
CURRENT AND FUTURE STATE OF THE FLOOR COVERING INDUSTRY LABOR FORCE

TASK 4.0 QUANTITATIVE ASSESSMENT

August 8, 2018

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Background

- Floor covering industry observers have asserted that a shortage of floor covering installers has become a “massive challenge” for the industry (<http://www.floordaily.net/floorfocus/focus-100-retail-top-retailers-and-contractors-ar>).
- In August, 2017, the Floor Covering Leadership Council (FCLC) agreed to define its immediate mission as follows: “Quantify the scope and severity of the lack of installation professionals on industry sustainability and growth” (<http://www.fcnews.net/2017/08/fclc-holds-strategic-planning-meeting-funds-installation-research/>).
- In pursuit of this mission, FCLC engaged the Blackstone Group (Blackstone) to undertake a program of research with these components:
 - Task 1.0: Technical approach and resource identification.
 - Task 2.0: Preliminary estimation and analysis.
 - Task 3.0: Qualitative research – in-depth interviews (IDIs).
 - Task 4.0: Quantitative research – online survey.
 - Task 5.1: Initial identification of solution-oriented tracking and collaboration opportunities.
- This report presents the findings of the task 4.0 quantitative research. Recommendations developed across the complete research program will appear in the task 5.1 report.

Objectives and intended uses

- Objectives of task 4.0
 - Conduct a systematic study with the types of businesses that mainly employ installers.
 - Profile these businesses in terms of their perceptions of the installer labor force and their current and future use of installation labor.
 - Collect the detailed financial information required to estimate the impacts of labor shortages up the supply chain.
- Intended uses of the results
 - **Identify factors associated with shortages** in the floor covering installation workforce.
 - **Uncover motivations and barriers to recruitment** by investigating participants' likelihood or unlikelihood to recommend employment in floor covering installation.
 - **Refine** task 2.0's preliminary **analysis of labor force gaps**.
 - **Quantify the costs of shortages** in terms of task 2.0's financial impact measures.

Methods

- The Blackstone Group Inc. (Blackstone), an independent research and consulting firm, developed the Floor Covering Leadership Council (FCLC) 2018 Labor Force Assessment in consultation with FCLC's research committee.
 - In addition to questions specific to the floor covering installation workforce, the assessment included appropriately modified versions of three items drawn from the special labor shortage questions asked by the National Association of Home Builders (NAHB), typically once a year, as part of NAHB's Housing Market Index (HMI) and Remodeling Market Index (RMI).
 - Including these items permitted comparisons between the findings of NAHB's 2017 labor shortage studies and the FCLC assessment's results.
- Blackstone programmed and hosted the online assessment, which took place from April 26 through May 27, 2018.
- To avoid bias, the assessment ...
 - Did not associate executives' responses with their names.
 - Randomized the presentation of question response options.

Methods (continued)

- FCLC members provided access to lists of executives for the assessment:
 - CFI (Certified Floorcovering Installers) list.
 - FCICA member and non-member database.
 - NTCA (National Tile Contractors Association) member database.
 - WFCA (World Floor Covering Association) member and non-member database.
 - Individual subcontractor list.
- FCLC compiled the lists and removed duplicate and incomplete records, multiple records at a single business location, those outside the scope of the assessment, and those who had participated in the task 3.0 qualitative research. The final sample, excluding invalid email addresses, contained 2,726 executives.
- On FCLC's behalf, Blackstone issued a prenotification email, the invitation email, and three reminder emails. Additionally, FCICA, NTCA, and WFCA authorized a special email communication to their members.
- To encourage response, the assessment offered participants a \$50 honorarium in the form of an Amazon gift card or a charitable contribution.

Methods (continued)

- A total of 334 executives completed the assessment, representing a response rate of 12%. The executives responded using various devices, including desktops (89%), smartphones (8%), and tablets (3%).
- On average, the assessment took 18 minutes to complete.
- The assessment achieved broad geographical coverage, with participants located in 45 of the 50 states.

Methodological notes

- This report discusses the key findings of the task 4.0 quantitative assessment.
 - A separate report with approximately 1,000 pages of crosstabulated data presents detailed findings for the assessment's many variables, which included the online questions plus some background information from the source lists.
- Unless otherwise indicated, the base shown above each chart is the number of respondents who were asked the question minus don't know responses and no answers (i.e., total answering).
- Percents shown in this report may not add to 100% due to rounding and/or data omitted for clarity.
- We have reported subgroup differences where statistical testing found them to be significant at the 90% confidence level.
- In the charts, a capital letter next to a numerical result for a subgroup indicates that, statistically speaking, this result is significantly larger than the numerical result for the subgroup designated by the letter.

Methodological notes (continued)

- For numerical questions whose response options are ratings or percentages, we have reported the mean (average). For numerical questions with responses spanning a wide range, including those eliciting headcounts or financial data, we have reported both the mean and the median (middle value) (computed when interpolating percentiles from factors by a method that assumes that the value after the end of the previous range is the beginning of the next range and that the respondents in a range are evenly spaced within that range).
 - Because testing for statistically significant differences between medians is not straightforward, we have performed statistical tests on percents and means only.
 - Because a median represents a specific data point rather than the data as a whole, it cannot be used in computations. For that purpose, we have used means.

Methodological notes (continued)

- By design, the assessment represented businesses that purchased workers' services by engaging floor covering installers as direct employees and/or subcontractors in 2017. It did not aim to sample one-person installation firms or individual workers.
- The assessment did not represent all types of businesses that engage direct employees and/or subcontractors to perform floor covering installation. Certain businesses in particular could not be included:
 - Residential and non-residential builders and general contractors.
 - Major chain retailers (although some of those who participated were approved installation service providers for the major national chains).
- The assessment was available in English only, which may have been a barrier for some potential participants.

EXECUTIVE SUMMARY

Businesses that perform floor covering installation use diversification as a core business strategy to manage risk.

- A recent article (<https://www.nytimes.com/2018/06/07/business/economy/modular-housing.html>) observed that construction businesses' imperative need to control risk drives their decision making and, in consequence, determines the structure of the industry:

Consider how buildings are actually built. It all starts with the developer, who doesn't actually build anything but instead secures a piece of land and a loan, and gets the project approved by the government. At that point the money is passed to the general contractor that made a successful bid to build the project, who passes it to subcontractors that won the bidding for things like plumbing and sheet metal work, which often pass it to even more subcontractors.

Contractors describe this handoff as "brokering risk." What they mean is that while everyone in the chain has agreed to build a certain piece of the project for a set amount of money and in a given amount of time, none of them are sure they can do so as cheaply or quickly as they've promised. They broker that risk by paying someone else to do it for them, minus a small fee.

Diversification as a risk management strategy (continued)

- The FCLC assessment afforded evidence that floor covering installation services businesses employ **diversification** as a risk management strategy across their operations:
 - Almost all (93%) of the assessment's participants – including the great majority (88%) of the floor covering contractors, workrooms, and installation businesses – had sold floor covering products in addition to installation services in 2017.
 - Virtually all (98%) of the businesses earned floor covering product sales and/or installation revenue from more than one construction sector in 2017. Single-family residential remodeling and replacement work was responsible for the largest share of those earnings, but, even so, it generated only one-third (35%) of the average business's revenue.
 - Two-thirds (65%) of the businesses had used both direct employees and subcontractors to perform floor covering installation services in 2017.

In terms of meeting their workforce needs, while most of the businesses did not keep all their eggs in one basket, they did rely more on subcontractors than on direct employees.

- In 2017, most (74%) of the businesses had floor covering workers who were direct employees. However, almost all (91%) had used floor covering installation subcontractors.
- Whereas one in 10 businesses (9%) had used direct employees exclusively, one in four (26%) had used subcontractors exclusively.
- The businesses' median number of directly employed installation workers in 2017 was three. By comparison, the median number of different subcontractors they'd used was almost five.

Subcontracting (continued)

- The executives who took part in the assessment did not seem to anticipate shifting to a greater reliance on direct employees in 2018.
 - Although half (55%) expected to hire installation workers this year, those hires could be either replacements or additions.
 - Notably, just 10% of those who had no direct employees in 2017 expected to hire in 2018.
- Most (58%) of the businesses that had used subcontractors in 2017 foresaw utilizing them more in 2018, implying that the benefits of using **subcontracting** as a risk management strategy remained compelling:
 - Less overhead.
 - Ability to adjust rapidly to changes in workload and business downturns.
 - Access to pools of workers that businesses may be hesitant to hire, including those born outside the U.S.
 - Of the businesses with direct employees, 42% had none who were born outside the U.S.
 - On the other hand, only 28% of those who used subcontractors reported that none of the subcontractors' workers were born outside the U.S.

Subcontracting (continued)

- Most of the businesses that used direct employees as well as subcontractors in 2017 anticipated they'd be seeking to engage both types of workers in 2018. However, they were less inclined to boost their use of both than to make **trade-offs** between them.
- Workers' 2017 performance influenced businesses' trade-off intentions:
 - High **employee quality** ratings were associated with **plans for hiring**.
 - High **subcontractor productivity** ratings were tied to **more use of subcontracting**.

As a group, the executives were somewhat likely to recommend floor covering installation as a career.

- A key motivator for those executives who would recommend a career in installation was its perceived financial advantages. Tough working conditions were a barrier to recommendation.
- Some executives regarded floor covering installation as a good career choice for individuals who have a specific combination of traits:
 - Aptitude for and interest in manual work.
 - Capacity and commitment to handle the rigors of the trade.
 - Ambition to be an entrepreneur.

Installation as a career (continued)

- Messages to promote floor covering installation as a career choice might emphasize the intrinsic rewards that a number of the executives highlighted:
 - Opportunity to combine artistry and skill.
 - Need for creativity and problem solving.
 - Varied and challenging work.
 - Way to have a meaningful, lasting impact on people and their environments.
- The businesses that planned to hire direct employees in 2018 most often expected to recruit them by relying on current employees' recommendations (41%).

Perceptions that the floor covering industry was experiencing workforce shortages were widespread.

- Virtually all (97%) of the executives believed there was a shortage of directly employed floor covering installation workers. The percent who identified a shortage of floor covering installation subcontractors (92%) was nearly as high.
- Factors associated with differences in “serious” employee shortages included these:
 - Labor market characteristics: 60% in non-union markets vs. 44% in union markets.
 - Revenue mix: 64% among businesses with mostly residential revenue vs. 46% among those with mostly non-residential revenue.
- Despite the executives’ perceptions that direct employees were in short supply, most of those who planned to hire entry-level installation helpers in 2018 did not plan to raise their recruiting wage. The 2017 median starting rate of \$14.00 per hour was unchanged for 2018.

Workforce shortages (continued)

- Whereas the assessment detected no overall increase in the starting wage for direct employees, it found that the costs of subcontracted installers' services rose by an average of 3.9% from 2017 to 2018.
- The assessment also documented an association between the seriousness of subcontractor shortages and the size of subcontractors' cost increases – one of the indicators used to assess whether a labor shortage truly exists.

In addition to examining the shortage of installation workers overall, the assessment spotlighted some specific gaps in the workforce.

- In observations that aligned with data from the U.S. Bureau of Labor Statistics (BLS) and the U.S. Census Bureau (Census) suggesting a shortage of young workers in the construction trades, some executives emphasized the challenges of recruiting young floor covering installation workers.
- The assessment also provided indications of gaps in training:
 - Compared to contractors (35%) and installation businesses (50%), retailers (24%) less often stated that all of their directly employed installation workers received formal training in 2017.
 - The smallest businesses, those with an annual revenue of under \$1 million, were the ones most likely to have direct employees and subcontractors who received no formal training in 2017.

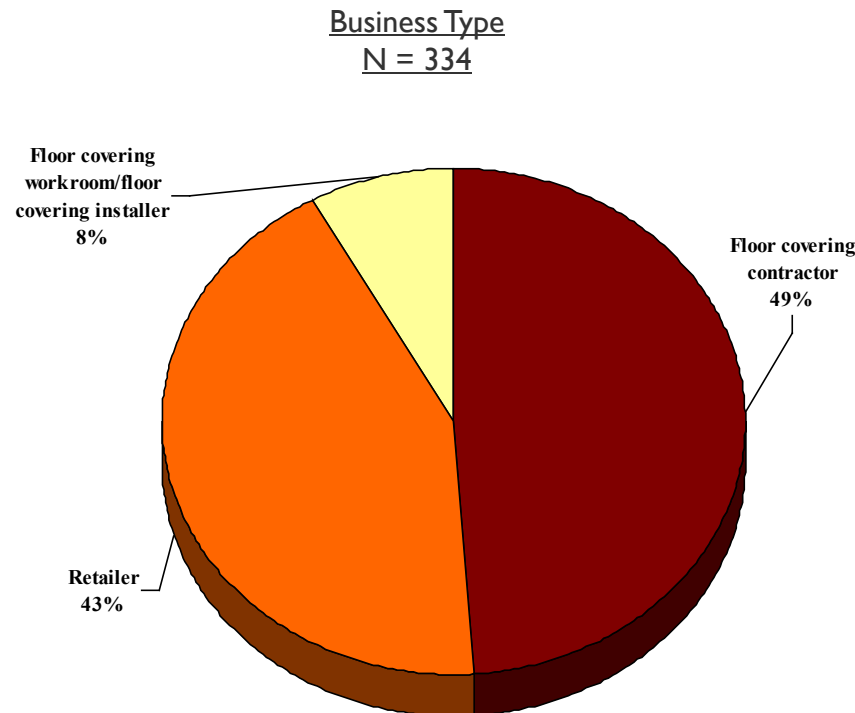
The shortage of installation workers is having a measurable financial impact on the floor covering industry.

- Two-thirds (64%) of the executives agreed they've been experiencing a shortage of installation employee and/or subcontractor labor that has had a negative financial impact up the supply chain.
- In 2017, the businesses that experienced impacts specifically attributable to the labor shortage incurred a median cost of \$16,000 to \$50,000 for each impact:
 - Installation projects that never took place or were abandoned.
 - Increased logistics costs.
 - Reduced margins on product sales resulting from a change in the product mix.
 - Increased labor costs that could not be passed along.
 - Increase in claims paid for installation problems caused specifically by a lack of trained labor.
- The combined cost of the labor shortage's impacts on the businesses themselves was 3.8% of their total 2017 floor covering product sales and/or installation revenues.

I – CHARACTERISTICS OF BUSINESSES THAT RELY ON FLOOR COVERING INSTALLATION WORKERS

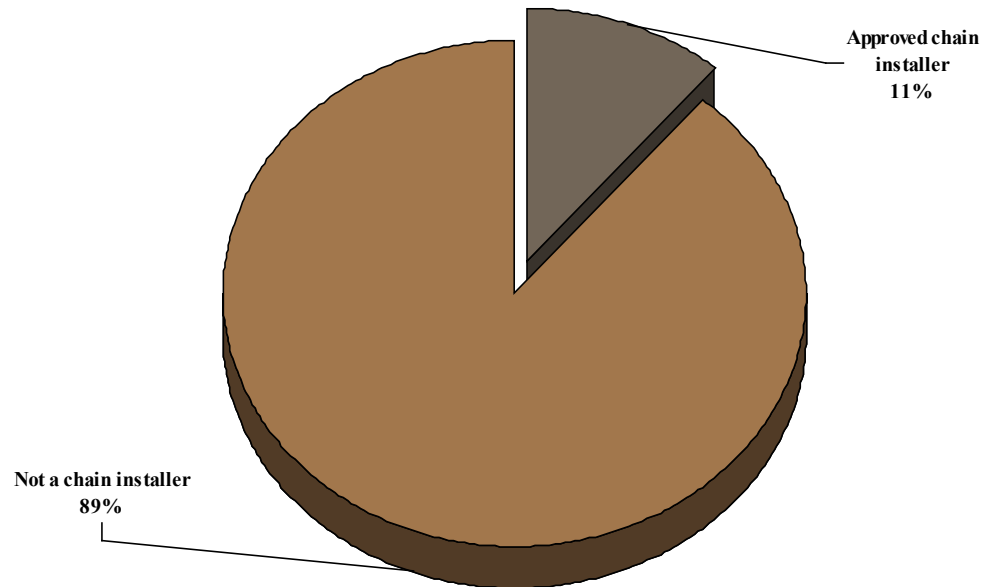
The businesses represented in the assessment were predominantly floor covering contractors (49%) and retailers (43%).

The assessment also included some businesses categorized as floor covering installers (6%) and floor covering workrooms (2%).



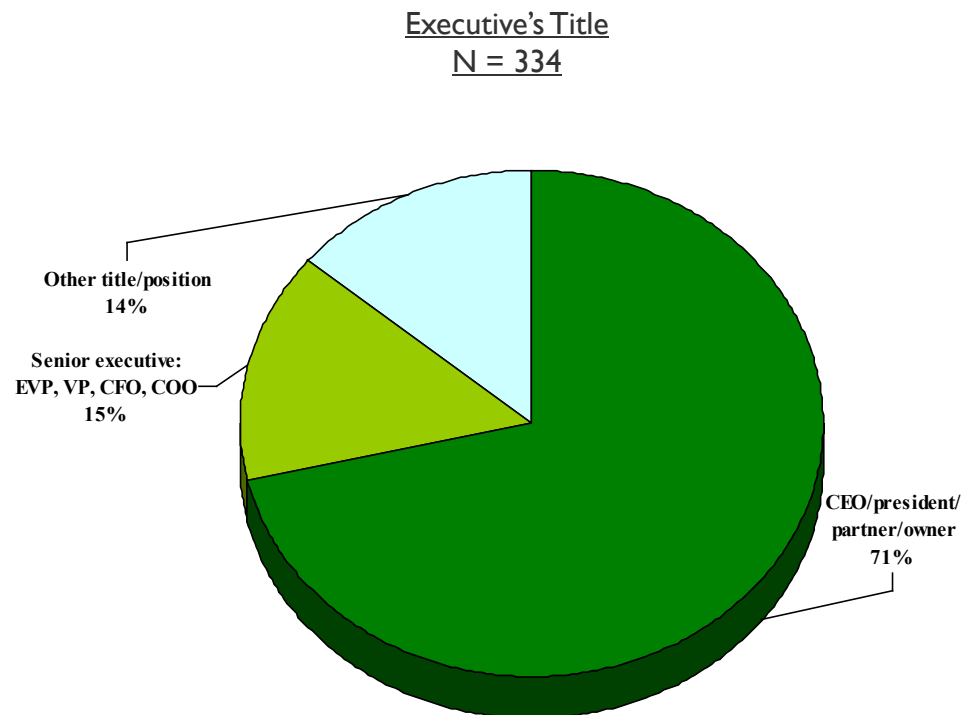
Although the assessment did not represent the leading national chain retailers directly, these retailers' approved installation service providers were among the participants.

Whether Business Is an Approved Installation Service Provider for Any of the Major National Chains
Base: Business Is a Floor Covering Contractor, Workroom, or Installer
(N = 189)



Most of the participants were CEOs, presidents, or owners or held other high-level executive positions in their businesses.

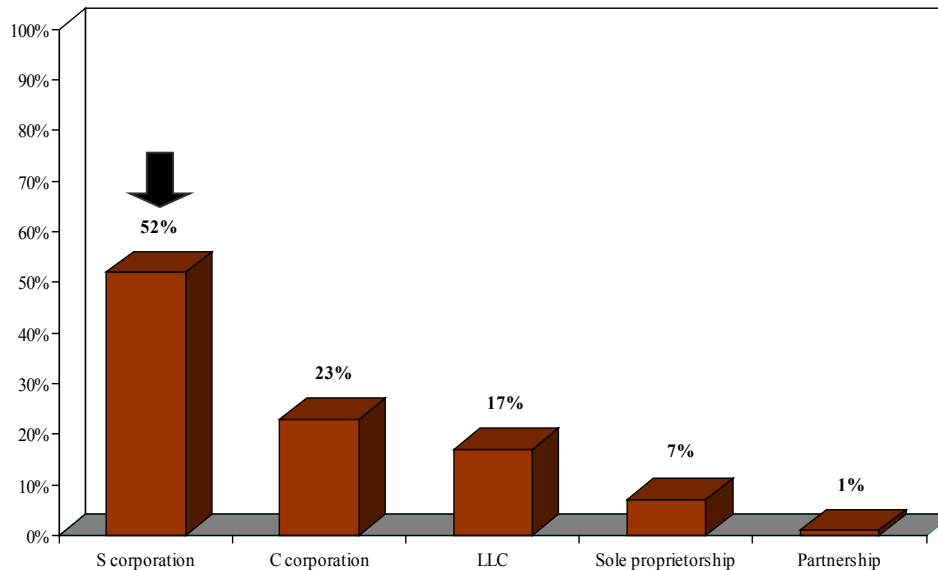
Irrespective of their titles, all participants were familiar (rating of 7, 6, or 5 on a seven-point scale where 1 = “not at all familiar” and 7 = “extremely familiar”) with their organizations’ floor covering installation business. Still, the preponderance of top executives likely furthered the assessment’s aim to elicit detailed financial data.



Half (52%) of the businesses represented in the assessment were S corporations. C corporations (23%) and LLCs (17%) were also common.

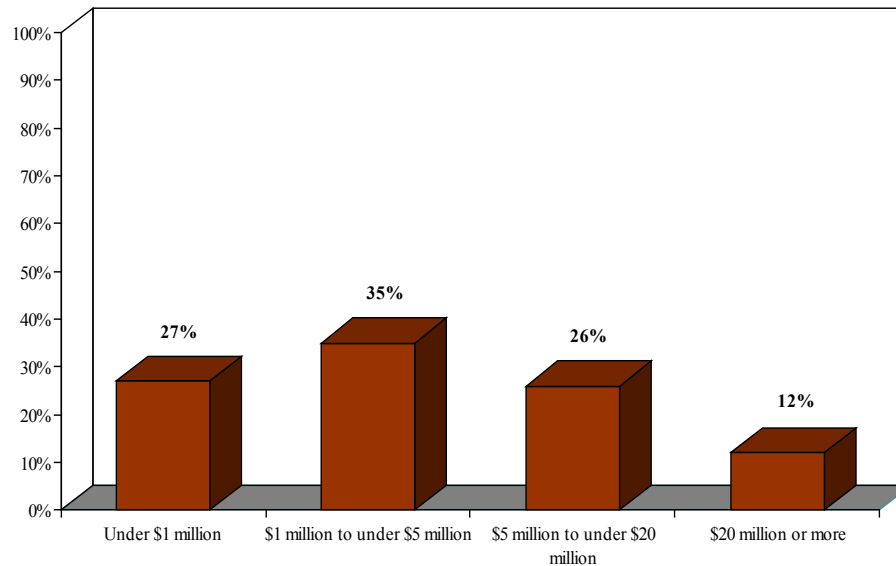
Only 7% were sole proprietorships, which is the prevailing form of organization among very small businesses.

Business's Legal Structure
N = 332



The businesses' 2017 revenues from floor covering product sales and/or installation services ranged from under \$25,000 to over \$20 million. The median revenue was \$2.2 million.

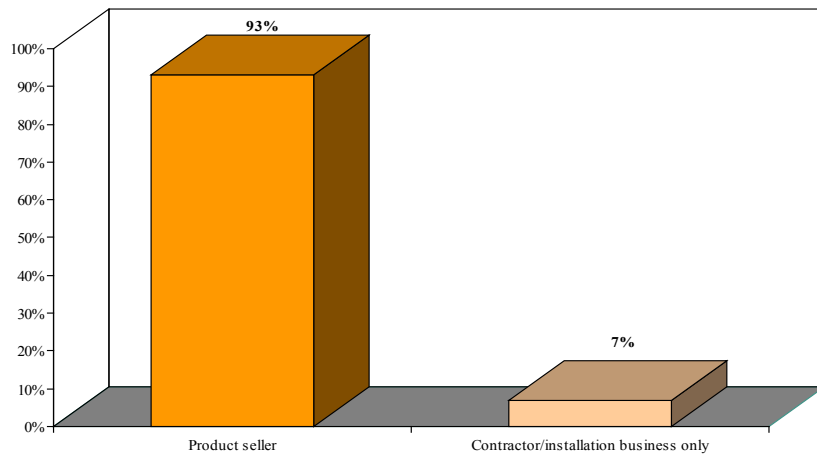
2017 Revenue from Floor Covering Product Sales and/or Installation Services for Executive's Primary Place of Business
N = 333



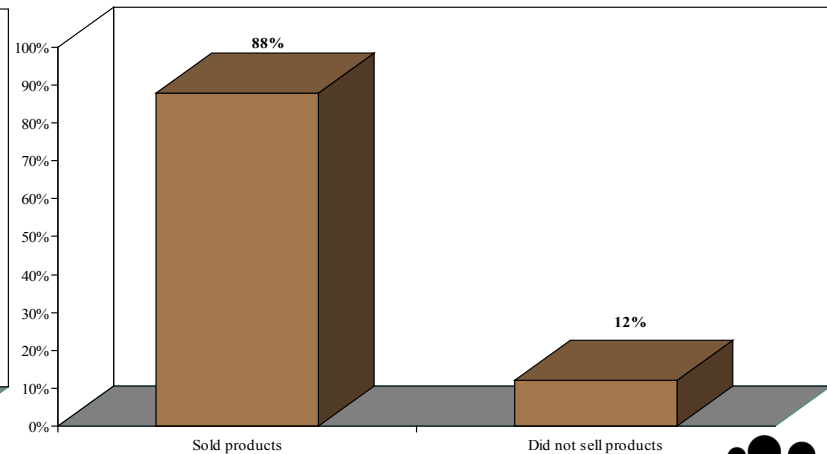
Median: \$2.2 million
Mean: \$7.7 million

Almost all (93%) of the businesses sold floor covering products directly to customers or clients in 2017. Product sellers included contractors and installers as well as retailers.

Business Activity
N = 334



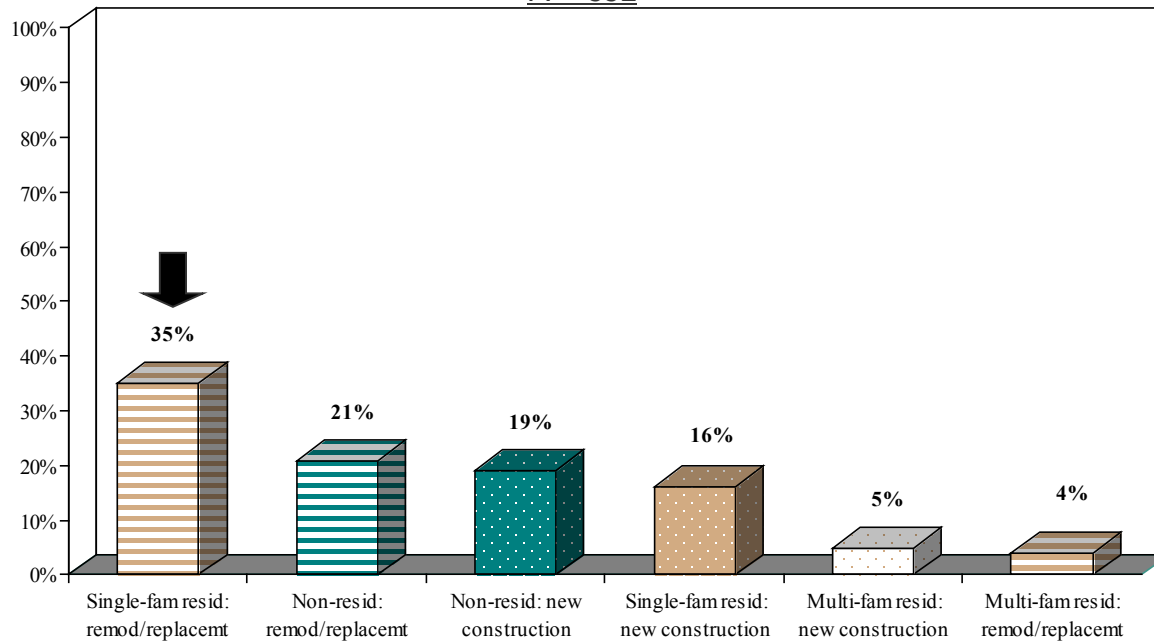
Whether Business Sold Floor Covering Products Directly to Customers or Clients in 2017
Base: Business Is a Floor Covering Contractor, Workroom, or Installer
N = 191



The businesses' 2017 floor covering revenues were spread across construction sectors, with the single largest share coming from single-family remodeling and replacement (35%).

For these businesses, revenue diversification was the norm and, possibly, a survival strategy. Virtually all (98%) reported deriving their 2017 floor covering revenues from more than one sector.

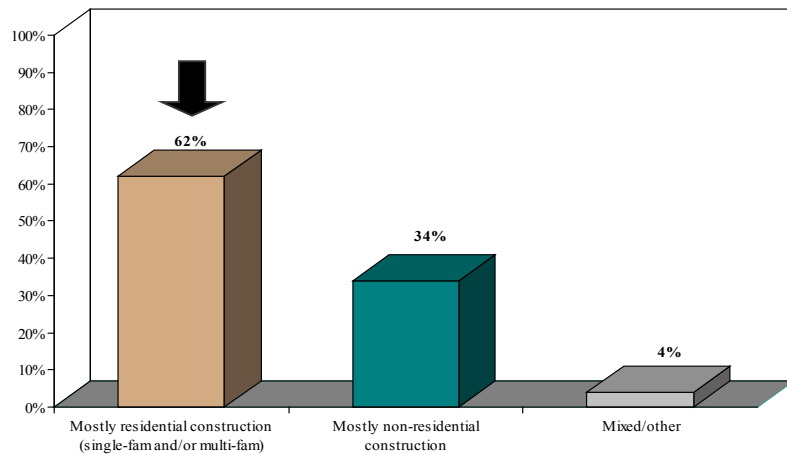
Mean Share* of Primary Place of Business's 2017 Floor Covering Product Sales and/or Installation Revenue
Derived from Specific Construction Sectors
 (* 0% included)
 N = 332



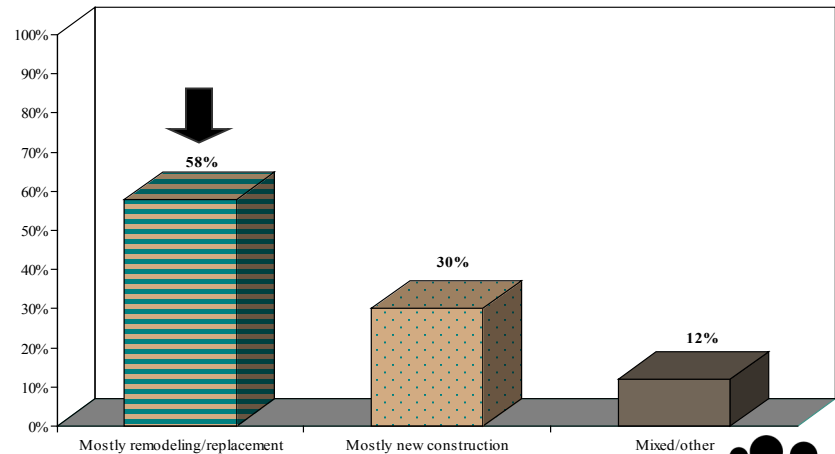
The revenue mix patterns showed the majority of businesses were more reliant on the residential vs. the non-residential market and on remodeling/replacement vs. new construction.

A greater dependence on remodeling and replacement than on new construction may be a legacy of the Great Recession – although the absence of tracking data prevents us from knowing for certain.

2017 Revenue Mix:
Residential vs. Non-Residential
Product Sales and/or Installation Services
N = 332



2017 Revenue Mix:
Remodeling/Replacement vs. New Construction
Product Sales and/or Installation Services
N = 332



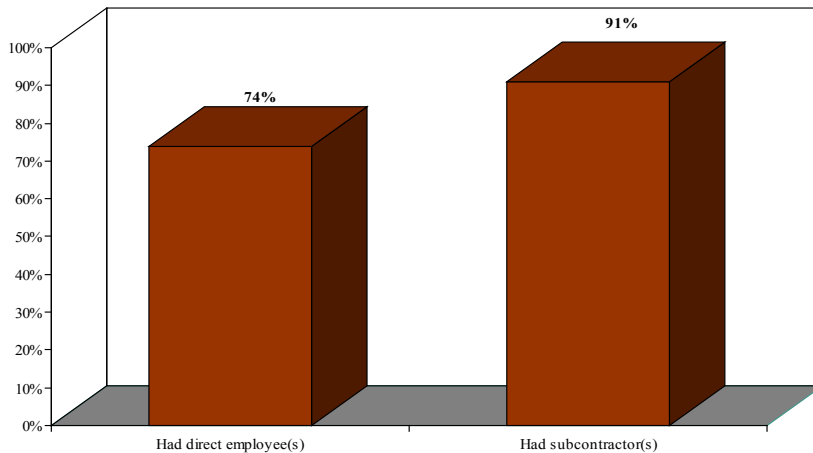


2 – BUSINESSES’ USE AND PERCEPTIONS OF THE INSTALLATION WORKFORCE

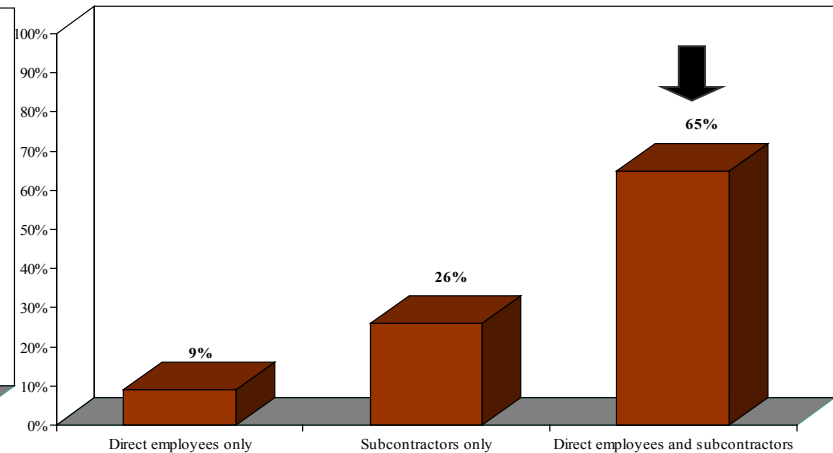
While most of the businesses directly employed installation workers, subcontracting was nearly universal. Two-thirds of the businesses had used both employees and subs in 2017.

By design, the assessment represented businesses that reported use of one or more direct employees and/or subcontractors to perform floor covering installation services in 2017. It did not sample one-person installation firms (see <http://eyeonhousing.org/2018/01/a-stagnant-part-of-the-construction-work-force/>).

Primary Place of Business's Use of Floor Covering Installation Workers in 2017
N = 334

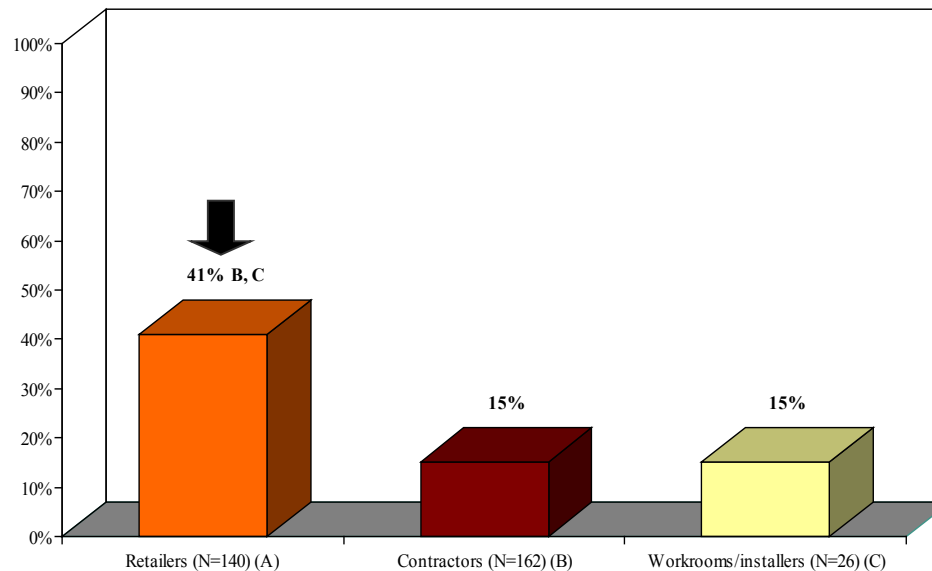


Floor Covering Installation Workforce Used in 2017
N = 334



Compared to the contractors and the installers, the retailers were significantly more likely to have had no direct employees in 2017. Four in 10 were using subs exclusively.

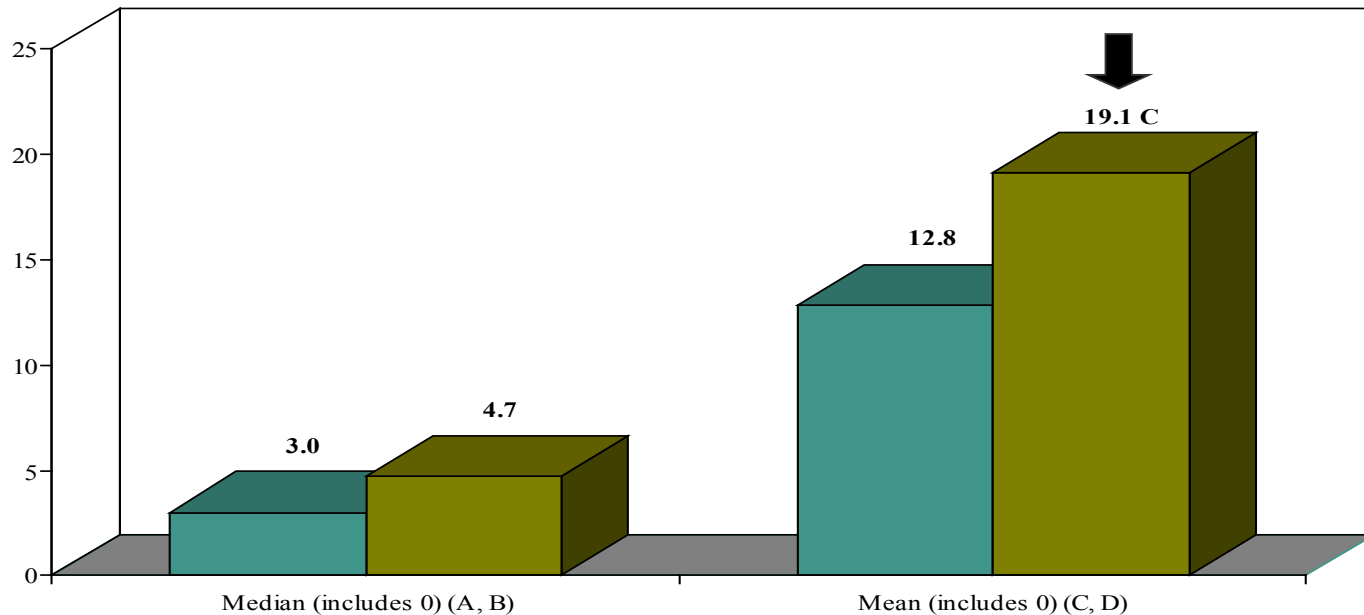
Percent Whose Primary Place of Business Used No Directly Employed Floor Covering Installation Helpers, Installers, and/or First-Line Supervisors in 2017
Bases = As Shown



In 2017, the median number of direct employees was three. By contrast, the median number of different subcontractors used was close to five.

A comparison of the means supported the inference that the businesses had relied significantly more heavily on subcontracting (mean = 19.1 different subcontractors) than on employment (mean = 12.8 direct employees) to meet their needs for floor covering installation workers in 2017.

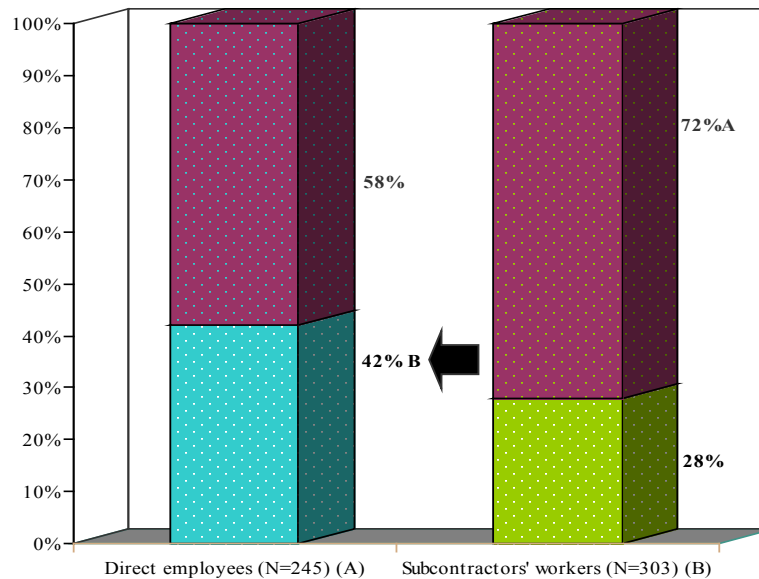
Number of Direct Employees vs. Number of Different Subcontractors Used in 2017
N = 328 (A, C); N = 330 (B, D)



The businesses were less inclined to employ non-U.S.-born workers directly than to rely on their subcontractors to provide them.

Among the executives whose primary places of business directly employed installation workers, 42% indicated that none of those employees were born outside the U.S. On the other hand, just 28% of those who used subcontractors reported that none of the subcontractors' workers were born outside the U.S.

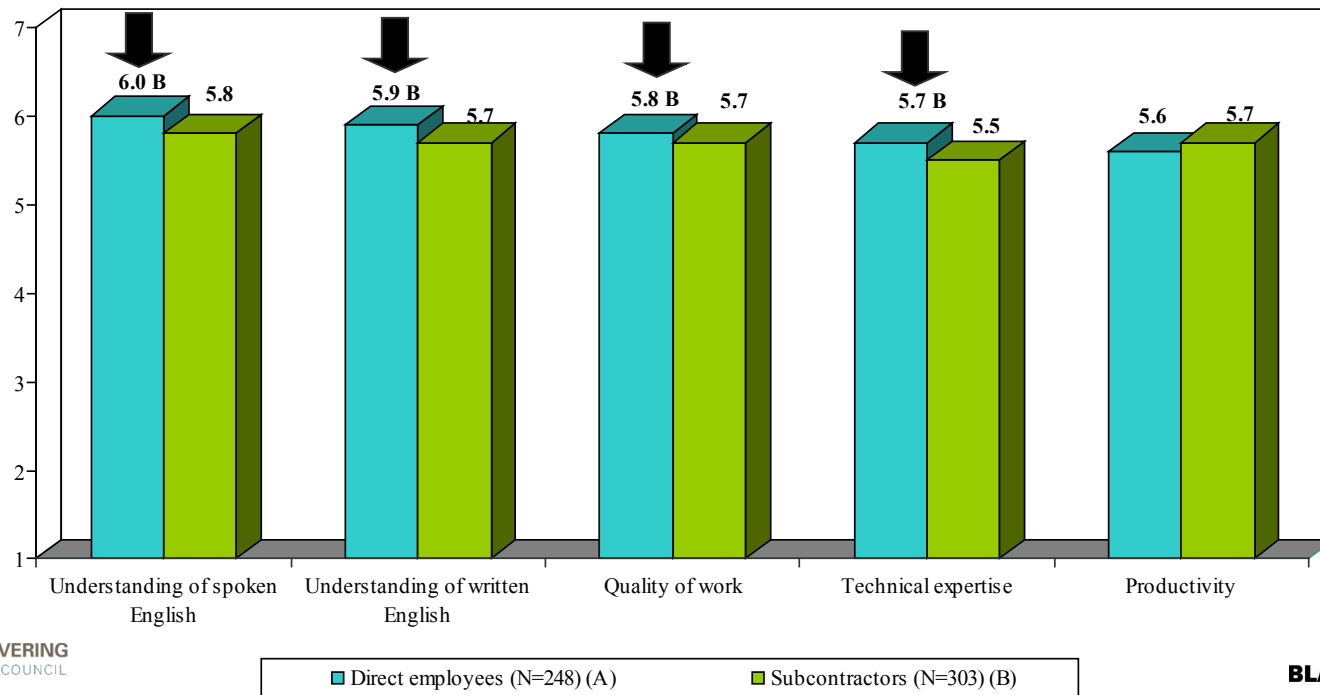
Whether Floor Covering Installation Workers Used in 2017 Were Born outside the U.S.:
Direct Employees vs. Subcontractors' Workers
Bases = Had Employee(s); Had Subcontractor(s) (Ns As Shown)



Although direct employees and subcontractors both earned high marks for their performance in 2017, the employees' scores topped the subs' on all measures except productivity.

Statistically significant differences notwithstanding, it's important to note that the executives credited both their direct employees and their subcontractors with very high levels of performance.

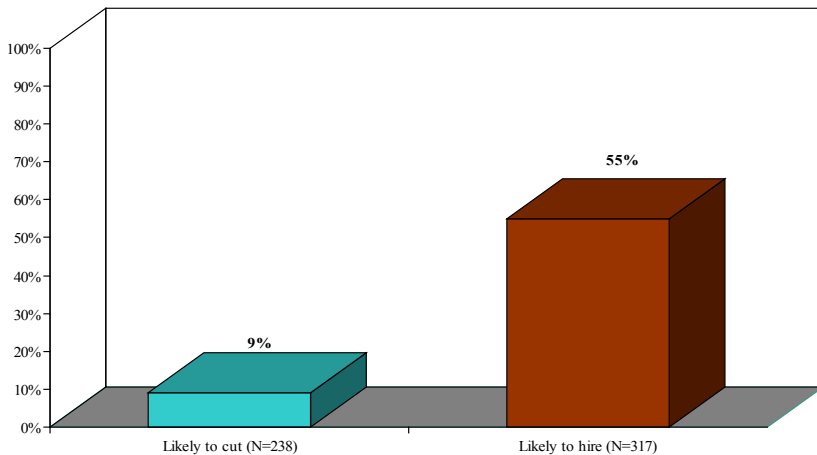
Mean Performance * of Directly Employed Installation Workers in 2017 vs. Subcontractors Used in 2017
 (* on a 7-point scale where 7 = "extremely high performance" and 1 = "extremely low performance")
 Bases = Had Employee(s); Had Subcontractor(s) (Ns As Shown)



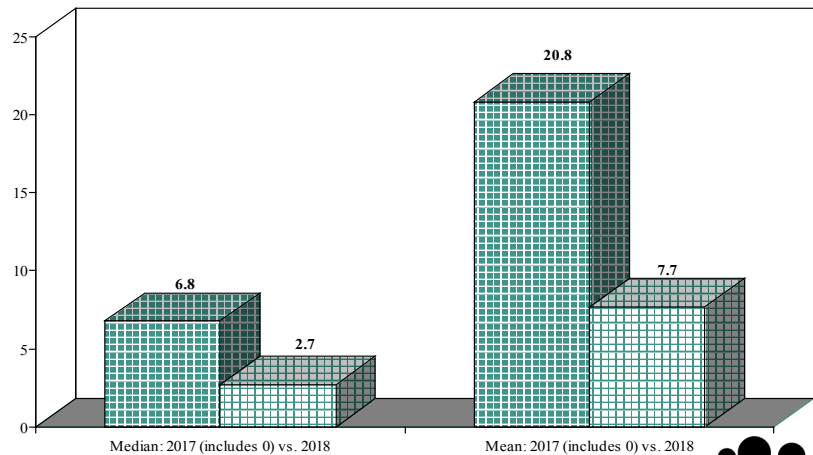
The executives' staffing plans for 2018 did not hint at an impending business downturn, but neither did they signal a major shift towards greater reliance on direct employees.

Just 9% of the businesses with direct employees were likely to shrink their staffs in 2018. Half (55%) of all businesses expected to hire installation workers in 2018, but those could be either replacements or additions. Indeed, only 10% of those who had no direct employees in 2017 expected to acquire them in 2018.

Percent Likely * to Cut the Number of Direct Employees in 2018 vs. Percent Likely * to Hire Direct Employees in 2018
 (* rating of 7, 6, or 5 on a 7-point scale where 7 = "extremely likely" and 1 = "not at all likely")
 Bases = Had Employee(s); Total (Ns as Shown)



Number of Direct Employees in 2017 vs. Number of Direct Employees Likely to Be Hired in 2018
 Base: Likely (Rating of 7, 6, or 5) to Hire Installation Worker(s) as Direct Employee(s) in 2018
 N = 174 (2017); N = 164 (2018)

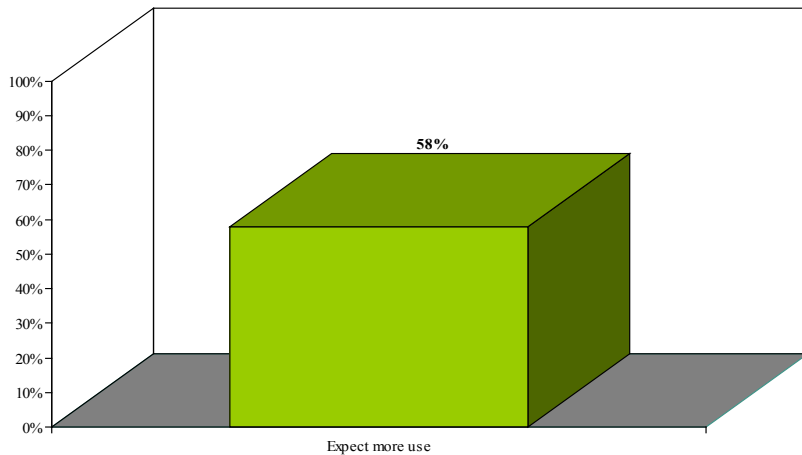


Most (58%) of the businesses that had used subcontractors in 2017 foresaw utilizing them more in 2018. Those expecting to increase use were more reliant on non-U.S.-born subs.

The businesses that expected to use subcontractors much more in 2018 reported that half (47%) of their subcontractors' workers in 2017 were born outside the U.S. Factors impeding these expanding businesses' ability to use non-U.S.-born subcontract workers could constrain growth all the way up the supply chain.

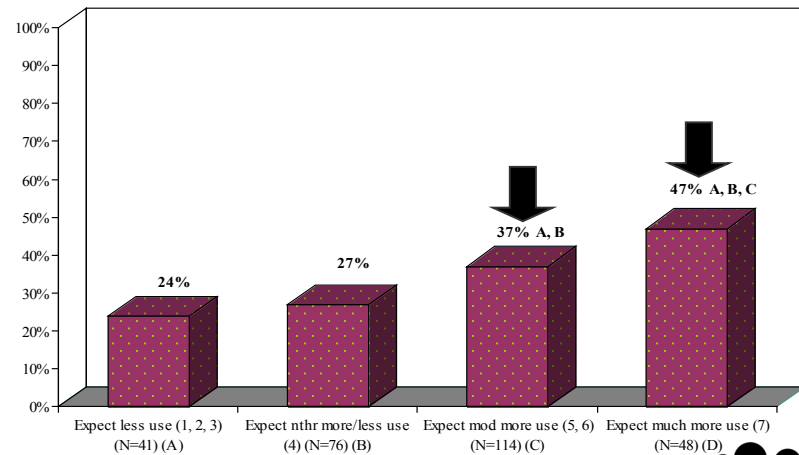
Percent Expecting More Use * of Floor Covering Installation Subcontractors in 2018

(* rating of 7, 6, or 5 on a 7-point scale where 7 = "expect much more use" and 1 = "expect much less use")
Base = Had Subcontractor(s) (N = 279)



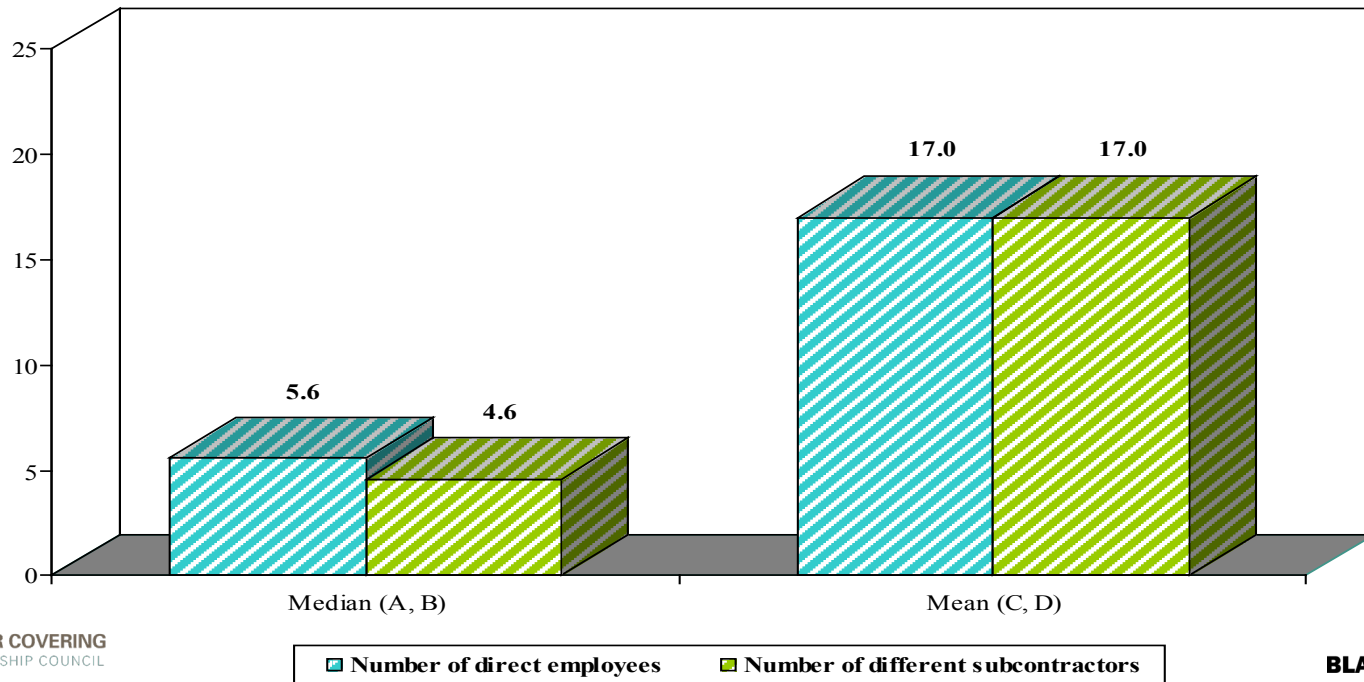
Mean Percent of Subcontractors' Workers in 2017 Who Were Born outside the U.S.: By Rating * of Expected Change in Use of Floor Covering Installation Subcontractors in 2018

(* on a 7-point scale where 7 = "expect much more use" and 1 = "expect much less use")
Base = Had Subcontractor(s) (Ns As Shown)



A majority (65%) of the businesses diversified their approach to meeting their installation workforce needs in 2017 by using both direct employees and subcontractors.

Number of Direct Employees vs. Number of Different Subcontractors Used in 2017
Base: Had Employee(s) and Subcontractor(s)
N = 211 (A, C); N = 213 (B, D)



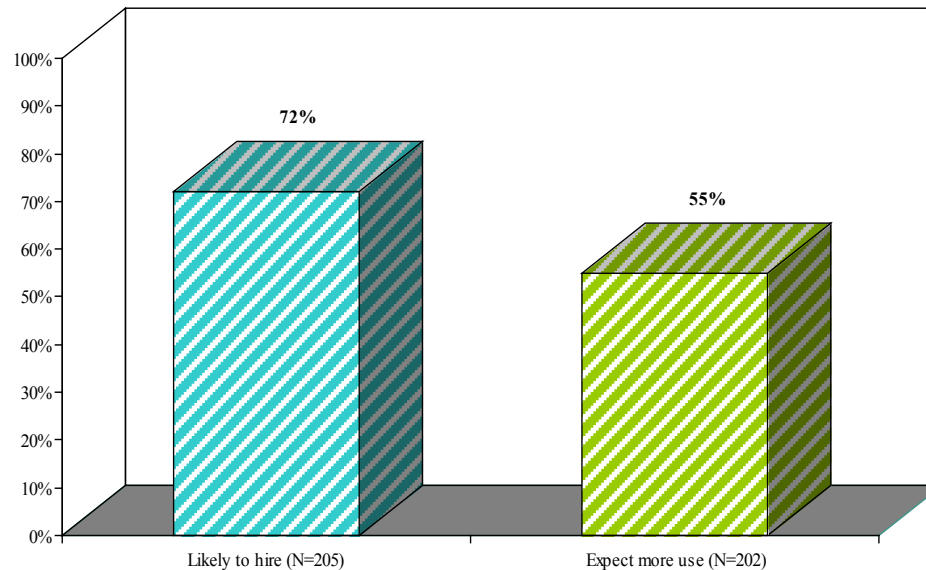
Most of the businesses that used direct employees as well as subcontractors in 2017 expected to have needs for both types of workers in 2018.

Percent Likely * to Hire Direct Employees in 2018 vs. Percent Expecting More Use ** of Floor Covering Installation Subcontractors in 2018

(* rating of 7, 6, or 5 on a 7-point scale where 7 = “extremely likely” and 1 = “not at all likely”)

(** rating of 7, 6, or 5 on a 7-point scale where 7 = “expect much more use” and 1 = “expect much less use”)

Base: Had Employee(s) and Subcontractor(s) (N = As Shown)



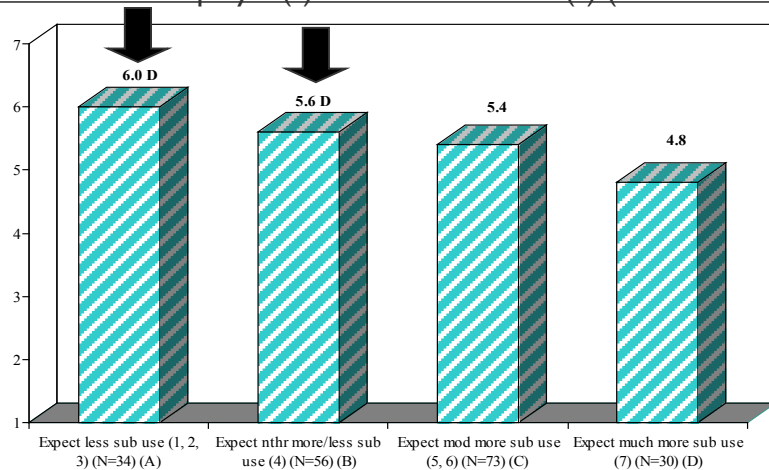
However, businesses that had direct employees and subs in 2017 were less inclined to boost their use of both types of workers in 2018 than to make trade-offs between them.

The charts below show that the businesses that expected to use subcontractors **less** were significantly **more likely to anticipate hiring direct employees** in 2018. The opposite was also true: Businesses that were unlikely to hire direct employees expected significantly increased use of subcontractors.

Mean Likelihood * to Hire Direct Employees in 2018: By Rating ** of Expected Change in Use of Floor Covering Installation Subcontractors in 2018

(* on a 7-point scale where 7 = “extremely likely” and 1 = “not at all likely”)
 (** on a 7-point scale where 7 = “expect much more use” and 1 = “expect much less use”)

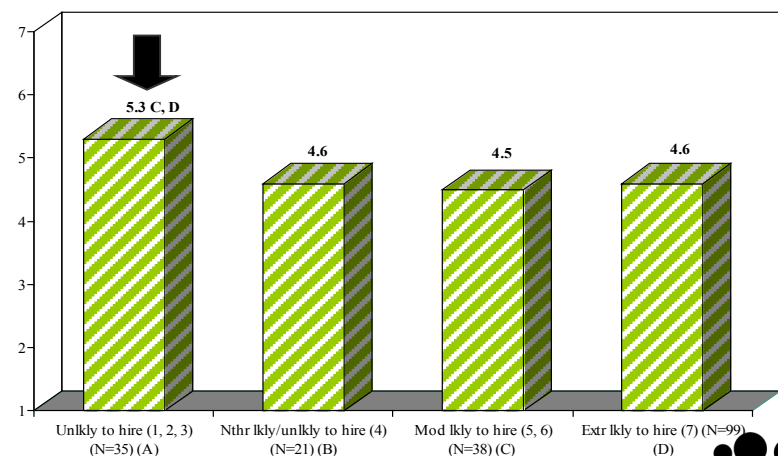
Base = Had Employee(s) and Subcontractor(s) (Ns As Shown)



Mean Expected Change * in Use of Subcontractors in 2018: By Rating ** of Likelihood to Hire Direct Employees in 2018

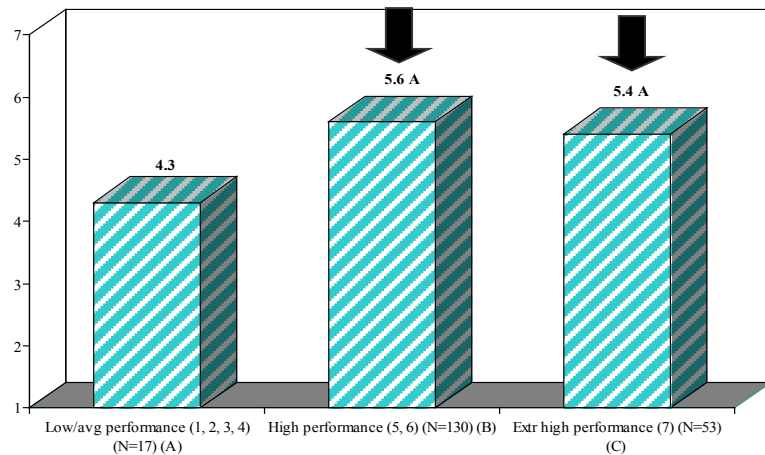
(* on a 7-point scale where 7 = “expect much more use” and 1 = “expect much less use”)
 (** on a 7-point scale where 7 = “extremely likely” and 1 = “not at all likely”)

Base = Had Employee(s) and Subcontractor(s) (Ns As Shown)

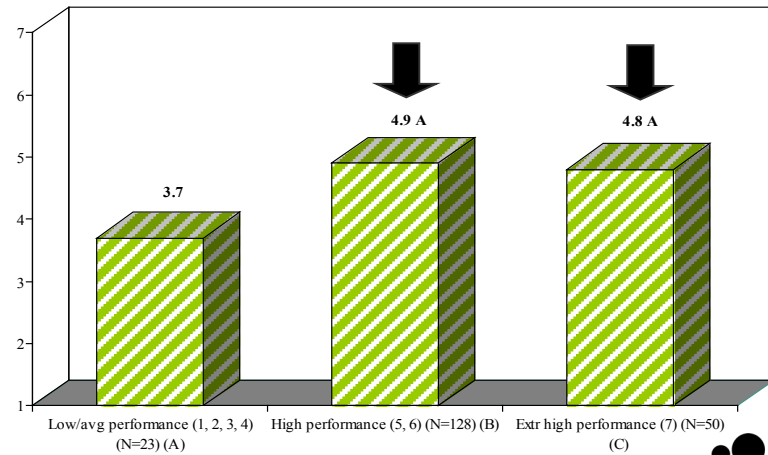


Workers' 2017 performance influenced businesses' trade-offs. High employee quality ratings were associated with plans for hiring. High sub productivity was tied to more use of subs.

Mean Likelihood * to Hire Direct Employees in 2018: By Rating ** of Direct Employees' Quality of Work in 2017
 (* on a 7-point scale where 7 = "extremely likely" and 1 = "not at all likely")
 (** on a 7-point scale where 7 = "extremely high performance" and 1 = "extremely low performance")
 Base = Had Employee(s) and Subcontractor(s) (Ns As Shown)



Mean Expected Change * in Use of Subcontractors in 2018: By Rating ** of Subcontractors' Productivity in 2017
 (* on a 7-point scale where 7 = "expect much more use" and 1 = "expect much less use")
 (** on a 7-point scale where 7 = "extremely high performance" and 1 = "extremely low performance")
 Base = Had Employee(s) and Subcontractor(s) (Ns As Shown)

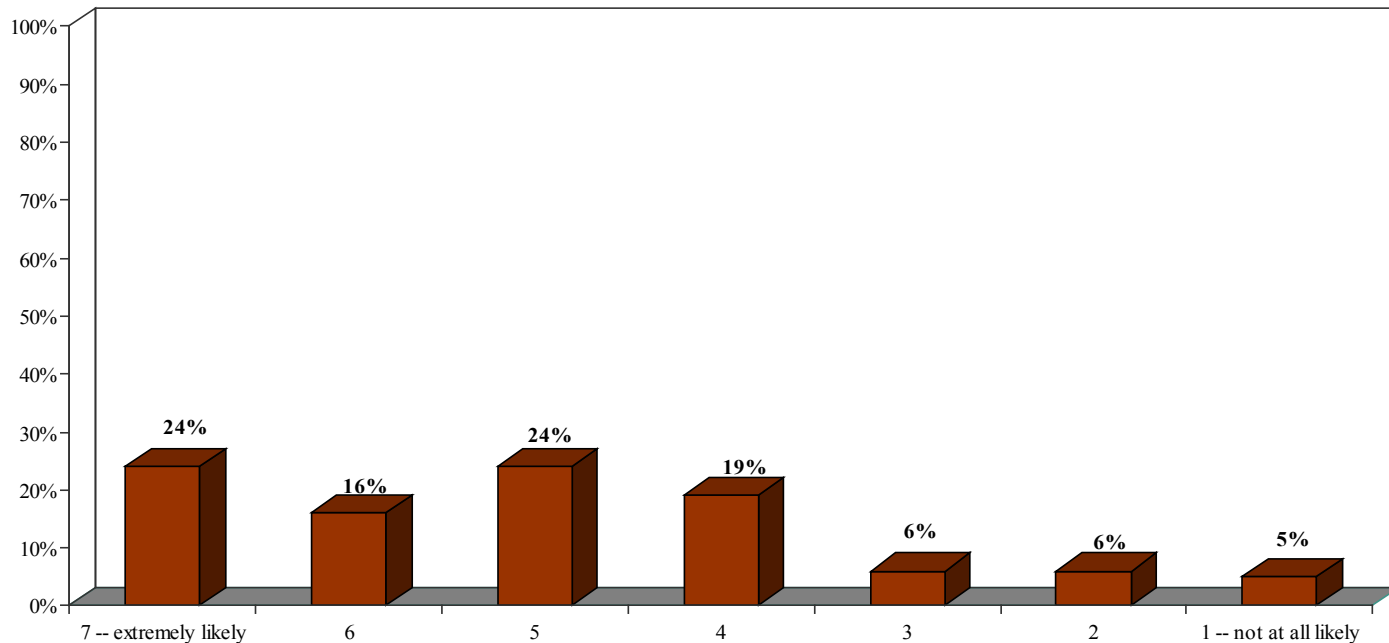




3 – INSTALLATION AS A CAREER: MOTIVATIONS, BARRIERS, RECRUITMENT

As a group, the executives were somewhat likely (mean = 5.0) to recommend floor covering installation as a career.

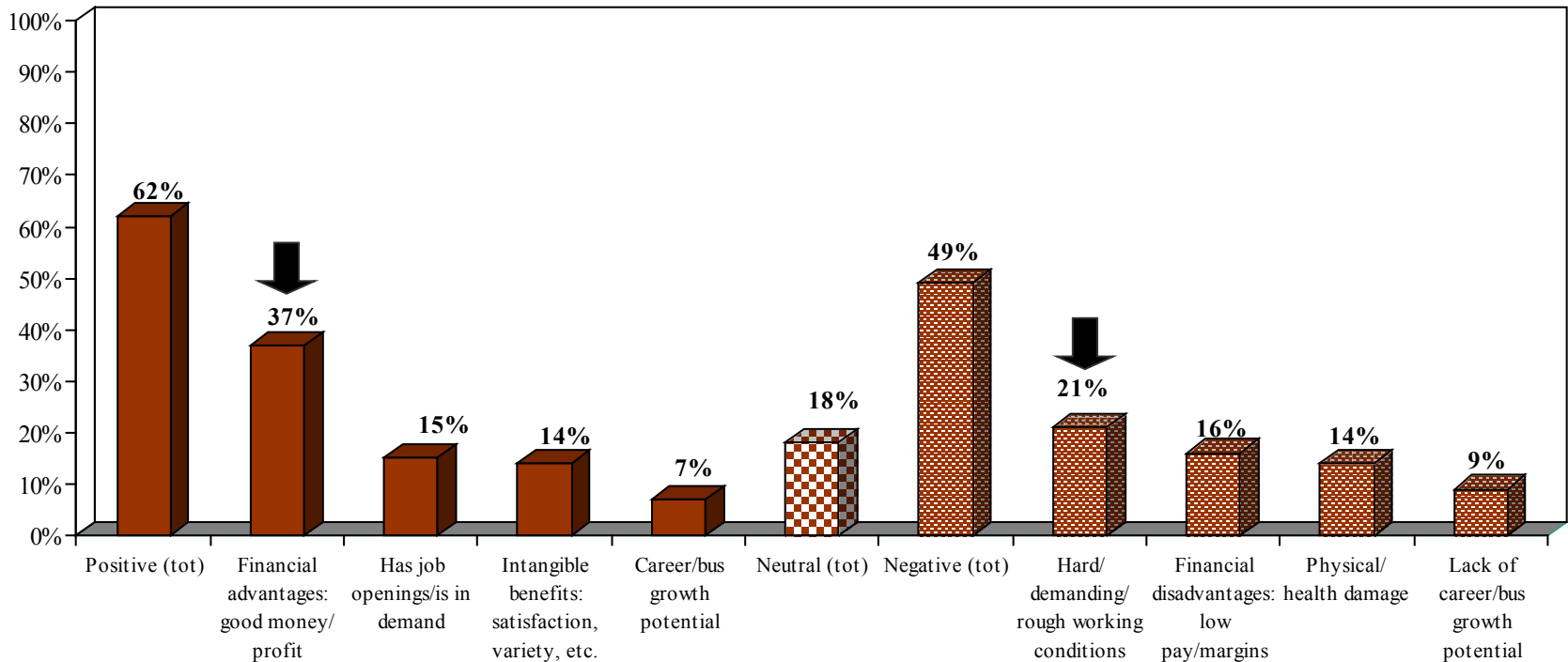
Rating of Likelihood to Recommend Floor Covering Installation as a Career
(* on a 7-point scale where 7 = “extremely likely” and 1 = “not at all likely”)
N = 334



A key motivator for those who would recommend a career in installation was its perceived financial advantages. Tough working conditions were a barrier to recommendation.

Reasons for Rating Given for Likelihood/Unlikelihood to Recommend Floor Covering Installation as a Career

N = 316



From their perspective as employers and businesspeople, the executives perceived important pros and cons to a career in floor covering installation.

- Floor covering installation can be lucrative, but not necessarily for the installer.
 - *“I am [a] second generation floor covering installation shop/contractor. The floor covering business has put 10 people through college and provided a wonderful life.”*
 - *“I've been a flooring installer for about 30 years. . . . [O]ur wages have not increased much since I started in this business. . . . [O]ther trades that have stronger unions have been able to increase annually, but not in the flooring industry.”*
 - *“It is . . . hard to convince someone to go out and bust their butt every day for a little more than minimum wage (after expenses).”*
- The trade will endure, but your body may not.
 - *“Flooring is a trade that will always exist.”*
 - *“The construction industry is not one that can be automated, so quality craftsmen will be in demand for the foreseeable future.”*
 - *“It is physically demanding, and the body wears out. I am fully functional still, after 13 years in the industry, but see the inevitable outcome of physical installation.”*
 - *“Have two family members installing, three who used to. Hips, knees, and back issues.”*

Pros and cons to a career in installation (continued)

- Being an installer entitles you to respect yourself, but others may not respect you.
 - *“Floor covering installation is an honorable trade.”*
 - *“By working [in it] you can [gain] self respect.”*
 - *“Lack of respect from other trades, retailers, homeowners. Not viewed as a ‘profession’.”*
 - *“We are the last trade to finish projects, and more often than not we are blamed for delays and or deficiencies caused by other trades or lack of good coordination from GCs.”*
- It’s easy to enter the trade, but not necessarily easy to progress.
 - *“Zero barriers to entry.”*
 - *“It’s the quickest way to make a living.”*
 - *“The learning curve for a good installer is many year[s] long.”*
 - *“Highly unlikely path to more money and career advancement.”*
 - *“Not a lot of room for growth long term, unless that firm advances field employees to sales or management.”*

Executives' thoughtful observations about the trade's intrinsic rewards could aid in developing messages to promote floor covering installation as a career choice.

- Opportunity to combine artistry and skill
 - *"I would recommend [floor covering installation] to someone if they[re] handy and artistic."*
 - *"It can be a rewarding [profession] for a craftsman/artist type person."*
 - *"Residential tile installation is one of the few crafts that combines both the technical and artistic."*
- Need for creativity and problem solving
 - *"The industry is creative."*
 - *"Qualified tile installers create art."*
 - *"I have been in and around this business my whole life... The challenges are never the same and test my problem solving ability constantly."*

Intrinsic rewards (continued)

- Varied and challenging work
 - *“It is different every day and can be really fun.”*
 - *“No homes [are] the same. All work [is] custom.”*
 - *“We deal with clients from all facets of business and life.”*
 - *“I've been doing this for 42 years. I promise all I have hired that they will never be bored, and if they are at it for at least six months they will likely never leave the flooring business.”*
 - *“There is always something new to learn, and I love a challenge.”*
- Way to have a meaningful, lasting impact on people and their environments
 - *“Residential tile installation . . . is one of the few professions where people are happy you came into their lives.”*
 - *“You get to . . . take pride in what you've created and turned over to customers.”*
 - *“[You can have] pride in making a noticeable improvement in [a] homeowner's residence.”*
 - *“You know that your installations could be there for . . . 50 [to] 100 years.”*

Even so, executives made the point that, as a specialty trade, floor covering installation is a good career choice only for those who have a particular combination of traits.

- A number of the executives observed that floor covering installation is suitable for certain individuals (12%) but is not a good fit for many (2%).
 - “[I] might be swayed to encourage the right person to entertain it as a career!”
 - “I have had friends and family members that I have tried to help get started in floor covering installation, only to regret it.”
 - “I don't have any family members or friends that I think would enjoy being an installer.”
- The executives identified key characteristics that the “right person” for a career in installation should possess:
 - Aptitude for and interest in manual work
 - “For those who have the physical ability to work with their hand[s].”
 - “Not everyone has the aptitude to install floor tile in a craftsmanship-like manner.”
 - “It would depend on the individual . . . [i]f they are [a] strong, hands-on, technician type of person.”

Suitability (continued)

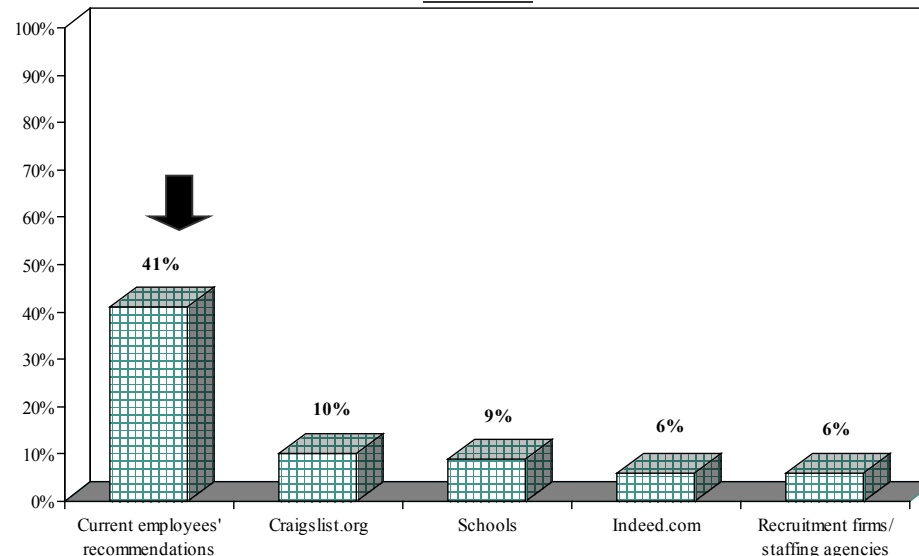
- Key characteristics (continued)
 - Capacity and commitment to handle the rigors of the trade
 - *“If they believe they are not ‘college material’, enjoy working in different locations every day, can handle some heavy lifting, etc., then floor covering can be a good career choice.”*
 - *“More work and longer hours than some fields.”*
 - *“Sometimes long hours. . . . Very little time off.”*
 - *“It takes a great amount of dedication and perseverance and determination along with many hours to be successful.”*
 - Ambition to be an entrepreneur
 - *“[There is] the potential to grow it to [a] very lucrative [career] for those with an entrepreneurial spirit.”*
 - *“To get into this business you’ll have to have thick skin, a great handle on cash flow and how it works, and a vast knowledge of the products you are installing. There are not many that are adept at that.”*
 - *“After 20+ years as an installer . . . [the flooring business] allowed me to open a retail store so I can [employ] seven and have eight subcontractors.”*

Presumably to boost the odds of finding the “right people,” many who expected to hire installation workers in 2018 planned to rely on current employees’ recommendations.

Depending on current employees, who know the job, to refer potential recruits has an obvious benefit. Yet it can also make it difficult to broaden the pool of candidates, since people tend to know others like themselves. One consequence: Employers with an aging workforce may struggle to find young workers.

One Source That Primary Place of Business Will Rely on Most to Recruit Directly Employed Installation Workers in 2018

Base: Likely (Rating of 7, 6, or 5 on a 7-Point Scale) to Hire Installation Worker(s) as Direct Employee(s) in 2018
N = 174

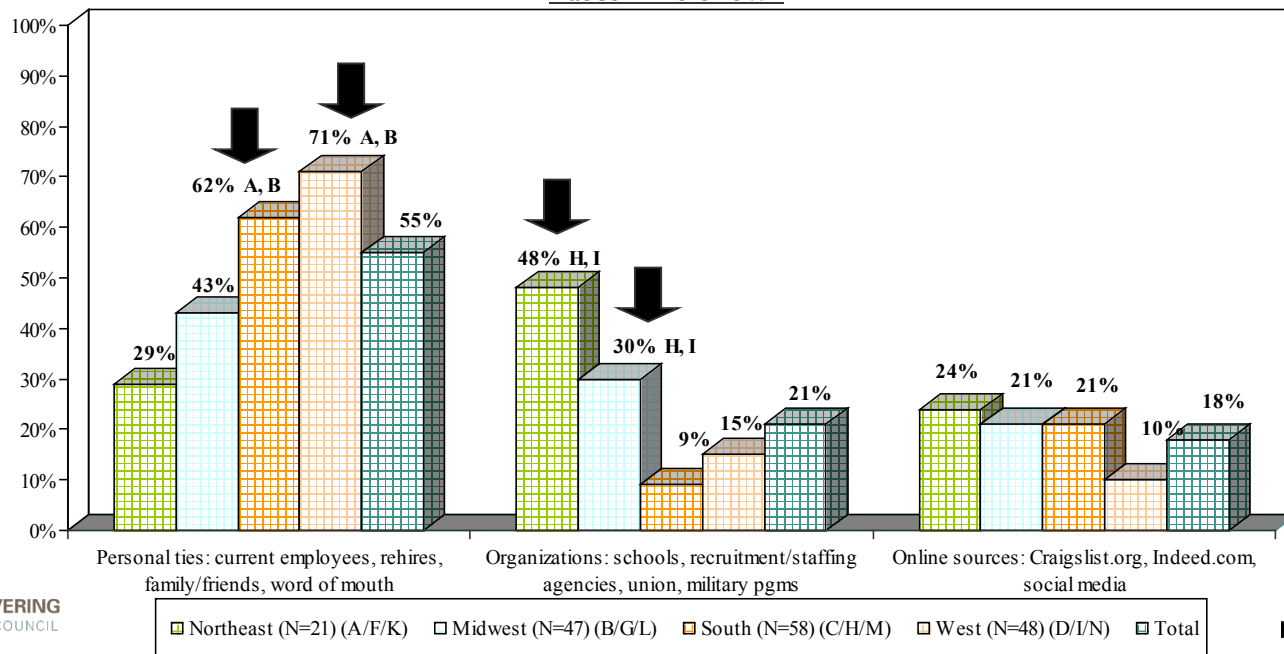


The exceptionally high rate of inheritance of floor covering installation occupations – a historical phenomenon noted in the task 2.0 report – was not evident in the executives’ upcoming hiring plans. Just 5% expected to rely most on family, friends, and/or acquaintances when recruiting direct employees in 2018.

Executives' main source for recruiting employees varied by region. Those in the south and west more often expected to use personal ties than did northeast and Midwest businesses.

Northeast and Midwest businesses that were likely to hire installation employees in 2018 differed from those in the other two regions by more often expecting organizations to be their main recruitment resource.

One Source That Primary Place of Business Will Rely on Most to Recruit Directly
Employed Installation Workers in 2018: By Region
 Base: Likely (Rating of 7, 6, or 5 on a 7-Point Scale) to Hire Installation Worker(s) as
 Direct Employee(s) in 2018
 Bases = As Shown



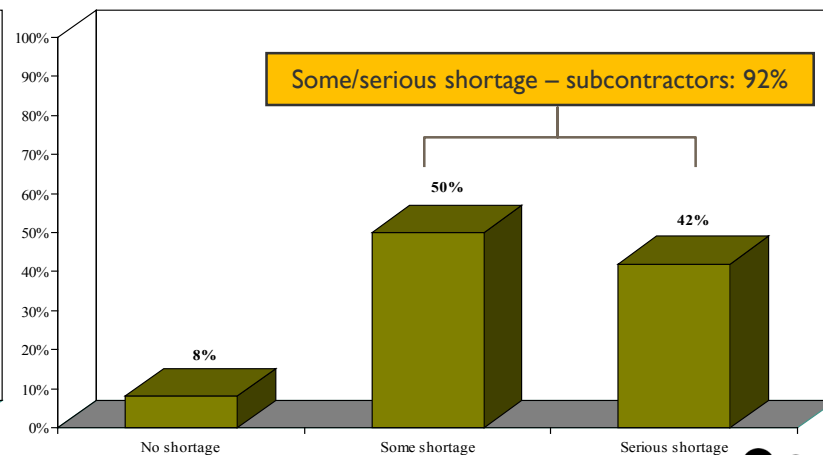
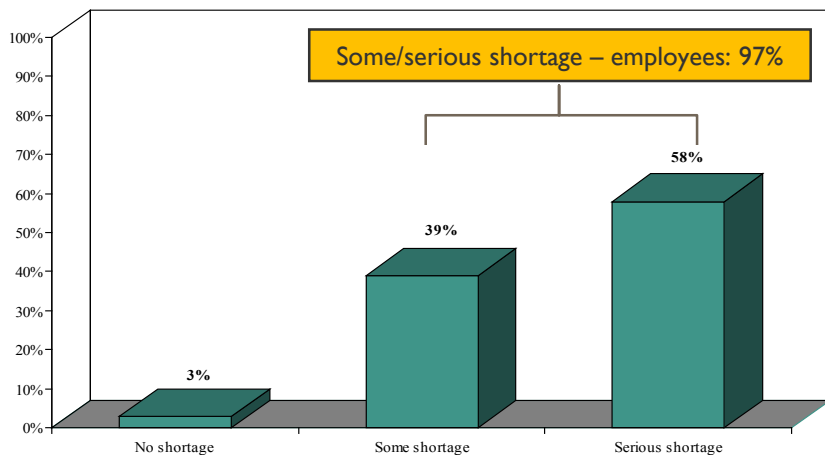
4 – GAPS IN THE INSTALLATION WORKFORCE: PERCEPTIONS AND MARKET INDICATORS

Perceptions that the floor covering industry was experiencing workforce shortages were strikingly widespread.

Few executives claimed that they were not seeing a shortage of directly employed installation workers (3%) or of installation subcontractors (8%). Although both types of workers were in short supply, the executives more often reported a lack of availability of direct employees.

Rating of Current Availability of Floor Covering Installation Workers Who Are Direct Employees
N = 316

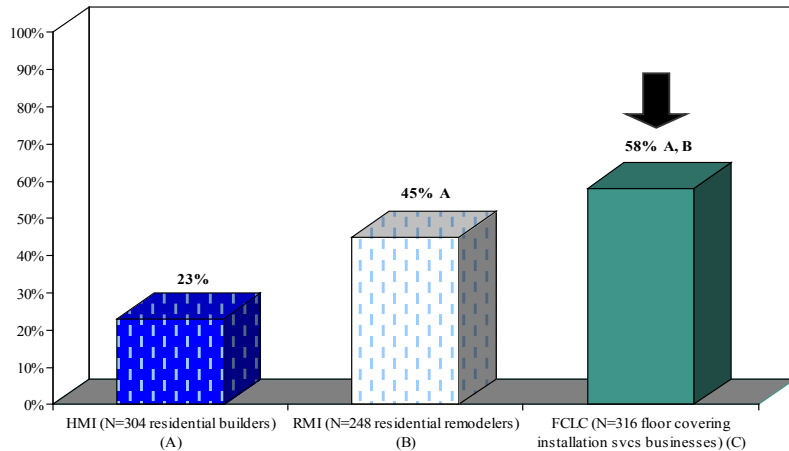
Rating of Current Availability of Floor Covering Installation Subcontractors
N = 318



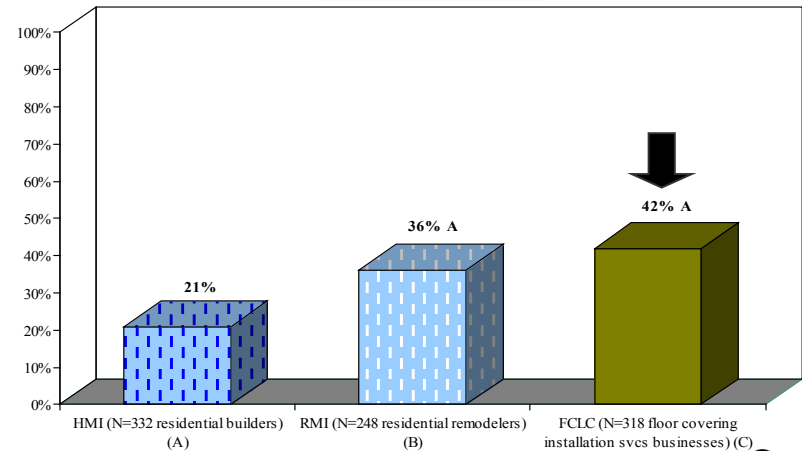
Comparing FLC's data against NAHB's 2017 labor shortage reports from builders and remodelers shows installation firms more often registering "serious" employee and sub shortages.

The patterned bars below present data from NAHB's Housing Market Index (HMI) and Remodeling Market Index (RMI) for finish carpenters, some of whom are installers. Category and seasonal differences mean that NAHB's findings are not fully comparable to FLC's. Still, FLC's high "serious shortage" percents are notable.

Percent Indicating a "Serious" Shortage among Direct Employees Who Are Finish Carpenters (NAHB)/Floor Covering Installation Workers (FLC): As Reported by NAHB HMI (July 2017), NAHB RMI (3Q2017), FLC (2Q2018)
Bases = As Shown



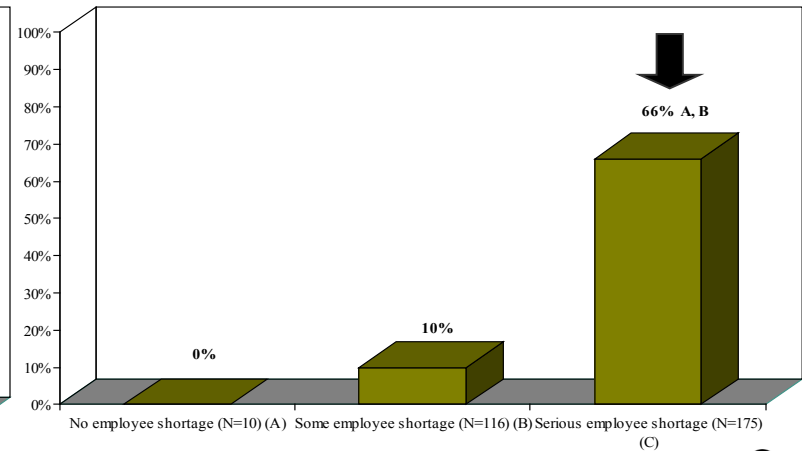
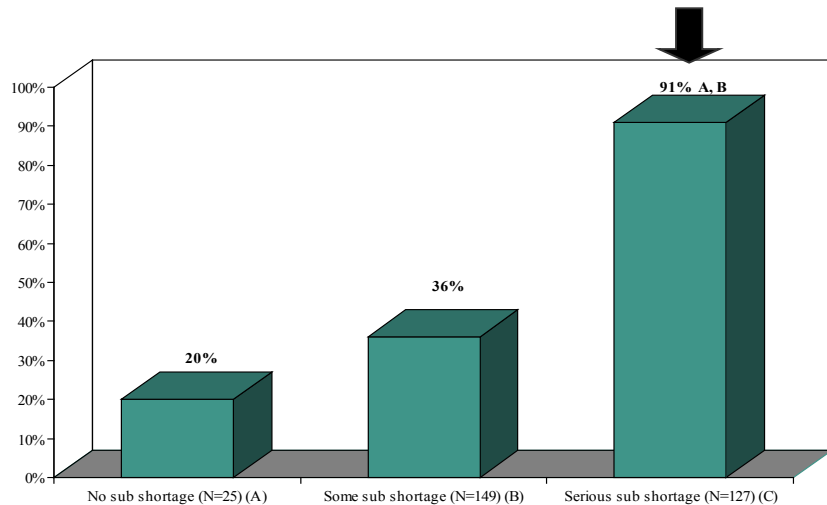
Percent Indicating a "Serious" Shortage among Subcontractors Who Are Finish Carpenters (NAHB)/Floor Covering Installers (FLC): As Reported by NAHB HMI (July 2017), NAHB RMI (3Q2017), FLC (2Q2018)
Bases = As Shown



The executives who identified a “serious” shortage of floor covering installation subcontractors tended to say the same about directly employed installation workers, and vice versa.

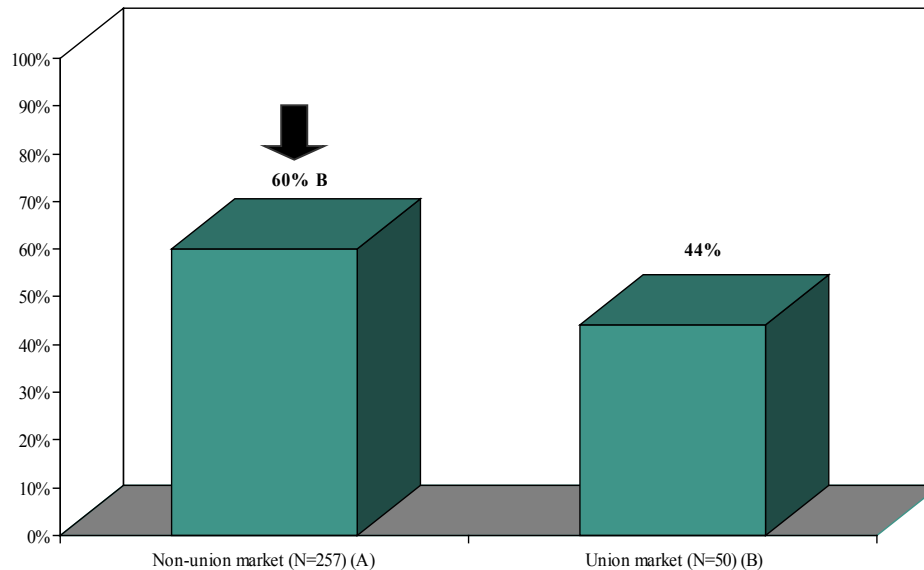
Percent Indicating a “Serious” Shortage of Floor Covering Installation Workers Who Are Direct Employees: By Rating of Current Availability of Floor Covering Installation Subcontractors
Bases = As Shown

Percent Indicating a “Serious” Shortage of Floor Covering Installation Subcontractors: By Rating of Current Availability of Floor Covering Installation Workers Who Are Direct Employees
Bases = As Shown



Businesses in non-union markets more often reported a “serious” shortage of directly employed floor covering installation workers than did those in union markets.

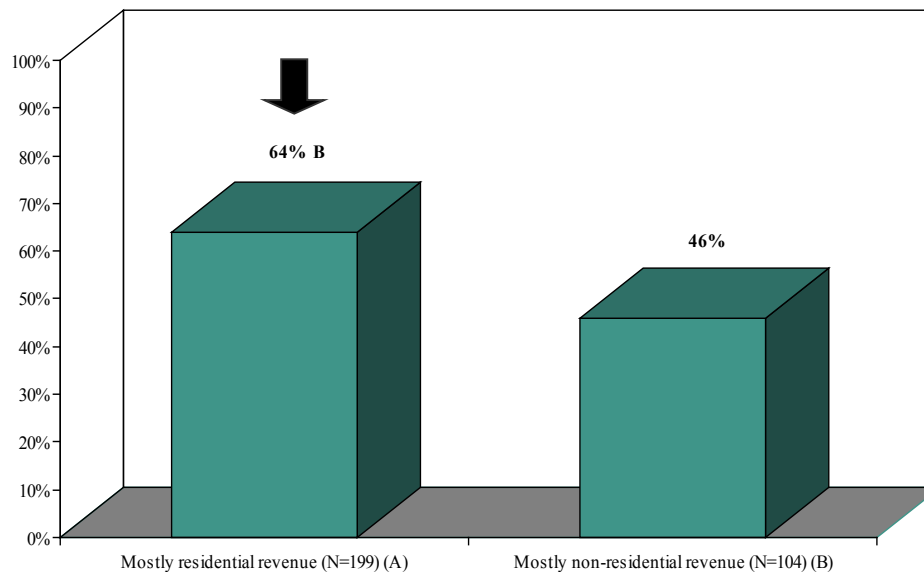
Percent Indicating a “Serious” Shortage of Floor Covering Installation Workers
Who Are Direct Employees: By Whether Executive’s Primary Place of
Business Is in a Market with Union Workers
Bases = As Shown



Businesses with a mostly residential revenue mix more often perceived a “serious” shortage of directly employed workers than did ones that had primarily non-residential revenue.

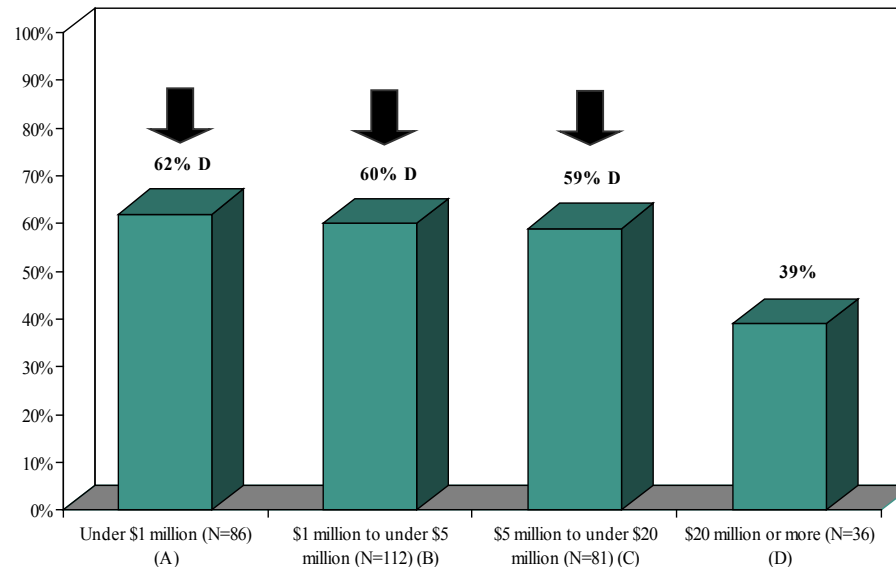
Similarly, the businesses with a mostly residential revenue mix were more likely to perceive a “serious” shortage of subcontractors (48%) than were those whose 2017 revenue came primarily from non-residential work (32%).

Percent Indicating a “Serious” Shortage of Floor Covering Installation Workers Who Are Direct Employees: By 2017 Revenue Mix (End-Use Market)
Bases = As Shown



Compared to the largest businesses, those whose 2017 floor covering revenues were less than \$20 million more often signaled a “serious” shortage of directly employed workers.

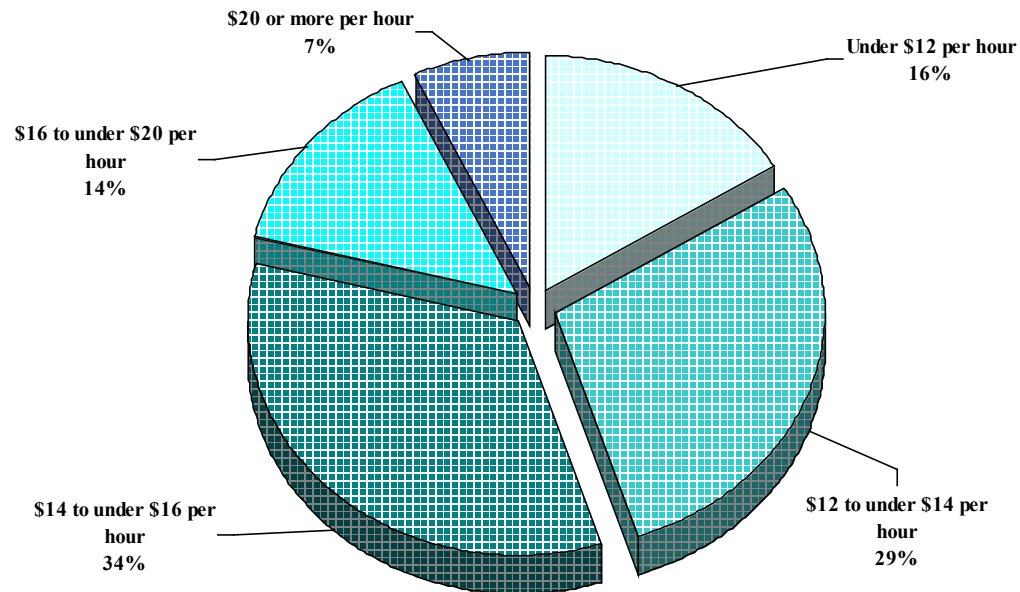
Percent Indicating a “Serious” Shortage of Floor Covering Installation Workers Who Are Direct Employees: By Primary Place of Business’s 2017 Revenue from Floor Covering Product Sales and/or Installation Services
Bases = As Shown



To see if employee shortages were prompting wage hikes, the study elicited wage rates from businesses expecting to hire in 2018. The 2017 entry-level rates ranged widely.

Executives offered a starting wage for entry-level floor covering installation helpers hired as direct employees in 2017 that ranged from \$7.50 to over \$25.00 per hour.

Starting Wage for an Entry-Level Installation Helper Hired as a Direct Employee in April/May 2017
Base: Likely (Rating of 7, 6, or 5 on a 7-Point Scale) to Hire Installation Worker(s) as Direct
Employee(s) in 2018
N = 158

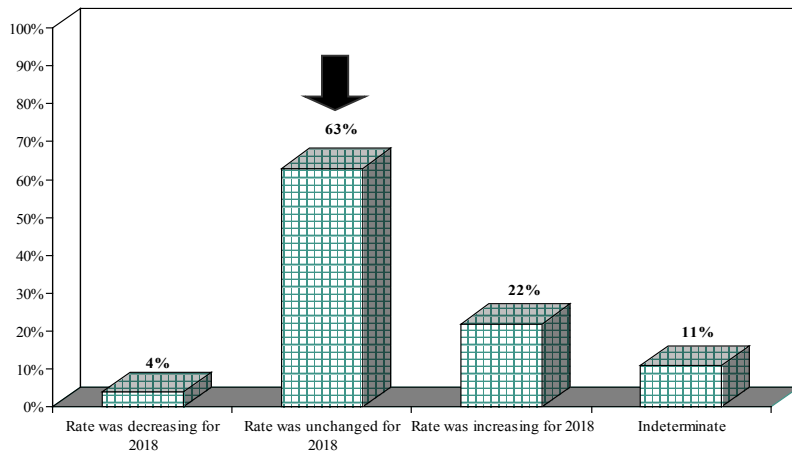


Despite the employee shortage reports, most of those who planned to hire in 2018 did not foresee offering more money. The 2017 median rate of \$14.00 was unchanged for 2018.

The FLC assessment's findings in this regard parallel BLS's reported results for the U.S. economy as a whole, which have shown that, even as the employment market has become increasingly tight, wages have been slow to rise (see <https://www.nytimes.com/2018/07/13/business/economy/wages-workers-profits.html>).

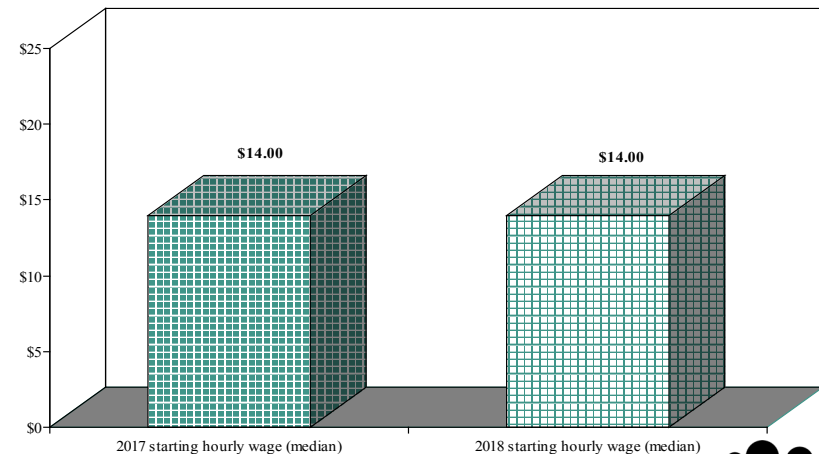
Wage Rate Comparison: Starting Wage for an Entry-Level Installation Helper Hired as a Direct Employee in April/May 2017 vs. for April/May 2018

Base: Likely (Rating of 7, 6, or 5) to Hire Installation Worker(s) as Direct Employee(s) in 2018
N = 175



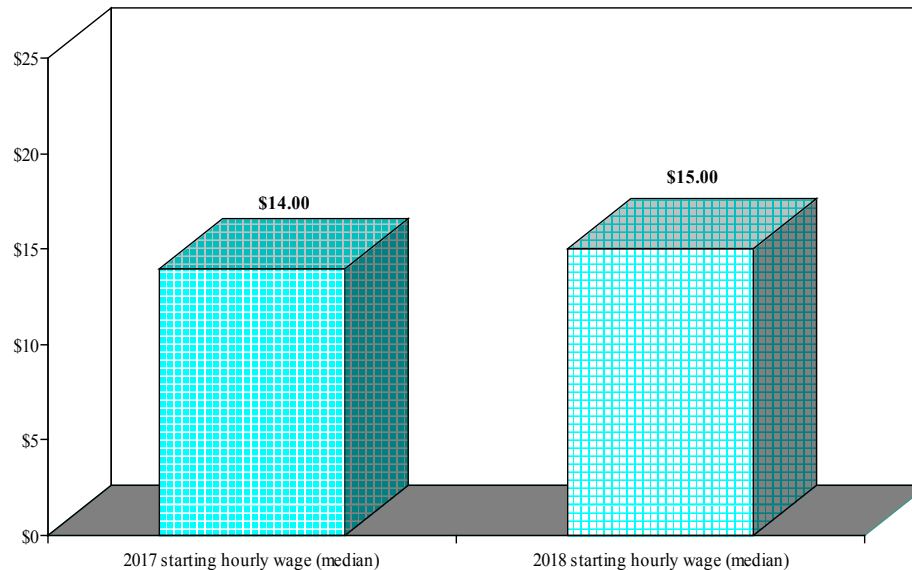
Median Starting Wage for an Entry-Level Installation Helper Hired as a Direct Employee in April/May 2017 vs. for April/May 2018

Base: Likely (Rating of 7, 6, or 5) to Hire Installation Worker(s) as Direct Employee(s) in 2018 and Wage Rates Were Not Indeterminate
N = 156



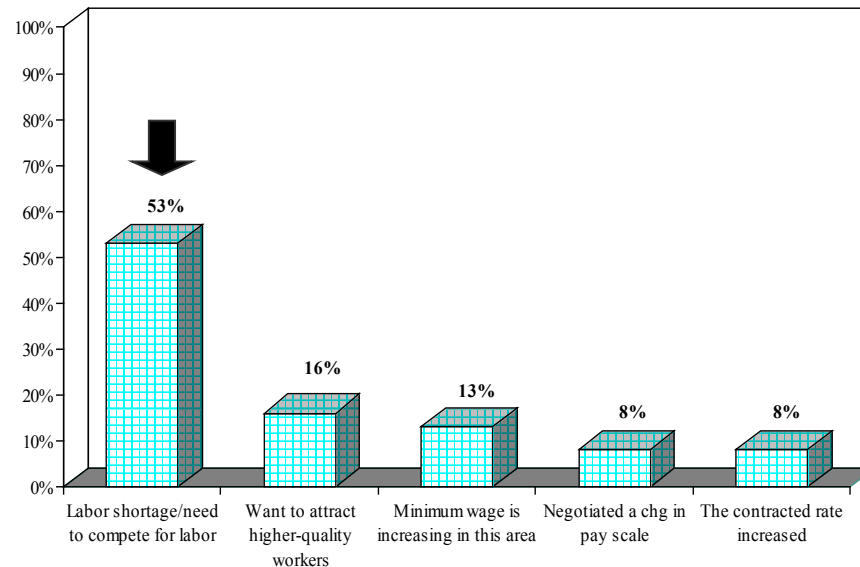
The few businesses that expected to increase the wage for entry-level installation employees reported a median hourly rate of \$14.00 in 2017 and \$15.00 for 2018 – a 7% increase.

Median Starting Wage for an Entry-Level Installation Helper Hired as a Direct Employee in April/May 2017 vs. for April/May 2018
Base: Likely (Rating of 7, 6, or 5) to Hire Installation Worker(s) as Direct Employee(s) in 2018 and Wage Rate Was Increasing for 2018
N = 38



Only half of the businesses that expected to offer more for entry-level installation employees in 2018 cited a shortage of labor as the main reason. The rest had different motivations.

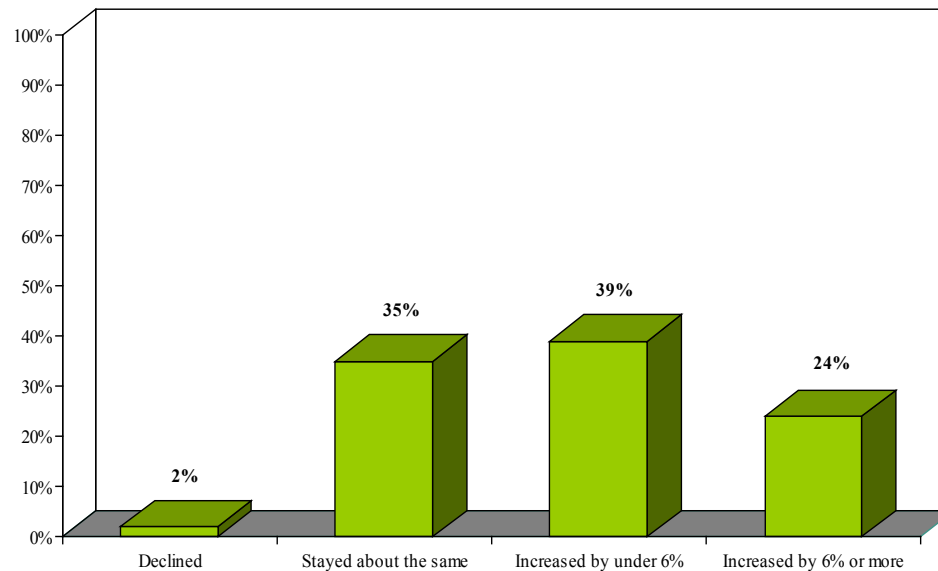
Main Reason That Starting Wage for a Directly Employed Entry-Level Floor Covering Installation Helper Has Gone Up in 2018 Compared to 12 Months Ago
Base: Likely (Rating of 7, 6, or 5) to Hire Installation Worker(s) as Direct Employee(s) in 2018 and Wage Rate Was Increasing for 2018
N = 38



“When it comes to complaints of a labor shortage, as Neel Kashkari, president of the Minneapolis Fed[ederal Reserve Bank], has said: ‘If you’re not raising wages, then it just sounds like whining’ ”
<https://www.nytimes.com/2018/07/13/business/economy/wages-workers-profits.html>).

Although the assessment found no overall increase in the starting wage for direct employees, it showed that the costs of subcontracted installers' services rose from 2017 to 2018.

Rating of Change in the Cost of Subcontracted Floor Covering Installation Services Compared to 12 Months Ago
Base = Had Subcontractor(s)
N = 302

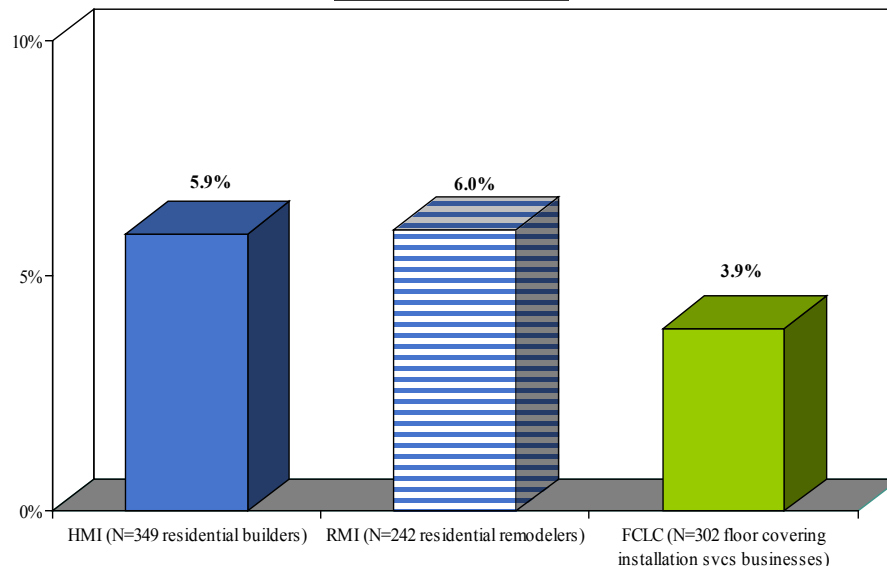


Median: 1.4% increase
Mean: 3.9% increase

In documenting a rise in the cost of subcontractors' services, the FCLC assessment agreed with NAHB's 2017 labor shortage studies.

Even though NAHB's special 2017 HMI and RMI studies reported results for a different time period and could not be tested directly against FCLC's, all three studies suggested that the costs of using subcontracted services have been rising and that the average annual rate of increase has been in the mid-single digits.

Mean Increase in the Cost of Subcontractors for the Same House (HMI)/for the Same Project (RMI)/for Subcontracted Floor Covering Installation Services for the Same Project Compared to 12 Months Ago: As Reported by NAHB HMI (July 2017), NAHB RMI (3Q2017), FCLC (2Q2018)
Bases = As Shown

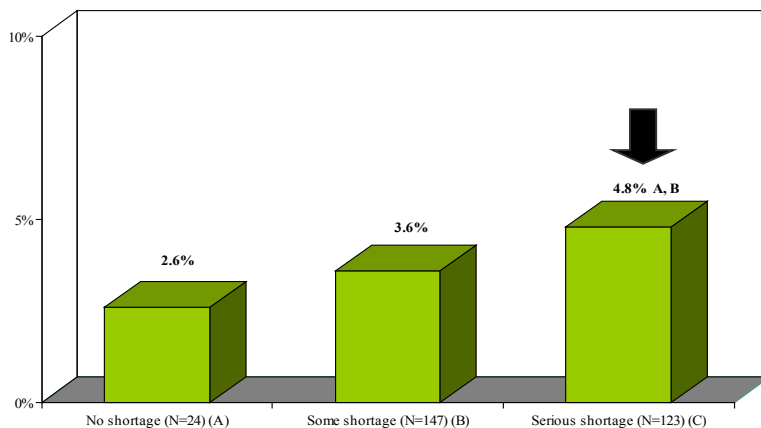


Note: Means could not be tested for statistical significance.

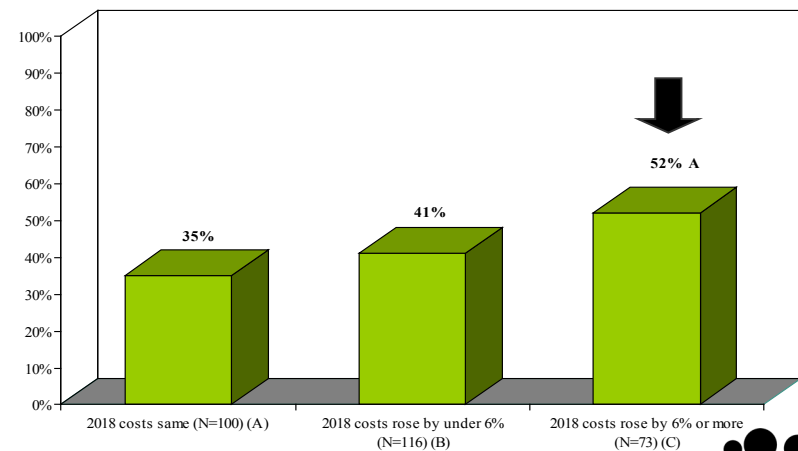
The FCLC assessment demonstrated an association between a shortage of subcontractors and cost increases – one of the indicators used to determine if a shortage truly exists.

Compared to the other executives, those who had a “serious” shortage of subcontractors reported a significantly higher average increase in their costs for subcontracted services. The reverse was also true: Those experiencing sizable increases claimed a “serious” shortage of subs more often than did those with stable costs.

Mean Increase in the Cost of Subcontractors for Subcontracted Floor Covering Installation Services Compared to 12 Months Ago: By Rating of Current Availability of Floor Covering Installation Subcontractors
Bases = As Shown



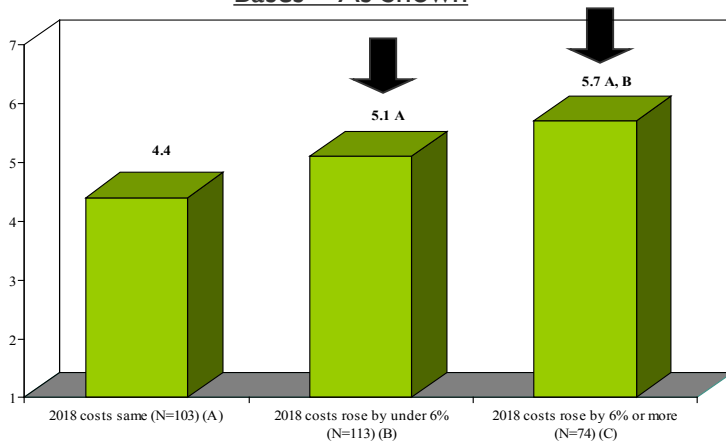
Percent Indicating a “Serious” Shortage of Floor Covering Installation Subcontractors: By Rating of Change in the Cost of Subcontractors for Subcontracted Floor Covering Installation Services Compared to 12 Months Ago
Bases = As Shown



As their costs for subcontracted services rose, so did executives' agreement that labor shortages were having a negative financial impact up the supply chain, and vice versa.

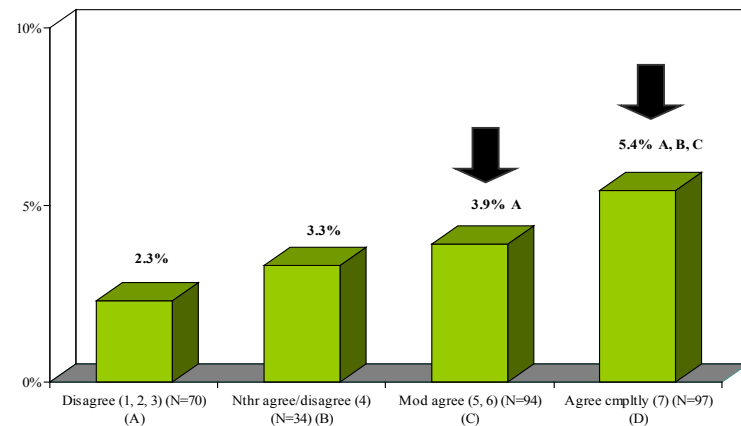
Mean Agreement * That "My Business's Shortage of Employee and/or Subcontractor Labor Has Had a Negative Financial Impact on Floor Covering Retailers, Distributors, and/or Manufacturers": By Rating of Change in the Cost of Subcontractors for Subcontracted Floor Covering Installation Services Compared to 12 Months Ago
 (* on a 7-point scale where 7 = "agree completely" and 1 = "disagree completely")

Bases = As Shown



Mean Increase in the Cost of Subcontractors for Subcontracted Floor Covering Installation Services Compared to 12 Months Ago: By Rating * of Agreement That "My Business's Shortage of Employee and/or Subcontractor Labor Has Had a Negative Financial Impact on Floor Covering Retailers, Distributors, and/or Manufacturers"
 (* on a 7-point scale where 7 = "agree completely" and 1 = "disagree completely")

Bases = As Shown

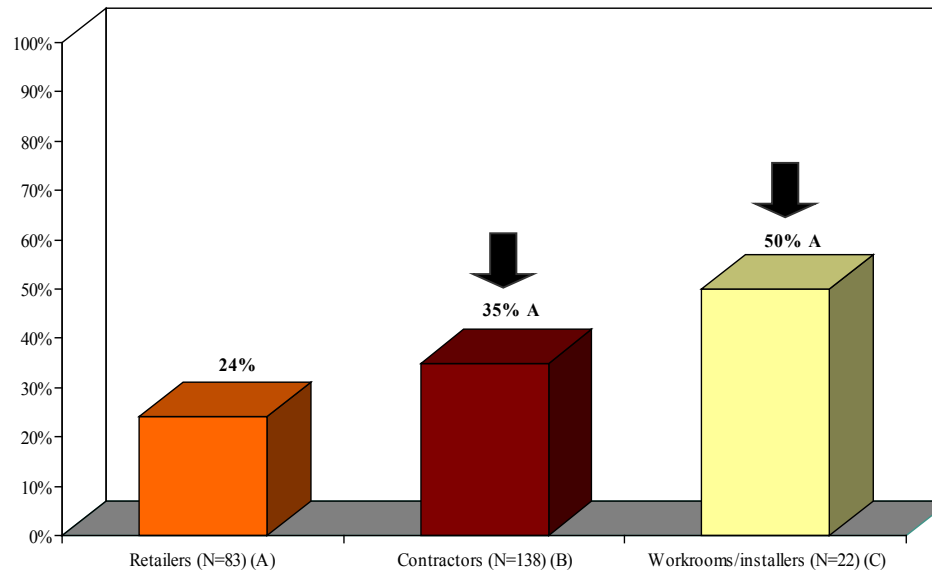


Regarding specific gaps in the workforce, some executives' observations were consistent with data from BLS and the Census indicating a shortage of young workers in the trades.

- The assessment did not probe whether businesses were having difficulties hiring certain types of employees. On their own, however, some executives brought up the challenge of recruiting young floor covering installation workers:
 - *“There is a lack of young people entering the trades.”*
 - *“We have a labor shortage in our industry and we need to engage the younger generation and show them the potential career opportunities.”*
 - *“Most installers are older. We need more younger installers who are willing to learn the skills.”*
 - *“There is little [in the way of] new young people entering the field.”*
 - *“The industry is struggling to find younger installers wanting to have a career in floor covering.”*
 - *“We need more younger installers who are willing to learn the skills.”*
 - *“Flooring stores need young installers.”*

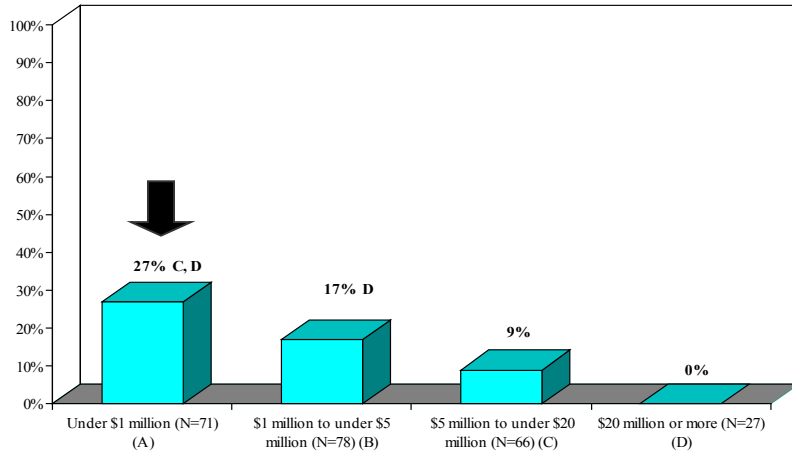
The assessment also contained indications of gaps in training. Compared to contractors and installation businesses, retailers less often had all employees receive training in 2017.

Percent of Businesses Indicating That All Directly Employed Installation Workers Had Received Formal Training in Floor Covering Installation in 2017: By Business Type
Base = Had Employee(s) (Ns As Shown)

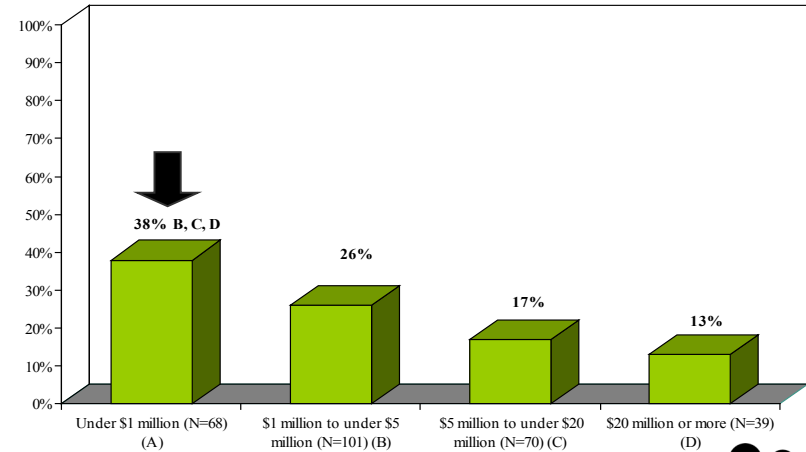


The smallest businesses, with 2017 revenues of under \$1 million, were the ones most likely to have direct employees and subcontractors who received no formal training in 2017.

Percent Indicating That None of Primary Place of Business's Directly Employed Installation Workers Had Received Formal Training in Floor Covering Installation in 2017: By 2017 Revenue
 Base = Had Employee(s) (Ns As Shown)



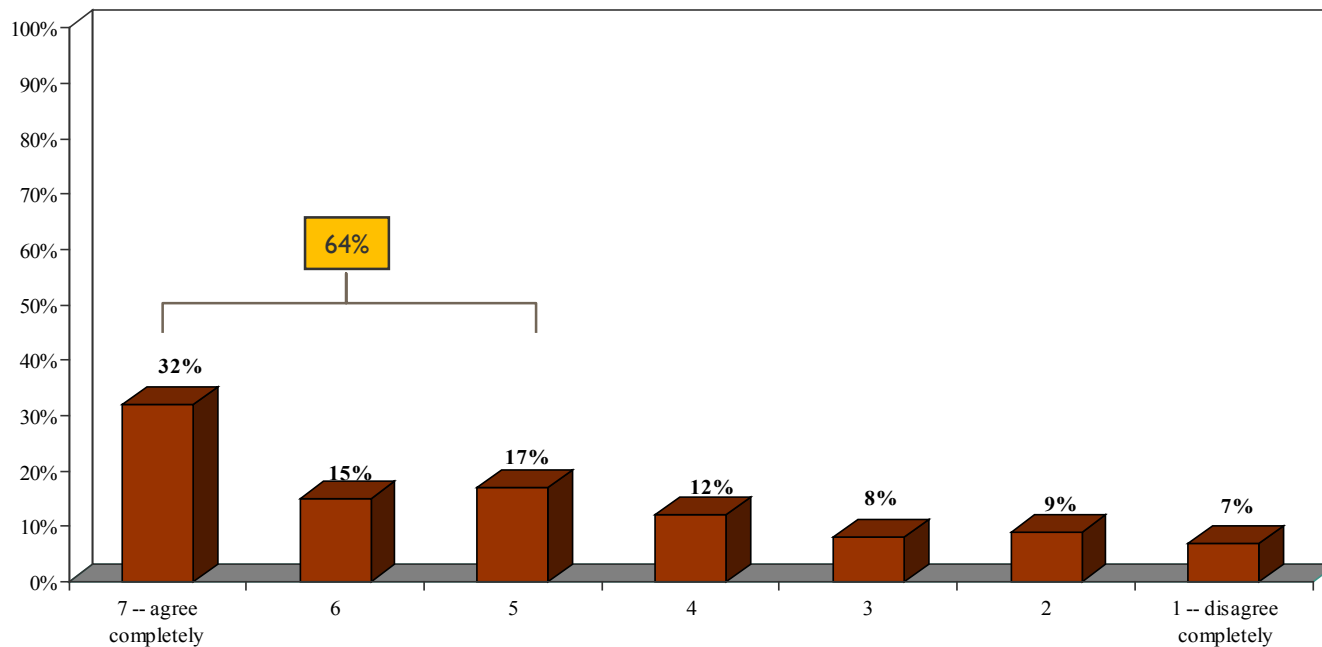
Percent Indicating That None of Primary Place of Business's Installation Subcontractors Had Received Formal Training in Floor Covering Installation in 2017: By 2017 Revenue
 Base = Had Subcontractor(s) (Ns As Shown)



5 – FINANCIAL IMPACTS OF INSTALLER SHORTAGES

Two-thirds of the executives agreed they're experiencing a shortage of installation employee and/or subcontractor labor that has had a negative financial impact up the supply chain.

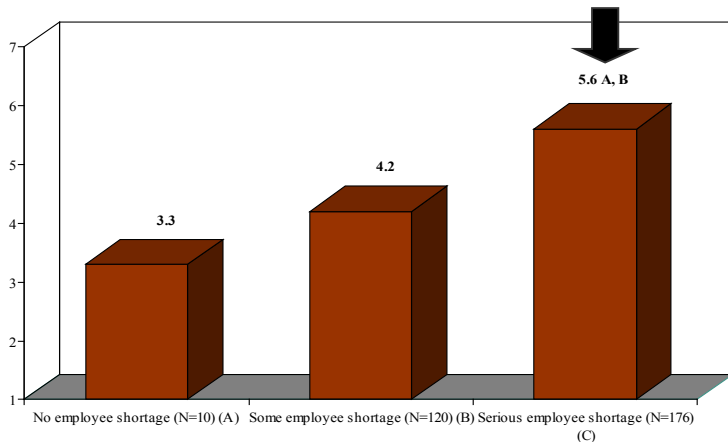
Rating of Agreement * That "My Business Is Experiencing a Shortage of Floor Covering Installation Employee and/or Subcontractor Labor That Has Had a Negative Financial Impact on Floor Covering Retailers, Distributors, and/or Manufacturers"
(* on a 7-point scale where 7 = "agree completely" and 1 = "disagree completely")
N = 321



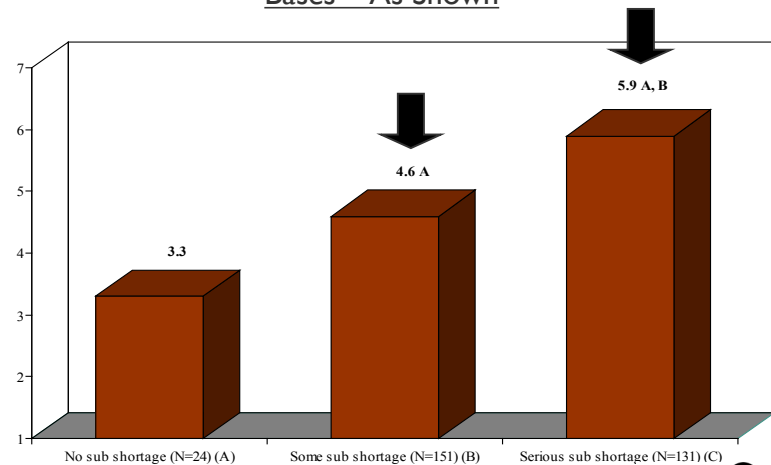
Agreement (mean): 5.0

Agreement that labor shortages have been having a negative financial impact was strongest among those who reported a “serious” shortage of direct employees and, even more, subs.

Mean Agreement * That “My Business’s Shortage of Employee and/or Subcontractor Labor Has Had a Negative Financial Impact on Floor Covering Retailers, Distributors, and/or Manufacturers”: By Rating of Current Availability of Floor Covering Installation Workers Who Are Direct Employees
 (* on a 7-point scale where 7 = “agree completely” and 1 = “disagree completely”)
 Bases = As Shown



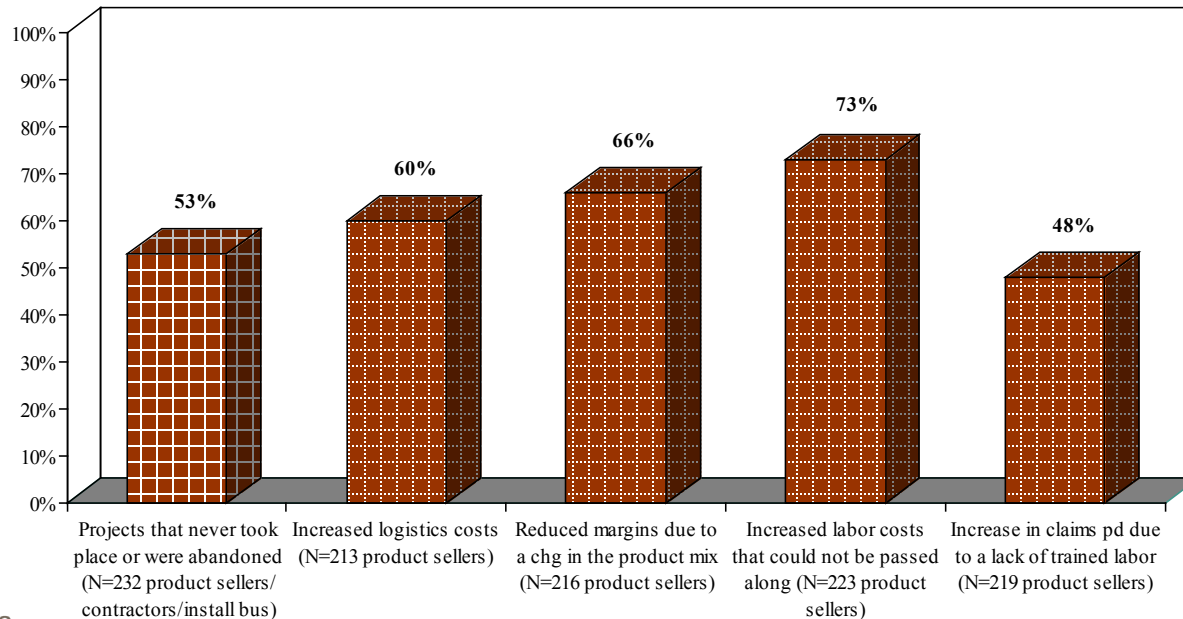
Mean Agreement * That “My Business’s Shortage of Employee and/or Subcontractor Labor Has Had a Negative Financial Impact on Floor Covering Retailers, Distributors, and/or Manufacturers”: By Rating of Current Availability of Floor Covering Installation Subcontractors
 (* on a 7-point scale where 7 = “agree completely” and 1 = “disagree completely”)
 Bases = As Shown



When those who agreed or had mixed views regarding the overall impact of their firm's labor shortage were exposed to specific impacts, half or more acknowledged facing each item.

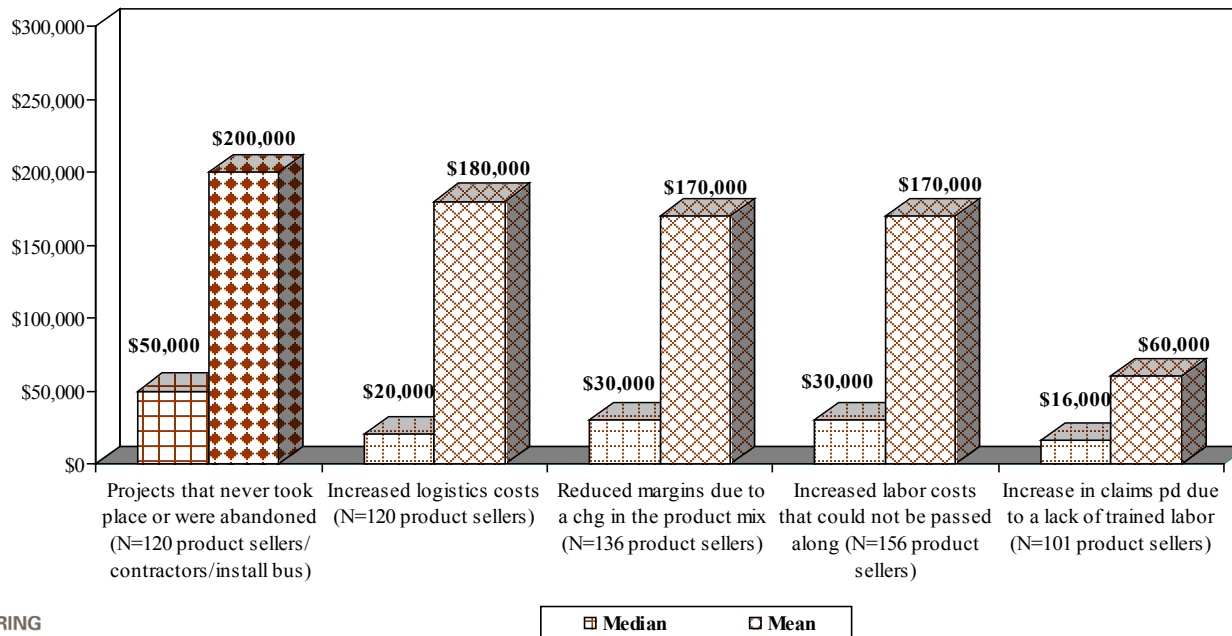
Percent Experiencing a Shortage of Floor Covering Installation Employee and/or Subcontractor Labor in 2017 That Led to Specific Financial Impacts

Bases = Rating of 7, 6, 5, or 4 That Business's Labor Shortage Has Had a Negative Financial Impact and Specific Business Activity Categor(ies/y) (Ns As Shown)



For each impact of the installation labor shortage they experienced in 2017, the businesses represented in the assessment incurred a median cost of \$16,000 to \$50,000.

Median and Mean Costs of Specific Financial Impacts of the Floor Covering Installation Labor Shortage to Executive's Primary Place of Business in 2017
 Bases = Rating of 7, 6, 5, or 4 That Business's Labor Shortage Has Had a Negative Financial Impact and Business Experienced Impact (Ns As Shown)



The combined cost of the labor shortage's impacts on the businesses themselves was 3.8% of their total 2017 revenues from floor covering product sales and/or installation.

Since the businesses that participated in the assessment reported 2017 revenues totaling just over \$2.5 billion, the cost of the specified impacts of the labor shortage on these businesses themselves was slightly below \$100 million.

Specific Financial Impacts of the Floor Covering Installation Labor Shortage

Impact on businesses participating in the assessment	Cost to participating businesses (as a % of total 2017 revenues)	Impacts on supply chain businesses (to be verified)	Costs to supply chain businesses
Projects that never took place or were abandoned	0.9%	Mfrs, distributors, retailers: Lost product margins. Retailers: Lost margins on labor.	To be computed
Increased logistics costs	0.8%	Mfrs: Production inefficiencies. Mfrs, distributors, retailers: Added costs for, e.g., inventory management.	“
Reduced margins due to a change in the product mix	0.9%	Mfrs: Production inefficiencies. Mfrs, distributors, retailers: Reduced margins on product sales.	“
Increased labor costs that could not be passed along	1.0%	Retailers: Increased labor costs (direct employees and/or subcontractors).	“
Increase in claims paid due to a lack of trained labor	0.2%	Retailers: Increased claim expense.	“

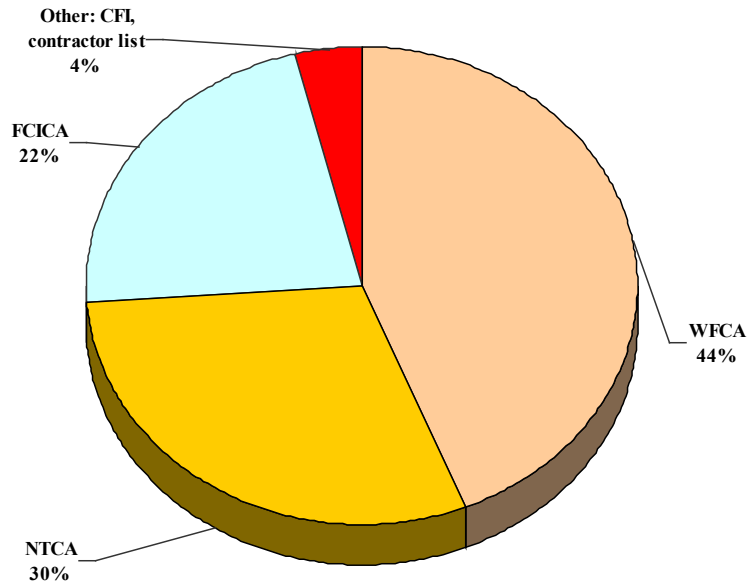
Total: 3.8%



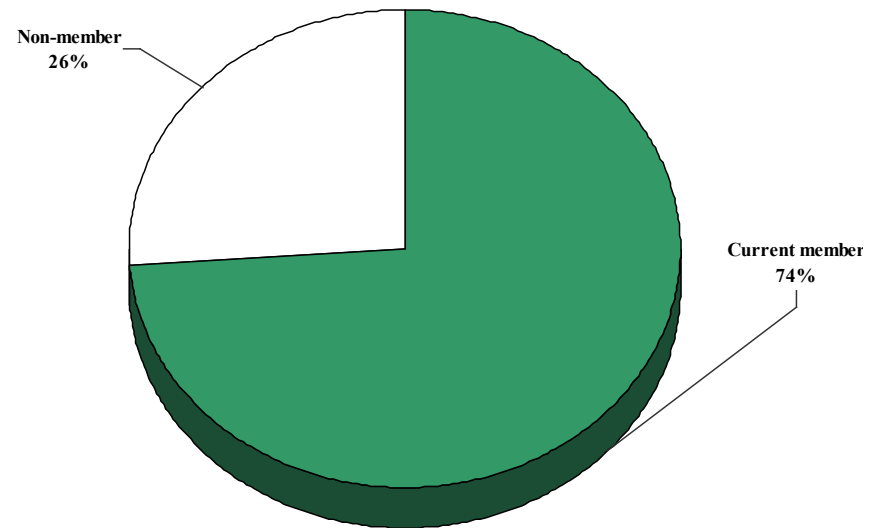
APPENDIX BUSINESS PROFILING DATA

Database source and association membership

Database Source
N = 334

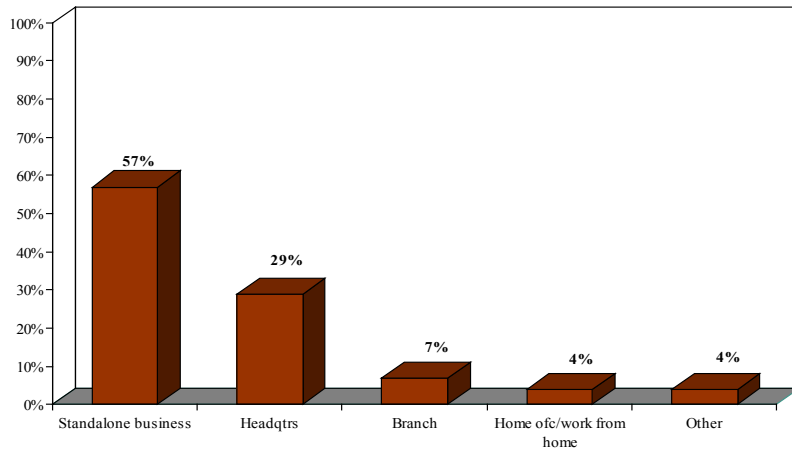


Membership in One or More Source Associations
Base: Database Source Was FCICA, NTCA, WFCFA
N = 320

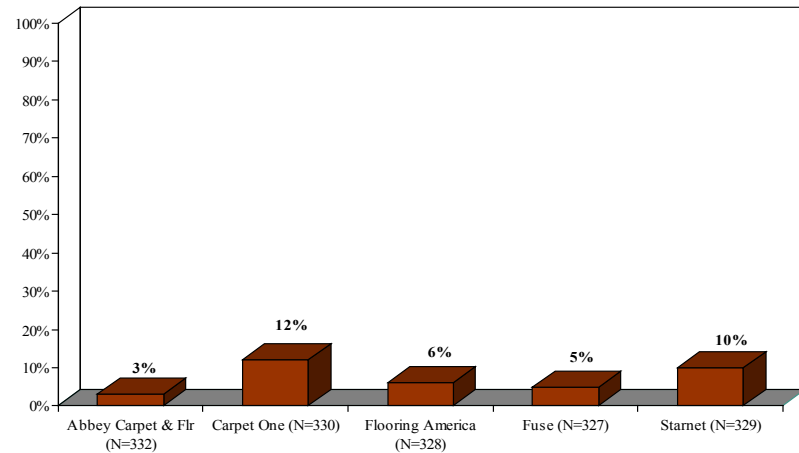


Type of business location and affiliations

Type of Location of Executive's Primary Place of Business
N = 334

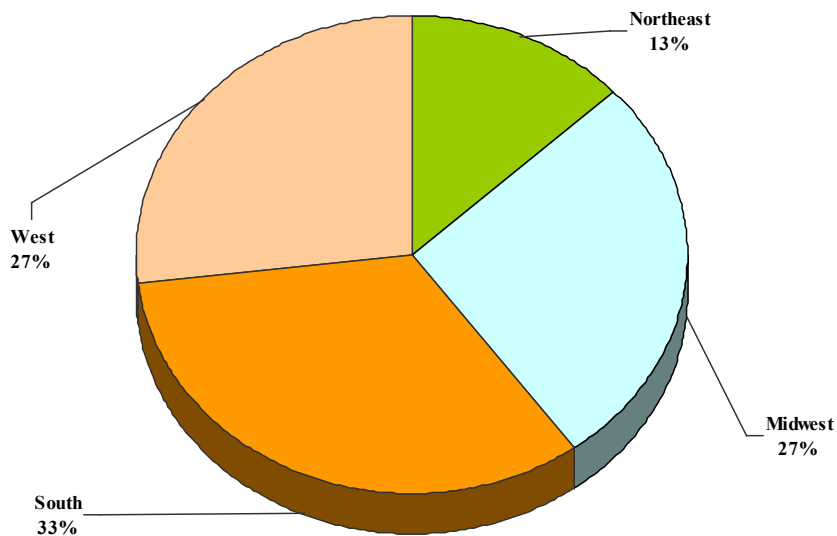


Percent of Businesses That Are Affiliated with or Members of Various Entities
Bases = As Shown

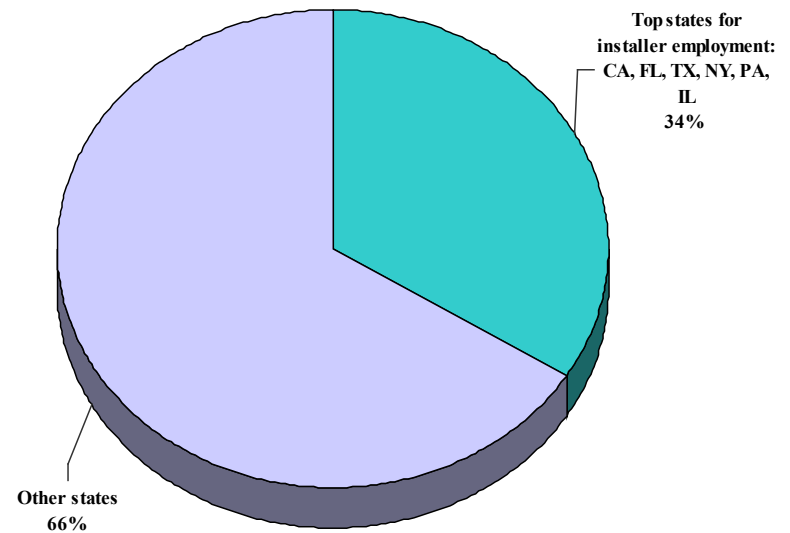


Geographical region and installer employment market

U.S. Census Region in Which Executive's Primary Place of Business Is Located
N = 334

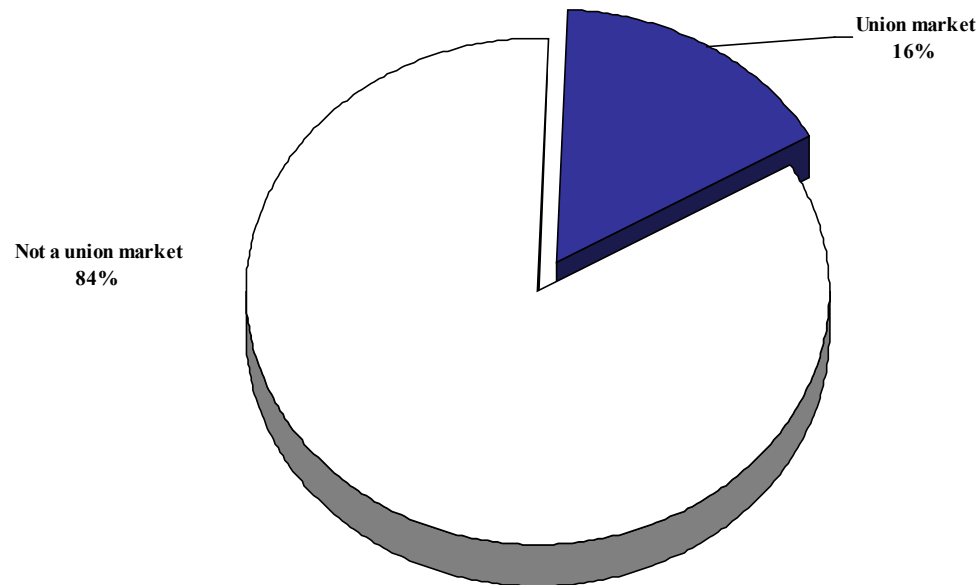


Whether Executive's Primary Place of Business Is Located in a Top Installer Employment Market (As Identified through U.S. Bureau of Labor Statistics "Occupational Employment Statistics: Occupational Employment and Wages, May 2017")
N = 320



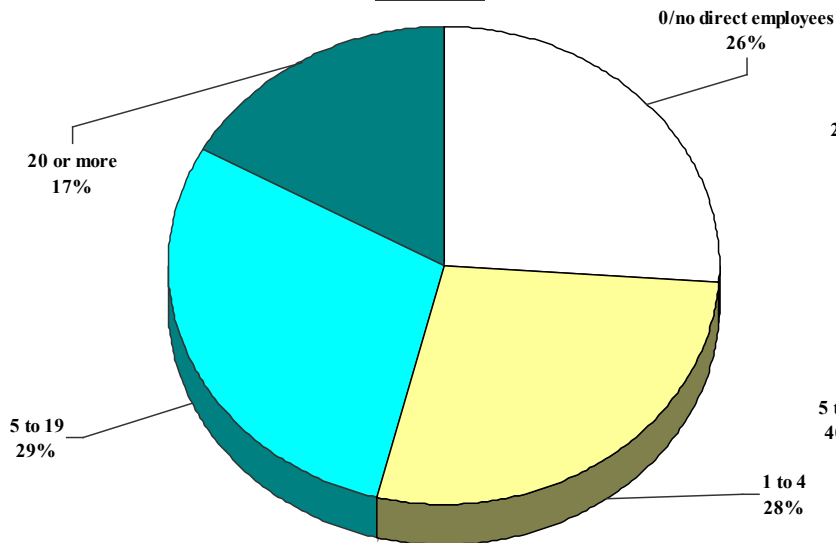
Presence of labor unions in market

Whether Executive's Primary Place of Business Is Located in a Union Market (Based on Reported Union Membership of Direct Employee(s) and/or Subcontractor(s))
N = 322



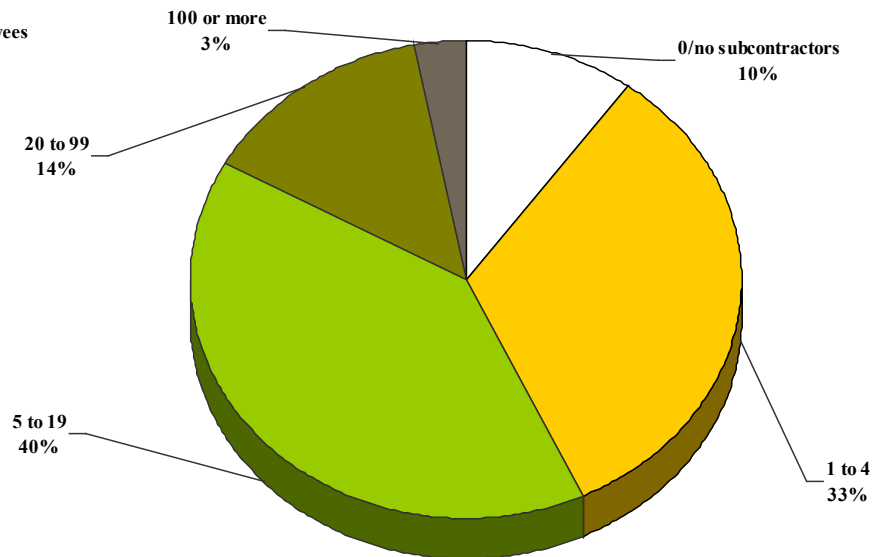
Use of floor covering installation workers in 2017

Number of Full- and Part-Time Floor Covering Installation Helpers, Installers, and/or First-Line Supervisors That Executive's Primary Place of Business Directly Employed in 2017
N = 328



Median (includes 0): 3.0 employees
Mean (includes 0): 12.8 employees

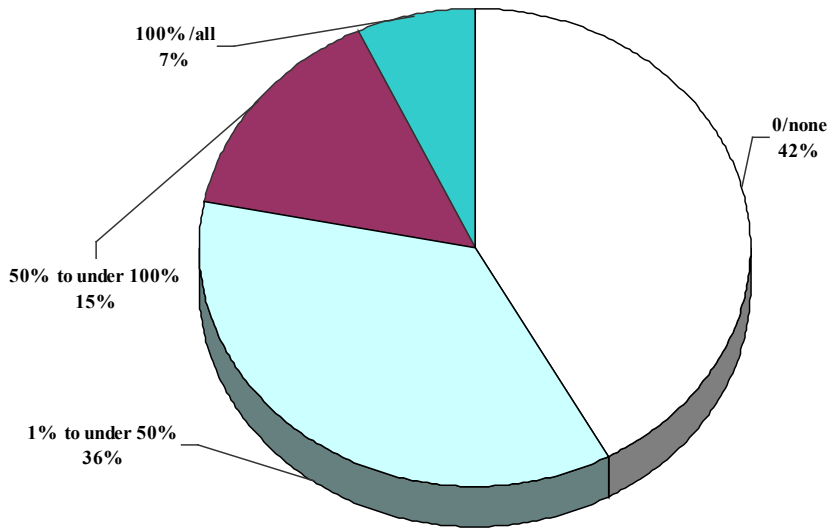
Number of Different Subcontractors That Executive's Primary Place of Business Used to Perform Floor Covering Installation Services in 2017
N = 330



Median (includes 0): 4.7 subcontractors
Mean (includes 0): 19.1 subcontractors

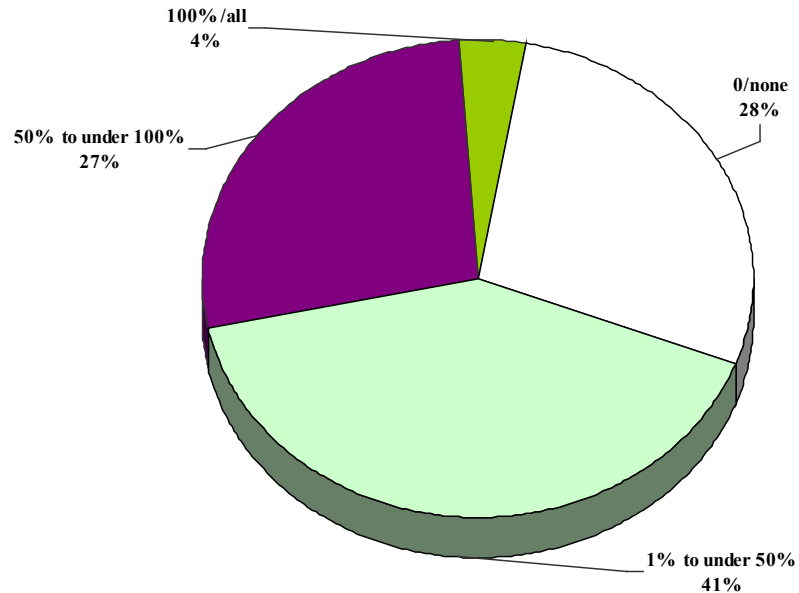
Use of installation workers who were born outside the U.S.

Percent of Primary Place of Business's Directly Employed Floor Covering Installation Worker(s) in 2017 Who Were Born Outside the U.S.
 Base = Had Direct Employee(s)
 N = 245



Mean (includes 0): 25%

Percent of Workers Provided by Primary Place of Business's Floor Covering Installation Subcontractor(s) in 2017 Who Were Born Outside the U.S.
 Base = Had Subcontractor(s)
 N = 303



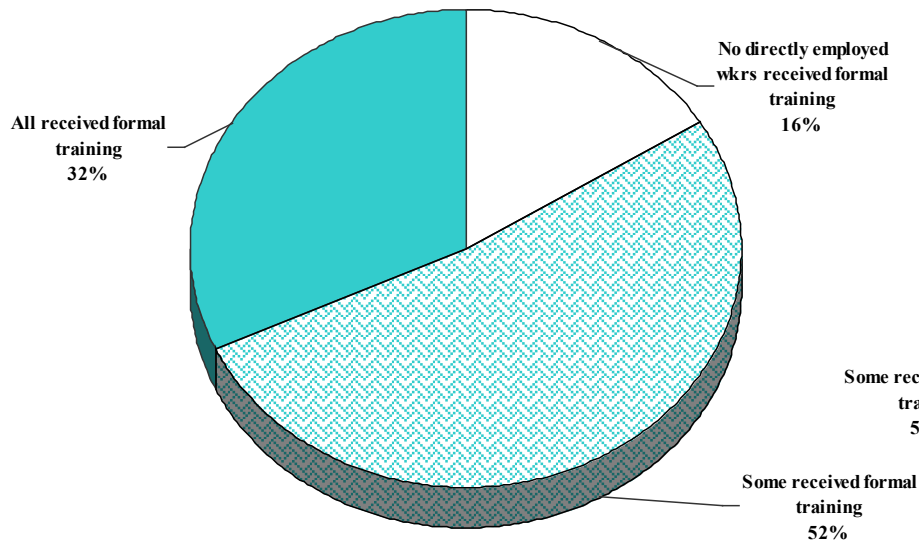
Mean (includes 0): 33%

Training

Whether Primary Place of Business's Directly Employed Floor Covering Installation Worker(s) Received Formal Training in Floor Covering Installation in 2017

Base = Had Direct Employee(s)

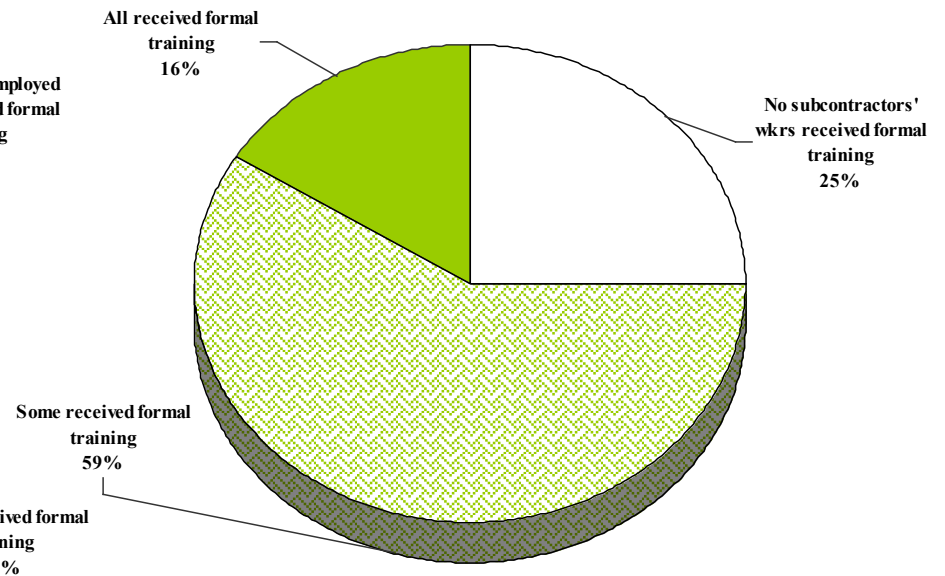
N = 243



Whether Workers Provided by Primary Place of Business's Floor Covering Installation Subcontractor(s) Received Formal Training in Floor Covering Installation in 2017

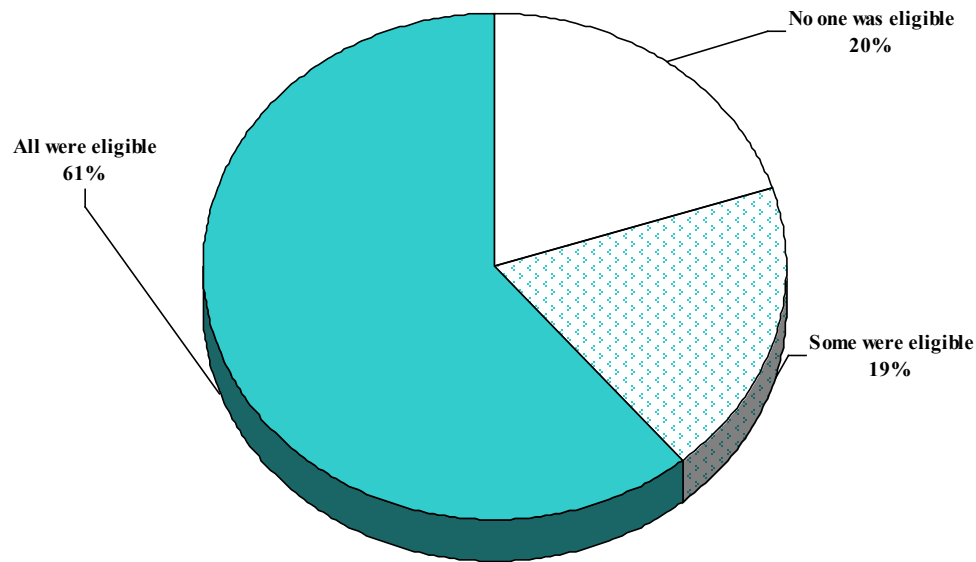
Base = Had Subcontractor(s)

N = 278



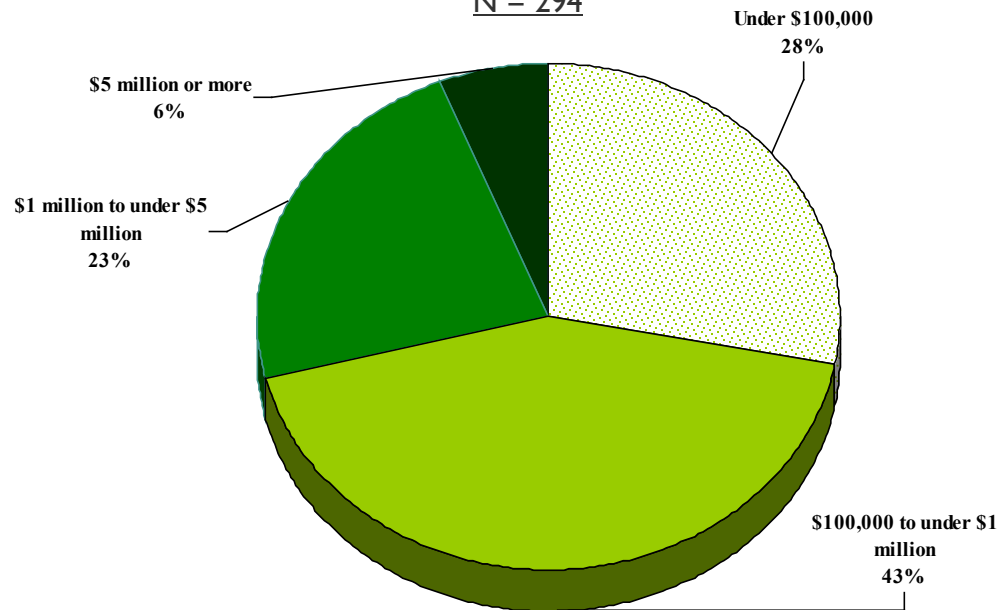
Employee benefits

Whether Primary Place of Business's Directly Employed Floor Covering Installation Worker(s) in 2017
Were Eligible for Company-Paid Employee Benefits, Such as Sick Leave, Vacation, Health Insurance,
and/or Retirement Benefits
Base = Had Direct Employee(s)
N = 241



Spend on subcontracted services

Dollar Amount That Primary Place of Business Spent on Floor Covering Installation Services Performed by Subcontractors in 2017
Base = Had Subcontractor(s)
N = 294



Median: \$260,000
Mean: \$1.6 million