/Smart Home/Connectivity

The following project types do not vary by company size:

- Ballasts (or LED Drivers)
- [RES] Security/Security CCTV/Access/Motion, etc
- Energy Storage
- Geothermal

As shown on the next page, about 40% of firms with 100+ employees report having worked on 20 or more of the 35 project types included in the 2012 Profile Study. However, the percent of firms with 20-99 employees dropped from 25% to 12% in 2012. Does this suggest a greater degree of specialization among these firms?
(2010 results are not shown).

Types of Work Performed in Previous Year By Number of Employees (2012 Profile Study)					
	Total	1-9	10-19	20-99	100+
	%	%	%	%	%
Lighting Fixtures	87		**92**		
Power (+90 volts)	82	*79*			**95**
Ballasts or LED Drivers	78				
Lamps	77	*75*		**85**	
Lighting Controls	76	*72*		**86**	**93**
[CII] Fire/Life Safety (including Alarms/Detectors)	38	*30*	**54**	**57**	**76**
[CII] Industrial Controls	35	*29*		**47**	**72**
[CII] Security/CCTV/Access/Motion, etc	28	*19*		**52**	**72**
[CII] Sound and Video	22	*16*		**32**	**63**
[CII] Automated Build Systems/ Connectivity	22	*13*	**33**	**42**	**69**
[RES] Fire/Life Safety (incl Alarms/Detectors)	38	**42**		*28*	*19*
[RES] Security/CCTV/Access/Motion, etc	23				
[RES] Home Automation/Smart Home/Connectivity	21	**23**			*7*
[RES] Home Theater/Sound	18	**20**			*8*
Backup Power/UPS	51	*43*	**62**	**73**	**86**
TVSS/Lightning/Surge Suppression	38	*30*	**50**	**61**	**63**
Energy Management/Power Quality	24	*16*		**47**	**68**
Structured Wiring/Cabling	48	*45*			**70**
Networking (VOIP/Wireless/Broadband, etc.)	27	*22*		**36**	**59**
Data Centers	16	*9*	**24**	**26**	**61**
Fiber Optics (Communications and Security)	16	*8*		**38**	**66**
Energy Efficiency Projects/Upgrades (non-LEED)	30	*24*		**44**	**54**
LEED Projects	15	*7*	**30**	**38**	**57**
Solar Photovoltaics	15	*12*			**43**
Energy Audits	9	*6*		**18**	**27**
Geothermal	7				
Smart or Net Metering	6	*3*		**10**	**24**
Energy Storage	4		*1*		

Co-Generation	9	*7*			**33**
Wind Generation	4	3	1		**15**
Fuel Cells	2		*0*	*0*	**6**
Pre-Assembly/-Fabrication of Electrical Components	9	*5*		**18**	**36**
Electric Vehicle Charging Stations	8	*6*		**13**	**15**
Smart Grid Technology	2	*1*	*0*		**13**
Nuclear	1	*1*	*0*		**6**
Mentioned 20 + (out of 35) Project Types	**7**	*3*		**12**	**41**

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 total = A+ B+ C, the reciprocal of A is B+C
*Italics indicate that the percentage shown for this firm size is significantly smaller than its reciprocal** at the 90% level of confidence*
Empty cells indicate the subgroup is average on this measure.

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 20+ employees) are significantly more likely to engage in each of these types of work compared with smaller firms (not shown).
- There are no significant differences from two years ago.

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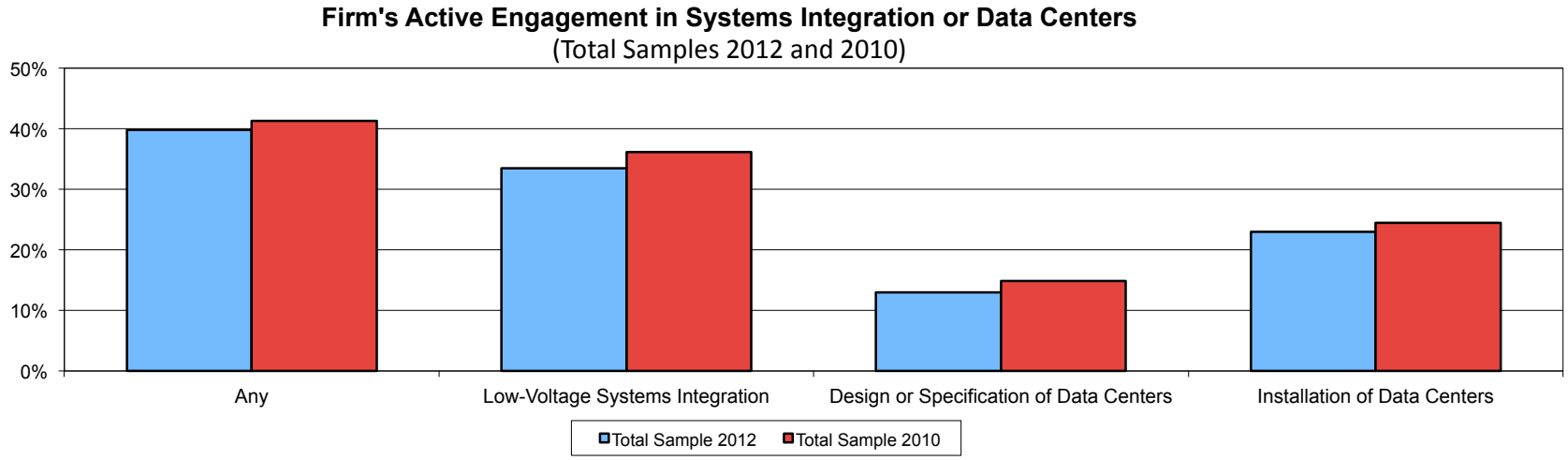


Q8 2012 Total Sample = 1024; 2010 Total Sample =1077

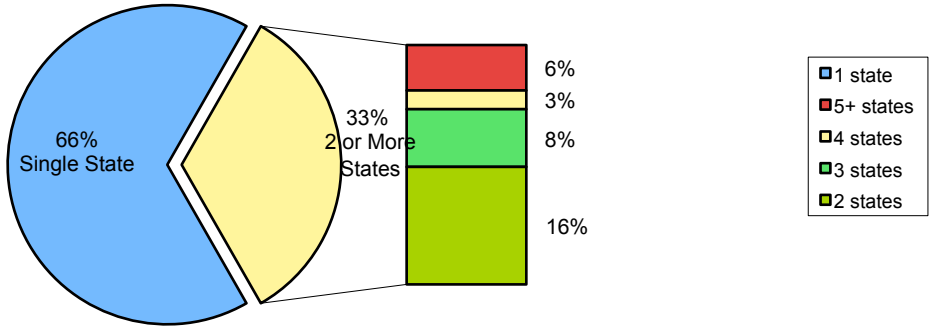
▲*"WHERE DO CONTRACTORS PERFORM THE WORK?"*

Number of States In Which Electrical Contracting Firm Works

About one-third of electrical contracting firms perform their work in multiple states, suggesting, as noted in the past, that there may be issues of licensing and certification. The proportion working in 2 or more states is unchanged from two years ago.

These results are consistent with those reported two years ago.

Number of States in Which Electrical Contracting Firm Performs Its Work



Q 1b N=1024

Not surprisingly, larger firms are more likely to work in multiple states:

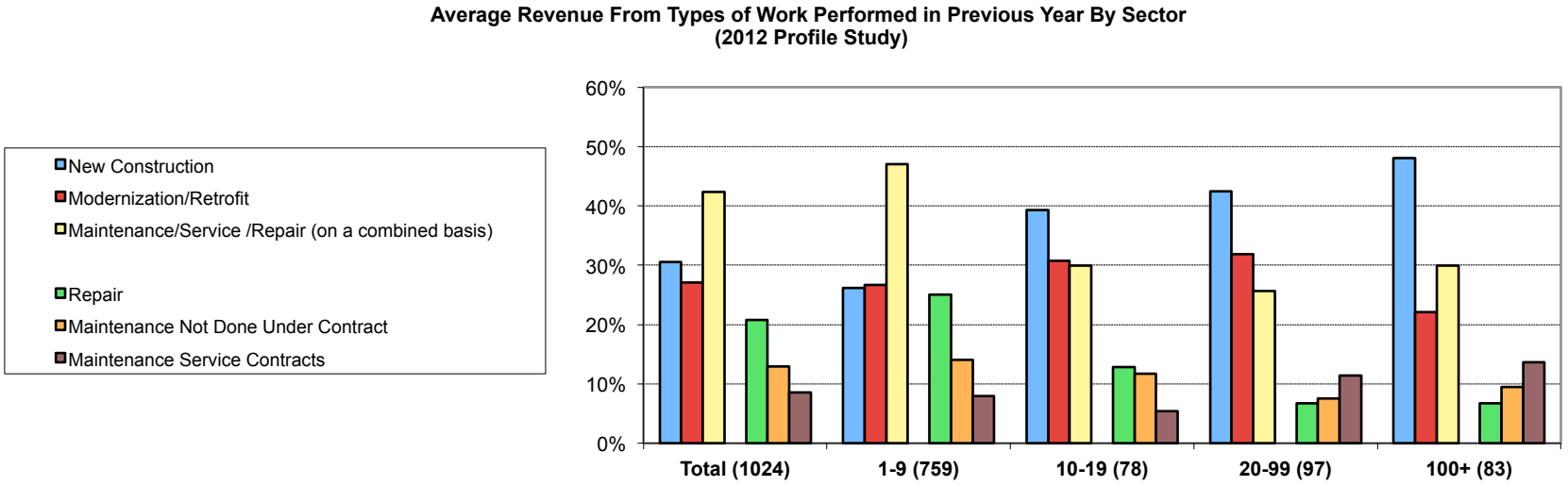
- Although there is no significant difference in the percent of firms that work in 2+ states among the total sample or among firms with 1-9 employees, significantly more firms with 10+ work in multiple states in 2012 than in 2010 (60% vs. 53%).

	Total	1-9	10+
Work in 2+ States (2012)	33%	25%	<60%
Work in 2 + States (2010)	31	23	<53

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

On average, Maintenance/Service/Repair on a combined basis now accounts for a substantially larger percentage of revenue (42%) than New Construction (31%). Modernization/Retrofit accounts for an average of 27% of revenue.

- As was the case in earlier Profile studies, New Construction (the blue bar) plays a proportionally larger role to firms with 10+ employees than to smaller firms, while Maintenance/Service/Repair – on a combined basis -- (the tan bar) accounts for a proportionally larger share of revenue among smaller firms.
    - Note that Maintenance *Contracts* play a proportionately larger role among larger firms than among smaller firms.

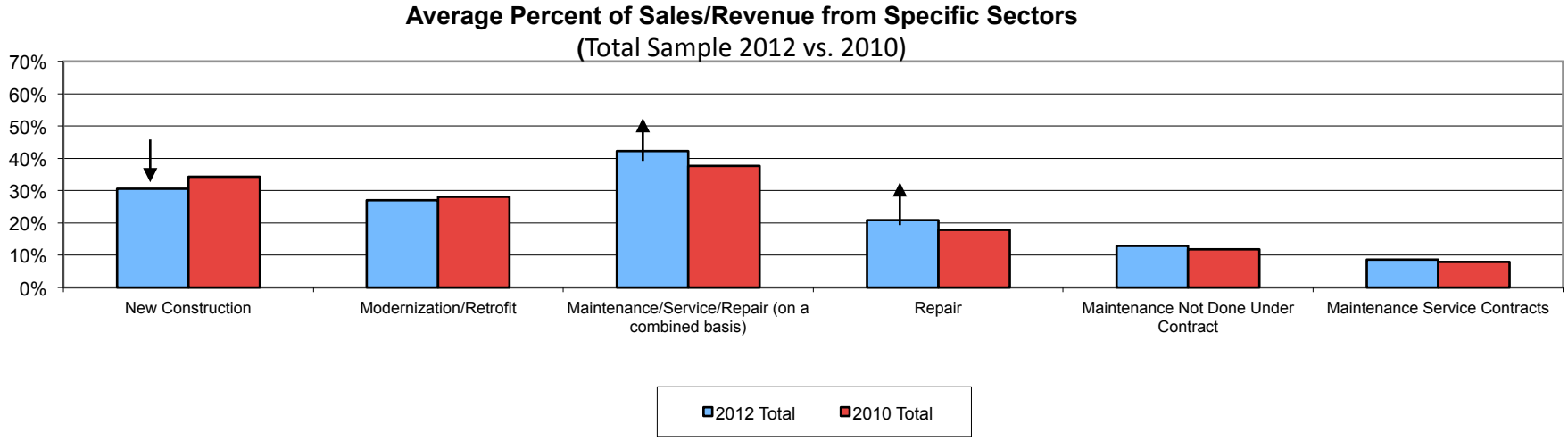


Q

5 Total Sample N=1024 (base sizes in parentheses above)

As a continuation of the poor economy that was discussed in the previous tracking study, the average percentage of revenue from Maintenance/Service and Repair on a combined basis jumped significantly again to 42% from 38% in the 2010 study and from 31% in the 2008 study. The increase was driven significant increases in both Repair work and Maintenance work while the average percent from New Construction dropped significantly to 31% in 2012, down from 34% in the 2010 study and from 43% as reported in the 2008 study.

Modernization/Retrofit at 27% is statistically unchanged from both the 2010 study and the 2008 study (not shown).



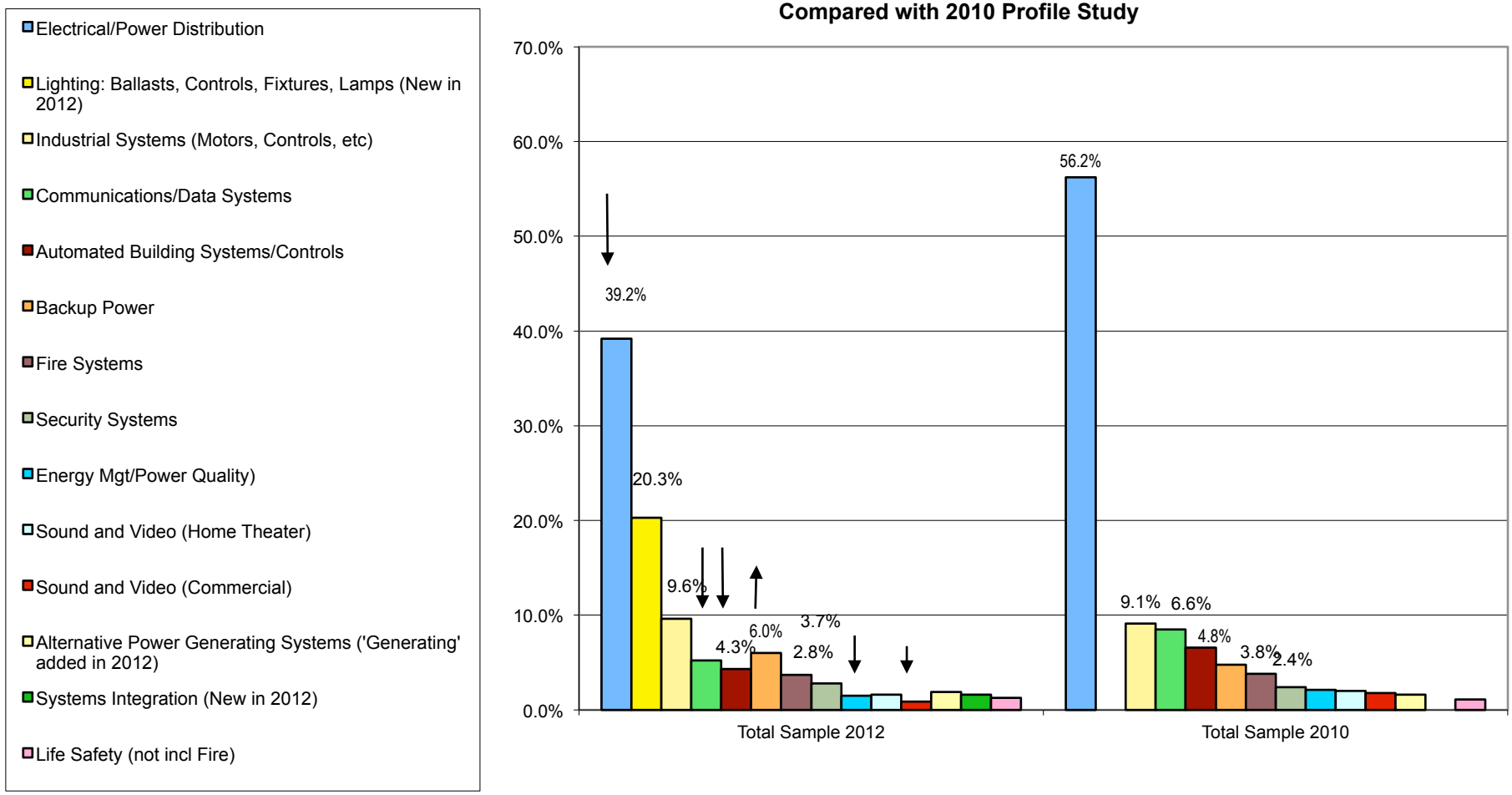
The increase in the percentage of revenue from Maintenance/Service and Repair holds true in total and for smaller firms (1- 9 employees) but not for firms with 10+ employees.

	Average Revenue from Sector by Number of Employees					
	Total		1-9 Employees		10+ Employees	
	2012	2010	2012	2010	2012	2010
New Construction	31%	**<34%**	26%	**<30%**	43%	47%
Modernization/Retrofit	27%	28%	27%	29%	28%	26%
Maintenance/Service/Repair	**42%>**	38%	**47%>**	41%	28%	27%
Repair	21%	18%	**25%>**	21%	9%	9%

Types of Electrical Projects: Sources of Revenue

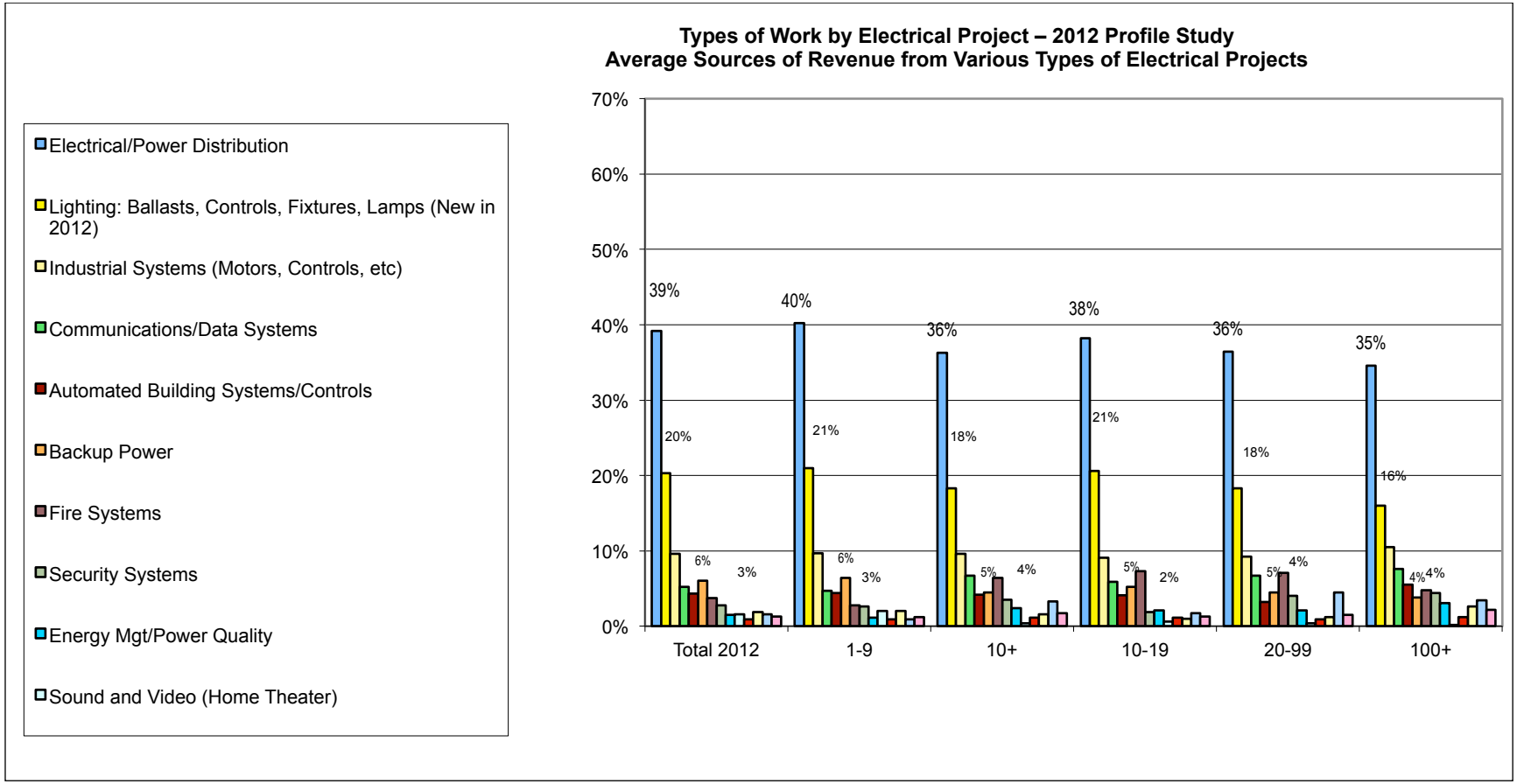
- Although Electrical/Power Distribution, at 39%, continues to account for the largest percent of company sales, by far, it decreased substantially from its 2010 level of 56% and has been dropping steadily since 2004 when it was 69% (not shown).
    - However, a number of factors may be responsible for this very steep drop:
        - New categories were added in the 2012 Profile study, including Lighting, which ranks second at 20% average revenue.
            - This hypothesis is supported by the finding that 5 of the 6 significant changes from 2010 were down, suggesting that the decreases were the result of the new project types (particularly Lighting, but also Systems Integration)
        - There is a continued drop in New construction and Electrical/Power Distribution is in all likelihood tied to new construction.
        - Electrical contractors continue to do more 'value-added' types of work.
    - The apparent decline in Automated Building Control Systems (from 7% to 4%), may be due to the fact that we added a project type called Systems Integration, which accounted for about 2% of average revenue in 2012.

Types of Work by Electrical Project – 2012 Profile Study
Average Sources of Revenue from Various Types of Electrical Projects
Compared with 2010 Profile Study



As was also the case in 2010, Electrical/ Power Distribution in 2012 continues to account for more volume for smaller firms than for larger firms. Similarly, Lighting accounts for more revenue, on average, among smaller firms than among larger firms (Lighting was first added as a separate category in 2012 and cannot be trended). Although at much lower percents, smaller firms derive more revenue from Residential Home Theater and Backup Power.

Large firms derive more of their revenue from the remaining categories except in the following cases, where there is no difference by number of employees: Automated Building Control Systems, Life Safety Systems, Industrial Motor Controls, Commercial Sound and Video and Alternative Power Generating Systems

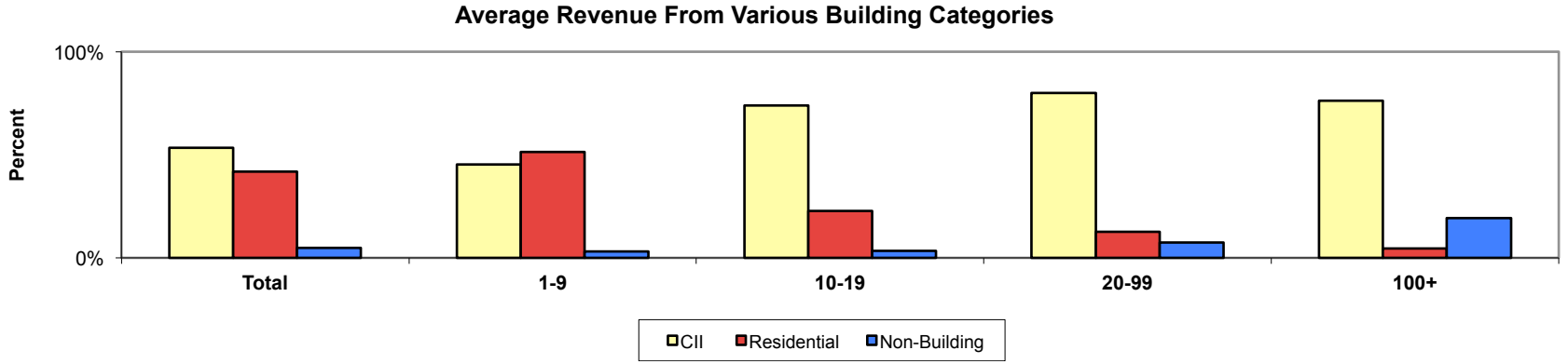


Work in Various Building Categories (Residential vs. CII and Non-Building)

Across the total sample, electrical contractors continue to get more of their average revenue from CII (Commercial, Industrial, Institutional and Public Places), 53% on average, than from Residential projects, 42% on average. Non-Building projects (Transportation/Lighting and Utility) continue to account for about 5% of the contractors' business.

- However, as in the past, there continues to be dramatic differences in the 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.
    - As shown below, the percentage of Residential work declines smoothly and the percentage of Non-Building increases smoothly as company size increases. In contrast, in the case of CII, there is a big jump between firms with 1- 9 employees where average revenue is 43% and firms with 10+ employees where average revenue is substantially higher. Non-Building continues to be the province of very large firms (100+ employees)

In 2010, we hypothesized that firms with 10+ employees may now be the critical mass to work on CII projects. This appears to be the case as well in 2012. In 2008, the critical mass appeared to be 20+ employees.



Q4 N=1024

CII = **Commercial** (Offices, Stores, Hospitality, etc); **Institutional** (Schools/Hospitals/Stadiums/Parks/Terminal/Cultural/Correctional, etc)
Industrial (Manufacturing Plants/Factories/Warehouses, etc); **Non-Building** (Line Work, Transportation Lighting, and Communications*, Power Generating Plants/Substations (on a combined basis) and Smart Grid* *Smart Grid was first added in 2012; 'Communications' was added to Transportation Lighting in 2012

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

As shown below, the average percent of revenue from CII, Residential and Non-Building is quite consistent compared with the 2010 Profile Study results.

- The only significant change shown below is among firms with 1-9 employees, where the percentage of Residential work declined from 55% in 2010 to 51% in 2012.

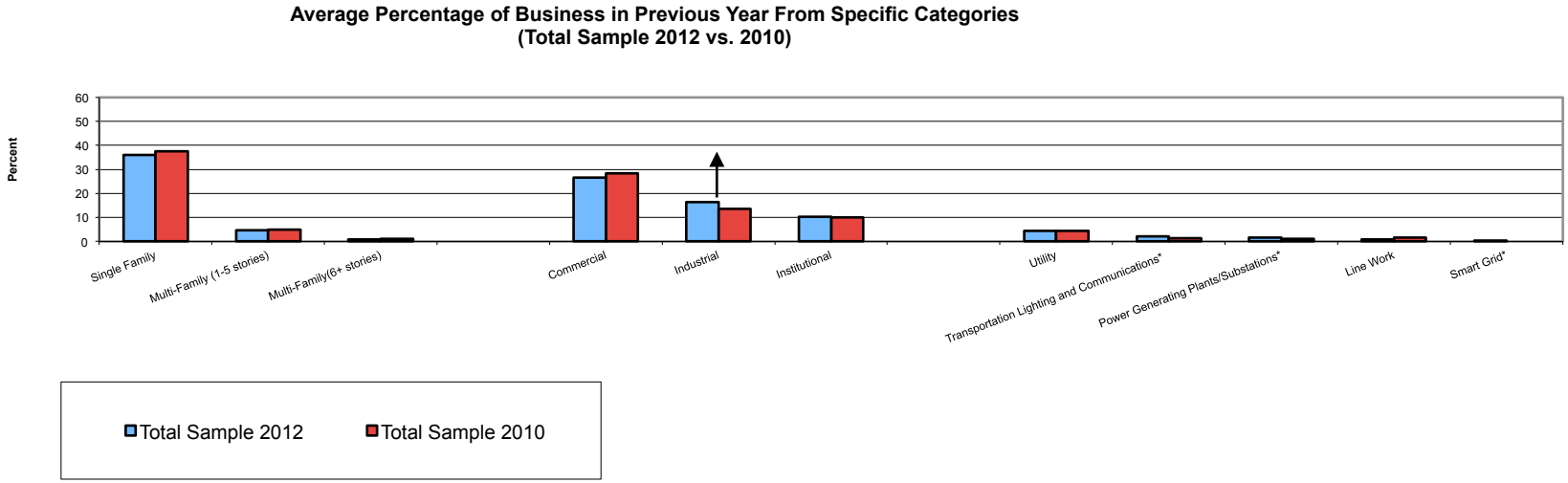
	Average Revenue in Previous Year From Specific Categories									
	Total		1-9		10-19		20-99		100+	
	2012	2010	2012	2010	2012	2010	2012	2010	2012	2010
	(1024)	(1077)	(759)	(780)	(78)	(101)	(97)	(103)	(83)	(81)
CII	53%	52%	45%	43%	74%	79%	80%	77%	76%	77%
Residential	42%	44%	51%	<55%	23%	17%	13%	12%	4%	6%
Non-Building	4.9%	4.5%	3.2%	2.2%	3.3%	3.8%	7.4%	11.5	19.4%	17.4%

Yellow highlighting indicates significant differences at the 90% level of confidence

The category of Non-Building cannot be trended because Smart Grid was first added to this category in 2012 and 'Communications' was added to Transportation Lighting, so that in 2012 the wording was Transportation Lighting and Communications.

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 (36% in the 2012 Profile Study). Also within the housing category, a higher percentage of revenue comes from Multi-Family housing with 1-5 stories compared with taller Residential buildings. This was also the case two and four years ago.
- As was the case two years ago, within the broad CII category, a greater percentage of electrical contractors' revenue is from Commercial construction (27%) than from Industrial (17%) or Institutional projects (10%).
    - The average percent of revenue from Industrial projects rose significantly among the sample, driven by an increase in average revenue among firms with 1-4 employees (1-4 employees not shown).
- As noted on the preceding page, the Non-building category cannot be trended vs. 2010.

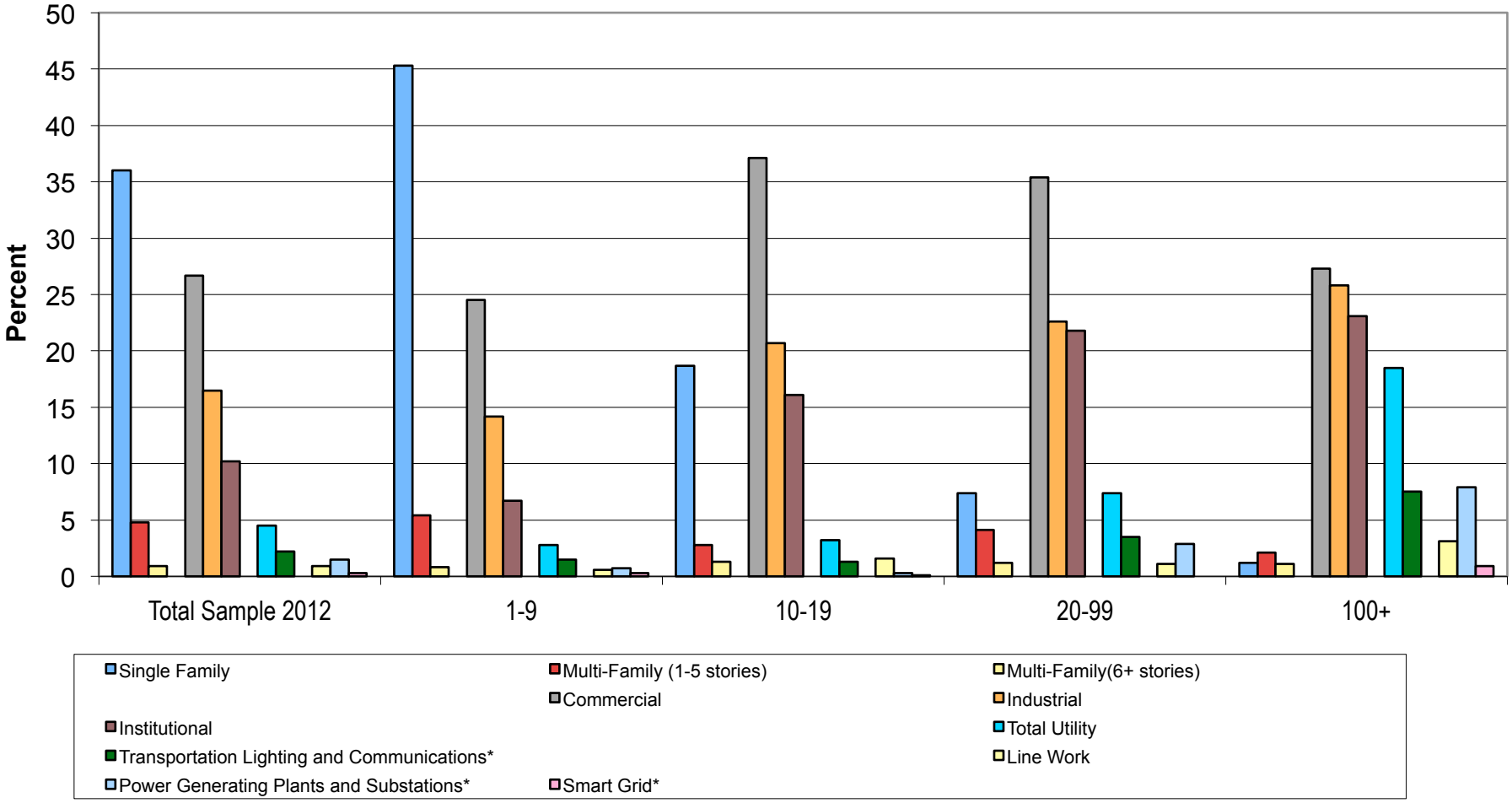


** In 2012, Power Generating Plants and Substations were combined as a single category; they had been asked separately in 2010. Power Generating Plants/Substations and Line Work comprise the Utility (Net). Smart Grid was first added in 2012 and cannot be trended, nor can Transportation Lighting and Communications due to a wording change from Transportation Lighting in 2010 to Transportation Lighting and Communications in 2012.*

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 Utility/Non-Building work.

Average Percent of Business in Previous Year From Specific Categories



* The following wording changes were made in 2012: Transportation Lighting was asked as Transportation Lighting and Communications; Power Generating Plants and Substations was asked as a single category; in 2010, it had been asked as two separate categories. *Smart Grid was added in 2012.

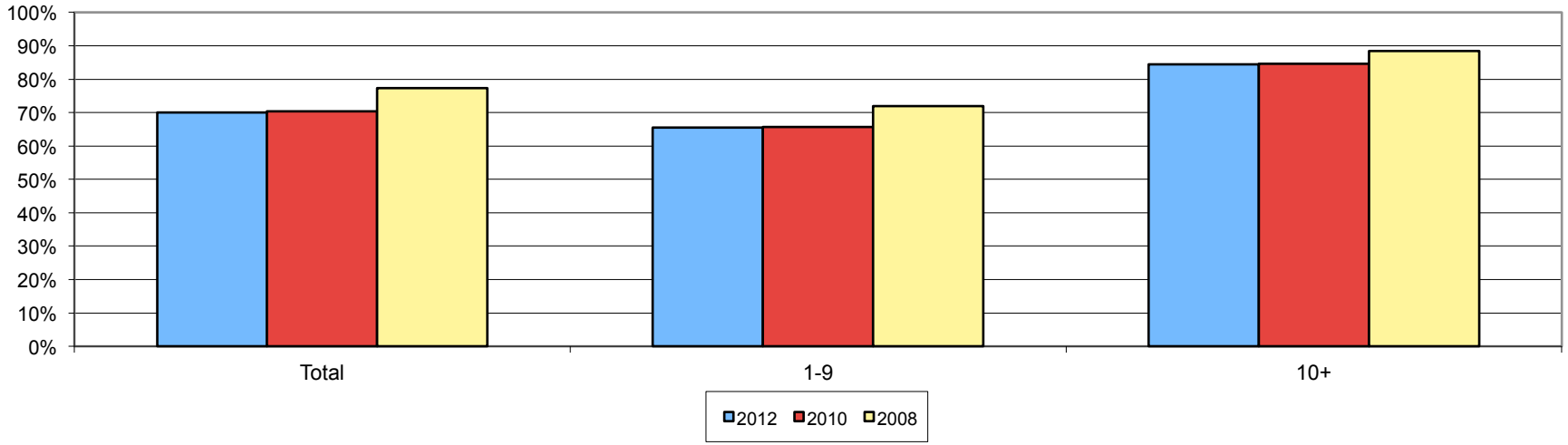
▲ *"HOW" DO CONTRACTORS PERFORM THEIR WORK*

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

Across the total sample, 7 in 10 firms performed (**any**) Design/Build or Design/Assist work in the previous year. As in the past, larger firms are even more likely than smaller firms to have engaged in D/B or D/A work:

- While 66% of firms with 1-9 employees performed any DB or DA work in both 2009 and 2011, **any** D/B//D/A work was performed by 85% of firms with 10+ employees.
  - There are no significant changes compared to 2010 in the chart below.
  - However, compared to two years ago, there is a significant increase in the percent of **any** work done on a Design/Assist basis (from 39% to 44%). This increase was driven by firms with 1- 4 employees, where **any** Design/Assist work is now 36% compared with 30% two years earlier (not shown).

ANY Design/Build or Design/Assist Work in Previous Year
2012 Profile Study



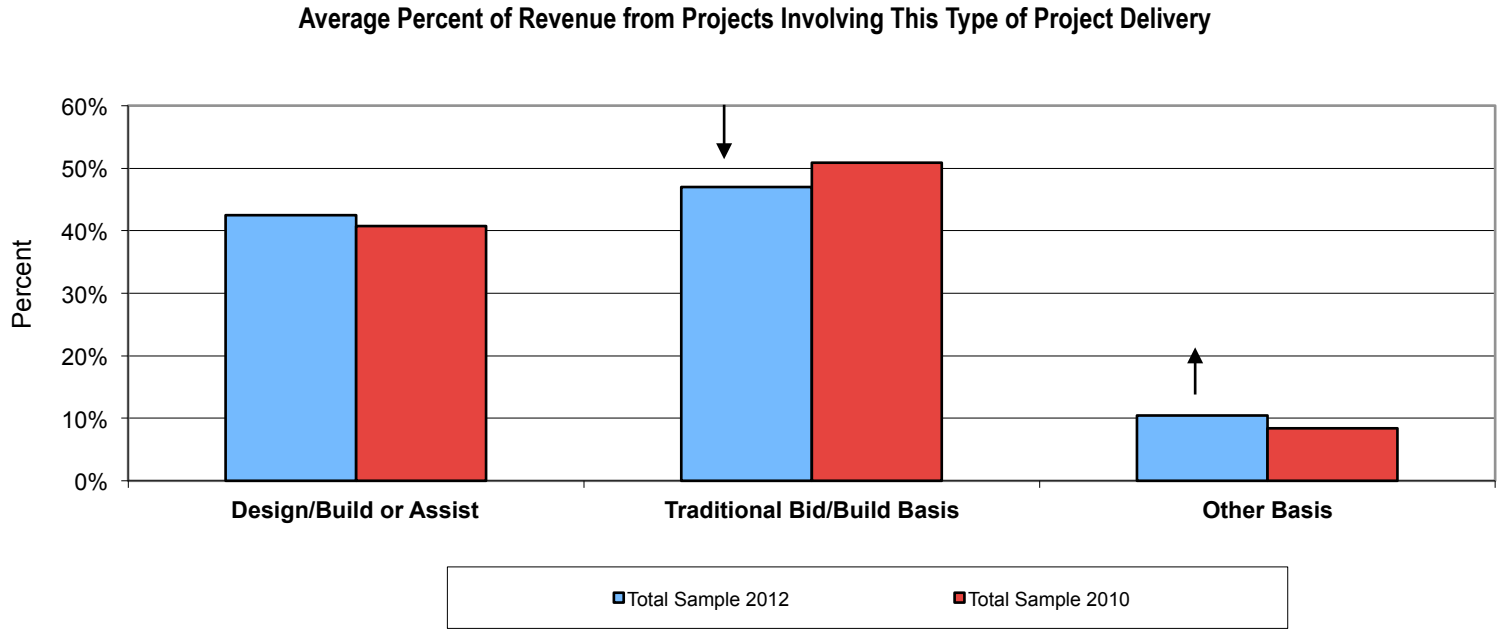
Q9

2012 Sample =1024, 2010 Sample = 1077

Overall, an average of 43% of electrical contractors' revenue was done on either a Design/Build or Design/Assist basis. This is a statistically unchanged from the 2010 level of 41% (The vast majority was done as Design/Build --31%-- rather than Design/Assist –12%). .

About one-half of electrical contractors' revenue comes from Traditional Bid/Build projects (47%) and 10% was done on another basis.

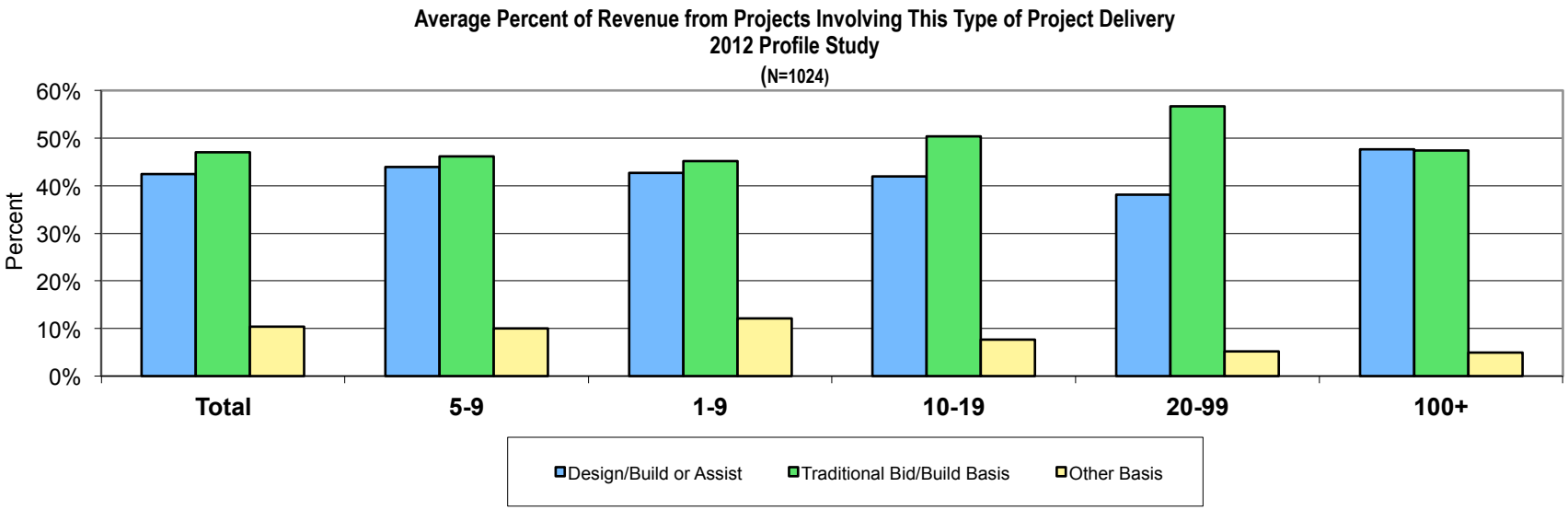
- The average percent of revenue from Traditional Bid/Build declined significantly compared with the 2010 Profile Study (from 51% to 47%), while the average percent of work from "other project delivery methods" rose significantly from 8% to 10%.

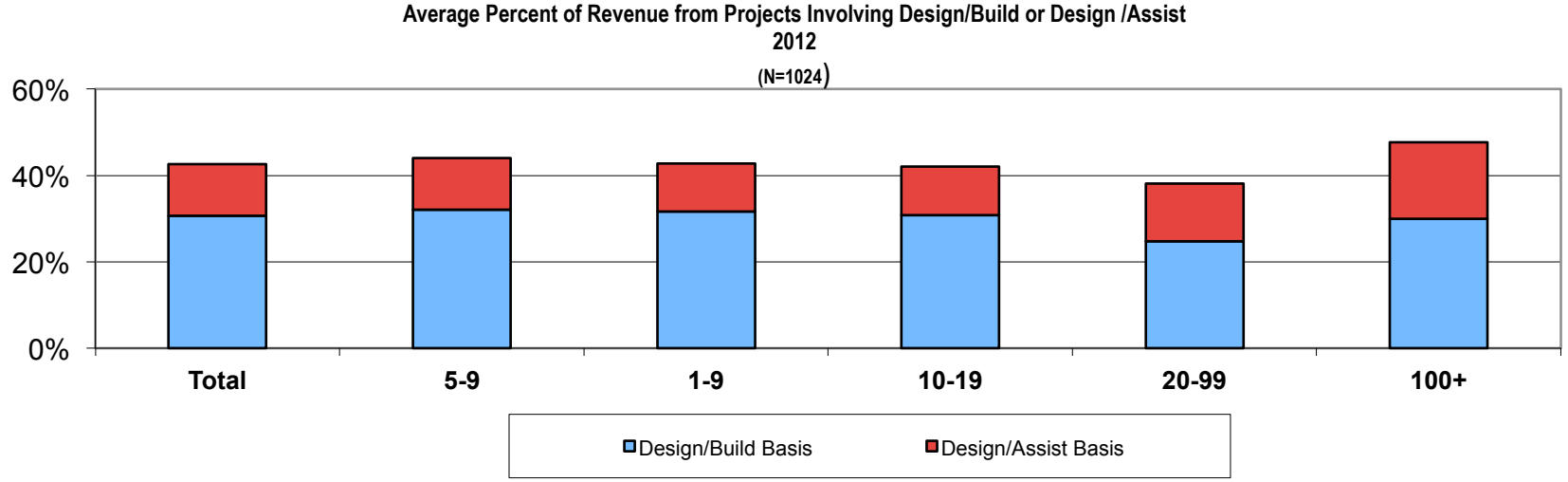


Q 9 2012 Sample = 1024 2010 Sample=1077

As shown on the next page, there is relatively little difference in the average percent of work from various project types by company size.

- The main exceptions:
    - Traditional build projects account for more revenue on average among firms with 20-99 employees. (This difference did not occur in the 2010 Profile Study results)
    - As was the case in the 2010 Profile Study, Design/Assist projects continue to account for more revenue, on average, among firms with 100+ employees (2010 results are not shown).


Average Percent of Revenue from Projects Involving This Type of Project Delivery
2012 Profile Study
(N=1024)
60%
50%
40%
30%
20%
10%
0%
Percent
Total
5-9
1-9
10-19
20-99
100+
Design/Build or Assist
Traditional Bid/Build Basis
Other Basis


Average Percent of Revenue from Projects Involving Design/Build or Design /Assist
2012
(N=1024)
60%
40%
20%
0%
Total
5-9
1-9
10-19
20-99
100+
Design/Build Basis
Design/Assist Basis

BIM (Building Information Modeling)

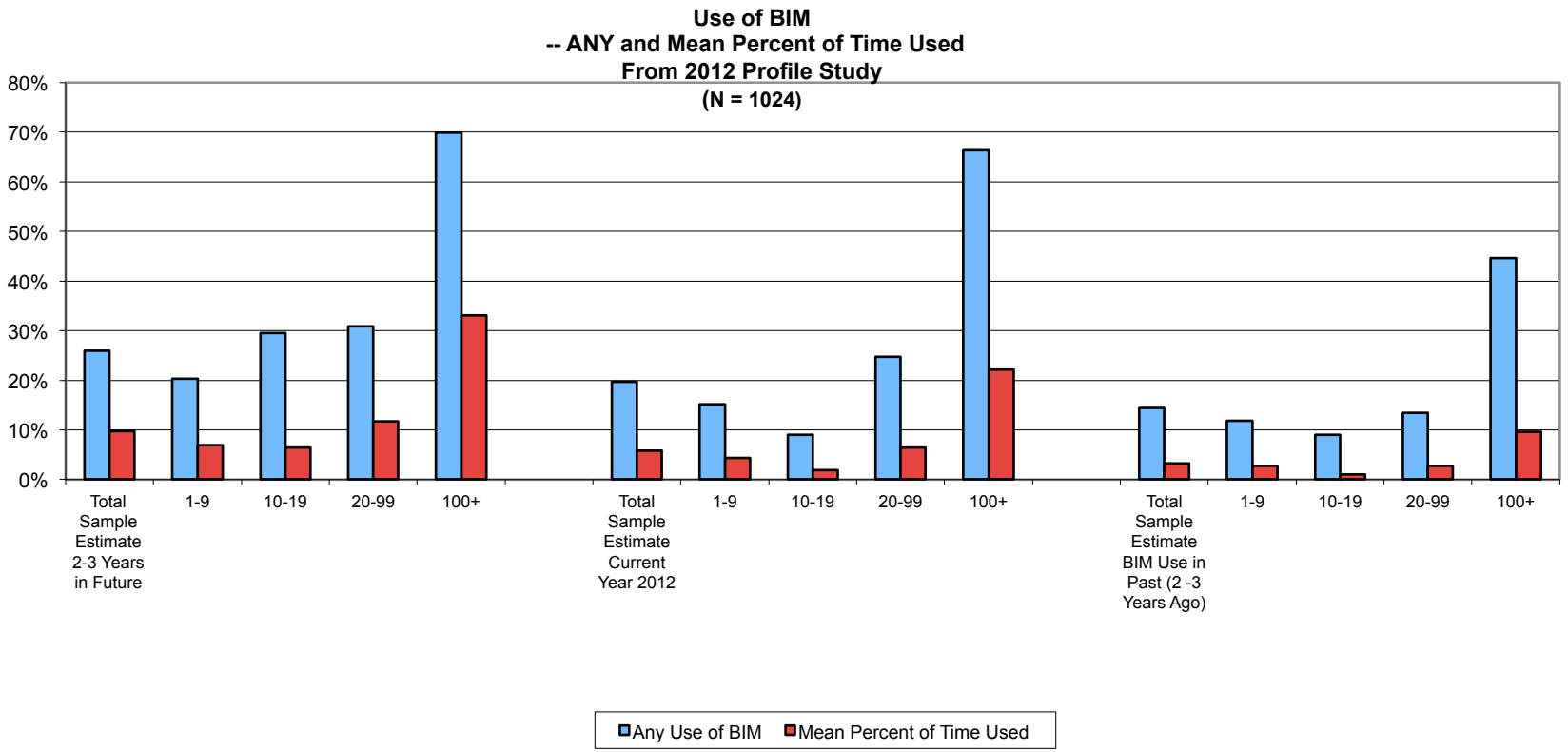
Electrical contractors were asked to estimate the percentage of the time that they or someone in their firm uses BIM (Building Information Modeling).

Electrical contractors were asked to estimate BIM use for the current year (2012), for 2-3 years ago and for 2-3 years in the future. This question was first asked in the 2012 Profile Study:

- Current Use (2012): Any: 20%; Mean 5.8%
- Past (2- 3 years ago): Any: 14.4%; Mean: 3.2%
- Future (2-3 years in the future) Any: 26%; Mean: 10.9%

As shown on the next page, at this point, firms with 100+ employees are the most likely to make use of BIM at all -- Any -- and to report using BIM a higher percentage of the time. It is also interesting to note that past and current BIM use appears to be particularly low among firms with 10-19 employees.

- However, firms with 10-19 and 20 –99 employees do anticipate using BIM substantially more in the future more than now.


Use of BIM
-- ANY and Mean Percent of Time Used
From 2012 Profile Study
(N = 1024)
80%
70%
60%
50%
40%
30%
20%
10%
0%
Total Sample Estimate 2-3 Years in Future
1-9
10-19
20-99
100+
Total Sample Estimate Current Year 2012
1-9
10-19
20-99
100+
Total Sample Estimate BIM Use in Past (2 -3 Years Ago)
1-9
10-19
20-99
100+
Any Use of BIM
Mean Percent of Time Used

Completeness of Plans and Specifications

Receipt of incomplete plans and specs continues to be quite prevalent. About 8 in 10 firms have received ANY incomplete plans and specs in 2011 (down slightly but significantly from 82% to 79%). On average, 46% of the plans and specs received were incomplete. This average is statistically unchanged from the 2010 results.

Survey respondents were asked about the frequency of receiving incomplete plans and specs compared to 5 years ago. The answers shown below are restricted to firms that work in a given category. As shown below, the most frequent answer is "about the same" followed by "*more* often now" and then by "*less* often now".

How Often You Receive Plans and Specs That Are Incomplete Vs. 5 Years Ago					
	Any Business From				
	CII	Single Family	Multi-Family	Line Work	Power Generating/ Substations
	(725)	(701)	(584)	(113)	(133)
More Often Now	32	27	20	23	27
About the Same	46	53	52	44	37
Less Often Now	10	12	14	13	17

The wording of this part of the question was changed in 2012 and thus cannot be directly trended. However, two years ago, the most frequent answer was "no difference" followed by "higher percent now" and then by "lower percent now".

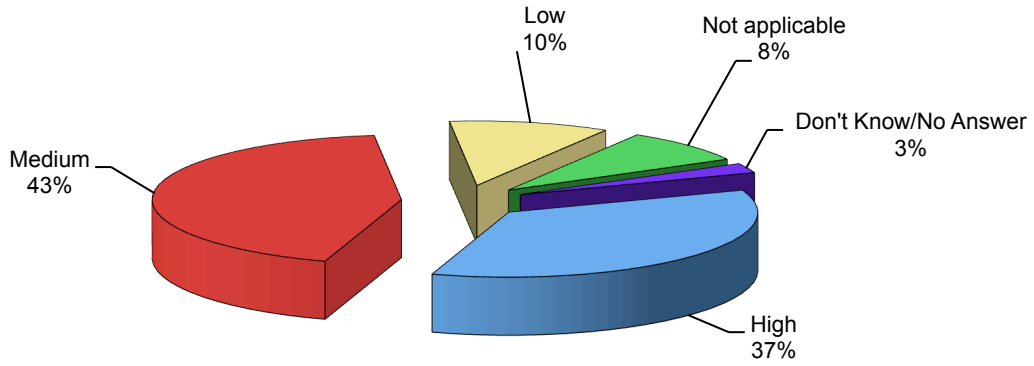
Among firms working in each category shown above, a higher percentage of larger firms (10+ employees) say that they receive incomplete plans and specs more often now compared with 5 years earlier. The only exception is Single Family housing, where there is no difference by number of employees (not shown).

Project Collaboration/Level of Influence

8 in 10 electrical contractors report having a “medium” or “high” ability to influence the overall electrical design or specifications with building owners or design team members

- More than 4 in 10 describe their level of influence as "medium" (44%) while 36% characterize their level of influence as "high."
- There are only a few meaningful differences by company size (not shown):
  - Those in firms with 1- 9 employees, especially those in firms with 1-4 employees, are more likely than those in firms with 10+ employees to report a “high” level of influence (39% in firms with 1-9 employees vs. 28% in firms with 10+ employees). This difference first emerged in the 2012 wave.
  - In contrast, the largest companies (those with 20-99 or100+ employees are more likely than average to report a “low” ability to influence the overall electrical design or specifications (21% and 18% respectively compared with 10% overall). This is consistent with the 2010 Profile findings.

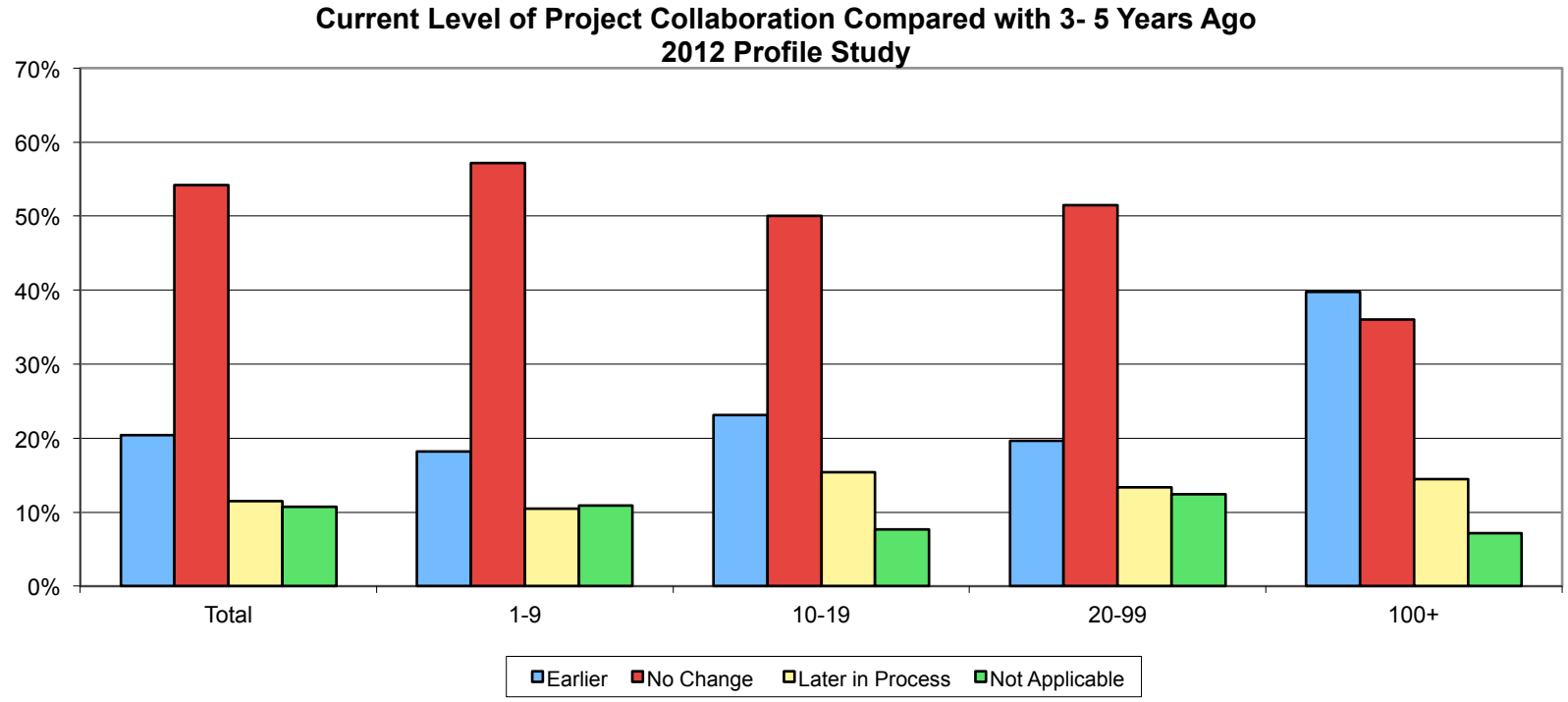
Ability to Influence Overall Design or Specifications With Building Owner or Design Team



Q 14a Total Sample 1024

Across the total sample, about 2 in 10 electrical contractors say that they now get involved *earlier* in the design collaboration; 55% report *no change* and 12% say that they now get involved *later* in the process, unchanged from 2010.

- Very large companies (100+, shown below and 50+ employees, not shown) are more likely than smaller firms to report getting involved *earlier* while electrical contracting firms with 1- 9 employees are more likely than larger firms to report "no change" in when they get involved in the design collaboration process.
- The results follow the 2010 findings very closely.

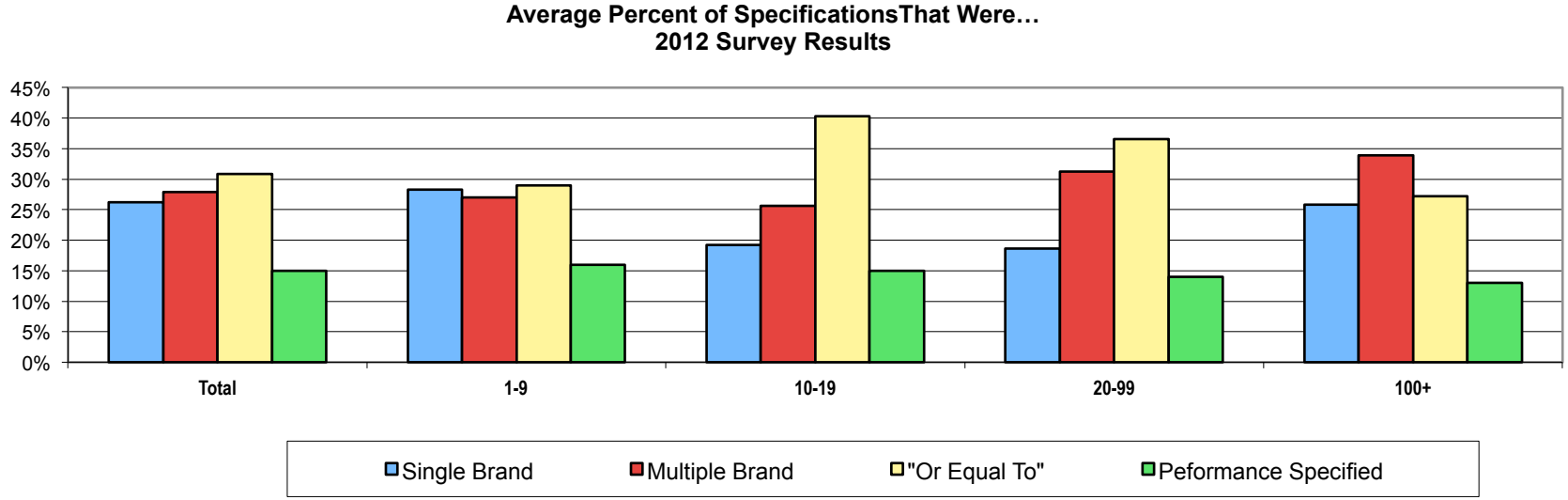


Q14b N= 1024

Brand Specification Options

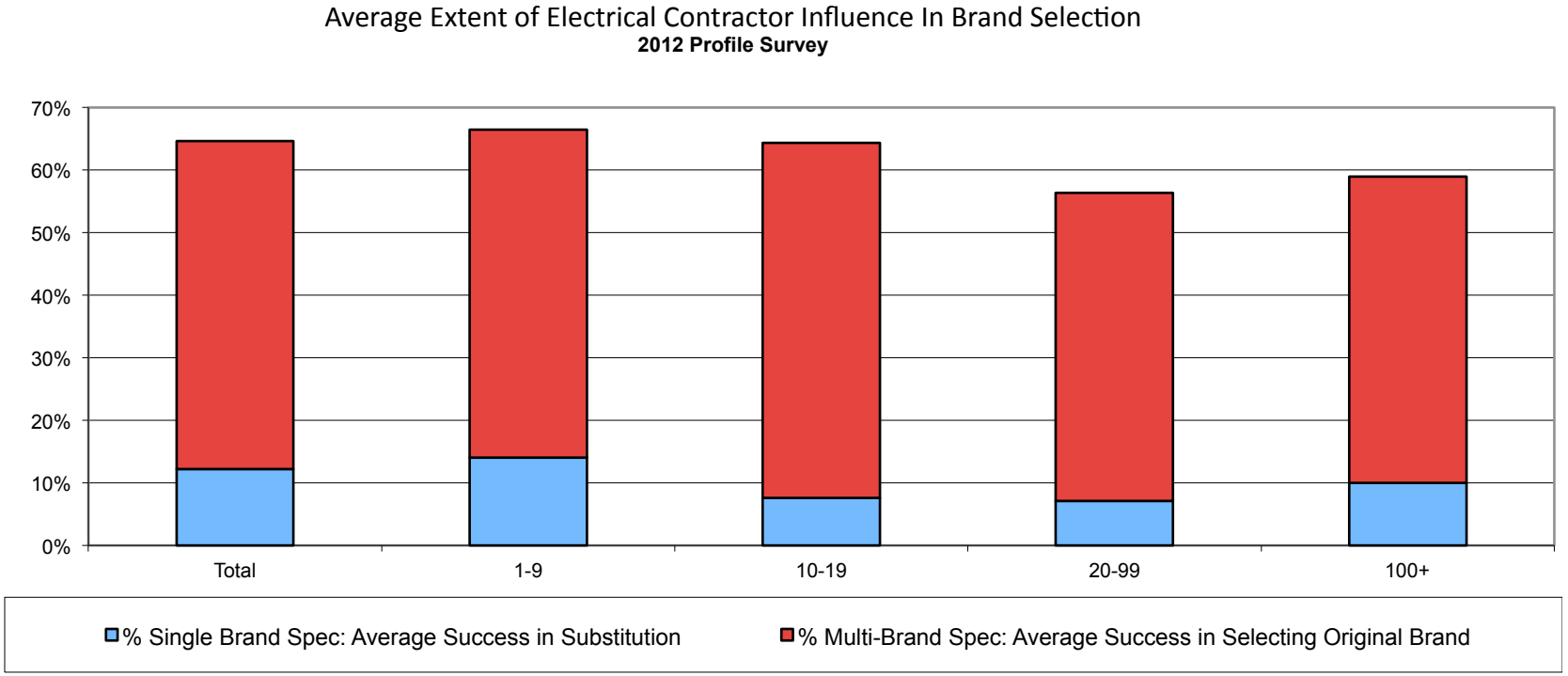
Respondents were shown a list of four options and were asked what percent of the specifications that their company receives fall into each category. On average, a "single" brand is specified about one-quarter of the time. In all other cases, other factors -- multiple brands, "or equal to" or performance specified – come into play.

- Note that a "single" brand specification is statistically more common among electrical contracting firms with 1- 9 employees than among larger firms (due to firms with 1-4 employees, not shown). In contrast, "or equal to" is most common among firms with 10-19 and 20-99 employees.
- Trended: The mean for single or proprietary brand rose significantly among firms with 100+ employees; it is up to 26% from 19% two years ago. During the same period, the mean for performance specified brands among firms with 10-19 employees rose to 15% from 8% two years ago. (Not shown)



Q10 N=1024

Respondents were then asked how much discretion they have in making a brand substitution. Overall, contractors are able to make brand substitutions about two-thirds 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?"

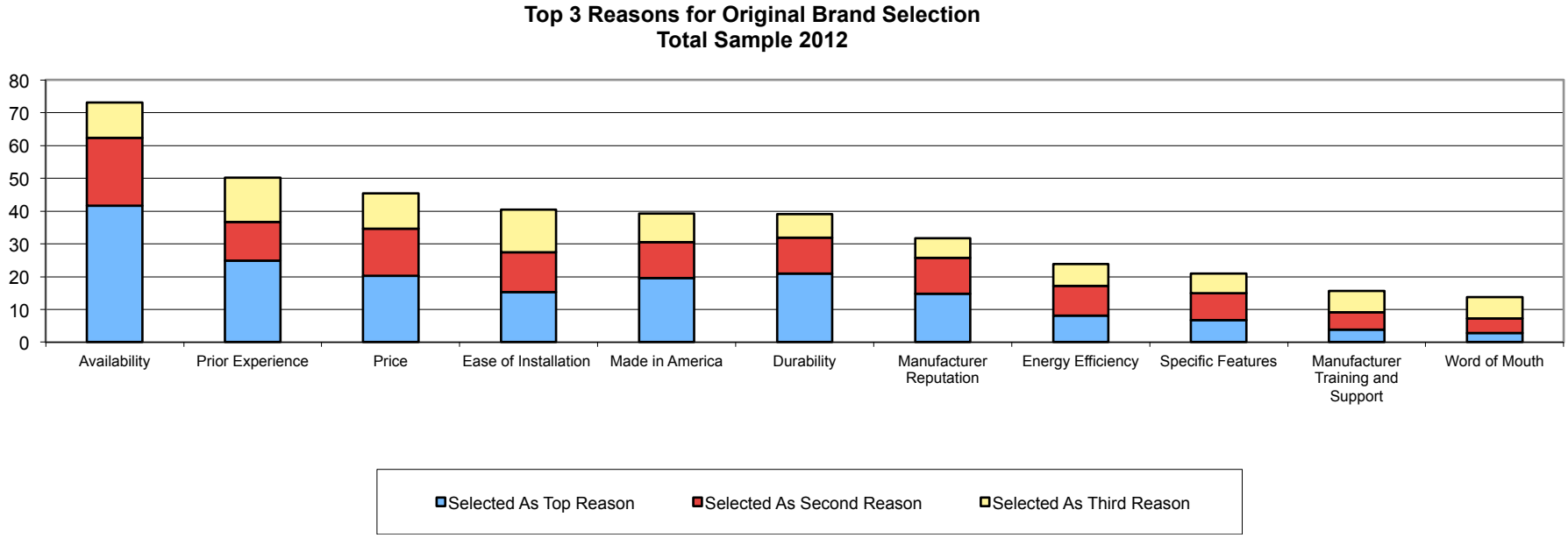
Q10, Q11a and Q12a N=1024

Main Reasons for Original Brand Selection and Substitution

Original Brand Selection: Among the total sample, Availability trumps and Price and all other attributes as both the top reason and on a combined basis of the top-3 reasons for original brand selection.

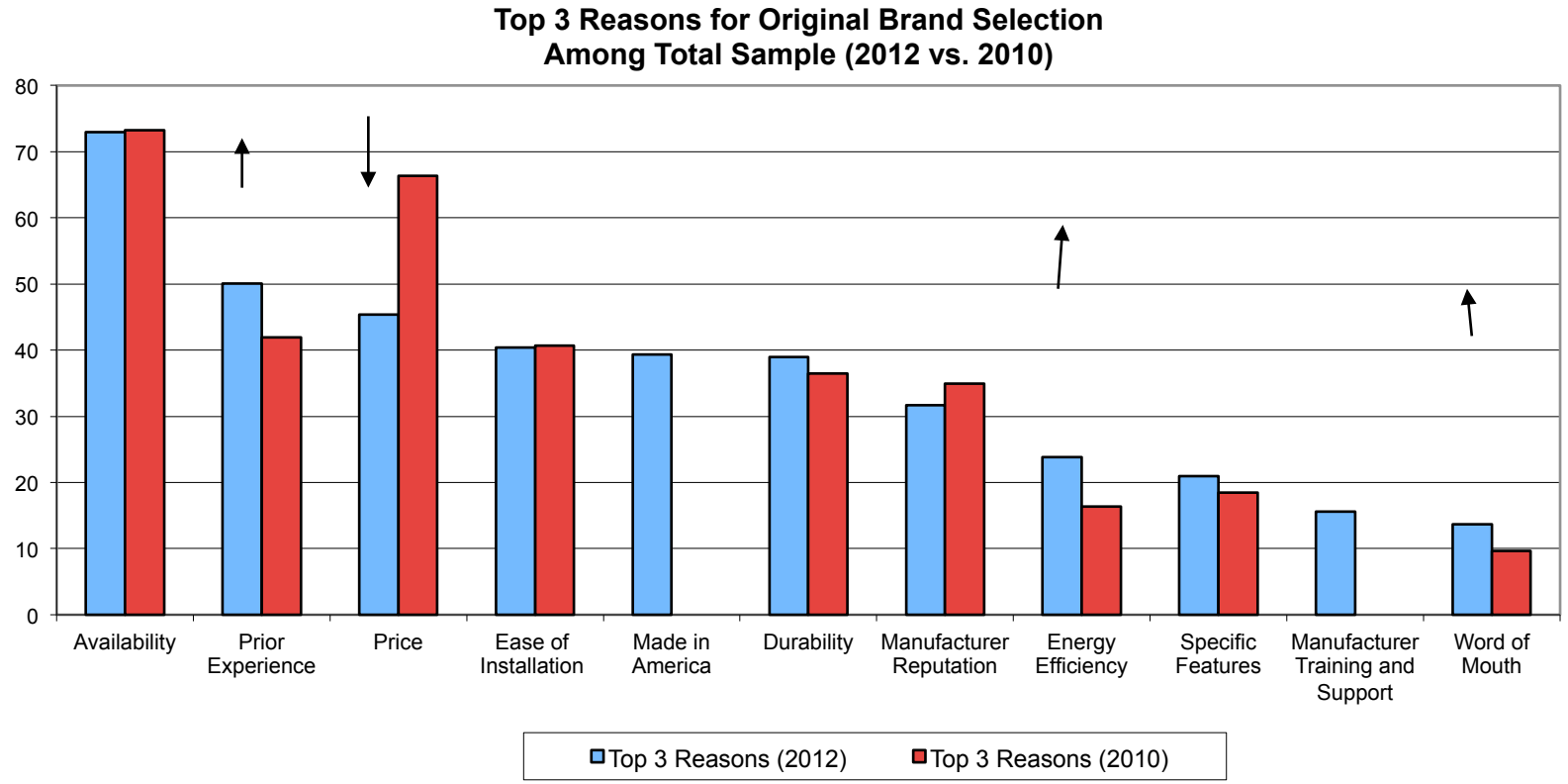
Prior Experience, Price, Ease of Installation, Made in America and Durability form a second tier; each was chosen by between about 40% and 50% on a combined basis as top reasons for initial brand selection. Interestingly, Energy Efficiency was only chosen by about one-quarter of electrical contractors as one of their three top reasons for original brand selection.

- Manufacturer Reputation emerges between the second tier and the lower tier of reasons that were chosen by about 20% or less as the main reasons for original brand selection.



Q12b N=1024

Compared with 2010, Price declined substantially (and significantly) as a top-3 reason for original brand selection while Prior Experience, Energy Efficiency and Word of Mouth were significantly more likely to be cited as a top-3 reason for original brand selection in 2012 than in 2010.



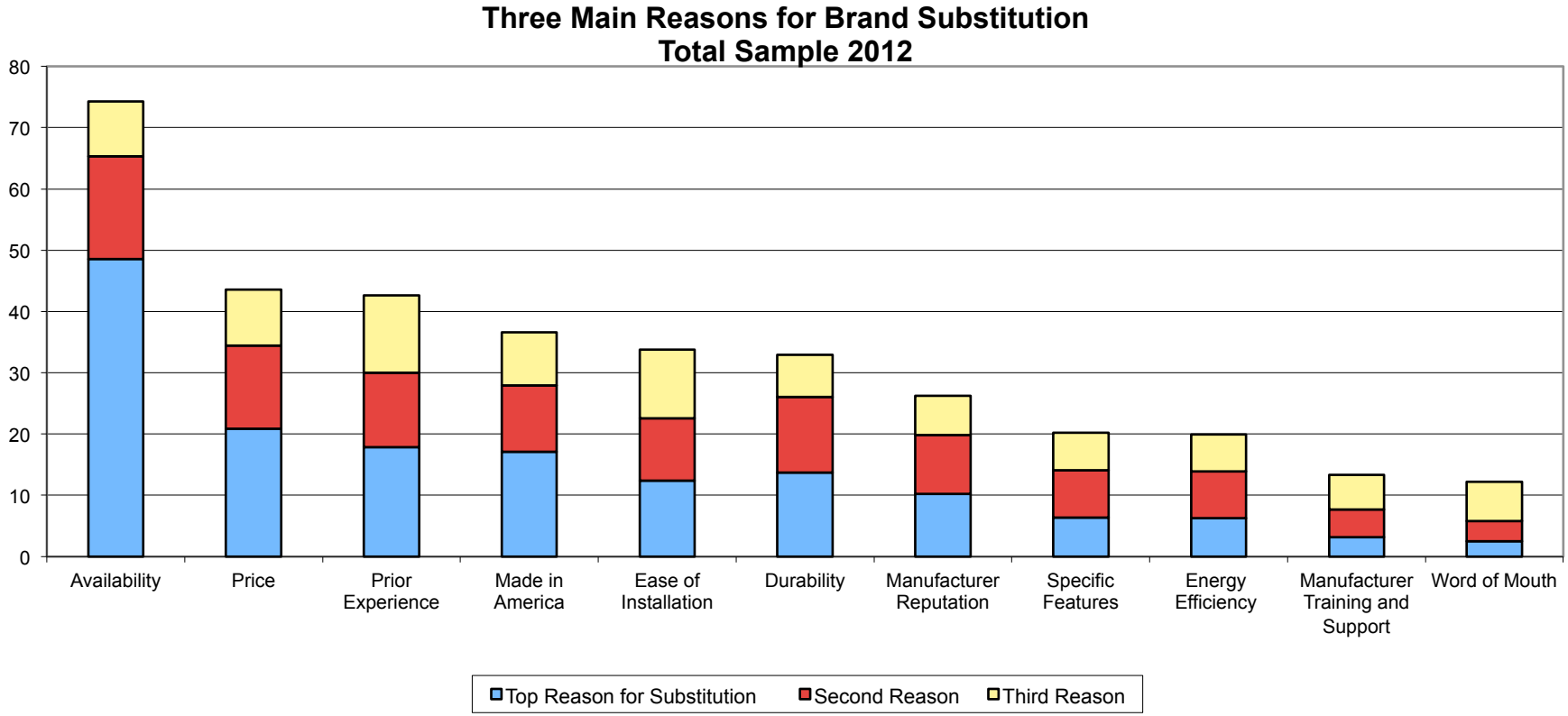
Made in America and Manufacturer Training and Support were first asked in 2012

2012 Total Sample = 1024; 2010 Total Sample = 1077

Brand Substitution: Among the total sample, Availability trumps and Price and all other attributes as both the top reason and on a combined basis of the top-3 reasons for brand substitution.

Price and Prior Experience form a second tier, followed closely by Made in America, Ease of Installation and Durability as the three top reasons for brand substitution. Manufacturer Reputation emerges between the third tier and the lower tiers. Energy Efficiency was only chosen by about 20% of electrical contractors as one of their three top reasons for brand substitution.

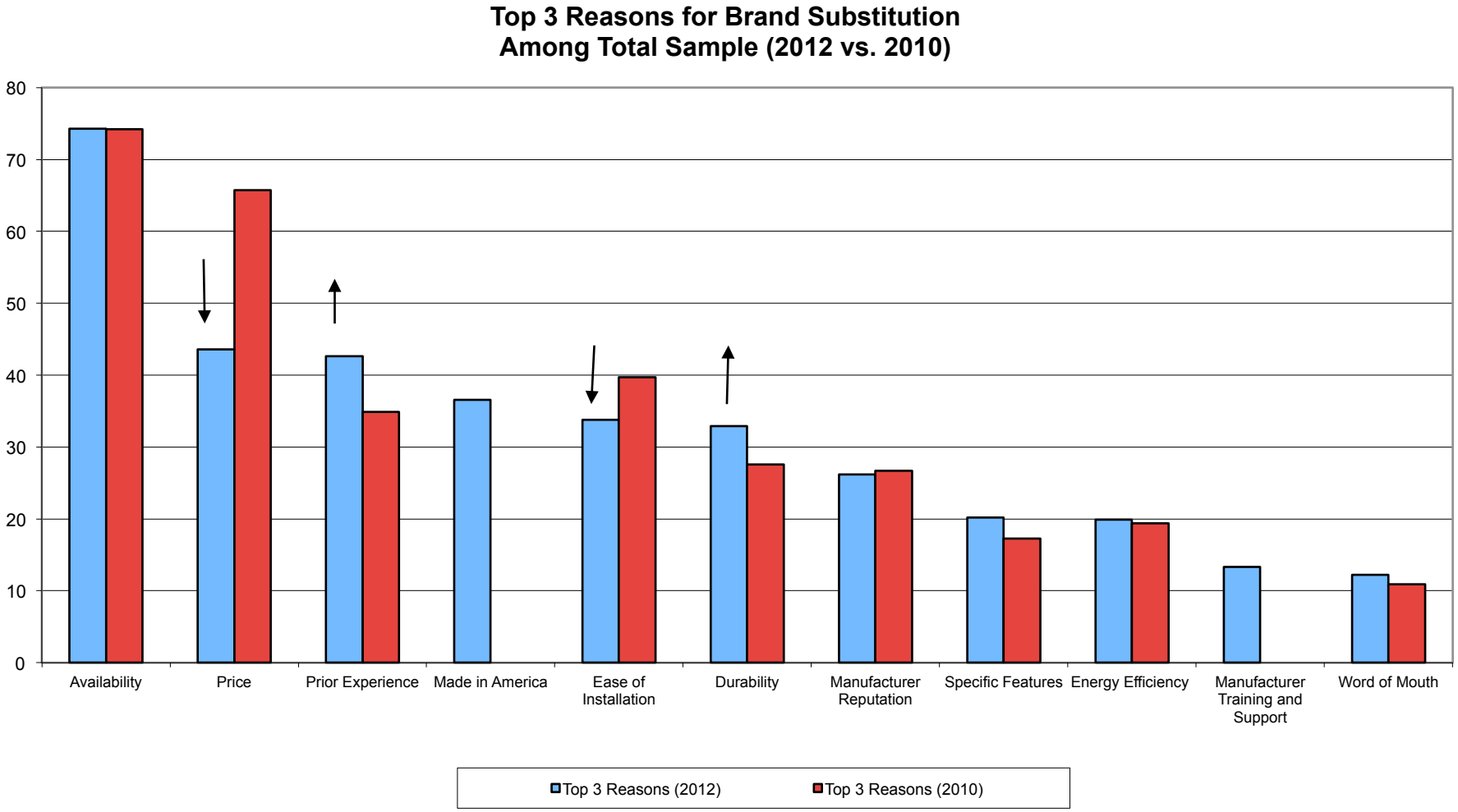
- Once again, it is somewhat surprising that Energy Efficiency does not play a larger role.



Q11b N= 1024

Compared with 2010, Price declined dramatically (and significantly) as a top-3 reason for brand substitution; Ease of Installation also posted a significant decline, but one that was not as large. Prior Experience and Durability were significantly more likely to be

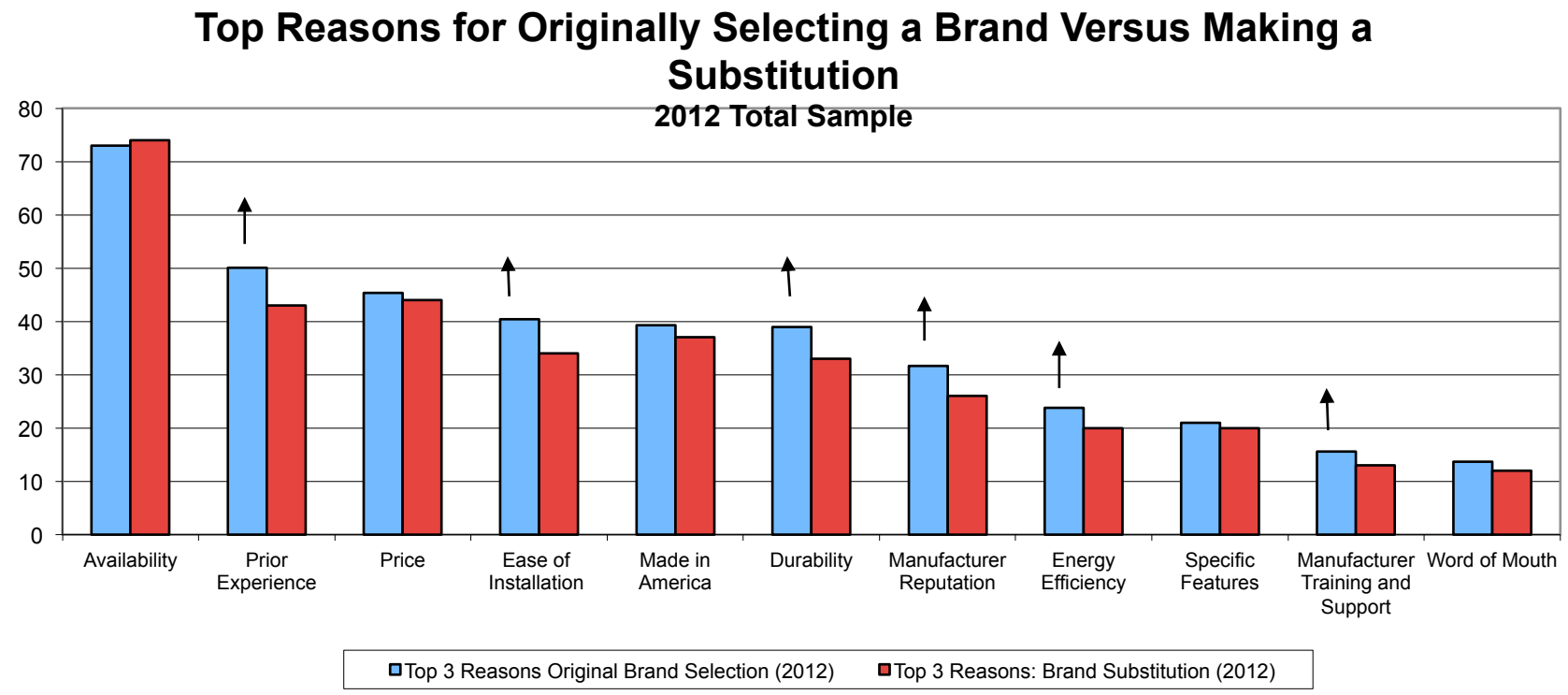
cited as a top-3 reason for brand substitution in 2012 than in 2010. Specific Features rose but the percentage difference was just short of significance at the 90% level of confidence.



Comparison of Main Reasons for Brand Selection Vs. Substitution

Availability emerges as substantially more important than any of the other attributes as the reason for originally selecting a brand and for brand substitution. In contrast, Prior Experience, Ease of Installation, Durability, Manufacturer Reputation, Energy Efficiency and Manufacturer Training and Support assume higher importance in the original specification --when time considerations may play less of a factor.

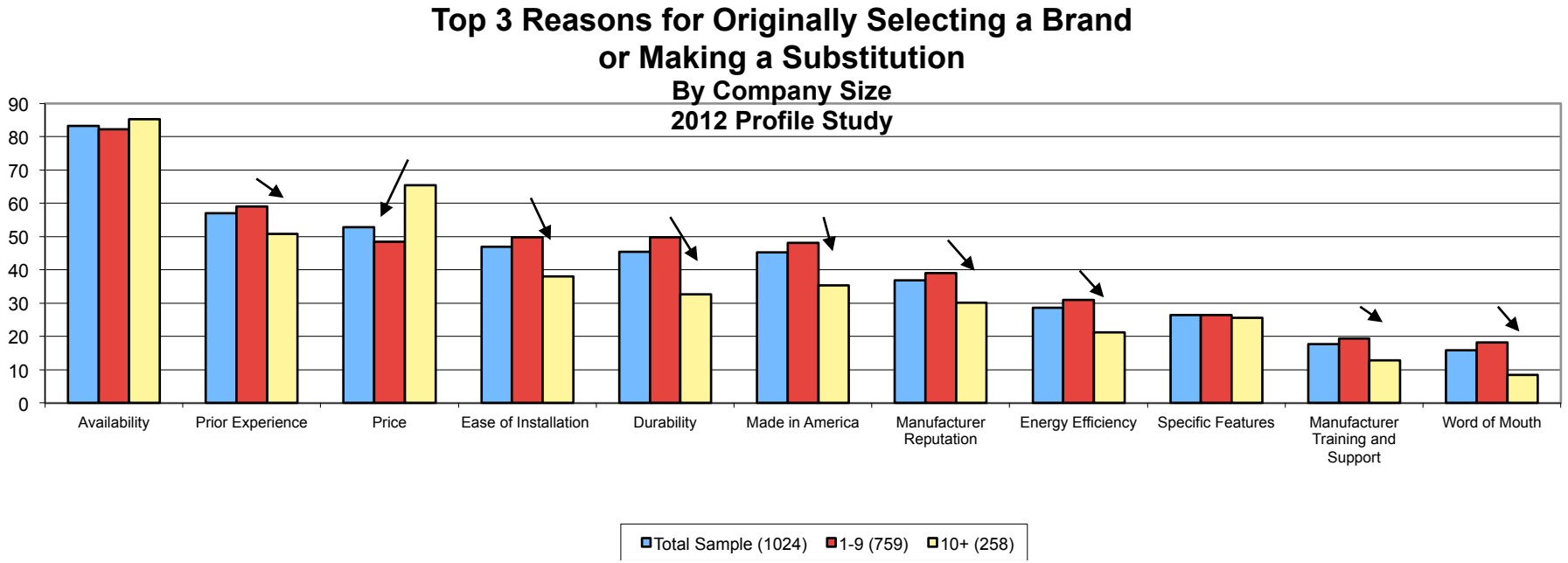
- These findings are generally consistent with 2010 results except that Price declined substantially as a main reason for both original selection and for brand substitution while Energy Efficiency emerged as more important in brand substitution than in original brand selection. In 2010, energy Efficiency emerged as more important when making a brand substitution.



Total Sample = 1024

There are important differences by company size (number of employees) that might prove helpful to manufacturers and marketers. As mentioned in previous ELECTRICAL CONTRACTOR research reports, those in smaller companies are more interested in ***reassurance*** so that attributes such as Prior Experience, Ease of Installation, Durability, Manufacturer Reputation, Manufacturer Training and Support and Word of Mouth are significantly more likely to be rated as a top reason for those in companies with 1-9 employees than those in firms with 10+ employees. Interestingly, those in small companies also mention Made in America and/or Energy Efficiency far more often than those in larger companies as a top reason for brand selection.

- This finding suggests that manufacturers and marketers communicate a message of reassurance and support particularly in product lines that are sold to small electrical contractors. In addition, Made in America appears to be highly important to the smaller contactor and rates as equally mentioned as price. Energy efficiency benefits should also be communicated in this market.
- In contrast, the only area that is more important to larger firms than to their smaller counterparts is price. However, availability trumps all other attributes.



Brand Choice: Main Reasons for Original Brand Selection /Substitution

There are relatively few differences among firms with 1-4 and 5-9 employees in terms of attributes that are cited as the main reasons for original brand selection/substitution (on a combined basis).

- Made in America scores higher among smaller firms: 50% of those in firms with 1-4 employees cite it as a top-three reason compared with 40% of those in firms with 5-9 employees.
    - In a related finding, Made in America is dramatically (and significantly) more important to those who are age 65 or older. It makes the top-three -reasons list for 57% of those aged 65+ compared with about 42% for those who are aged between 35 and 64.
    - Ease of installation and, to a lesser degree, word of mouth are also more likely to be on the top-three list of reasons for the over 65 year old electrical contractor. (Ease of installation makes the top-three list 53% of the time compared to 45% of the time for ecs who are 64 or younger. In the case of word-of-mouth, the comparison is between 20% for those 65+ and 13% for those who are between 35 and 64.)
- Among contractors aged 35-54, price is overwhelmingly the attribute that is more likely to make the top-three-reasons list (58% vs. 48% for those who are aged 55+). Specific features is also more likely to be mentioned by younger electrical contractors, but to a much lesser extent.

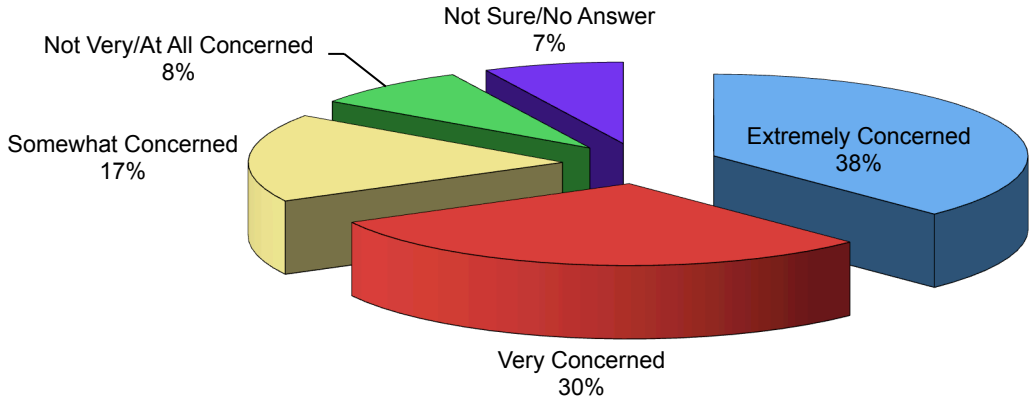
Counterfeit

This story is somewhat muddled.

Concern about the effectiveness of counterfeit products, tools and/or materials to meet codes rose from 60% in 2010 to 67% in 2012. This increase is just short of significance at the 90% level of confidence.

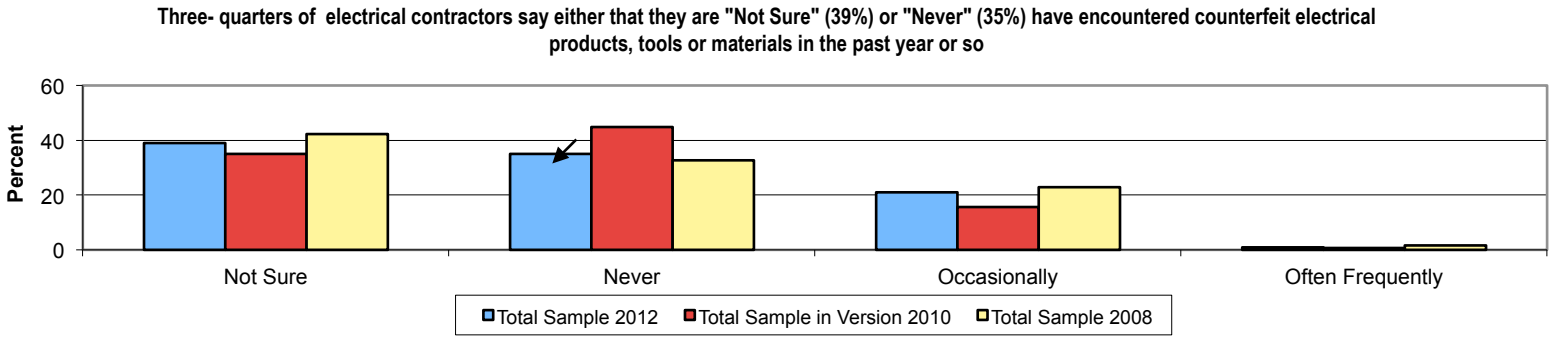
- In contrast to many of the other questions in this survey, there is no difference by number of employees.

67% are "Extremely" or "Very Concerned" About the Effectiveness and Ability of Counterfeit Products to Meet Codes (2012)



Q18b. Version 3 Sample = 234 (Total Sample = 1024)

As shown below, the percentages that say that they have “never” encountered counterfeit goods declined significantly while the percentages that say that they “occasionally” encounter counterfeits has increased but not significantly. What is puzzling is that the 2012 results resemble the 2008 results so closely.



Q18a. Version 3 Sample =274 (Total Sample=1077) Q18a Version 3

▲ *TRAINING and TOPICS OF INTEREST*

Will Take/Have Taken Training and What Was Studied

Seven in ten 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 (69%) or who plan to take training (69%). There is no change in the percent taking training or planning to take training versus two years ago.

NEC Changes, cited by 6 in 10, is the most popular topic among those who have or will take training are as follows

The most popular *future* (next 12 month) topics of study are Lighting, which was mentioned by 48% on a pooled (net) basis, Automation/Controls which is mentioned by 43% on a pooled (net) basis and Grounding/Bonding mentioned by 40%.

For each of the following subject areas, *next* 12 month interest is significantly higher than was interest on a *past* 12 month basis, suggesting that these may be 'hot-button' areas. These are courses in high-tech areas such as: Lighting: Lamp Technology, Automation Controls/Commercial Automation Systems, Green: Electrical Vehicle Charging Stations, Green: Energy Use Regulations Green: Energy Storage, various aspects of Cabling, Electrical Systems Design or BIM, Systems Integration and Sound and Video (Residential as well as Commercial)

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. [1]

[1] 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.

Next 12 Month Training -- Trended

- Compared to two years earlier, a higher percentage of electrical contractors now plan to take training in Safety (Electrical/Personal/On-Site/Jobsite). In contrast, fewer are planning to take training in 2012 compared to 2010 in Green on a net or pooled basis, and specifically in Green: LEED Certification or Green: Sustainable Building/Energy Audits.

Past 12 Month Training – Trended

- Compared to two years earlier, significantly more electrical contractors in 2012 reported having taken past 12-month training in Lighting: Ballasts: LED Drivers, Safety (Electrical/Personal/On-Site/Jobsite), Power Quality, Design/Build or Electrical System Design or BIM. In contrast, fewer ecs in 2012 said that they took training in Green: Sustainable Building/Energy Audits or various aspects of Cabling.

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Training -- Main focus of Course Work (2012 Profile Study)

	Next 12 Months	Past 12 Months
(Base Size of Version)	*(256)*	*(245)*
Will Take/Has Taken Training	*69%*	*69%*
And Answered Questions About Course Work	*(184)*	*(176)*
NEC Changes	*63%*	*58%*
AUTOMATION/CONTROLS (NET)	*43%>*	*29%*
Fire / Life Safety Systems	*22%*	*18%*
Security Systems	*14%*	*9%*
Automation / Controls: Commercial Automation Systems	*19%>*	*10%*
Automation / Controls: Home Automation Systems	*14%*	*9%*
LIGHTING (Net)	*48%*	*43%*
Lighting: Controls / Systems	*39%*	*35%*
Lighting: Ballasts / LED Drivers	*31%*	*27%*
Lighting: Lighting Design	*29%*	*26%*
Lighting: Lamp Technology	*29%>*	*21%*
Grounding / Bonding	*40%*	*40%*
Safety (Electrical / Personal / On-Site / Jobsite)	*36%*	*40%*
GREEN/SUSTAINABLE NET	*32%*	*28%*
Green: Alternative Energy Systems	*16%*	*14%*
Green: Electrical Vehicle Charging Stations	*16%>*	*9%*
Green: LEED Certification	*11%*	*7%*
Green: Green / Sustainable Building / Energy Audits	*10%*	*6%*
Green: Energy Use Regulations	*10%>*	*5%*
Green: Energy Storage	*6%>*	*2%*
CABLING (NET)	*28%>*	*18%*
Cabling: Cabling (Power)	*16%*	*12%*
Cabling: Data and Telecom (Cable, Conduit, etc.)	*19%>*	*8%*
Cabling: Data and Telecom: Testing	*18%>*	*7%*
Power Quality	*20%*	*15%*
Estimating / Financial Management	*19%*	*14%*
Design Build	*19%*	*14%*
Developing New Business Opportunities	*14%*	*13%*
Electrical System Design or BIM	*19%>*	*12%*
Increasing Productivity	*10%*	*9%*
Systems Integration	*16%>*	*8%*
Sound and Video (Residential)	*12%>*	*6%*
Sound and Video (Commercial)	*13%>*	*5%*
Renovation / MACs / Maintenance	*7%*	*4%*
Line Work	*4%*	*2%*

Training -- Main focus of Course Work—Trended (Profile Study: 2012 and 2010)

Next 12 Months – Trended

	2012	2010
(Base Size of Version)	*(256)*	*(283)*
Will Take/Has Taken Training	*69%*	*67%*
And Answered Questions About Course Work	*(184)*	*(190)*
NEC Changes	*63%*	*55%*
AUTOMATION/CONTROLS (NET)	*43%*	*44%*
Fire / Life Safety Systems	*22%*	*20%*
Security Systems	*14%*	*14%*
Automation / Controls: Commercial Automation Systems	*19%*	*17%*
Automation / Controls: Home Automation Systems	*14%*	*20%*
LIGHTING (Net)	*49%*	*46%*
Lighting: Controls / Systems	*39%*	*42%*
Lighting: Ballasts / LED Drivers (LED Drivers added to Ballasts in 2012)	*31%*	*25%*
Lighting: Lighting Design	*29%*	--
Lighting: Lamp Technology	*29%*	*24%*
Grounding / Bonding	*40%*	*35%*
Safety (Electrical / Personal / On-Site / Jobsite)	*36%>*	*28%*
GREEN/SUSTAINABLE (NET)	*32%*	*<42%*
Green: Alternative Energy Systems	*16%*	*21%*
Green: Electrical Vehicle Charging Stations	*16%*	--
Green: LEED Certification	*11%*	*<21%*
Green: Green / Sustainable Building / Energy Audits	*10%*	*<27%*
Green: Energy Use Regulations	*10%*	*12%*
Green: Energy Storage	*6%*	--
CABLING (NET)	*28%*	*34%*
Cabling: Cabling (Power)	*16%*	*18%*
Cabling: Data and Telecom (Cable, Conduit, etc.)	*19%*	*19%*
Cabling: Data and Telecom: Testing	*18%*	*14%*
Power Quality	*20%*	*18%*
Estimating / Financial Management	*19%*	*22%*
Design Build	*19%*	--
Developing New Business Opportunities	*14%*	--
Electrical System Design or BIM *(was* **Design Build or BIM in 2010)**	*19%*	*17%*
Increasing Productivity	*10%*	*15%*
Systems Integration	*16%*	--
Sound and Video (Residential)	*12%*	--
Sound and Video (Commercial)	*13%*	--
Renovation / MACs / Maintenance	*7%*	--
Line Work	*4%*	*2%*

Training -- Main focus of Course Work—Trended (Profile Study: 2012 and 2010)

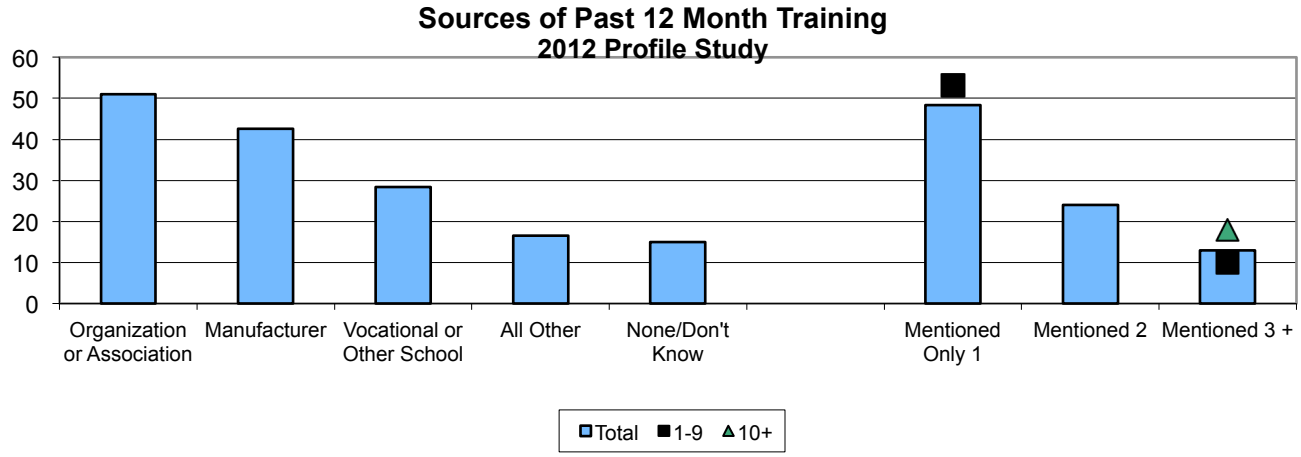
Past 12 Months – Trended

	2012	2010
(Base Size of Version)	*(245)*	*(297)*
Will Take/Has Taken Training	*69%*	*63%*
And Answered Questions About Course Work	*(176)*	*(187)*
NEC Changes	*58%*	*55%*
AUTOMATION/CONTROLS (NET)	*29%*	*27%*
Fire / Life Safety Systems	*18%*	*14%*
Security Systems	*9%*	*9%*
Automation / Controls: Commercial Automation Systems	*10%*	*11%*
Automation / Controls: Home Automation Systems	*9%*	*8%*
LIGHTING (Net)	*42%*	*37%*
Lighting: Controls / Systems	*35%*	*31%*
Lighting: Ballasts / LED Drivers (LED Drivers added to Ballasts in 2012)	*27%>*	*14%*
Lighting: Lighting Design	*26%*	--
Lighting: Lamp Technology	*21%*	*18%*
Grounding / Bonding	*40%*	*37%*
Safety (Electrical / Personal / On-Site / Jobsite)	*40%>*	*32%*
GREEN/SUSTAINABLE NET	*28%*	*25%*
Green: Alternative Energy Systems	*14%*	*11%*
Green: Electrical Vehicle Charging Stations	*9%*	--
Green: LEED Certification	*7%*	*8%*
Green: Green / Sustainable Building / Energy Audits	*6%*	*<11%*
Green: Energy Use Regulations	*5%*	*4%*
Green: Energy Storage	*2%*	--
CABLING (NET)	*18%*	*<26%*
Cabling: Cabling (Power)	*12%*	*16%*
Cabling: Data and Telecom (Cable, Conduit, etc.)	*8%*	*<17%*
Cabling: Data and Telecom: Testing	*7%*	*11%*
Power Quality	*15%>*	*8%*
Estimating / Financial Management	*14%*	*13%*
Design Build *(was* Design Build or BIM in 2010)	*14%>*	*6%*
Developing New Business Opportunities	*13%*	--
Electrical System Design or BIM *(*Design Build or BIM in 2010)	*12%>*	*6%*
Increasing Productivity	*9%*	*10%*
Systems Integration	*8%*	--
Sound and Video (Residential)	*6%*	--
Sound and Video (Commercial)	*5%*	--
Renovation / MACs / Maintenance	*4%*	--
Line Work	*2%*	*4%*

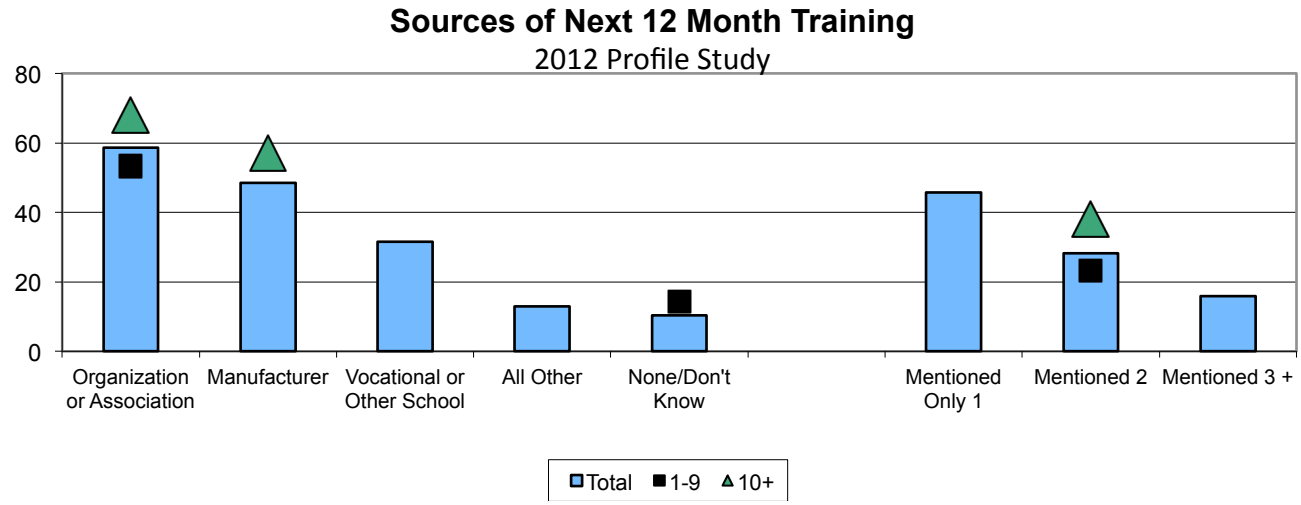
Sources of Training

Organizations/Associations are among the most frequently mentioned sources of training.

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



Version 1 Sample = 176



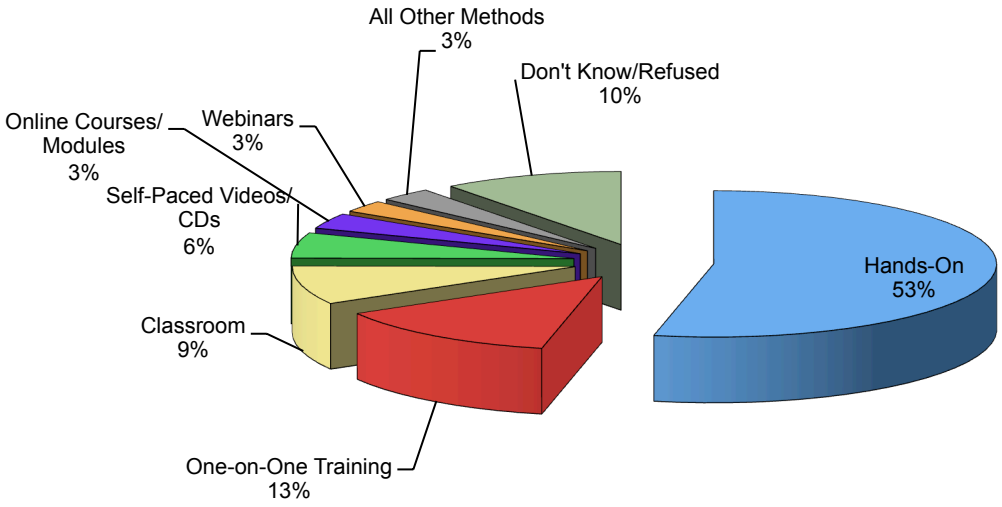
Version 2 Sample = 184

Preferred Method of Training

Hands-On training (preferred by 53%) wins hands down as the *single* preferred method of learning how to use new products, technology or systems! Nevertheless, Hands-On training dropped significantly from two years ago when it was 61%. However, there was no single type of training that rose significantly to account for the decline.

- In contrast, One-on-One, Classroom, Self-Paced Videos/CD and Webinars are each preferred by between 13% and 3% of electrical contractors.
- Although Webinars declined from about 6% to about 3%, this may be the result of a new and similar category that was introduced in the 2012 Profile: Online courses/modules, which garnered 3%.

One Preferred Method of Learning How to Use New Products, Technology or Systems: 2012 Profile Study



Classroom and one-on-one, training are seen as useful to about 5 in 10 contractors when they are asked to include all of the types of training that they find helpful. In terms of total Self-paced videos and Webinars are viewed as more helpful among larger electrical contracting firms (10+ employees) compared with smaller ec firms. .

Training Methods -- Total Helpful and One Preferred