

ELECTRICAL

POWER & INTEGRATED BUILDING SYSTEMS

2018 PROFILE OF
THE ELECTRICAL
CONTRACTOR
**TOOLS AND
EQUIPMENT**



CONTRACTOR

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**2018 “ELECTRICAL CONTRACTOR MAGAZINE PROFILE”
DATABASE REPORT**

**ELECTRICAL
CONTRACTORS:
THEIR USE, PURCHASE AND LEASE OF:
CONSTRUCTION SITE TOOLS AND EQUIPMENT
HAND TOOLS
POWER TOOLS
PIPE THREADERS/BENDERS/CUTTERS
CABLE PULLERS
AERIAL LIFTS AND SCAFFOLDING
DIGGING/HDD/ BORING EQUIPMENT
CRANES
MOBILE OFFICE SPACE
PORTABLE GENERATORS
TRAILERS (TO HAUL EQUIPMENT)
PERSONAL PROTECTIVE EQUIPMENT/APPAREL
JOBSITE SAFETY EQUIPMENT
TEMPORARY JOBSITE LIGHTING**

INCLUDING ESTIMATES BASED ON THE 2016 COUNTY BUSINESS PATTERNS

**A SPECIAL REPORT PREPARED BY
RENAISSANCE RESEARCH & CONSULTING, INC.**

FOR:

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KEY FINDINGS

This report is volume one of a two-volume report covering different types of tools and equipment as well as use of electronic devices and software. Pages 1 and 2, as well as pages 9 – 21 are common to both reports.

PURCHASE AND LEASE BEHAVIOR OVERVIEW:

Tools and Equipment **Used** in 2017

In the 2018 Profile Study, for the first time, electrical contractors were asked to indicate which of 22 types of tools and equipment they or their firm **used** in the previous year.

Not surprisingly, many of the top categories mentioned were those that received high levels of purchase and/or rental/lease in previous Profile Studies, with at least 7 in 10 mentioning: Hand Tools, Power Tools, Electrical Testers and Multimeters, Pipe Threaders/Benders/Cutters and Smart Phones or Two-Way Radios.

Not surprisingly, upwards of 88% say that they made use of multiple types of tools and equipment in 2017.

Tools and Equipment **Purchased** in 2017

Eight in ten electrical contractors (81%) reported purchasing Tools and Equipment in 2017, statistically unchanged from two years earlier.

Hand Tools and Power Tools continue to top the list.

- In sharp comparison to the 2015 findings, where there were widespread declines compared with two years earlier, in the 2017 purchase results, 7 of the types of tools and equipment that can be trended rose, one type declined (Aerial Lifts & Scaffolding) and the remainder were statistically unchanged or could not be trended because they were just added in the most recent study.

The 7 categories that posted increases are: Personal Protective Equipment or Apparel, Labeling & documentation, Pipe Threaders, Benders, Cutters, Tablets or Portable Reading Devices, Temporary Jobsite Lighting, Cable Pullers, LAN Teledata and Low Voltage.

Multiple: As has been the case in earlier Profile studies, in 2017, the bulk of electrical contractors made purchases in *multiple* categories (75% in 2015), statistically unchanged from two years earlier. Multiple purchases in 2+, 4+ and 6+ categories are also statistically unchanged compared to two years earlier.

Tools and Equipment **Rented/Leased** in 2017

Almost 6 in 10 electrical contracting firms rented/leased equipment in 2017. This is a huge and statistically significant jump from the 37% level observed in 2015. In fact, even going back to 2011, rental/lease was never higher than 43%. Nevertheless, electrical contractors remain more likely to obtain tools and equipment through outright purchase (81%) than through rental/lease (57%).

Aerial Lifts/Scaffolding and Digging/HDD/Boring Equipment continue to be the two categories that are obtained through rental/lease most often.

In addition to Aerial Lifts/Scaffolding and Digging/HDD/Boring Equipment, Cranes and Mobile Office Space are the only four categories that are more likely to be obtained through rental/lease than through purchase.

Compared to two years ago, the rental/lease of Aerial Lifts/Scaffolding and Digging/HDD/Boring Equipment each posted statistically significant increases.

- In addition, rental/lease has also increased compared to two years earlier in the following categories: Cranes, Mobile Office Space, Portable Generators and Trailers (to Haul Equipment); and to a lesser extent in these categories: Power Tools, Cable Pullers, Jobsite Safety Equipment and Pipe Threaders, Benders, Cutters.

Among the total sample, fully 41% of electrical contractors rented/leased in two or more categories. This is a huge jump from the 19% observed two years ago and is a statistically significant increase. Rental/lease in 3+ categories also jumped significantly compared with two years earlier.

- Rental/lease “Any”, and in multiple categories is higher among larger firms and/or among firms that work primarily on CII rather than Residential projects.

KEY FINDINGS: TOOLS

Hand Tools

70% of respondent firms made a purchase in the Hand Tools category in 2017, only 3.5% reporting renting in this category, both levels are statistically unchanged compared with two years earlier.

There are no subgroup differences. In contrast, two years ago, purchase levels were higher among small firms and/or those firms that work primarily on Residential projects compared with larger firms and/or those that work primarily on CII projects.

Power Tools

66% of electrical contracting firms reported making a 2017 purchase of Power Tools, statistically unchanged compared with two years earlier.

- 7.5% of electrical contractors reported leasing or renting Power Tools in 2017. This is a significant increase versus two years earlier, when it was 4%, and represents an approximate return to the 7% level observed in 2013.
- In 2017, larger firms were more likely than smaller firms to obtain Power Tools, either by purchase or through rental/lease. There is no difference by primary type of work performed.

Pipe Threaders, Benders and Cutters

28% of electrical contracting firms purchased Pipe Threaders/Benders/Cutters in 2017, a statistically significant increase from 2015 when the purchase level was 22% and a return to the purchase level of 28% observed in 2013. 4.8% said that their firm obtained Pipe Threaders/Benders/Cutters through rental, which is also a statistically significant increase compared with two years earlier.

In 2017, larger firms and/or those who work primarily on CII projects continue to be far more likely to purchase Pipe Threaders/ Benders/Cutters.

There are no differences by subgroup in 2017 rental/lease likelihood.

Cable Pullers

19% of electrical contracting firms purchased Cable Pullers in 2017, a significant increase that is almost double the level recorded two years ago. Renting/leasing also rose compared to two years earlier to 8 % from 2.7%

Large firms and/or those that work primarily on CII projects are significantly more likely to have obtained Cable Pullers in the previous year by purchase and/or by rental/lease compared with smaller firms and/or those that work primarily on Residential projects.

KEY FINDINGS: CONSTRUCTION SITE EQUIPMENT

Overview: Construction Site Equipment – specifically Aerial Lifts and Scaffolding and Digging/HDD/Boring Equipment, Mobile Office Space and Cranes -- is one of the few categories where equipment is more likely to be obtained through *rental/lease* than through outright *purchase*.

- In only two categories – Trailers to Haul Equipment and Portable Generators-- are the levels of rental fairly close to the purchase level. In contrast, however, acquisition in all of the other categories including Personal Protective Equipment, Jobsite Safety Equipment, and Temporary Jobsite Lighting were and are much more likely to be obtained through purchase.

Aerial Lifts/Scaffolding Rental/Lease and Purchase Behavior

In 2017, 46% of firms obtained Aerial Lifts and Scaffolding through *rental/lease* and 6% through *purchase*.

- Lease/Rental: The percentage *renting or leasing* Aerial Lifts, Scaffolding rose dramatically and significantly from 2015. In contrast, between 2015 and 2013, this percentage had held steady.
- Purchase: The percentage making a *purchase* declined significantly from 2015. Purchase levels have been declining since 2013.

Not surprisingly, large firms and/or those that work primarily on CII projects are far more likely than their smaller counterparts and/or those that work primarily on Residential projects to have acquired Aerial Lifts/Scaffolding through either rental/lease or through purchase.

Digging/HDD/Boring Equipment

In 2017, 28% of electrical contracting firms obtained Digging/HDD/Boring Equipment through *rental/lease* and 4% through *purchase*.

- Compared with two years earlier, the rental/lease levels jumped dramatically and significantly for Digging/HDD/Boring equipment. However, purchase levels are statistically unchanged.

Larger electrical contracting firms are more likely than smaller electrical contracting firms to obtain Digging/HDD/Boring equipment through *rental/lease* compared with smaller firms.

Firms that work primarily on CII projects are more likely to *purchase* Digging/HDD Boring equipment compared with firms that work primarily on Residential projects.

Cranes Rental/Lease and Purchase Behavior

17% of electrical contractors obtained Cranes in 2017 through *rental/lease* and only 1.2% through *purchase*.

- The percentage of electrical contractors who obtain Cranes through *rental/lease* almost tripled, to 17%. This represents a statistically significant increase from two years earlier.
- However, the percentage making a purchase, at 1.2% is statistically unchanged compared with two years earlier.

Not surprisingly, Cranes are more likely to be rented/leased by larger firms and/or by those that work primarily on CII projects.

Mobile Office Space

12% of electrical contractors obtained Mobile Office Space in 2017 through *rental/lease* and 2.8% through *purchase*. The percentage renting/leasing Mobile Office Space doubled to 12%, - which is a statistically significant increase versus two years ago, while the percentage purchasing in this category is statistically unchanged.

Mobile Office Space is more likely to have been obtained in 2017 by larger firms and/or firms working primarily on CII projects than by smaller firms and/or firms working primarily on Residential projects. This is the case for both rental/lease and purchase.

In the next two sections -- Portable Generators and Trailers (to Haul equipment)
-- *purchase* plays a somewhat larger role than *rental/lease*.

Portable Generators

16% of electrical contracting firms *purchased* Portable Generators in 2017, statistically unchanged from the 2015 results. 11% obtained Portable Generators through *rental/lease*, a statistically significant increase. Note that rental/lease levels are almost three times as high as what was observed in 2015.

Of the categories where rental/lease plays at least a non-negligible role, this is the first category in this report where the level of purchase is actually higher than the level of rental/lease.

Large firms and/or those that work primarily on CII projects are significantly more likely than smaller firms and/or those that work primarily on Residential projects to have made a purchase or rental/lease in this category.

Trailers (to Haul Equipment)

This is the second of the two categories where rental/lease plays at least a non-negligible role, and where the level of purchase is actually higher than the level of rental/lease.

12% of electrical contracting firms *purchased* Trailers (to Haul Equipment) in 2017. This is statistically unchanged from the level observed in 2015.

8% *rented or leased* Trailers (to Haul Equipment) in 2017, up dramatically and significantly from the 2015 level of 3.4%.

Purchase levels are higher among firms with 10+ employees and/or among firms working primarily on CII projects.

There is no statistically significant difference in *rental/lease* levels by number of employees but rental levels are higher among firms working primarily on CII projects compared with firms working primarily on Residential projects.

Personal Protective Equipment/Apparel

In the remaining sections – Personal Protective Equipment, Jobsite Safety Equipment and Temporary Jobsite Lighting – purchase plays a much more dominant role than rental/lease.

42% of electrical contracting firms reported a 2017 *purchase* of Personal Protective Equipment/Apparel, a statistically significant increase compared with 2015.

Only 2% of electrical contracting firms *rented/leased* in this category, statistically unchanged from the levels observed in 2015.

Purchase levels are higher among larger companies and/or firms that work primarily on CII construction rather smaller firms and/or those that primarily work on Residential construction.

Jobsite Safety Equipment

28% of electrical contracting firms reported a 2017 purchase of Jobsite Safety Equipment. 6% obtained Jobsite Safety Equipment through rental/lease.

While purchase levels remained statistically unchanged, rental/lease activity jumped dramatically and significantly to 6% from 1.4% two years earlier.

In 2017, *purchase* levels were higher among larger companies and/or companies that work primarily on CII projects compared with companies that have 1-9 employees and/or that work primarily on Residential projects.

Temporary Jobsite Lighting

23% of electrical contracting firms purchased Temporary Jobsite Lighting in 2017, which is a statistically significant increase from the 15% measured two years earlier. Only 4% rented or leased in this category in 2017.

Purchase levels are significantly higher among larger electrical contracting firms and/or among those that work primarily on CII projects. There are no statistically significant differences in rental behavior by number of employees or whether Residential or CII projects make up the firm's primary source of revenue.

METHODOLOGY

This report focuses on electrical contractors' use, purchase, rental/lease for hand tools and power tools and construction site equipment. In 2018, two new categories were included. They are: Drones and 3-D Printers, Please note that the Profile study is conducted in even years (2018 or 2016) and asks about the previous year (2017 or 2015).

The survey was conducted by postal mail and via the Internet among a random sample of ELECTRICAL CONTRACTOR subscribers. The field period for the survey began on March 7, 2018 (for both the Internet and postal mail versions), and ended on April 3, which was the deadline for the July 2018 article. A total of 1597 interviews were completed – 901 via the Internet and 696 via postal mail. The data were weighted to equalize the influence of the two modes so that it was in line with the 50/50 split which was the case in the most recent Profile studies.

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, up to a total of \$10,000. For the first time, the magazine also offered a sweepstakes drawing for one of five \$150 Amazon e-gift cards

The Internet option was first introduced in 2004. In 2004 and 2006, the proportion of surveys completed via the Internet versus postal mail was approximately 60/40. Since 2008, the proportion has been closer to 50/50. As noted above, in 2014, the data were weighted to equalize the proportion that participated via postal mail and via the Internet.

In 2014, in order to accommodate a longer list of questions while at the same time lessening the burden on the respondent, the survey was shortened from 5 print pages to 4. In order to accommodate all of the questions, the survey was produced in 8 versions (up from 4). This required a much larger sample size so that each of the questions would be asked of a large enough sample to allow for analysis – particularly by subgroups. These changes provided the opportunity to increase the sample size in certain of the versions in order to provide increased statistical reliability. In 2018 as in 2016, a total of 7 versions of the survey were produced. For this version of the survey, the sample was 234.

As in the past, statistical testing is done at the 90% level of confidence.

For this report, the estimates of market size are based on the 2016 County Business Patterns (CBP).

This research was conducted by New York, NY-based Renaissance Research & Consulting, Inc. (www.renaiss.com), an independent marketing research firm that has, as one of its specialties, market research for the construction industry.

DETAILED FINDINGS

Tools and Equipment Use, Purchase and Rental/Lease Overview

Tools and Equipment Used in 2017

In the 2018 Profile Study, for the first time, electrical contractors were asked to indicate which of 22 types of tools and equipment they or their firm **used** in the previous year.

Not surprisingly, many of the top categories mentioned were those that received high levels of purchase and/or rental/lease in previous Profile Studies, with at least 8 in 10 mentioning: Hand Tools, Power Tools, Electrical Testers and Multimeters; 7 in 10 mentioned Pipe Threaders/Benders/Cutters and Smart Phones or Two-Way Radios.

Between 52% and 59% of the firms surveyed said that they or their firm used the following in 2017: Personal Protective Equipment or Apparel, Labeling & Documentation, Trailers to Haul Equipment Cable Pullers, Aerial Lifts/Scaffolding

More than 4 in 10 firms surveyed mentioned: Temporary Jobsite Lighting, Portable Generators, Jobsite Safety Equipment, Software*, Tablets or Portable Reading Devices.

About one-third mentioned LAN, Teledata, Low Voltage Meters

About one-quarter of firms surveyed mentioned: Digging/HDD/Boring Equipment ** and/or Thermal Imaging.

About 10% mentioned using Mobile Office Space and/or Cranes **.

5% mentioned 3-D Scanners and/or Drones.

The table follows on the next page.

*Based on a different series of questions (asked in a different version of the survey), we believe that software usage by electrical contractors is actually in the 75% range. Instead of asking the participants about their use of “software”, we asked if the respondents handled each of the 13 tasks “...internally, using a computer”. This was done because we had concerns that the word “software” may be ambiguous to survey participants, for example, if it comes pre-loaded is it viewed as “software”.

**Note: In the cases of Digging/HDD/Boring Equipment and Cranes, a somewhat higher percentage of firms said that they had *purchased* and/or *rented/leased* these types of equipment than had reported *using* them. This could be an error in reporting on the part of participants or it could be that these items were acquired in anticipation of their later use, or some combination of the two.

Tools and Equipment Used in 2017	Total
	(234)
	%
“Any”	91
Hand Tools	82
Power Tools	82
Electrical Testers, Multimeters	80
Pipe Threaders, Benders, Cutters	71
Phones: Smart/Mobile/Cell or Two-Way Radios	71
Personal Protective Equipment or Apparel	59
Labeling & Documentation	55
Trailers (To Haul Equipment)	53
Cable Pullers	53
Aerial Lifts/Scaffolding	52
Temporary Jobsite Lighting	48
Portable Generators	46
Jobsite Safety Equipment	45
Software (e.g. CAD, Estimating, Procurement, etc.)	45
Tablets or Portable Reading Devices	42
LAN, Teledata, Low Voltage	34
Digging/HDD/Boring Equipment	26
Thermal Imaging	26
Mobile Office Space	13
Cranes	11
3-D Scanner	5
Drones	5

Note that the vast majority of electrical contracting firms make **use of multiple** types of tools and equipment.

- Not surprisingly, use of multiple types of tools and equipment is even higher among larger firms (10+ employees) and/or those where CII work is their primary source of revenue.

	Use in Multiple Categories in 2017				
	Total	Number of Employees		Work Primarily In	
			1-9	10+	Residential
	(234)	(162)	(71)	(81)	(107)
	%	%	%	%	%
Any Use	<u>91</u>	<u>90</u>	<u>93</u>	<u>91</u>	<u>93</u>
Use Only 1 Category	1	2>	0	1	2
Use in Multiple Categories	<u>90</u>	<u>88</u>	<u>93</u>	<u>90</u>	90
Use in 2 – 3 Categories	5	5	5	6	5
Use in 4+ Categories	<u>84</u>	<u>83</u>	<u>88</u>	<u>84</u>	<u>85</u>
Use in 4 – 5 Categories	7	10>	1	13>	3
Use in 6+ Categories	78	73	<86	71	<82

Percent Who Purchase Different Types of Tools and Equipment

About eight in ten electrical contractors (81%) reported purchasing Tools and Equipment in 2017, statistically unchanged from two years earlier.

Hand Tools and Power Tools continue to top the list.

- In sharp comparison to the 2015 findings, where there were widespread declines compared with two years earlier, in the 2017 purchase results, 7 of the types of tools and equipment that can be trended rose, one type declined (Aerial Lifts & Scaffolding) and the remainder were statistically unchanged or could not be trended because they were just added in the most recent study.
 - The 7 categories that posted increases are: Personal Protective Equipment or Apparel, Labeling & documentation, Pipe Threaders, Benders, Cutters, Tablets or Portable Reading Devices, Temporary Jobsite Lighting, Cable Pullers, LAN Teledata and Low Voltage Testing Equipment.
 - In the 2016 Profile Study report we said, “although the economy continues to improve, it is curious that of the 15 types of tools and equipment that can be trended, 12 posted significant declines; none increased compared to two years ago. Looking at results since 2009, there appears to be a two-year cycle in the case of Hand Tools, Pipe Threaders/ Benders/ Cutters, Electrical Testers/Multimeters and various other types of testing and communications tools and equipment, Jobsite Safety Equipment and Aerial Lifts.”
- The areas that remained statistically unchanged in 2017 are: Hand Tools, Power Tools, Electrical Testers and Multimeters, Phones, Jobsite Safety Equipment, Software, Portable Generators, Trailers (to Haul Equipment), Thermal Imaging, HDD/Boring Equipment, Mobile Office Space and Cranes.

In addition, two types of construction site equipment were added in the 2018 Profile Study and thus cannot be trended: 3-D Scanners and Drones.

PURCHASE OF TOOLS AND EQUIPMENT							
	In 2017		In 2015		In 2013	In 2011	
	Total		Total		Total	Total	
	(234)		(376)		(374)	(234)	
	%		%		%	%	
“Any” Purchase ...	81		79	<	84	>	77
Hand Tools	70	=	70	<	77	>	69
Power Tools	66	=	70	=	72	>	64
Electrical Testers, Multimeters	45	=	46	<	60	>	47
Personal Protective Equipment/Apparel (Clothing, Boots, etc.)	42	>	31	<	44	=	41
Phones: Smart/Mobile/Cell or Two-Way Radios	37	=	37	<	47	=	42
Labeling & Documentation	34	>	22	<	33	=	27
Jobsite Safety Equipment	28	=	26	<	32	=	28
Pipe Threaders, Benders, Cutters	28	>	22	<	28	=	25
Tablets or Portable Reading Devices	24	>	16	<	22	>	10
Temporary Jobsite Lighting (first asked in 2016)	23	>	15		N/A		N/A
Cable Pullers (first asked in 2014 Profile Study)	19	>	10	<	14		N/A
Software (e.g. CAD, Estimating, Procurement, etc.)	15	=	16	<	21	=	16
Portable Generators (first asked in 2016 Profile Study)	16	=	19		N/A		N/A
LAN, Teledata, Low Voltage Testing Equipment	14	>	9	<	16	=	12
Trailers (To Haul Equipment) (first asked in 2016)	12	=	9		N/A		N/A
Thermal Imaging (first asked in 2014 Profile Study)	10	=	8	=	10		
Aerial Lifts/Scaffolding	6	<	10	<	16	=	13
Digging/HDD/Boring Equipment	4	=	7	=	9	=	9
Mobile Office Space (first asked in 2016 Profile Study)	3	=	4		N/A		N/A
3-D Scanner (first asked in 2018 Profile Study)	2		N/A		N/A		N/A
Drones (first asked in 2018 Profile Study)	2		N/A		N/A		N/A
Cranes (first asked in 2016 Profile Study)	1		2		N/A		N/A

Bolded numbers denote and arrows significant differences at the 90% level of confidence

Purchase in Multiple Categories

As has been the case in earlier Profile studies, in 2017, the bulk of electrical contractors made purchases in *multiple* categories (75% in 2017), statistically unchanged compared to two years ago.

- Purchase in ‘only 1’, 2-3 or 4-5 categories is also statistically unchanged compared to two years ago.

PURCHASE IN MULTIPLE CATEGORIES							
	In 2017		In 2015		In 2013	In 2011	
	Total		Total		Total	Total	
	(234)		(376)		(374)	(234)	
	%		%		%	%	
Any Purchase	81	=	79	<	84	>	77
Purchased Only 1 Category	6	=	5	=	3		5
Purchase in Multiple (2+) Categories	75	=	74	<	81	>	72
Purchased in 2 – 3 Categories	22	=	21	=	20		17
Purchase in 4+ Categories	53	=	53	≤	61		55
Purchased in 4 – 5 Categories	16	=	18	=	19		24
Purchased in 6+ Categories	37	=	35	<	42	>	31

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Purchase in Multiple Categories, continued

There are relatively few statistically significant differences in the table shown below.

- By number of employees: Larger firms are significantly more likely than smaller firms to have made 2017 purchases at all (“Any”) and to have made purchases in multiple categories (4+ and 6+ types).
- By primary type of work: Firms that work primarily in CII construction are significantly more likely than those who work primarily on Residential projects to have made multiple category purchases, particularly in 4+ and 6+ categories.

	PURCHASE IN MULTIPLE CATEGORIES (2017)				
	Total	Number of Employees		Work Primarily In	
			1-9	10+	Residential
	(234)	(162)	(71)	(81)	(107)
	%	%	%	%	%
<u>“Any” Purchase</u>	81	78	<87	80 =	87
Purchased Only 1 Category	6	9	0	7 =	3
<u>Purchase in Multiple (2+) Categories</u>	75	69	<87	72	<84
Purchased in 2 – 3 Categories	22	27>	10	31>	19
<u>Purchase in 4+ Categories</u>	53	42	<77	41	<65
Purchased in 4 – 5 Categories	16	18	11	21=	15
Purchased in 6+ Categories	37	24	<66	20	<50

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Trended Results

There are relatively few statistically significant differences between 2017 and 2015 in the table shown below

- There are no statistically significant differences among the total sample.
- There is only one difference in that time period among firms with 1-9 employees: Between 2017 and 2015, there was a statistically significant drop in the percentage of small firms that are making purchases in 4+ categories.
- However, there were more significant differences among firms with 10+ employees: Between 2017 and 2015, there was a statistically significant increase in the percentage of large firms that made “Any” purchases as well as purchases in multiple categories: 2+, 4+ and 6+.

PURCHASE in MULTIPLE CATEGORIES (By Firm Size)												
	Total Sample				1-9 Employees				10+ Employees			
	2017	2015	2013	2011	2017	2015	2013	2011	2017	2015	2013	2011
	(234)	(376)	(374)	(234)	(162)	(278)	(282)	(182)	(71)	(98)	(91)	(52)
	%	%	%		%	%	%	%	%	%	%	%
<u>Any Purchase</u>	81	<u>79</u>	<84>	<u>77</u>	78 =	<u>81</u>	<87>	78	87 >	<u>74</u>	78	75
Only 1 Category	6	5	3	5	9 =	5	4	6	0 =	3 >	0	0
<u>In Multiple Categories</u>	75	<u>74</u>	<81>	<u>72</u>	69 =	<u>75</u>	<83>	<u>72</u>	87 >	<u>71 =</u>	78	<u>75</u>
In 2 – 3 Categories	22	21	20	17	27 =	25	25	20	10	10	8	10
<u>In 4+ Categories</u>	<u>53</u>	<u>53</u>	<61	<u>55</u>	42	<51	<u>58</u>	<u>52</u>	77 >	<u>61 =</u>	70	65(▲)
In 4 – 5 Categories	16	18	19	24	18 =	21	24	24	11	10 =	5	<21
<u>In 6+ Categories</u>	37	35	<42>	31	24 =	30	34	28	66 >	51	<65>	44

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

▲ not significant on this base size

Percent Who Rent/Lease Different Types of Tools and Equipment

Almost six in ten electrical contractors (57%) *rented/leased* equipment in 2017. This is a huge jump from the 37% observed in 2015 and is a statistically significant increase.

However, as has been the case in recent Profile studies, fewer electrical contractors continue to obtain tools and equipment through rental/lease (57%)¹ than through outright purchase (81%).

Aerial Lifts/Scaffolding and Digging/HDD/Boring Equipment continue to be the two categories that are obtained through rental/lease most often.

- Further, compared to two years ago, the rental/lease of Aerial Lifts/Scaffolding and Digging/HDD/Boring Equipment each posted statistically significant increases.
- In addition, rental/lease has also increased compared to two years earlier in the following categories: Cranes, Mobile Office Space, Portable Generators and Trailers (to Haul Equipment); and to a lesser extent in these categories: Power Tools, Cable Pullers, Jobsite Safety Equipment and Pipe Threaders, Benders, Cutters.

In total, rental/lease of 14 of the 22 types of tools and equipment measured in this survey increased significantly between 2015 and 2017. Note however, that 4 of these increases, although significant, rose only to 4% or less in 2017.

¹ The 2018 list included two new categories – 3-D Printers and Drones – but the level of rental/ lease was very low, so these didn't add substantially to the total.

RENTAL/LEASE OF TOOLS AND EQUIPMENT						
	In 2017		In 2015		In 2013	In 2011
	Total		Total		Total	Total
	(234)		(376)		(374)	(234)
	%		%		%	%
“Any” Lease/Rental...	57	>	37		40	43
Aerial Lifts/Scaffolding	46	>	28		29	29
Digging/HDD/Boring Equipment	28	>	12	=	16	< 27
Cranes	17	>	6		N/A	N/A
Mobile Office Space	12	>	6		N/A	N/A
Portable Generators	11	>	4		N/A	N/A
Trailers (To Haul Equipment)	8	>	3		N/A	N/A
Power Tools	8	>	4	<	7	< 10
Cable Pullers	8	>	3		4	N/A
Jobsite Safety Equipment	6	>	1		4	= 3
Pipe Threaders, Benders, Cutters	5	>	2		5	= 3
Hand Tools	4	=	2	<	5	5
Electrical Testers, Multimeters	4	=	2		3	= 2
Thermal Imaging	4	>	1	<	3	N/A
Temporary Jobsite Lighting	4	=	2		N/A	N/A
Phones: Smart/Mobile/Cell or Two-Way Radios	3	>	0.8	<	3	3
LAN, Datacom, Low Voltage	2.8	>	0.6		1	0.9
Software	2.6	>	0.9		1	0.4
Personal Protective Equipment/ Apparel (Clothing, Boots, Equip.)	2	=	0.6		1	0.9
3 D Scanner	1.6		N/A			
Tablets	0.4	=	1		1	0
Labeling & Documentation	0.4	=	0.6		1	0.9
Drones	0.4		N/A			

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow

Rental/Lease in Multiple Categories

Among the total sample, fully 41% of electrical contractors rented/leased in two or more categories. This is a huge jump from the 19% observed two years ago and is a statistically significant increase. Rental/lease in 3+ categories also jumped significantly compared with two years earlier.

RENTAL/LEASE IN MULTIPLE CATEGORIES						
	2017		2015		2013	2011
	(234)		(376)		(374)	(234)
	%		%		%	%
<u>Any Lease/Rental</u>	57	>	<u>37</u>		<u>40</u>	<u>43</u>
Only 1 Category	16	=	18	=	21	18
<u>Lease/Rent in Multiple/2+ Categories</u>	41	>	<u>19</u>	=	<u>19</u>	<25
In 2 Categories	<u>14</u>	>	8	=	10	14
In 3+ Categories	27	>	11	=	9	11

As was the case two years ago, larger electrical contracting companies are more likely than smaller electrical contractors to have leased/rented tools and equipment at all (“any”) and also in multiple categories.

- As was also the case two years ago, this difference is driven by the much higher percent of larger companies that rent/lease in 3+ categories. As noted in the past, we believe that this is due to the larger companies being more involved in larger, more complex and sophisticated projects that require *more different types* of tools and equipment.
- 18% of the smaller companies (those with 1-9 employees) rented/leased in 3+ categories compared to 49% of firms with 10+ employees.
- By type of construction: A higher percentage of firms that work primarily on CII projects have rented/leased at all (“any”) and in multiple categories compared with firms working primarily on Residential projects.

	In 2017				
	Total	Number of Employees		Work Primarily In	
	(234)	1-9	10+	Residential	CII
	%	(162)	(71)	(81)	(107)
	%	%	%	%	%
<u>Any Lease/Rental</u>	<u>57</u>	47	<81	<u>40</u>	<68
Only 1 Category	16	17	13	18	13
<u>Lease/Rent in Multiple /2+ Categories</u>	<u>41</u>	<u>30</u>	<68	22	< 55
In 2 Categories	<u>14</u>	<u>12</u>	<u>19</u>	10 =	18
In 3+ Categories	27	18	<49	12	< 37

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow

Lease/Rental in Multiple Categories, continued

Trended: Any rental/lease jumped dramatically and significantly among the total sample and in *multiple* categories among the total sample and among firms with 1-9 *and* those with 10+ employees.

RENTAL/LEASE in MULTIPLE CATEGORIES (By Firm Size)														
	Total Sample					1-9 Employees					10+ Employees			
	2017	2015	2013	2011		2017	2015	2013	2011		2017	2015	2013	2011
	(234)	(376)	(374)	(234)		(162)	(276)	(282)	(182)		(71)	(98)	(91)	(52)
	%	%	%	%		%	%	%	%		%	%	%	%
“Any” Lease/Rental	57>	37	40	43		47>	33	36	40		81>	48	51	54
Only 1 Category	16	18	21	18		17	19	20	20		13	13	< 23 [▲]	14
Lease/Rent in Multiple/2+ Categories	41>	19	19	< 25		30>	14	16	20		68>	35 [▲]	28 [▲]	40
In 2 Categories	14>	8	10	14		12=	8	10	12		19>	10	12 [▲]	21
In 3+ Categories	27>	11	9	11		18>	6	6	8		49>	25 [▲]	16 [▲]	19

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

[▲] Not significant on this base size

Before we delve into the individual types of tools and equipment, here is an overview of use of the tools and equipment measured in this survey and with the method of obtaining each in 2017. As noted a few pages earlier, there are two areas – Digging/HDD/Boring Equipment and Cranes -- where a higher percentage said that they made a 2017 purchase and/or rental/lease than say that their firm uses this type of equipment. This could be an error in reporting on the part of participants or it could be that these items were acquired in anticipation of their later use or some combination of the two.

	Use in 2017	Purchase in 2017	Lease/ Rent in 2017	Purchase or Lease/ Rent	Use Vs. Obtained (A minus D)
	A	B	C	D	E
	Total	Total	Total	Total	
	(234)	(234)	(234)	(234)	
	%	%	%	%	
“Any” ...	91	81	57		
Hand Tools	82	70	4	70	12
Power Tools	82	66	8	68	14
Electrical Testers, Multimeters	80	45	4	46	34
Phones: Smart/Mobile/Cell or Two-	71	37	3	38	33
Personal Protective Equipment/ Apparel (Clothing, Boots, etc.)	59	42	2	43	16
Jobsite Safety Equipment	45	28	6	31	14
Labeling & Documentation	55	34	0.4	34	21
Pipe Threaders, Benders, Cutters	71	28	5	30	41
Software (e.g. CAD, Estimating, Procurement, etc.)	45	15	3	16	29
Tablets or Portable Reading Devices	42	24	.4	24	18
Portable Generators	46	16	11	25	21
Temporary Jobsite Lighting	48	23	4	27	21
Trailers (To Haul Equipment)	53	12	8	19	34
Cable Pullers	53	19	8	24	19
LAN, Teledata, Low Voltage	34	14	3	15	21
Aerial Lifts/Scaffolding	52	6	46	48	4
Digging/HDD/Boring Equipment	26	4	28	30	-4
Thermal Imaging	26	10	4	14	12
Mobile Office Space	13	3	12	12	1
Cranes	11	1	17	18	-7
3-D Scanner	5	2	2	4	1
Drones	5	2	0.4	2	1

. For emphasis

Tools:

Hand Tools Purchase and Rental/Lease Behavior

70% of respondent firms made a purchase in the Hand Tools category in 2017. The level of Hand Tools purchases remains statistically -- and numerically -- unchanged compared with 2015. 4% said that their firm obtained Hand Tools through rental/lease, also statistically unchanged compared with two years earlier. Since relatively few electrical contracting firms lease or rent Hand Tools (3.5%) we are limiting our reporting to purchase.

HAND TOOLS (2017 Trended)									
	In 2017		In 2015		In 2013		In 2011		In 2009
	Total		Total		Total		Total		Total
	(234)		(376)		(374)		(234)		(274)
Purchase Level	70%	=	70%	<	77%	>	69%	<	82%
Rental/Lease	3.5	=	2						

- In 2017, there were no subgroup differences by number of employees or by whether the firm works primarily on Residential or CII projects for either purchase or rental/lease behavior.

HAND TOOLS (2017 by Subgroups)					
	Total	Number of Employees		Work Primarily In	
		1-9	10+	Residential	CII
	(234)	(162)	(71)	(81)	(107)
Purchase Level	70%	70	71%	74%	71%
Rental/Lease	3.5	2.9	5.2	3.2	3.6

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Trended Results

- Both *purchase* and *rental/lease* levels are statistically unchanged compared to two years earlier in total and among the subgroups shown below: number of employees and primary source of revenue...

HAND TOOLS (2017 By Subgroups Trended)								
	Number of Employees				Work Primarily In...			
	1-9		10+		Residential		CII	
	2017	2015	2017	2015	2017	2015	2017	2015
	(162)	(278)	(71)	(98)	(81)	(146)	(107)	(172)
Purchase Level	70% =	73%	71 =	61%	74% =	79%	71% =	64%
Rental/Lease	2.9 =	1.8	5.2 =	2.4	1.2 =	3.2	2.6 =	3.6

Estimates and Projections: Hand Tools

ALL INDUSTRY ESTIMATE OF 2017 FIRMS PURCHASING AND RENTING/LEASING: HAND TOOLS

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Buying
Hand Tools	%		
Purchase	70%	72,784	50,948
Rental/Lease	3.5%	72,784	2,545

Power Tools Purchase and Rental/Lease Behavior

66% of electrical contracting firms reported making a 2017 purchase of Power Tools. This purchase level is statistically unchanged from the 2015 purchase level of 70%.

- 7.5% of electrical contractors reported leasing or renting Power Tools in 2017. This is a significant increase versus two years earlier and represents an approximate return to the 7% level observed in 2013.

POWER TOOLS (2017 Trended)									
	In 2017		In 2015		In 2013		In 2011		In 2009
	Total		Total		Total		Total		Total
	(234)		(376)		(374)		(234)		(274)
Purchase	66%	=	70%	=	72%	>	64%	<	76%
Rental/Lease	7.5%	>	4%	<	7%	=	10%		9%

Purchase: In 2017, larger firms (10+ employees) were more likely to report making a 2017 Power Tools purchase compared with firms with 1-9 employees. However, there was no difference in purchase levels by whether the firm's primary source of revenue was Residential or CII construction.

Rental/Lease: In 2017, larger firms are also more likely than smaller firms to obtain Power Tools through Rental or Lease. However, there was no difference in lease or rental levels by whether the firm's primary source of revenue was Residential or CII construction

POWER TOOLS (2017 by Subgroups)					
	Number of Employees			Work Primarily In	
	Total	1-9	10+	Residential	CII
	(234)	(162)	(71)	(81)	(107)
PURCHASE	%	%	%	%	%
Made a Purchase	66	62	<76	67 =	73
Rental/Lease	7.5	5%	<13%	6 =	10

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Trended Results

Although statistically unchanged among the total sample, *purchase* levels declined significantly versus two years earlier among small companies and declined strongly directionally among firms that obtain their primary source of revenue from Residential construction. However, purchase levels remained statistically unchanged among firms with 10 + employees and/or at obtain their primary source of revenue from CII projects.

Rental/lease levels rose significantly among the total sample (shown on the previous page) and among firms with 10+ employees and/or those that work primarily on CII projects.

POWER TOOLS (By Subgroups Trended)												
	Number of Employees						Work Primarily In					
	1-9			10+			Residential			CII		
	2017	2015	2013	2017	2015	2013	2017	2015	2013	2017	2015	2013
	(162)	(278)	(282)	(71)	(98)	(91)	(81)	(146)	(144)	(107)	(172)	(171)
Purchase Level	62%	<71%	72%	76% =	68%	69%	67%	(<) 77%	77%	73%=	67%	69%
Rental/Lease	5.2% =	3.9		13% >	5.4		6% =	3.1		10%>	4.7	

(<) just short of statistical significance

Estimates and Projections: Power Tools

ALL INDUSTRY ESTIMATE OF NUMBER OF 2017 FIRMS PURCHASING AND RENTING/LEASING: POWER TOOLS

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Buying
Power Tools	%		
Purchase	66.4	72,784	48,329
Rental/Lease	7.5	72,784	5,460

Pipe Threaders/Benders/Cutters Purchase and Rental/Lease Behavior

28% of electrical contracting firms purchased Pipe Threaders/Benders/Cutters in 2017, a statistically significant increase from 2015 when the purchase level was 22% and a return to the purchase level of 28% observed in 2013. 4.8% said that their firm obtained Pipe Threaders/Benders/Cutters through rental/lease, which is also a statistically significant increase compared with two years earlier.

PIPE THREADERS/BENDERS/CUTTERS (2017 Trended)									
	In 2017		In 2015		In 2013		In 2011		In 2009
	Total		Total		Total		Total		Total
	(234)		(376)		(374)		(234)		(274)
	%		%		%		%		%
Purchase	28	>	22	<	28		25		<35
Rental/Lease	4.8	>	2.3						

In 2017, larger firms and/or those who work primarily on CII projects continue to be far more likely to *purchase* Pipe Threaders/Benders/Cutters.

There are no differences by subgroups in 2017 rental/lease likelihood.

PIPE THREADERS/BENDERS/CUTTERS (2017 by Subgroups)					
	Total	Number of Employees		Work Primarily In	
		1-9	10+	Residential	CII
	(234)	(162)	(71)	(81)	(107)
	%	%	%	%	%
Purchase	28	16	<57	13	<49
Rental/Lease	4.8	4.1 =	6.4	4.3=	4.5

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Trended Results

As noted on the preceding page, *purchase* levels rose among the total sample compared with two years earlier. This increase is the result of increases that are not by themselves statistically significant among firms with 1-9 and 10+ employees. In 2017 compared with two years earlier, a statistically higher percentage of firms that get their primary revenue from CII projects now purchased Pipe Threaders/Benders/Cutters. There is no statistically significant difference among firms that get their primary source of revenue from Residential work...

In contrast, *renting/leasing* levels rose in total and among small firms and/or those that work primarily on Residential projects.

PIPE THREADERS/BENDERS/CUTTERS (2017 by Subgroups Trended)												
	Number of Employees						Work Primarily In...					
	1-9			10+			Residential			CII		
	2017	2015	2013	2017	2015	2013	2017	2015	2013	2017	2015	2013
	(162)	(278)	(282)	(71)	(98)	(91)	(81)	(146)	(144)	(107)	(172)	(171)
Purchase Level	16%=	14%	<21%	57%=	47%	49%	13=	17%	16%	40%>	28%	<39%
Rental/Lease	4.8>	1.9		4.1 =	3.3		4.3>	0		4.5	4.3	

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Estimates and Projections: Pipe Threaders/Bender/Cutters

ALL INDUSTRY ESTIMATE OF 2017 NUMBER OF FIRMS PURCHASING AND RENTING/LEASING: PIPE THREADERS, BENDERS, CUTTERS

Excluding zero and Over \$20,000	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Buying
Pipe Threaders, Benders, Cutters			
Purchase	28%	72,784	20,380
Rental/Lease	4.8%	72,784	3,500

Cable Pullers Purchase and Rental/Lease Behavior

19% of electrical contracting firms purchased Cable Pullers in 2017, a significant increase that is almost double the level recorded two years ago. Renting/leasing also rose compared to two years earlier to 8 % from 2.7%

CABLE PULLERS (2017)					
	In 2017		In 2015		In 2013
	Total		Total		Total
	(234)		(376)		(374)
Purchase	19%	>	10%	<	14%
Rented/Leased	8.2%	>	2.7%		

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Large firms and/or those that work primarily on CII projects are significantly more likely to have obtained Cable Pullers in the previous year by purchase and/or by rental/lease compared with smaller firms and/or those that work primarily on Residential projects.

CABLE PULLERS (2017 by Subgroups)					
	Total	Number of Employees		Work Primarily In	
		1-9	10+	Residential	CII
	(234)	(162)	(71)	(81)	(107)
<u>PURCHASE</u>	%	%	%	%	%
Made a Purchase	19	10	< 41	4.9	< 29
Rented/Leased	8.2	4.3	< 18	3.5	< 10.7

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Trended Results

The statistically significant increase in *purchase* level among the total sample shown on the preceding page is reflected in the statistically significant increases among firms with 1-9 employees *and* among firms with 10+employees. In addition, purchase levels rose among firms working primarily on CII projects but remained unchanged among firms working primarily on Residential projects.

In addition, *rental/lease* levels rose dramatically and significantly among firms with 10+ employees and/or among firms working primarily on CII projects.

CABLE PULLERS (2017 Trended)												
	Number of Employees						Work Primarily In...					
	1-9			10+			Residential			CII		
	2017	2015	2013	2017	2015	2013	2017	2015	2013	2017	2015	2013
	(162)	(278)	(282)	(71)	(98)	(91)	(81)	(146)	(144)	(107)	(172)	(171)
Purchase Level	10% >	5%	8%	41% >	24%	33%	4.9% =	7%	6%	29% >	14%	<22%
Rental/Lease	4.3% =	3%		18% >	1.7%		3.5%	3.5%		11% >	2.9%	

Estimates and Projections: Cable Pullers

ALL INDUSTRY ESTIMATE OF 2017 NUMBER OF FIRMS PURCHASING AND RENTING/LEASING: CABLE PULLERS

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Buying
Cable Pullers	%		
Purchase	19	72,784	13,828
Rental/Lease	8.2	72,784	5,968

Construction Site Equipment

Construction Site Equipment is one of the few categories where equipment is obtained through *lease/rental* as well as through *purchase*. In fact, more electrical contracting firms continue to obtain Aerial Lifts/Scaffolding, Digging/HDD/Boring equipment, Mobile Office Space and Cranes through *rental/lease* than through *purchase*.

- Further, note how much higher the percentages are for rental/lease than for purchase for these categories.
- In contrast, however, in all of the remaining categories, rental/lease ranges from between 2% and 8%.

2017 Rental/Lease to Purchase Comparison		
	Rental/Lease	Purchase
	2017	2017
	(234)	(234)
	%	%
“Any” Purchase/Lease ...		
Aerial Lifts/Scaffolding	46>	6
Digging/HDD/Boring Equipment	28>	4
Cranes	17>	1
Mobile Office Space	12>	3
Trailers (to Haul Equipment)	8	<12
Personal Protective Equipment/Apparel	2	<42
Jobsite Safety Equipment	6	<28
Portable Generators	4	<23
Temporary Jobsite Lighting	4	<23

Trended Results

- *Rental/lease* levels jumped dramatically and significantly for Aerial Lifts/Scaffolding, Digging/HDD/Boring equipment, Cranes, Mobile Office Space, Portable Generators and Trailers (to Haul Equipment) compared with two years earlier.
- In contrast, the percentage making a past year *purchase* of Aerial Lifts/Scaffolding declined significantly from 10% in 2015 to 6% in 2017.
- However, there were no changes in the purchase levels from two years earlier for any of the other categories listed below.

	Rental/Lease Comparisons Trended					Purchase Comparison Trended				
	2017	2015	2013	2011	2009	2017	2015	2013	2011	2009
	(234)	(376)	(374)	(234)	(274)	(234)	(376)	(374)	(234)	(274)
	%	%	%	%	%	%	%	%	%	%
“Any” Purchase/Rental/Lease ...										
Aerial Lifts, Scaffolding	46>	28	29	29	<46	6	<10	<16=	13 =	16
Digging/HDD/Boring Equipment	28>	12 =	16	<27	29	4 =	7=	9	9 =	11
Cranes*	17>	6	NA	NA	NA	1 =	2	NA	NA	NA
Mobile Office Space*	12>	6	NA	NA	NA	3 =	4	NA	NA	NA
Portable Generators*	11>	4	NA	NA	NA	16=	19	NA	NA	NA
Trailers (to Haul Equipment) *	8 >	3.4	NA	NA	NA	12 =	9	NA	NA	NA

* First included in the 2016 Profile Study

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Aerial Lifts/Scaffolding Rental/Lease and Purchase Behavior

In 2017, 46% of firms obtained Aerial Lifts and Scaffolding through *rental/lease* and 6% through *purchase*.

- Lease/Rental: The percentage *renting or leasing* Aerial Lifts, Scaffolding rose dramatically and significantly from 2015. In contrast, between 2015 and 2013, the percent renting/leasing had held steady.
- Purchase: The percentage making a *purchase* declined significantly from 2015. Purchase levels have been declining since 2013.

Aerial Lifts/Scaffolding (2017 Trended)									
	In 2017		In 2015		In 2013		In 2011		In 2009
	Total		Total		Total		Total		Total
	(234)		(376)		(374)		(234)		(274)
Rental/Lease	46%	>	28%		29%		29%		<46%
Purchase	6%	<	10%	<	16%	=	13%	=	16%

Rental/Lease: Larger firms and/or those that work primarily on CII projects are more likely than smaller firms and/or those that work primarily on Residential projects to have *rented or leased* Aerial Lifts/Scaffolding in 2017.

Purchase: Similarly, larger firms and/or those that work primarily on CII projects are more likely than smaller firms and/or those that work primarily on Residential projects to have *leased or rented* Aerial Lifts/Scaffolding in 2017.

AERIAL LIFTS/SCAFFOLDING RENTAL/LEASE and PURCHASE (By Firm Size and Primary Work Type) 2017					
	Total	Number of Employees		Work Primarily In	
		1-9	10+	Residential	CII
	(234)	(162)	(71)	(81)	(107)
	%	%	%	%	%
Rental/Lease	46	38	<64	28	<55
Purchase	6	1.2	<18	1.1	<11

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Trended Results

- Rental/Lease: Compared with two years earlier, significantly higher percentages of both small *and* large firms now rent/lease Aerial Lifts and Scaffolding. Rental/leasing also increased among firms that work primarily on CII projects. In contrast, there is no statistically significant difference in the rental/lease of Aerial Lifts and Scaffolding among firms that work primarily on Residential projects.
- Purchase: The decline in the purchase level among the total sample was driven by a drop in purchase among electrical contracting firms with 1-9 employees and/or by electrical contracting firms working primarily on Residential projects.

AERIAL LIFTS AND SCAFFOLDING (2017 Trended)												
	Number of Employees						Work Primarily In...					
	1-9			10+			Residential			CII		
	2017	2015	2013	2017	2015	2013	2017	2015	2013	2017	2015	2013
	(162)	(278)	(282)	(71)	(98)	(91)	(81)	(146)	(144)	(107)	(172)	(171)
Rental/Lease	38%>	23%	25%	64>	40%	42%	28%=	19%=	24%	55%>	37%	36%
Purchase	1.2%	<9%	12%	18%=	13%	<26%	1.1%	<8%=	10%	11%=	12%	<21%

Estimates and Projections: Aerial Lifts/Scaffolding

ALL INDUSTRY ESTIMATE OF 2017 NUMBER OF FIRMS RENTING/LEASING AND PURCHASING AERIAL LIFTS/SCAFFOLDING

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Renting/ Buying
AERIAL LIFTS/SCAFFOLDING	%		
Rental/Lease	46	72,784	33,480
Purchase	6	72,784	4,367

Digging/HDD/Boring Equipment Rental/Lease and Purchase Behavior

In 2017, 28% of electrical contracting firms obtained Digging/HDD/Boring Equipment through *rental/lease* and 4% through *purchase*.

- Compared with two years earlier, the rental/lease levels jumped dramatically and significantly for Digging/HDD/Boring equipment. However, purchase levels are statistically unchanged.

DIGGING/HDD/BORING EQUIPMENT (2017 Trended)									
	In 2017		In 2015		In 2013		In 2011		In 2009
	Total		Total		Total		Total		Total
	(234)		(376)		(374)		(234)		(274)
Rental/Lease	28%	>	12%	=	16%	<	27%		29%
Purchase	4.2%	=	7%	=	9%		9%		11%

Larger electrical contracting firms are more likely than smaller electrical contracting firms to obtain Digging/HDD/Boring equipment through rental/lease compared with smaller firms. There is no difference by primary type of construction in the *likelihood* to rent/lease Digging/HDD/Boring equipment.

- In contrast, firms that work primarily on CII projects are more likely to purchase Digging/HDD/Boring equipment compared with firms that work primarily on Residential projects. However, there is no statistically significant difference by number of employees in purchase likelihood.

DIGGING/HDD/BORING EQUIPMENT RENTAL/LEASE and PURCHASE (2017 by Subgroups)					
	Total	Number of Employees		Work Primarily In	
	(234)	1-9	10+	Residential	CII
	%	%	%	%	%
Rental/Lease	28	25	<36	23 =	31
Purchase	4.2	2.6 =	8	1.4	<6

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Trended Results

- As noted above, *rental/lease* levels jumped dramatically and significantly for Digging/HDD/Boring equipment among the total sample and, as shown below, across the board—among both small and large firms and among firms working primarily in Residential or those working primarily on CII projects.
- Purchase levels are statistically unchanged among the total sample and by the subgroups shown below.

DIGGING/HDD/BORING EQUIPMENT (2017 By Subgroups Trended)												
	Number of Employees						Work Primarily in.					
	1-9			10+			Residential			CII		
	2017	2015	2013	2017	2015	2013	2017	2015	2013	2017	2015	2013
	(162)	(278)	(282)	(71)	(98)	(91)	(81)	(146)	(144)	(107)	(172)	(171)
Rental/Lease	25%>	9%	<14%	36% >	20%	22%	23% >	10%	<18%	31% >	13%=	18%
Purchase	2.6%=	6%	6%	8% =	12%=	17%	1.4% =	6%	8%	6%	8% =	9%

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Estimates and Projections: Digging/HDD/Boring Equipment

ALL INDUSTRY ESTIMATE OF 2017 NUMBER OF FIRMS RENTING/LEASING AND PURCHASING DIGGING/HDD/BORING EQUIPMENT

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Renting/ Buying
DIGGING/HDD/BORING EQUIPMENT	%		
Rental/Lease	28	72,784	20,380
Purchase	4.2	72,784	3,060

Cranes Rental/Lease and Purchase Behavior

17% of electrical contractors obtained Cranes in 2017 through *rental/lease* and only 1.2% through *purchase*.

- The percentage of electrical contractors who obtain Cranes through *rental/lease* almost tripled, to 17%. This represents a statistically significant increase from two years earlier.
- However, the percentage making a purchase, at 1.2% is statistically unchanged compared with two years earlier.

CRANES (2017 Trended)			
	In 2017		In 2015
	Total		Total
	(234)		(376)
Rental/Lease	17%	>	6.4%
Purchase	1.2%	=	2%

Cranes are far more likely to be rented/leased by larger firms and/or firms working primarily on CII projects than by smaller firms and/or firms working primarily on Residential projects.

Although at a low level (2.8%), firms working on CII projects are also statistically more likely to make a Cranes *purchase* compared with firms working primarily on Residential projects. There is no statistically significant difference in Cranes purchase by number of employees.

CRANES (2017 by Subgroups)					
	Number of Employees			Work Primarily In	
	Total	1-9	10+	Residential	CII
	(234)	(162)	(71)	(81)	(107)
	%	%	%	%	%
Rental/Lease	17%	6.7	<42	4.9	<28
Purchase	1.2%	0.7 =	2.6	0	<2.8%

Trended Results

Rental/Lease: Compared with two years earlier, significantly higher percentages of both small *and* large electrical contracting firms now rent/lease Cranes. Rental/leasing also increased among firms that work primarily on CII projects. In contrast, there is no statistically significant difference in renting of Cranes among firms that work primarily on Residential projects.

Purchase: There are no statistically significant changes in purchase compared with two years earlier by the subgroups shown below.

CRANES (2017 By Subgroups Trended)								
	Number of Employees				Work Primarily In...			
	1-9		10+		Residential		CII	
	2017	2015	2017	2015	2017	2015	2017	2015
	(162)	(278)	(71)	(98)	(81)	(146)	(107)	(172)
	%	%	%	%	%	%	%	%
Rental/Lease	6.7>	3.1	42 >	15	4.9 =	1.4	28 >	10
Purchase	0.7 =	1	2.6 =	6	0	0	2.8% =	3

Estimates and Projections: Cranes

**ALL INDUSTRY ESTIMATE OF 2017 NUMBER OF FIRMS RENTING/LEASING AND PURCHASING:
CRANES**

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Buying
CRANES	%		
Rental/Lease	17	72,784	12,375

Mobile Office Space Rental/Lease and Purchase Behavior

12% of electrical contractors obtained Mobile Office Space in 2017 through *rental/lease* and 2.8% through *purchase*. The percentage renting/leasing Mobile Office Space doubled to 12%, - which is a statistically significant increase versus two years ago, while the percentage purchasing in this category is statistically unchanged.

MOBILE OFFICE SPACE (2017 Trended)			
	In 2017		In 2015
	Total		Total
	(234)		(376)
Rental/Lease	12	>	6%
Purchase	2.8	=	4%

Mobile Office Space is more likely to have been obtained in 2017 by larger firms and/or firms working primarily on CII projects than by smaller firms and/or firms working primarily on Residential projects. This is the case for both rental/lease and purchase.

MOBILE OFFICE SPACE (2017 by Subgroups)					
		Number of Employees		Work Primarily In	
	Total	1-9	10+	Residential	CII
	(234)	(162)	(71)	(81)	(107)
	%	%	%	%	%
Rental/Lease	12	4.3	<31	3.8	<17
Purchase	2.8	0	<9	0	<5.1

Trended Results

Rental/Lease: Compared with two years earlier, significantly higher percentages of larger firms and/or those that work primarily on CII projects now rent/lease Mobile Office Space.

- Renting/leasing of Mobile Office Space also rose significantly among firms working primarily on Residential projects. There is no statistically significant difference over this two-year period in terms of renting/leasing by firms with 1-9 employees.

Purchase: There are no statistically significant changes in Mobile Office Space purchase compared with two years earlier by any of the subgroups shown below.

MOBILE OFFICE SPACE (2017 By Subgroups Trended)								
	1-9		10+		Work Primarily In...			
					Residential		CII	
	2017	2015	2017	2015	2017	2015	2017	2015
	(162)	(278)	(71)	(98)	(81)	(146)	(107)	(172)
Rental/Lease	4.3 =	1.7%	31 >	17%	3.8 >	0.6%	17 >	10%
Purchase	0 =	1%	9 =	11%	0 =	1%	5.1 =	8%

Estimates and Projections: Mobile Office Space

ALL INDUSTRY ESTIMATE OF 2017 NUMBER OF FIRMS RENTING/LEASING AND PURCHASING: MOBILE OFFICE SPACE

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Buying
Mobile Office Space	%		
Rental/Lease	12	72,784	8,735

Portable Generators Purchase and Rental/Lease Behavior

In the next two sections -- Portable Generators and Trailers (to Haul equipment) -- *purchase* plays a somewhat larger role than *rental/lease*.

16% of electrical contracting firms *purchased* Portable Generators in 2017, statistically unchanged from the 2015 results. 11% obtained Portable Generators through *rental/lease*, a statistically significant increase. Note that rental/lease levels are almost three times as high as what was observed in 2015.

- Of the categories where rental/lease plays at least a non-negligible role, this is the first category in this report where the level of purchase is actually higher than the level of rental/lease.

PORTABLE GENERATORS (2017 Trended)			
	In 2017		In 2015
	Total		Total
	(234)		(376)
	%		%
Purchase	16	=	19
Rental/Lease	11	>	4

Large firms and/or those that work primarily on CII projects are significantly more likely than smaller firms and/or those that work primarily on Residential projects to have made a purchase or rental/lease in this category.

PORTABLE GENERATORS (2017 by Subgroups)					
	Total	Number of Employees		Work Primarily In	
		1-9	10+	Residential	CII
	(234)	(162)	(71)	(81)	(107)
	%	%	%	%	%
Purchase	16	10	<31	9	<20
Rental/Lease	11	7	<20	3.5	<16

Trended Results

Compared with two years earlier, *purchase* levels declined significantly among smaller firms and/or those that work primarily on Residential projects. Purchase levels are statistically unchanged among firms with 10+ employees but rose among firms that work primarily on CII projects.

Compared with two years earlier, *rental/lease* levels rose significantly in total, among firms with 1-9 as well as with 10+ employees and among firms that work primarily on CII projects. There is no statistically significant difference among firms working primarily on Residential projects.

PORTABLE GENERATORS (2017 Trended)										
	Number of Employees						Work Primarily In...			
	Total		1-9		10+		Residential		CII	
	2017	2015	2017	2015	2017	2015	2017	2015	2017	2015
	(234)	(376)	(162)	(278)	(71)	(98)	(81)	(146)	(107)	(172)
	%	%	%	%	%	%	%	%	%	%
Purchase	16 =	19	10	<16	31 =	27	9	<17	20 >	10
Rental/Lease	11 >	4.4	7 >	3.3	20 >	7.5	3.5 =	2.4	16 >	7.6

Estimates and Projections: Portable Generators

ALL INDUSTRY ESTIMATE OF 2017 NUMBER OF FIRMS RENTING/LEASING AND PURCHASING: PORTABLE GENERATORS

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Buying
Portable Generators	%		
Purchase	16	72,784	11,650
Rental/Lease	11	72,784	8,000

Trailers (To Haul Equipment) Purchase and Rental Behavior

12% of electrical contracting firms *purchased* Trailers (to Haul Equipment) in 2017. This is statistically unchanged from the level observed in 2015.

8% *rented or leased* Trailers (to Haul Equipment) in 2017, up dramatically and significantly from the 2015 level of 3.4%.

TRAILERS (TO HAUL EQUIPMENT) (2017)			
	In 2017		In 2015
	Total		Total
	(234)		(376)
Purchase	12%	=	9%
Rental/Lease	8	>	3.4

Purchase levels are higher among firms with 10+ employees and/or among firms working primarily on CII projects.

There is no statistically significant difference in *rental/lease* levels by number of employees but rental/lease levels are higher among firms working primarily on CII projects compared with firms working primarily on Residential projects.

TRAILERS (TO HAUL EQUIPMENT) (2017)					
	Total	Number of Employees		Work Primarily In	
	(234)	1-9	10+	Residential	CII
	%	%	%	%	%
Made a Purchase	12	7	<24	4	<20
Rental/Lease	8	6 =	12	4.6	<14

Trended Results

While *purchase* levels are statistically unchanged among the total sample compared with two years earlier, purchase levels posted a significant increase among electrical contractors with 10+ employees and/or among those that work primarily on CII projects. Purchase levels are statistically unchanged among firms with 1-9 employees and/or those that work primarily on Residential projects.

On the other hand, *rental/lease* levels rose significantly compared with two years earlier among the total sample and, in an odd combination, among firms with 1-9 employees and/or among firms that work primarily on CII projects.

TRAILERS (TO HAUL EQUIPMENT) (2017 Trended – By Subgroup)										
	Total		Number of Employees				Work Primarily In...			
	2017	2015	1-9	2015	10+	2015	Residential	2015	CII	2015
	(234)	(376)	(162)	(278)	(71)	(98)	(81)	(146)	(107)	(172)
	%	%	%	%	%	%	%	%	%	%
Purchase	12% =	9%	7 =	8	24 >	13	4 =	8	20 >	12
Rental/Lease	8 >	3.4	6 >	2.7	12 =	5.5	4.6 =	1.4	14 >	5

Estimates and Projections: Trailers (to Haul Equipment)

**ALL INDUSTRY ESTIMATE OF 2017 NUMBER OF FIRMS RENTING/LEASING AND PURCHASING:
TRAILERS (TO HAUL EQUIPMENT)**

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Buying
Trailers (to Haul Equipment)	%		
Purchase	12	72,784	8,735
Rental/Lease	8	72,784	5,825

Personal Protective Equipment/Apparel Purchase Behavior

In the remaining sections – Personal Protective Equipment, Jobsite Safety Equipment and Temporary Jobsite Lighting – purchase plays a much more dominant role than does rental/lease.

42% of electrical contracting firms reported a 2017 *purchase* of Personal Protective Equipment/Apparel, a statistically significant increase compared with 2015.

Only 2% of electrical contracting firms *rented/leased* in this category, statistically unchanged from the levels observed in 2015.

PERSONAL PROTECTIVE EQUIPMENT/ APPAREL							
	In 2017		In 2015		In 2013		In 2011
	Total		Total		Total		Total
	(234)		(376)		(374)		(234)
Purchase	42%	>	31%	<	44%		42%
Rental/Lease	2	=	0.6				

Purchase levels are higher among larger companies and/or firms that work primarily on CII construction rather smaller firms and/or those that primarily work on Residential construction.

Because rental/lease in this category is so low and because there are no subgroup differences (not shown), the remainder of this section will not include rental/lease behavior.

PERSONAL PROTECTIVE EQUIPMENT (2017)					
	Total	Number of Employees		Work Primarily In	
	(234)	1-9	10+	Residential	CII
	%	%	%	%	%
Purchase	42	31	<68	27	<54

Trended Results

While purchase levels rose among the total sample (as shown on the preceding page), purchase *levels* are unchanged among firms with 1-9 employees and those who work primarily on Residential projects, but rose in total and firms with 10+ employees and/or those who work primarily on CII projects.

PERSONAL PROTECTIVE EQUIPMENT (2017 Trended)												
	Number of Employees						Work Primarily In.					
	1-9			10+			Residential			CII		
	2017	2015	2013	2017	2015	2013	2017	2015	2013	2017	2015	2013
	(162)	(278)	(282)	(71)	(98)	(91)	(81)	(146)	(144)	(107)	(172)	(171)
Purchase	31% =	27%	<40%	68%>	41%	<57%	27 =	26%	<40%	54% >	35%	<52%

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow.

Estimates and Projections: Personal Protective Equipment

ALL INDUSTRY ESTIMATE OF 2017 NUMBER OF FIRMS PURCHASING AND RENTING/LEASING: PERSONAL PROTECTIVE EQUIPMENT

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Buying
Personal Protective Equipment	%		
Purchase	42	72,784	30,570

Jobsite Safety Equipment Purchase and Rental/Lease Behavior

28% of electrical contracting firms reported a 2017 purchase of Jobsite Safety Equipment. 6% obtained Jobsite Safety Equipment through rental/lease.

While purchase levels remained statistically unchanged, rental/lease activity jumped dramatically and significantly to 6% from 1.4% two years earlier.

JOBSITE SAFETY EQUIPMENT (2017 Trended)									
	In 2017		In 2015		In 2013		In 2011		In 2009
	Total		Total		Total		Total		Total
	(234)		(376)		(374)		(234)		(274)
Purchase	28%	=	26%	<	32%	=	29%	<	36%
Rental/Lease	6%	>	1.4						

In 2017, *purchase* levels were higher among larger companies and/or companies that work primarily on CII projects compared with companies that have 1-9 employees and/or that work primarily on Residential projects.

- Larger companies were also more likely than smaller companies to have *rented or leased* Jobsite Safety Equipment in 2017. However, there is no difference by primary type of work performed in rental/lease behavior.

JOBSITE SAFETY EQUIPMENT (2017 by Subgroups)					
	Number of Employees			Work Primarily In	
	Total	1-9	10+	Residential	CII
	(234)	(162)	(71)	(81)	(107)
	%	%	%	%	%
Purchase	28	14	<60	9	<45
Rental/Lease	6.1	3	<14	4.6 =	7.3

Bolded numbers denote significant differences at the 90% level of confidence in the direction of the arrow

Trended Results

As shown on the preceding page, *purchase* levels are statistically unchanged among the total sample. Nevertheless, firms with 10+ employees and/or firms those who work primarily on CII projects rose, while remaining unchanged among firms with 1-9 employees and/or those that work primarily on Residential projects.

Rental/lease levels rose substantially and significantly among the total sample (as shown on the preceding page). As shown below, rental/lease rose significantly and substantially among firms with 10+ employees and among those working primarily on Residential or on CII projects. However, there was no significant change in rental/lease levels compared with two years ago among firms with 1-9 employees.

JOBSITE SAFETY EQUIPMENT (2017 Trended by Subgroup)												
	Number of Employees						Work Primarily In					
	1-9			10+			Residential			CII		
	2017	2015	2013	2017	2015	2013	2017	2015	2013	2017	2015	2013
	(162)	(278)	(282)	(71)	(98)	(91)	(81)	(146)	(144)	(107)	(172)	(171)
Purchase	14% =	18%	<25%	60%>	46%=	53%	9% =	16%=	21%	45%>	35%	<46%
Rental/Lease	3%	1.2%		14% >	2.1%		4.6% >	.6%		7.3% >	2.6%	

Estimates and Projections: Jobsite Safety Equipment

ALL INDUSTRY ESTIMATE OF 2017 NUMBER OF FIRMS RENTING/LEASING AND PURCHASING:

JOBSITE SAFETY EQUIPMENT

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Buying
Jobsite Safety Equipment	%		
Purchase	28	72,784	20,380
Rental/Lease	6	72,784	4,370

Temporary Jobsite Lighting Purchase and Rental/Lease Behavior

23% of electrical contracting firms purchased Temporary Jobsite Lighting in 2017, which is a statistically significant increase from the 15% measured two years earlier. Only 4% rented or leased in this category in 2017.

The role of rental/lease compared to purchase in obtaining tools and equipment is less important from here to the end of the report

TEMPORARY JOBSITE LIGHTING			
	In 2017		In 2015
	Total		Total
	(234)		(376)
	%		%
Purchase	23	>	15
Rental/Lease	4	=	2.3

Purchase levels are significantly higher among larger electrical contracting firms and/or among those that work primarily on CII projects. There are no statistically significant differences in rental behavior by the subgroups shown below.

TEMPORARY JOBSITE LIGHTING (2017)					
	Total	Number of Employees		Work Primarily In	
	Total	1-9	10+	Residential	CII
	(234)	(162)	(71)	(81)	(107)
	%	%	%	%	%
Purchase	23	14	<46	9	<33
Rental/Lease	4	3 =	7	4.9 =	2.8

Trended Results

Purchase levels increased compared with two years ago, driven by increases in electrical contracting firms with 10+ employees and/or those that work primarily on CII projects.

Although rental/leasing did not increase among the total sample, it was higher in 2017 compared with two years earlier among firms working primarily on Residential projects.

TEMPORARY JOBSITE LIGHTING (2017 Trended – By Subgroup)										
	Number of Employees						Work Primarily In...			
	Total		1-9		10+		Residential		CII	
	2017	2015	2017	2015	2017	2015	2017	2015	2017	2015
	(162)	(278)	(162)	(278)	(71)	(98)	(81)	(146)	(107)	(172)
			%	%	%	%	%	%	%	%
Purchase	23 >	15	14 =	11	46 >	28	9 =	11	33 >	20
Rental/Lease	4 =	2.3	3 =	1.7	7 =	4.1	4.9 >	1.2	2.8 =	3.6

ALL INDUSTRY ESTIMATE OF 2017 NUMBER OF FIRMS RENTING AND PURCHASING:

TEMPORARY JOBSITE LIGHTING

	Percent of Respondent Firms Buying	Number of EC Firms (Source: 2016 CBP)	Projected Number Firms Buying
Temporary Jobsite Lighting	%		
Purchase	23	72,784	16,740
Rental/Lease	4	72,784	2,910