



American Bakers Association



# THE WORKFORCE GAP IN U.S. COMMERCIAL BAKING:

## TRENDS, CHALLENGES & SOLUTIONS



CYPRESS RESEARCH  
ASSOCIATES

Industry research conducted by Cypress Research Associates, LLC, 2016

5527 Oak Street Kansas City Missouri 64113 TOLL 877.205.0212 [www.CypressResearch.com](http://www.CypressResearch.com)



The American Bakers Association (ABA) and the American Society of Baking (ASB) are excited to release ***The Workforce Gap in U.S. Commercial Baking: Trends, Challenges and Solutions***, a multi-phase study aimed at assessing and reducing the workforce skills gap in the baking industry.

The workforce skills gap is a critical issue for U.S. baking. Bakers and all manufacturers are struggling to attract and retain individuals to fill increasingly technical positions. The question of how to fill this gap has become one of the most pressing issues facing our industry.

To address the current gap in technical talent, ABA and ASB commissioned Cypress Research Associates, LLC to collect data from bakers, manufacturers, and other companies throughout the country to produce a comprehensive report on how the skills gap affects the US baking industry. This research includes original survey data from an aggregate of 73% of the US commercial baking industry, making this research truly indicative of the concerns facing our industry and providing a clearer understanding of the scope of the current gap. Most importantly, research gathered through this project offers tools, best practices and resources that can be deployed to help attract and retain a skilled workforce.

ABA and ASB believe this research provides direction on how individual companies can make progress in filling the workforce skills gap. That being said, this project is just the beginning. ABA's and ASB's goal is to continue to work with industry leaders in finding and creating innovative solutions to help attract, retain and develop highly qualified talent. We strongly encourage you and your company to engage in this process. Together we can fill the gap and secure our industry's future.

Sincerely,

**Rich Scalise**

A handwritten signature in black ink that reads "Rich Scalise".

President & CEO  
Hearthside Food Solutions

ABA Chairman, 2014-2016

**Mario Somoza**

A handwritten signature in black ink that reads "Mario Somoza".

President & CEO  
Pan Pepin, Inc.

ASB Chairman, 2016-2017

**STUDY CONDUCTED BY**



**MEDIA SUPPORT BY**



# The Workforce Gap in U.S. Commercial Baking: Trends, Challenges & Solutions

## TABLE OF CONTENTS

<b>Executive Summary</b>	<b>4</b>
<b>I. Introduction</b>	<b>10</b>
<b>II. Research Purpose &amp; Methodology</b>	<b>12</b>
<b>III. Results of Online Survey of U.S. Bakery Manufacturers</b>	<b>15</b>
<b>A. Description of Participants</b>	<b>15</b>
<b>B. Industry Trends</b>	<b>16</b>
B1. Changing Nature of Production Work	16
B2. Important Future Business Issues	18
B3. Important Workforce-Related Factors	20
<b>C. Extent of Workforce Gap</b>	<b>22</b>
C1. Current Workforce Gap	22
C2. Projected Workforce Gap	23
C3. Skills Deficiency Areas	24
<b>D. Impact of Workforce Gap</b>	<b>26</b>
<b>E. Recruitment: Challenges &amp; Solutions</b>	<b>27</b>
E1. Recruitment Challenges	27
E2. Recruitment Solutions	29
E3. Additional Recruitment Issues	33
<b>F. Training: Challenges &amp; Solutions</b>	<b>37</b>
F1. Training Challenges	37
F2. Training Solutions	38
F3. Challenges to Implementing Formal Skills Training Programs	40
<b>G. Retention: Challenges &amp; Solutions</b>	<b>41</b>
G1. Retention Challenges	41
G2. Retention Solutions	42
<b>H. Workforce Management: Challenges &amp; Solutions</b>	<b>44</b>
H1. Workforce Management Challenges	44
H2. Workforce Management Solutions	45
<b>IV. Study Recommendations</b>	<b>47</b>

# The Workforce Gap in U.S. Commercial Baking: Trends, Challenges & Solutions

## EXECUTIVE SUMMARY

Due to the increasing workforce gap in U.S. commercial bakery manufacturing, The American Bakers Association (ABA) and The American Society of Baking (ASB) commissioned Cypress Research Associates, LLC to conduct multi-phase research to determine the extent of the workforce gap and solutions being applied among commercial baking manufacturers. Goals of the research were to identify:

- ✓ Bakery manufacturer perceptions of the current and projected state of employment among hourly, skilled bakery production job positions, specifically:
  - Machine operators
  - Maintenance/engineering
- ✓ Best practices/solutions in addressing the talent gap within these hourly, skilled bakery production job positions in the following areas:
  - Attracting/recruiting skilled talent
  - Training talent to address skills gaps
  - Retaining skilled talent
  - Workforce management
- ✓ Best plan of action for the commercial baking industry in addressing the skills gap

Research was implemented in four phases:

Phase 1: Formation of an Industry Research Task Force

Phase 2: Secondary Research Review

Phase 3: Original Research

a. In-Depth Telephone Interviews & Case Studies

b. Commercial Baking Industry Online Survey

Phase 4: Convene Commercial Baking Industry Panel on Action Steps

**This report provides detailed findings from Phase 3: Online survey of U.S. commercial bakery manufacturers, along with highlights from in-depth executive telephone interviews and case studies within bakery manufacturing and broader manufacturing industries.**

An industry meeting will be convened in late 2016 comprised of key stakeholders from the U.S. commercial baking industry and industry trade associations/organizations to discuss research findings and develop plans for addressing current and projected employment gaps and ways to attract and retain skilled talent in the industry.

## KEY FINDINGS

Following is a summary of key findings based on completed surveys from 90 executives that represent 62 companies in the U.S. commercial baking industry. According to ABA, participating companies in this survey represent 73% of the U.S. commercial baking industry.

## INDUSTRY TRENDS

During the past five years, commercial baking industry executives report production changes that directly impact the workforce gap at their companies. Six out of ten companies (60%) reported an increase in skilled positions over the past five years. Ever-increasing concerns about labor costs (81%) and increased used of automation (58%) round out the top three production-related changes.

Just over three-fourths (78%) of commercial baking manufacturers anticipate business success during the next five years to be tied to new product innovation. Next, virtually tied in importance is the need to increase market share (64%) and secure a high skilled, flexible workforce (63%).

When asked what workforce-related factors manufacturers consider when setting corporate strategy, eight out of ten commercial bakers consider labor costs. Just over 60% of commercial bakers consider long-term workforce planning (64%) and recruiting/branding (61%) when setting corporate strategies.

## EXTENT OF THE WORKFORCE GAP IN U.S. COMMERCIAL BAKING

The workforce gap among U.S. commercial bakers is largest among the following job positions:

- Hourly, skilled production: Maintenance/engineering (78% 'high' or 'severe' shortage)
- Hourly, skilled production Machine operators (40%)
- Salaried engineering/maintenance (59%)

By 2025, anticipated shortages among engineering & maintenance positions – both hourly & salaried – are expected to remain 'high' to 'severe'. However, companies anticipate a significant rise in shortages among hourly machine operators, unskilled production positions, and salaried scientist and R&D positions.

Within commercial baking, the top 3 skills deficiencies at hire or promotion are the same for maintenance/engineering and machine operators:

- Baking-industry specific technical skills
- Leadership skills
- Problem solving/decision making skills

Among machine operators, significant skills deficiencies also exist in general manufacturing technical skills, technology/computer skills, and math skills.

Although baking industry executives reported that two of the greatest training needs among hourly, skilled production employees are in the areas of leadership and problem-solving skills, only about three in ten companies currently offer any form of training in these areas.

## WORKFORCE GAP CHALLENGES, SOLUTIONS & STUDY RECOMMENDATIONS

In order to adequately address the workforce gap within U.S. Commercial Baking, a coordinated effort is required from all key stakeholders:

- ✓ Industry-wide collaboration and coalition building at national and local levels
  - Manufacturers
  - Industry associations & support organizations
  - Educational institutions
  - Government organizations (local, state, national)
- ✓ Corporate-level commitment and company-wide involvement in the issue
  - Sufficient time & resources to implement solutions

Following are key solutions based on findings from this multi-phase study on the workforce gap in U.S. Commercial Baking that can be implemented by individual companies or industry-wide. Please note that the aggregated percentage figures presented in the following section mask an effect by company size. Large bakery manufacturers lead the industry in applying workforce gap solutions. Mid-size and smaller manufacturers are statistically far less likely to apply these solutions than their larger counterparts - see the remainder of the report for differences by company size. Future research should be conducted regarding the actual effectiveness of each of these approaches in mitigating the workforce gap in U.S. commercial baking.

### Recruitment

#### Recommendations: Attracting Talent

- Industry branding: Implement industry-wide efforts to increase awareness of bakery manufacturing as a desired career
- Employer branding: Implement company-level strategies to increase awareness of employment opportunities and benefits (e.g., competitive pay, valuable benefits, career path, positive work environment, team-based approach)

Although U.S. commercial bakery manufacturers indicated employer/industry branding is one of their biggest recruitment-related challenges, concerted company branding efforts are not being widely used in the industry to address the workforce gap compared to other solutions being applied. A full 95% of executives indicated that making bakery manufacturing appealing is a 'moderate' or 'significant' recruitment-related challenge. Nine out of ten executives (89%) rated lack of awareness of production employment opportunities in bakery manufacturing as a challenge.

Following are potential solutions related to employer/industry branding not being widely implemented by U.S. Commercial Baking Manufacturers:

- Strategies to foster a positive workplace environment and culture (e.g., internal company website/social media; address working conditions; foster collaboration and teamwork) (67% currently using strategy)
- Employer branding efforts such as company website development, having a social media presence, or being involved in community events (61%)
- Regular outreach to high schools and other educational organizations about careers in bakery manufacturing (46%)

### Recommendations: Finding Talent

- Tap diverse talent pools (e.g., women, veterans, Millennials)
- Implement formal employee referral programs
- Leverage technology for recruitment (e.g., social media, online job boards, online application and resume process)
- Create partnerships with local & state organizations and educational institutions to access potential job candidates

According to U.S. Commercial Baking Manufacturers, job candidates do not have the skills companies need in order to fill hourly, skilled production positions (93%). Nine in ten executives (89%) indicated challenges with identifying viable talent pools for these positions.

In order to find talent, 71% of manufacturers target underutilized or new talent pools. Formal employee referral programs, which can also be useful in identifying new talent, are currently used by 69% of companies.

Manufacturers indicated they are currently using the following technology-based solutions to varying degrees:

- Online job boards (96%)
- Online application and resume process via company website vs. paper-only application (72%)
- Social media recruitment efforts (e.g., Facebook, LinkedIn) (53%)

Some executives indicated their companies are using the following partnership-based solutions, which could be more widely tapped in the commercial baking industry:

- Formal relationships with local non-profit organizations or coalitions (69%)
- Formal relationships with a campus recruiting programs (65%)

### Recommendations: Develop the Talent Pool

- Partner with educational institutions on developing programs to train candidates who are competent in manufacturing skills
- Offer internships/apprenticeships through high schools, community/ technical colleges and 4-year colleges

U.S. commercial bakery manufacturers and industry associations could play a greater role in developing partnerships with educational institutions to develop candidates competent in manufacturing skills. Just under half (49%) of commercial baking manufacturers indicated they currently engage in such a partnership with educational institutions. And only 46% of companies offer internships/apprenticeships through high schools, community/technical colleges, and 4-year colleges.

### Recommendations: Salary and Benefits

- Provide competitive salary and benefits in order to compensate for difficult working hours, environment
- Formally communicate the monetary value of company benefits

A full 87% of executives indicated 'moderate' or 'significant' challenges with candidates not appreciating the value of company benefits when these employee segments have a primary focus on cash compensation. Nine in ten executives (90%) indicated their companies provide competitive benefits, and 74% provide competitive salaries. More than 60% of bakery manufacturers indicated they would pay more to tackle the skills shortage among hourly, skilled production employees. Two-thirds of companies (67%) formally communicate the monetary value of company benefits.

## Training

### Recommendations: Train Internal Talent

- Identify high potential current employees and job candidates and provide training in leadership and other key skills
- Formally train hourly, skilled production positions in:
  - Baking industry-specific technical skills
  - Leadership skills
  - Problem solving
- Provide formal, first-line supervisor training
- Address barriers to implementing formal skills training (lack of staff time, scheduling difficulties)

Results also reveal that 87% of baking manufacturers experience moderate to significant challenges with a lack formal skills/job training programs for new and existing employees. New or shifting technologies that require training are a workforce challenge for 81% of executive surveyed. In order to address the workforce gap among hourly, skill production positions, most manufacturers (94%) hire unskilled production staff and train them into skilled positions.

In U.S. commercial baking, manufacturers tend to rely on informal methods of training for hourly, skilled production positions such as on-the-job experience and job shadowing. Only 70% of companies have formal, internal skills training programs for maintenance and engineering positions, with slightly more programs for machine operators (76%).

Following are training-related **solutions** being implemented by U.S. Commercial Baking Manufacturers to varying degrees:

#### Internal training

- |                                       |   |
|---------------------------------------|---|
| ▪ On-the-job experience               | (Machine operators=100%; Maintenance/engineering=96%) |
| ▪ Shadowing and observing others      | (Machine operators=91%; Maintenance/engineering=93%)  |
| ▪ Formal cross-training               | (Machine operators=85%; Maintenance/engineering=78%)  |
| ▪ Formal skills/job training programs | (Machine operators=76%; Maintenance/engineering=70%)  |

#### Third party training

- Training and certification programs focused on skills deficiency areas  
(Machine operators=44%; Maintenance/engineering=57%)
- Partnership with education institutions on tailored training/certification  
(Machine operators=31%; Maintenance/engineering=49%)

The primary barriers to implementing formal skills training programs for hourly, skilled production positions are managing trainings across multiple shifts and varying schedules, as well as insufficient staff and time to develop and implement training. Only two in ten executives indicated there is a lack of financial resources and lack of commitment by senior leaders to prioritize employee training and development.

## Retention

### Recommendations: Retaining Talent

- Implement improvements in workplace environment, culture
- Implement employee recognition programs
- Foster collaboration and teamwork to create a sense of cohesion
- Offer performance-based pay
- Hire more full-time production staff to reduce employee burnout
- Offer flexible schedules/staffing

U.S. commercial baking manufacturers report various challenges in the area of retention, including challenges with difficult workplace environment, difficult hours and understaffing. Specific retention challenges faced by commercial baking manufacturers are:

- Difficult working hours/shifts (90% 'moderate' or 'significant' challenge)
- Understaffing the production floor (contributes to employee stress/loss) (84%)
- Undertrained first-line supervision (83%)
- Challenging manufacturing environment (80%)
- First-year retention issues (80%)
- Mismatch between skills and job requirements (78%)
- Compensation (63%)

Following are retention-related solutions being implemented by U.S. commercial baking manufacturers to varying degrees:

- Formal on-boarding process (83%)
- Focus on improved work environment, culture (75%)
- Formal first-line supervisor training (65%)
- Use of contingent workers (e.g., temporary workers, contractors) (61%)
- Formal employee recognition program (61%)
- Performance-based pay (e.g., bonuses, profit sharing) (45%)
- Hire more full-time production staff to lessen employee stress/burnout/loss (33%)
- Modify work hours/staffing to reduce stress (26%)

## Workforce Management

### Recommendations: Career Path

- Provide a clear career path for potential and existing employees

Few manufacturers indicated they outline a formal company career pathway to new employees (38%), existing employees (34%) and job candidates (32%). Only 10% of companies have a formal, accelerated job promotion program. These approaches are useful in identifying, motivating and promoting talent from within to fill gaps within hourly, skilled production positions.

## The Workforce Gap in U.S. Commercial Baking: Trends, Challenges & Solutions

### I. INTRODUCTION

---

In recent years, mounting attention has been focused on the issue of the workforce gap in the U.S. commercial baking industry as well as the broader manufacturing industry, as a whole. According to the 2015 report by Deloitte and The Manufacturing Institute, nearly 3 ½ million manufacturing jobs will need to be filled by 2025, with the skills gap expected to result in 2 million of those jobs going unfilled. This skills gap is expected to worsen because of economic expansion and the rising baby boomer retirement rate. As many as 700,000 jobs will be created due to natural business growth. And an estimated 2.7 million jobs will be vacated as a result of retirements. According to the U.S. Department of Labor, the median age of the manufacturing workforce increased from 40.5 years in 2000 to 44.9 years in 2013. The average age of a high-skilled worker (with technical training and industry certification, or an associate's or bachelor's degree in a manufacturing-related field) is 56.

**Skilled production jobs (machinists, operators, technicians) are the hardest jobs to fill.** According to the 2015 report by Deloitte and The Manufacturing Institute, results from a survey of CEOs and manufacturing executives around the world show that 84% report a moderate to severe shortage of available, qualified workers. Results from Manpower Group's 2015 "U.S. Talent Shortage Survey," which includes over 5,000 hiring managers in the United States, reveal that skilled trade positions are the most difficult to fill and have been for six years in a row. U.S. employers report difficulty filling jobs due to lack of available applicants (33%), lack of experience (19%) and lack of technical competencies or 'hard' skills (17%).

**The gap among skilled workers has a big impact on company performance.** A full 82% believe the skills gap will impact their ability to meet customer demand, and 78% believe it will impact their ability to implement new technologies and increase productivity, according to Deloitte and The Manufacturing Institute. In fact, manufacturers report that the most significant factor in their effectiveness over the next 3 to 5 years is access to a highly skilled, flexible workforce, above factors like increased market share and new product innovation. Skills in which manufacturing employees are most deficient are technology/computer skills (70%), problem solving skills (69%), basic technical training (67%), and math skills (60%).

**The workforce gap is expected to worsen in coming years.** The Boston Consulting Group (2013) estimates a current shortage of 80,000 to 100,000 highly skilled manufacturing workers. If Baby Boomers continue retiring at current rates and manufacturing continues expanding, however, the shortage of highly skilled manufacturing workers could grow to approximately 875,000 machinists, welders and industrial-machinery mechanics and industry engineers by 2020, according to U.S. Bureau of Labor Statistics and Boston Consulting Group estimates.

**Traditional approaches are not effective in closing the gap.** According to a 2014 report by Deloitte & The Manufacturing Institute, in the broader US manufacturing industry:

- ✓ Manufacturers tend to rely on outdated approaches for recruiting employees, developing their skills, and improving their performance.
- ✓ The talent pool is having difficulties keeping up with the changing nature of manufacturing work (e.g., increased automation, need for problem solving skills).
- ✓ The skills gap will likely widen as time passes without a concerted effort from parties involved.

**New approaches are needed to effectively address the workforce gap in manufacturing** The commercial baking industry needs creative approaches to recruitment, talent management and retention, including:

- Diversifying recruitment pools (e.g., women, military veterans, millennials, partnership with nonprofit coalitions)
- Employer/industry branding
- Alliances with local secondary/postsecondary education institutions
- Apprenticeship programs
- Career path training & education; workforce planning
- Retention best practices

## II. RESEARCH PURPOSE & METHODOLOGY

### A. PURPOSE OF RESEARCH

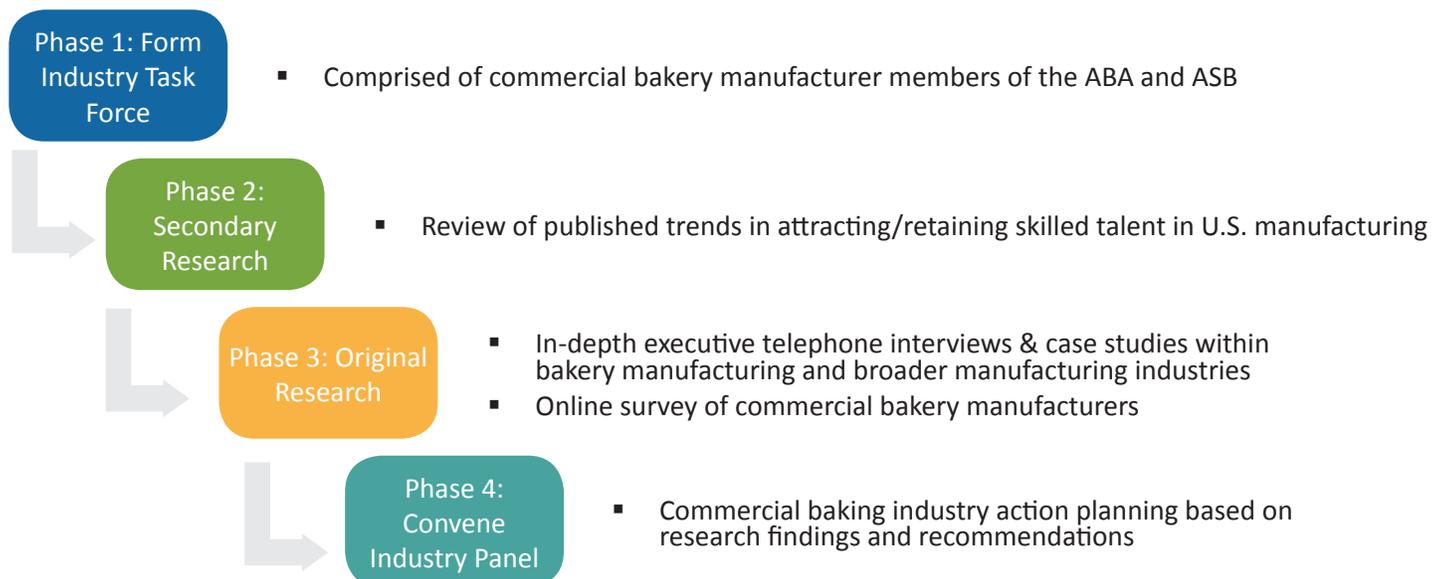
Due to the increasing workforce gap in U.S. commercial bakery manufacturing, The American Bakers Association (ABA) and The American Society of Baking (ASB) commissioned Cypress Research Associates, LLC to conduct multi-phase research to determine the extent of the workforce gap and solutions being applied among commercial baking manufacturers.

#### **Overarching research goals were to identify:**

- ✓ Bakery manufacturer perceptions of the current and projected state of employment among hourly, skilled bakery production job positions, specifically:
  - Machine operators
  - Maintenance/engineering
- ✓ Best practices/solutions in addressing the talent gap within hourly, skilled bakery production job positions in the following areas:
  - Attracting/recruiting skilled talent
  - Training talent to address skills gaps
  - Retaining skilled talent
  - Workforce management
- ✓ Best plan of action for the commercial baking industry in addressing the skills gap.

### B. METHODOLOGY

Research was implemented in 4 phases:



## **Phase 1: Form Industry Task Force**

An Industry Research Task Force was formed to provide guidance and input into research scope, methodology and instrument development. The Task Force was comprised of representatives from key large and mid-size commercial bakeries and industry allies who are members of ABA and ASB, as well as leadership from Cypress Research Associates, ABA and ASB.

## **Phase 2: Secondary Research**

Existing published literature was mined to identify workforce gap trends in the food industry and broader manufacturing, as well as best practices in mitigating the skills gap that can be adopted in the commercial baking industry. This phase informed the development of the industry survey instrument conducted in research Phase 3.

## **Phase 3: Original Research**

### **A. In-Depth Telephone Interviews & Case Studies**

In-depth telephone interviews (ITIs) were conducted with 30 key stakeholders from commercial baking and broader manufacturing sectors. Stakeholders included senior-level Human Resources and Plant Operations executives, as well as Executive Management (CEO, President). The purpose of the interviews was to identify workforce gap concerns and solutions to these challenges. Broadly, the purpose of the interviews was to gather qualitative information regarding:

- ✓ Concerns with employment gaps among hourly machine operators and maintenance/engineering positions in individual companies, and the commercial baking industry as a whole
- ✓ Best practices in addressing the workforce gap among hourly, skilled production positions.

ITIs were conducted in order to identify best practices and to inform the development of a separate case study report entitled, *Attracting and Retaining Skilled Talent: Case Studies from the U.S. Commercial Baking Industry and Beyond*.

### **B. Online Industry Survey**

A survey instrument was developed by Cypress Research Associates based on input from Industry Research Task Force members, and on published literature gathered during research Phase 2, particularly 2014 and 2015 reports from Deloitte & the Manufacturing Institute (*Boiling Point? The Skills Gap in U.S. Manufacturing* and *The Skills Gap in U.S. Manufacturing: 2015 and beyond*.) Additional sources referenced for survey development include Brandon Hall Group's *Talent Shortages and Hiring Practices Study* (2015), Manpower Group's *U.S. Talent Shortage Survey* (2015) and Accenture Institute's *Solving the Skills Paradox: Seven ways to close your critical skills gaps* (2012).

The confidential online survey was distributed to representatives from key large and mid-size commercial bakeries and industry allied companies who are members of the following industry trade associations:

- American Bakers Association (Human Resources committee)
- American Society of Baking

The purpose of the survey was to determine:

- ✓ Extent of the workforce gap in U.S. Commercial Baking among the following hourly, skilled production positions:
  - Machine Operators
  - Maintenance/Engineering
- ✓ Within these job positions, challenges faced and solutions applied to the workforce gap:
  - Recruitment
  - Skills training & talent development
  - Retention
  - Workforce management

Online survey fieldwork took place in October 2015 to February 2016. Multiple survey invitations were deployed and reminder phone calls were made in order to increase response rates.

#### **Phase 4: Convene Industry Panel**

An industry meeting will be convened in late 2016 comprised of key stakeholders from the U.S. commercial baking industry and industry trade associations/organizations to discuss research findings and develop plans for addressing current and projected employment gaps and ways to attract and retain skilled talent in the industry.

**This report provides detailed findings from Phase 3: Online survey of U.S. commercial bakery manufacturers, along with highlights from in-depth executive telephone interviews and case studies within bakery manufacturing and broader manufacturing industries. Overall research recommendations are outlined at the end of the report.**

### III. RESULTS OF ONLINE SURVEY OF U.S. BAKERY MANUFACTURERS

#### A. DESCRIPTION OF PARTICIPANTS

Completed surveys were received from 90 executives that represent 62 companies in the U.S. commercial baking industry. According to ABA, participating companies in this survey represent 73% of the U.S. commercial baking industry.

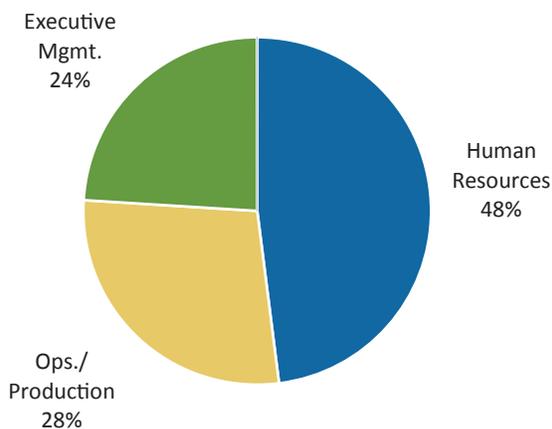
	# of individual respondents	# of companies
<b>ABA Members:</b>	70 respondents from	42 companies (includes 15 companies that are also ASB members)
<b>ASB Members: (additional)</b>	20 respondents from	20 companies
<b>Total:</b>	90 respondents from	62 companies

**Represents 73% of U.S. Commercial Baking Industry\***

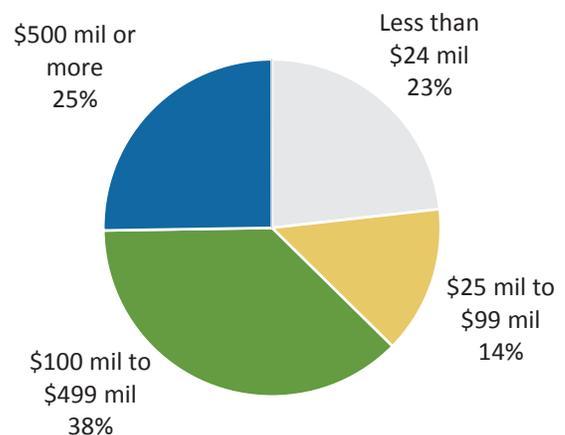
*\*Note: All but 12 manufacturers on ABA HR committee participated in the industry survey.*

Almost half of respondents were from human resources (48%), while 28% were from operations/production and 24% from executive management. Small to mid-sized companies of less than \$100 million in company-wide annual sales represent 37% of respondents. Larger manufacturers of \$100 million or more represent 63% of respondents.

**Job Title**



**Company-Wide Annual Gross Sales**

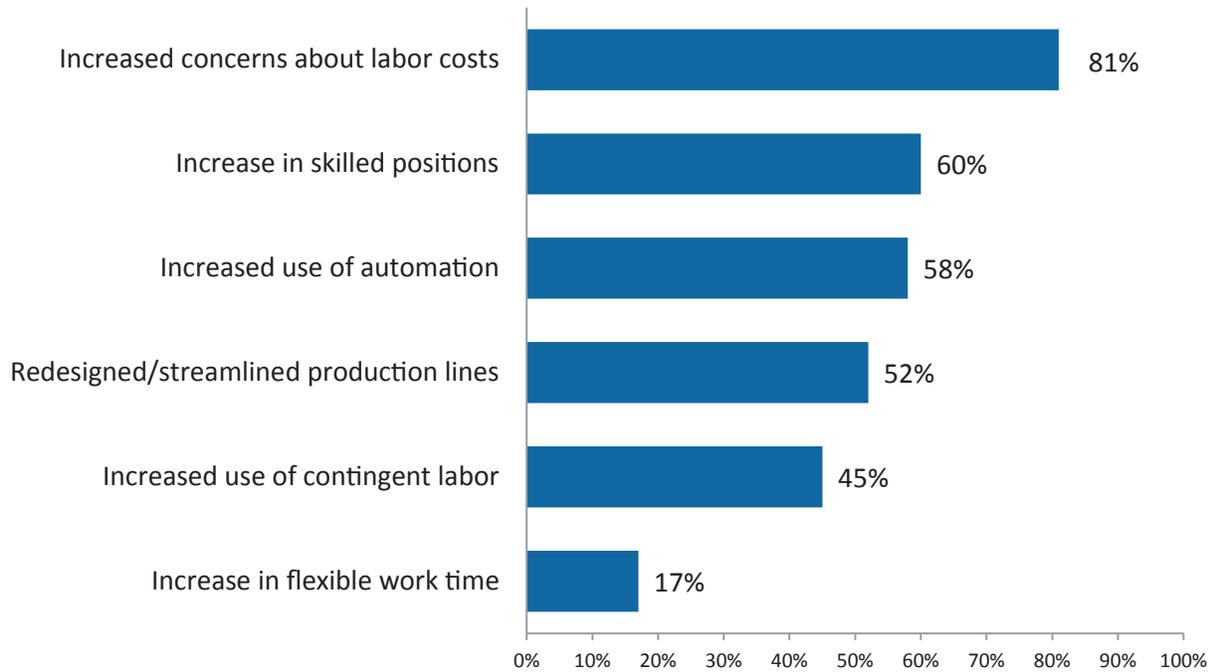


## B. INDUSTRY TRENDS

### B1. Changing Nature of Production Work

Commercial baking industry executives were asked how the nature of their company's production work has changed during the past five years. Six out of ten companies (60%) reported an increase in skilled positions over the past five years. Ever-increasing concerns about labor costs (81%) and increased use of automation (58%) round out the top three production-related changes.

#### How has the nature of your company's production work changed during the past five years?



Note: Multiple responses accepted

#### Voices from Baking: Increasing Automation

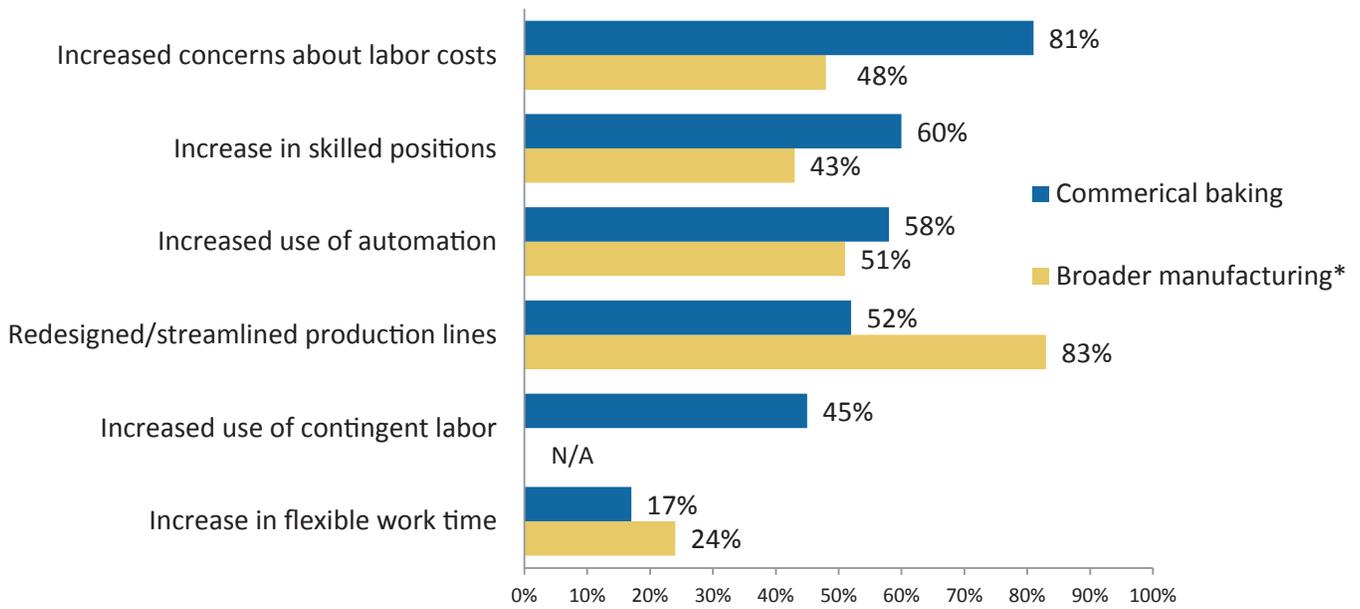
*"People working on the floor are a challenge to find. Years ago, production wasn't automated. You needed people who understood what all the baking processes were. Now, the profession has changed. You don't need the person with industry-specific knowledge. Now, you need people who are skilled at working with this type of equipment."*

- Production Manager, Commercial Bakery Manufacturer

Compared to a 2011 study conducted by Deloitte and The Manufacturing Institute, the U.S. commercial baking industry indicates more acute concerns with increases in labor costs, increases in skilled plant positions and automation than broader manufacturing. Changes due to redesigned and streamlined production lines are much more prevalent in broader manufacturing, signaling its use, in part, to address the skills gap experienced throughout manufacturing. Commercial baking, however, has not utilized the strategy of redesigned and streamlined production lines to the same degree as broader manufacturing (52%).

Considering the increasing production-related pressures during the past five years, there is also relatively low growth in the use of flexible work time, with commercial baking’s use of flex time (24%) lagging behind broader manufacturing (17%).

**How has the nature of your company’s production work changed during the past five years?  
(Industry Comparison)**



Note: Multiple responses accepted

\*Source: Deloitte and The Manufacturing Institute, 2011

**Voices from Manufacturing: Increasing Automation**

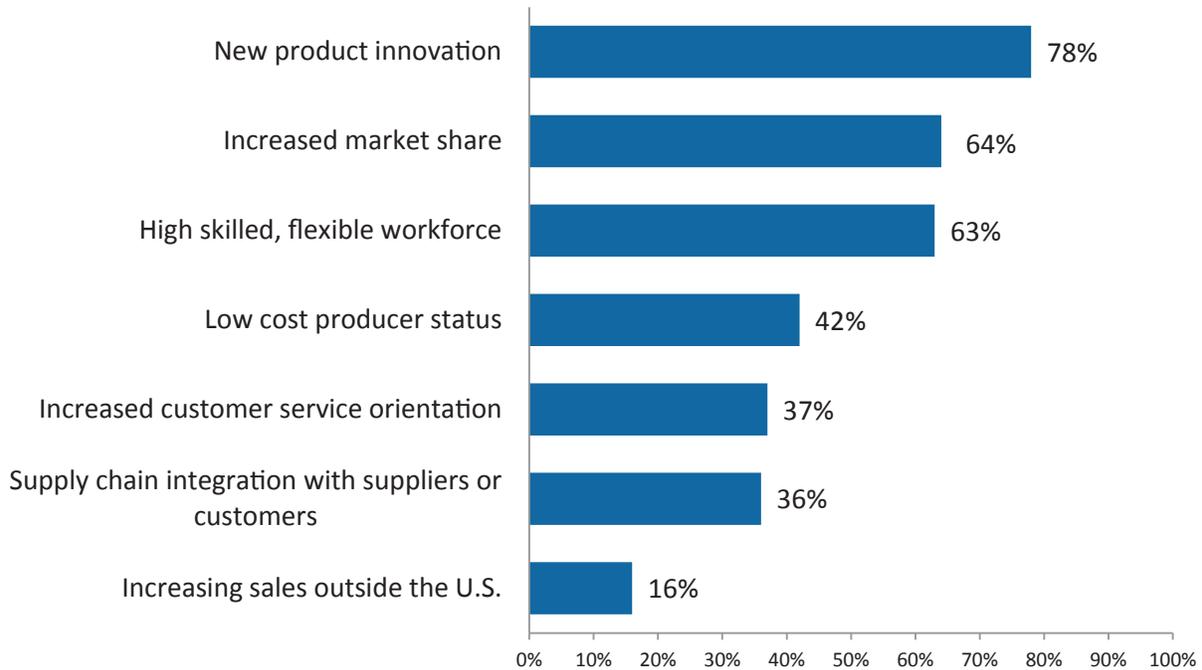
*“Maintenance, mechanical technicians, and PLCs are now advanced technical positions with a specific set of skills unique to a particular industry. You can’t just find this skilled labor in the market.”*

-Apprenticeship Manager, General Manufacturing

## B2. Important Future Business Issues

Just over three-fourths (78%) of commercial baking manufacturers anticipate business success during the next five years to be tied to new product innovation. Next, virtually tied in importance is the need to increase market share (64%) and secure a high skilled, flexible workforce (63%).

**Which of the following will be most important to your company's future business success over the next 5 years?**



Note: Multiple responses accepted

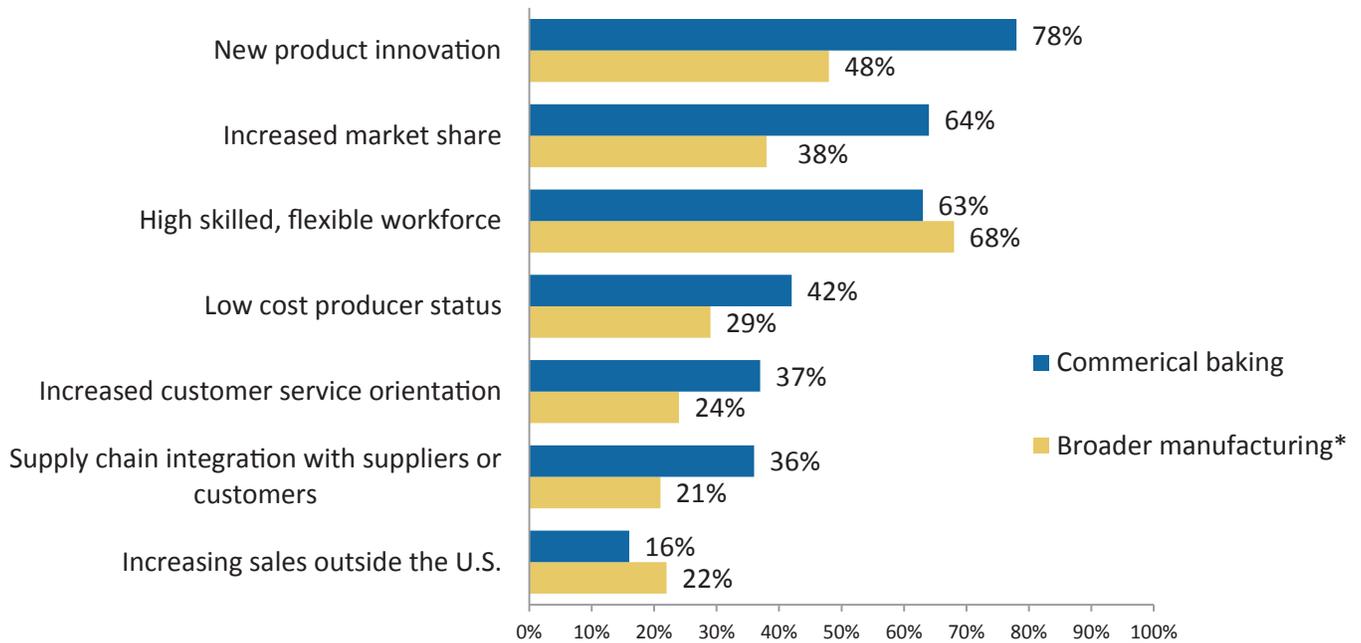
### Voices from Baking: High Skilled, Flexible Workforce

*"We can train people to operate the machinery, but it's becoming much more technical. When I started, a mixer was a mechanical machine where you pushed buttons to make it go. Now, the machinery is more technical where they have to troubleshoot running the equipment and maintaining the equipment. The operators push the buttons and change from product to product by entering the next product code. If something doesn't work properly, the operator needs to troubleshoot before calling maintenance. We're losing the operators who know by feel, touch and observation that things look and feel right."*

-VP Human Resources, Commercial Bakery Manufacturer

According to Deloitte and The Manufacturing Institute (2011), broader manufacturing’s top predictor of future success over the next five years is the acquisition of a highly skilled and flexible workforce (68%). The role of new product innovation and increases in market share are second and third position predictors of success within broader manufacturing, but are viewed as primary success drivers in commercial baking with acquisition of a highly skilled and flexible workforce in third position.

**Which of the following will be most important to your company’s future business success over the next 5 years? (Industry Comparison)**



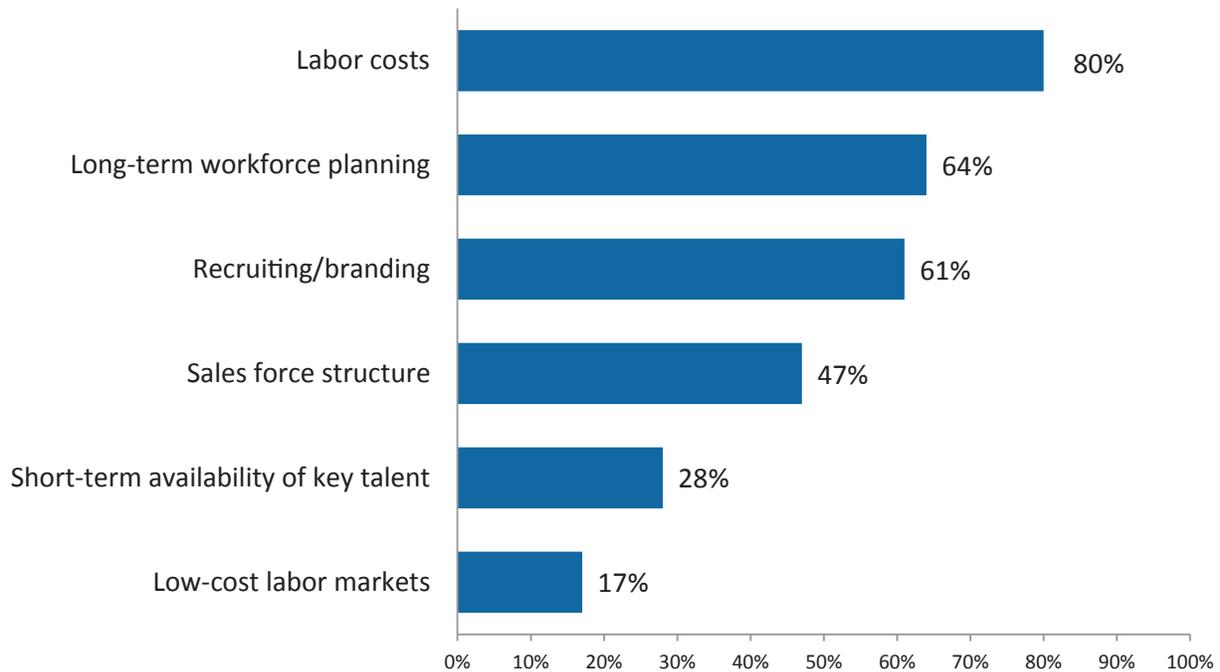
Note: Multiple responses accepted

\*Source: Deloitte and The Manufacturing Institute, 2011

### **B3. Important Workforce-Related Factors**

When asked what workforce-related factors manufacturers consider when setting corporate strategy, eight out of ten commercial bakers consider labor costs. Just over 60% of commercial bakers consider long-term workforce planning (64%) and recruiting/branding (61%) when setting corporate strategies.

#### **What workforce-related factors do you consider when setting your corporate strategy?**

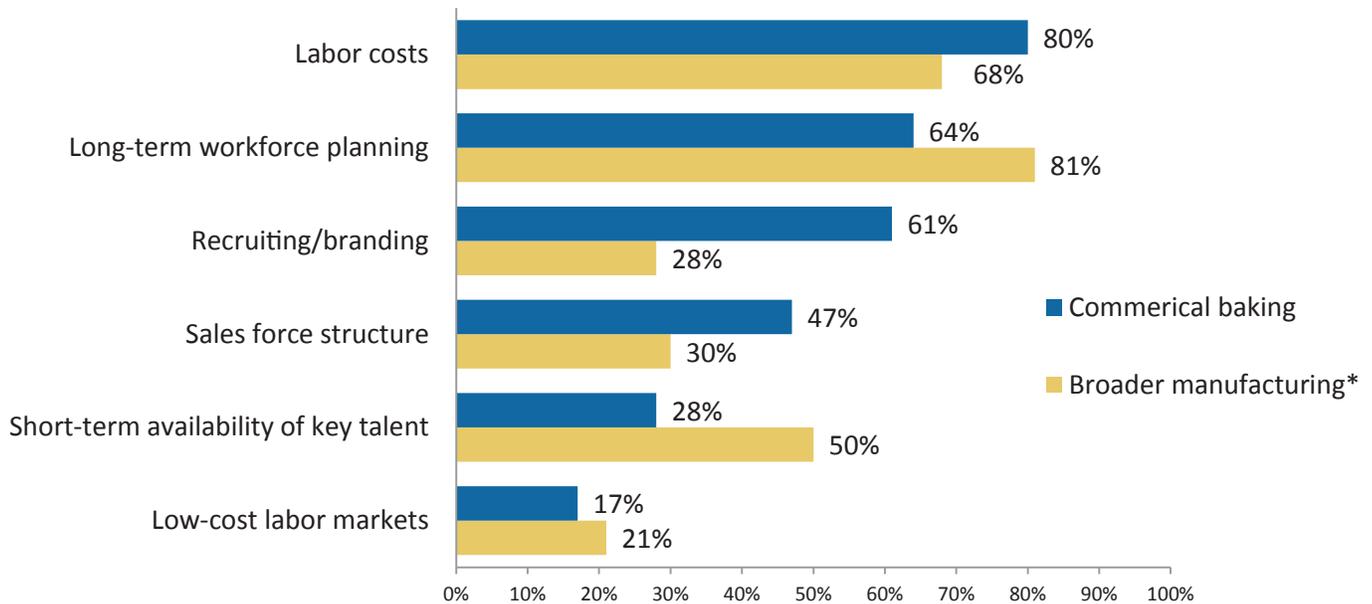


Note: Multiple responses accepted

\*Source: Deloitte and The Manufacturing Institute, 2011

According to Deloitte and the Manufacturing Institute (2011), broader manufacturing is significantly more focused on long-term workforce planning than commercial baking. Long-term workforce planning outranks labor cost-related considerations during corporate strategy sessions in broader manufacturing, unlike commercial baking. Broader manufacturing is also significantly more focused on consideration of issues around short-term availability of key talent than is commercial baking.

**What workforce-related factors do you consider when setting your corporate strategy?  
(Industry Comparison)**



Note: Multiple responses accepted

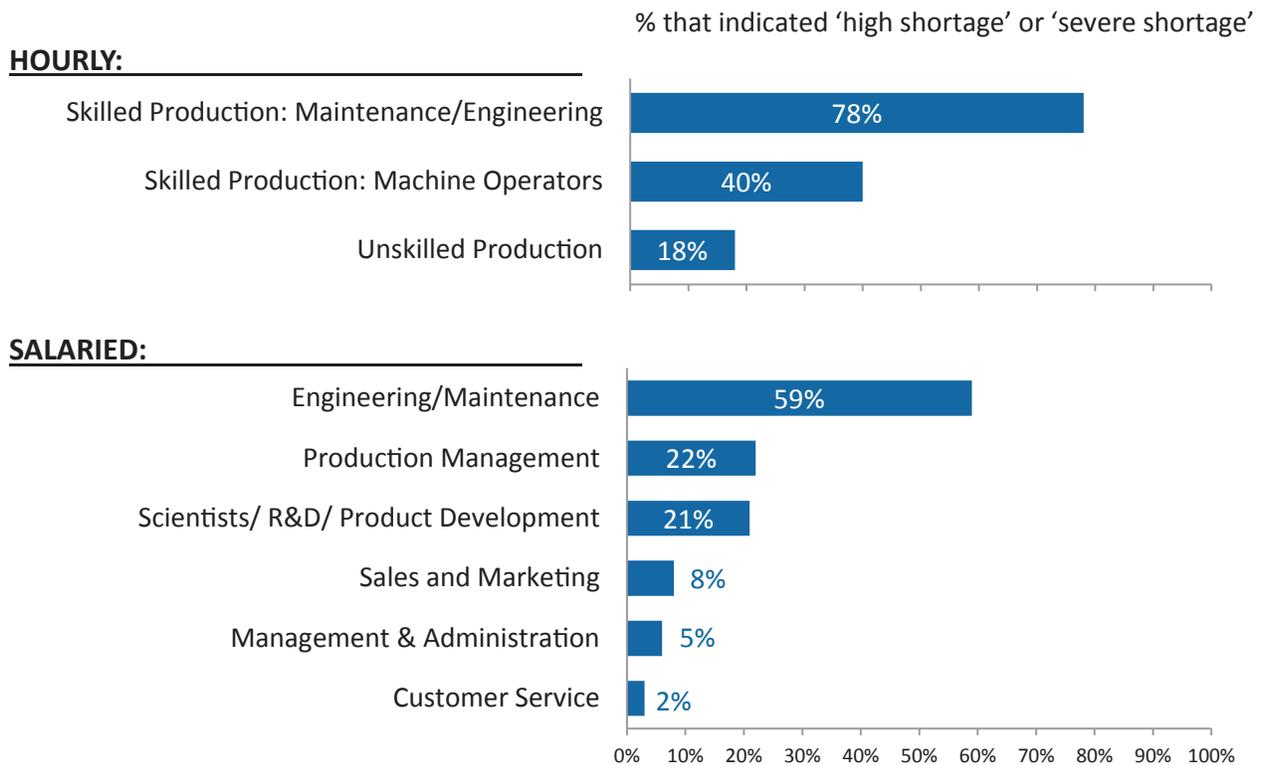
\*Source: Deloitte and The Manufacturing Institute, 2011

**C. EXTENT OF WORKFORCE GAP**

**C1. Current Workforce Gap**

The greatest current workforce gap among U.S. commercial bakers is among hourly maintenance & engineering positions, with 78% reporting a ‘high’ or ‘severe’ shortage. Even among salaried positions, engineering/maintenance positions top the skills gap list, with 59% of companies reporting a significant shortage. Forty percent of commercial bakers reported a significant shortage among machine operators.

**What is the extent of your company’s recurring skills shortage today?**

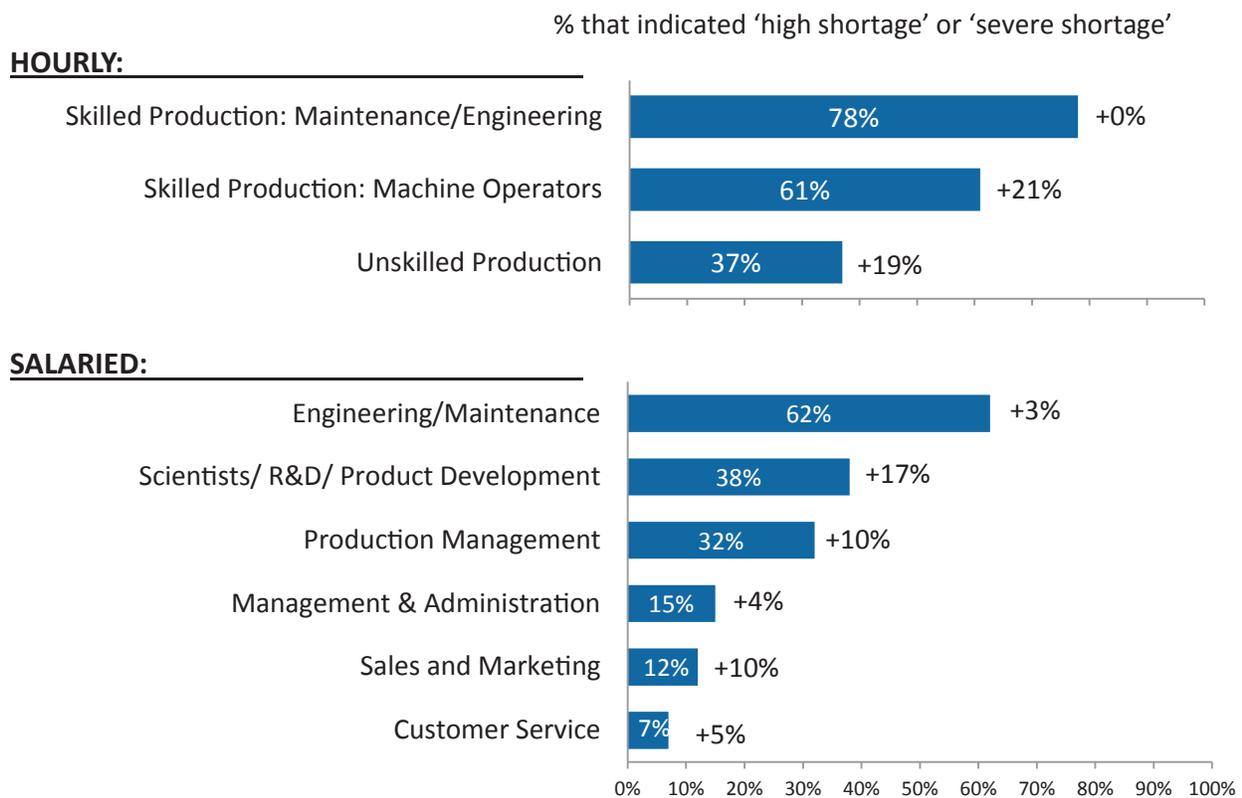


Note: Based on a 5-point scale where 1=‘No Shortage’ and 5=‘Severe Shortage’; Respondents provided option of ‘Don’t Know’.  
 ‘Maintenance/Engineering’ = defined as PLC’s, techs, boiler, ammonia refrigeration  
 ‘Machine Operators’ = defined as skilled production, mixer or oven operators

**C2. Projected Workforce Gap**

The simmering future skills challenges are expected to be particularly severe among hourly skilled production workers and salaried engineering/maintenance positions. By 2025, anticipated shortages among engineering & maintenance positions – both hourly & salaried – are expected to remain ‘high’ to ‘severe’. However, by 2025, companies anticipate a rise in shortages among hourly machine operator and unskilled production positions, and salaried scientist and R&D Positions, with increases of 21%, 19%, and 17%, respectively, compared to current levels.

**By 2025, what do you predict will be the extent of your skills shortage?**

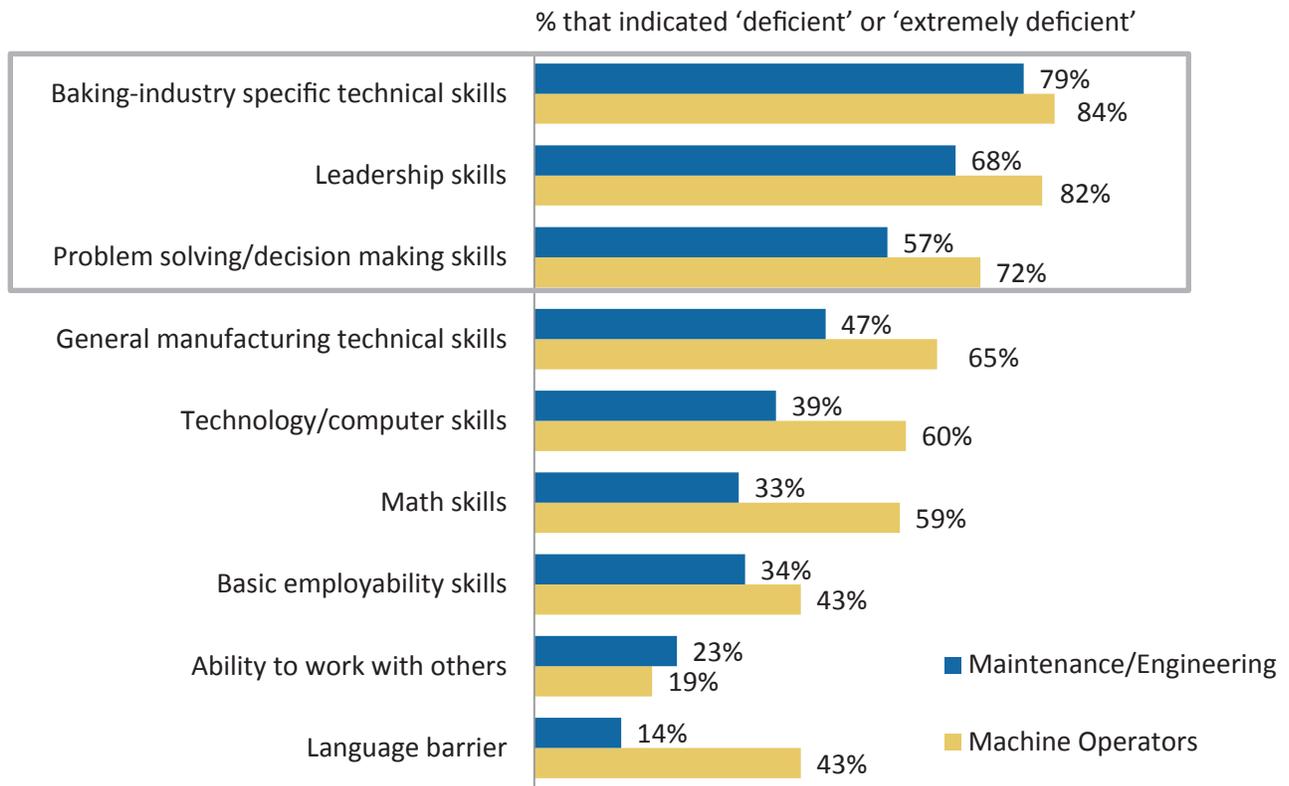


Note: Based on a 5-point scale where 1=‘No Shortage’ and 5=‘Severe Shortage’; Respondents provided option of ‘Don’t Know’; +% figures in chart represent percent increase in year 2025 over current skills shortage levels.  
 ‘Maintenance/Engineering’ = defined as PLC’s, techs, boiler, ammonia refrigeration  
 ‘Machine Operators’ = defined as skilled production, mixer or oven operators

**C3. Skills Deficiency Areas**

Within commercial baking, the top 3 skills deficiencies at hire or promotion are the same for maintenance and machine operators: Baking-industry specific technical skills, leadership skills, and problem solving/decision making skills. Among machine operators, significant skills deficiencies exist in general manufacturing technical skills, technology/computer skills, and math skills.

**What is the extent of skills deficiencies at hire or promotion into a new position?**



Note: Multiple responses accepted; Scale of 1='Extremely Deficient' to 4='Extremely Sufficient'; respondents provided option of 'Don't Know'.

**Voices from Baking: Gaps in Skills**

*“These folks need to know bakery formulation and processes. There is a lack of education beyond high school in the talent pool. The gap is not necessarily in reading, writing and arithmetic. The real problem is that there isn’t enough education in critical thinking and decision-making skills and the ability to problem solve.”*

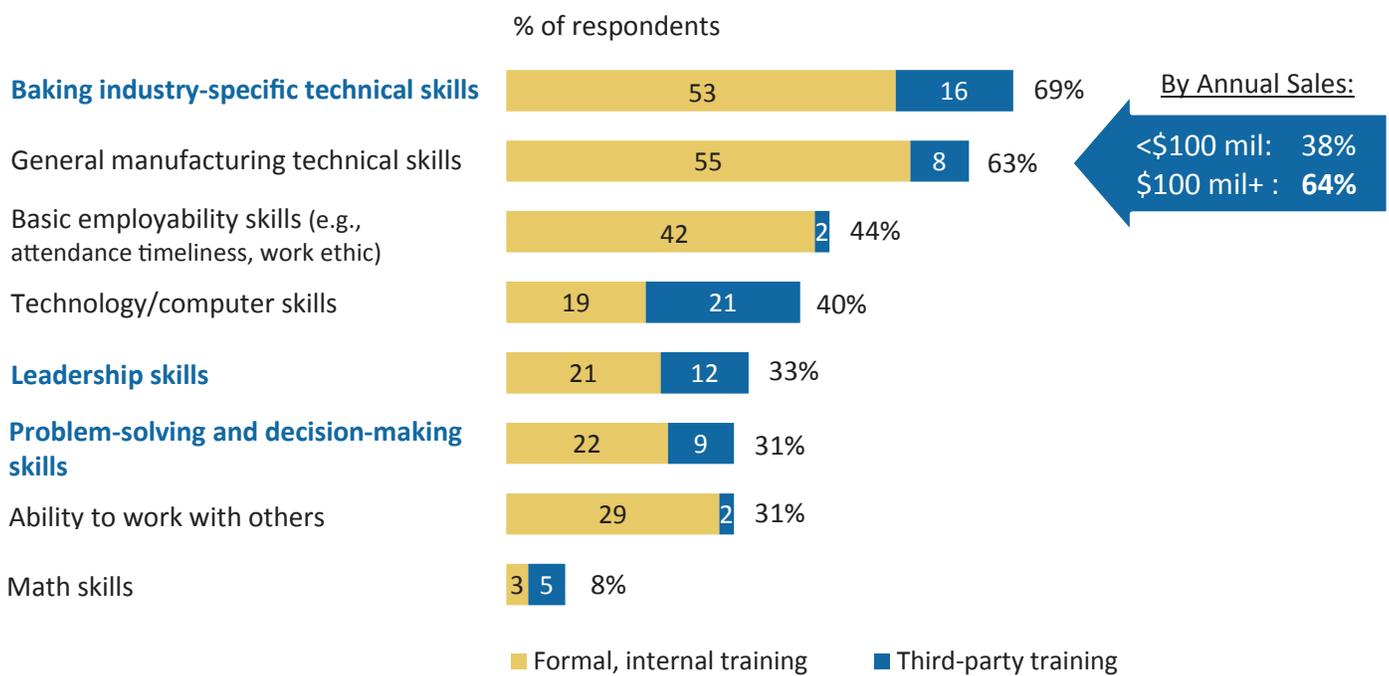
-President, Commercial Bakery Manufacturer

Although baking industry executives reported that two of the greatest training needs among hourly, skilled production employees are in the areas of leadership and problem-solving skills, only about three in ten companies currently offer any form of training in these areas.

In general, the use of formal, internal training dominates in the baking industry. The strength of external training, however, is apparent in technology & computer skills training.

Larger manufacturers are statistically more likely to provide internal training in general manufacturing technical skills than mid-size or small companies.

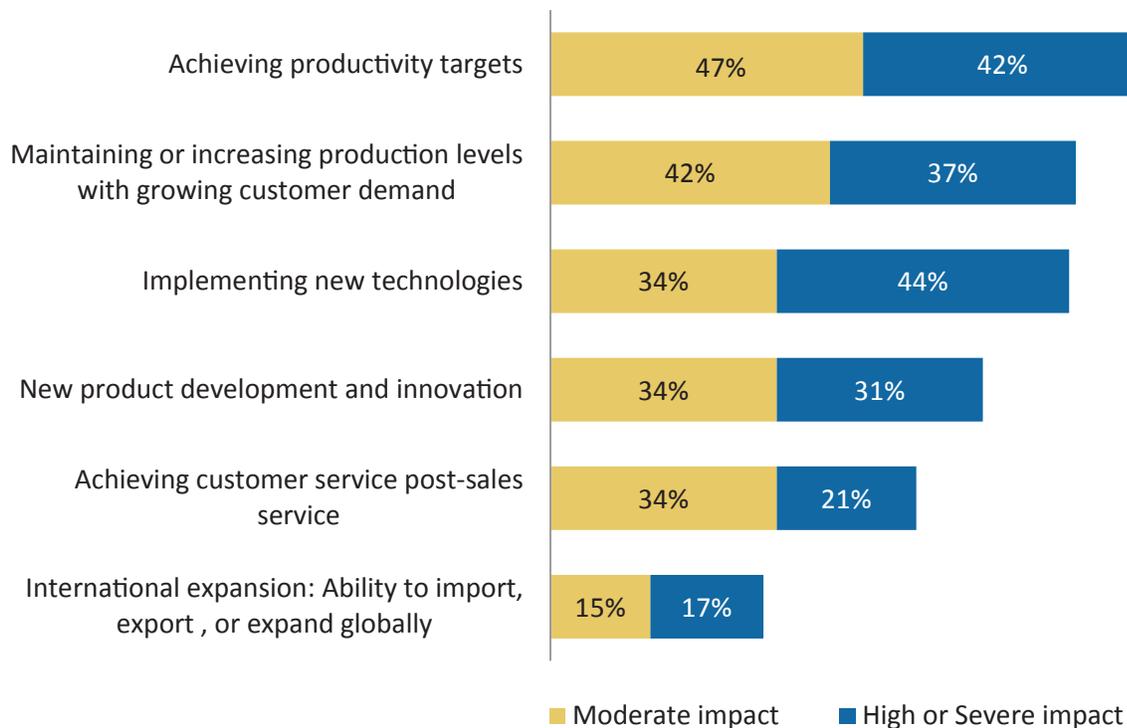
**Does your company provide formal internal or third-party training to hourly, skilled production employees in the following areas?**



## D. IMPACT OF WORKFORCE GAP

Just under half (44%) of U.S. commercial bakers indicated the skills shortage within hourly, skilled production positions will have a 'high' or 'severe' impact on implementing new technologies at their companies. Two additional business areas that will be most affected by the workforce gap include achieving productivity targets (42%) and maintaining or increasing production levels with growing customer demand (37%).

### What business areas will be affected most due to skills shortages within hourly, skilled production positions?



Note: Based on a 5-point scale where 1='No impact' and 5='Severe impact'; Respondents provided option of 'Don't Know'.

For the remainder of the survey, commercial baking executives were presented with a list of challenges and solutions related to hourly, skilled production positions in the following areas:

- Recruitment
- Training
- Retention
- Workforce Development

For each challenge listed, participants rated the extent of the challenge among hourly, skilled production positions at their company. For each solution listed, participants indicated whether their company is currently using/implementing the strategy or not using the strategy.

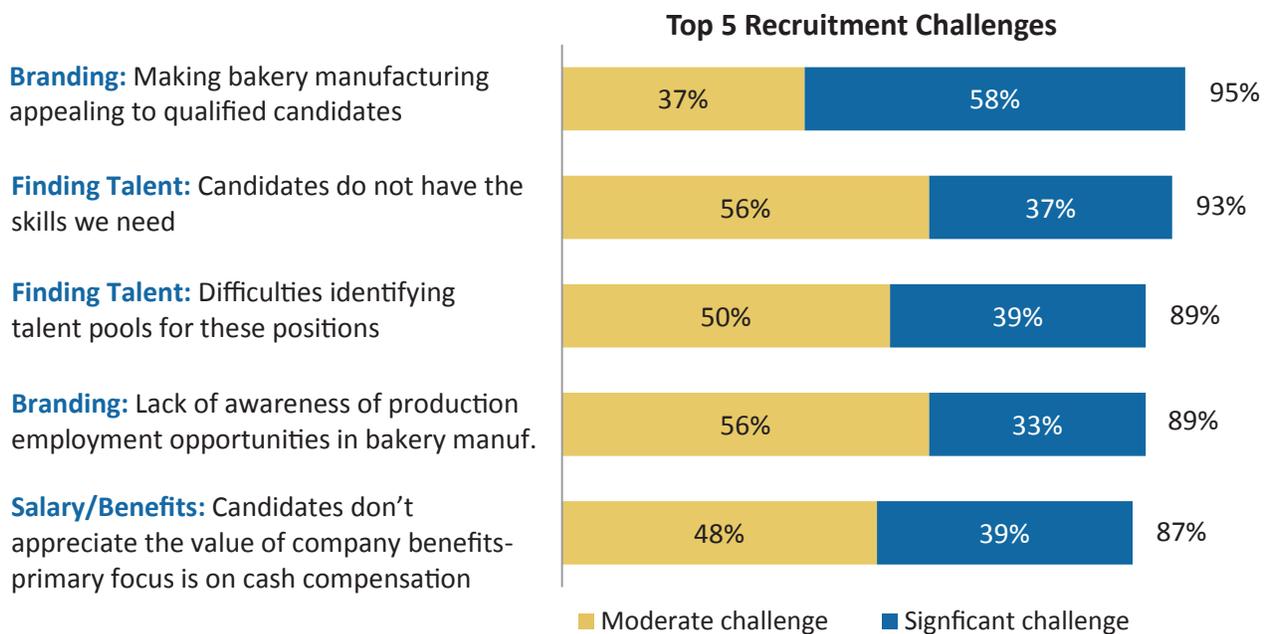
## E. RECRUITMENT: CHALLENGES & SOLUTIONS

### E1. Recruitment Challenges

U.S. commercial baking industry executives were presented with a list of ten recruitment-related challenges they might face among hourly, skilled production positions. According to executives, the top five recruitment challenges they encounter pertain to industry and employer branding, finding talent, and communicating the value of salary and benefits to candidates.

In the area of industry and employer branding, 58% of companies report significant challenges with making bakery manufacturing appealing to qualified candidates, with another 37% reporting moderate challenges in this area. Nearly 90% of manufacturers reported moderate or significant challenges with an overall lack of awareness of production employment opportunities in the industry.

Manufacturers also have challenges finding talent for hourly, skilled production positions because candidates do not have the skills companies need (93% moderate or significant challenge), and because they have difficulties identifying viable talent pools for these positions (89% moderate or significant challenge). Many companies (87%) also face moderate or significant challenges with candidates not understanding the value of company benefits because candidates' primary focus is on cash compensation.



Q.: To what extent do RECRUITMENT-RELATED CHALLENGES contribute to the skills shortage at your company for hourly, skilled production positions?

Note: Based on a Scale of 1='Not a Challenge' to 3='Significant Challenge'

### Voices from Baking: Industry Branding

*“Part of the challenge is that manufacturing isn’t as attractive an industry as others. Skilled trade isn’t as attractive - and if someone goes into it they go to pharma or oil or sexy industries versus baking. Bakery manufacturing is not as publicized and lucrative to make people interested.”*

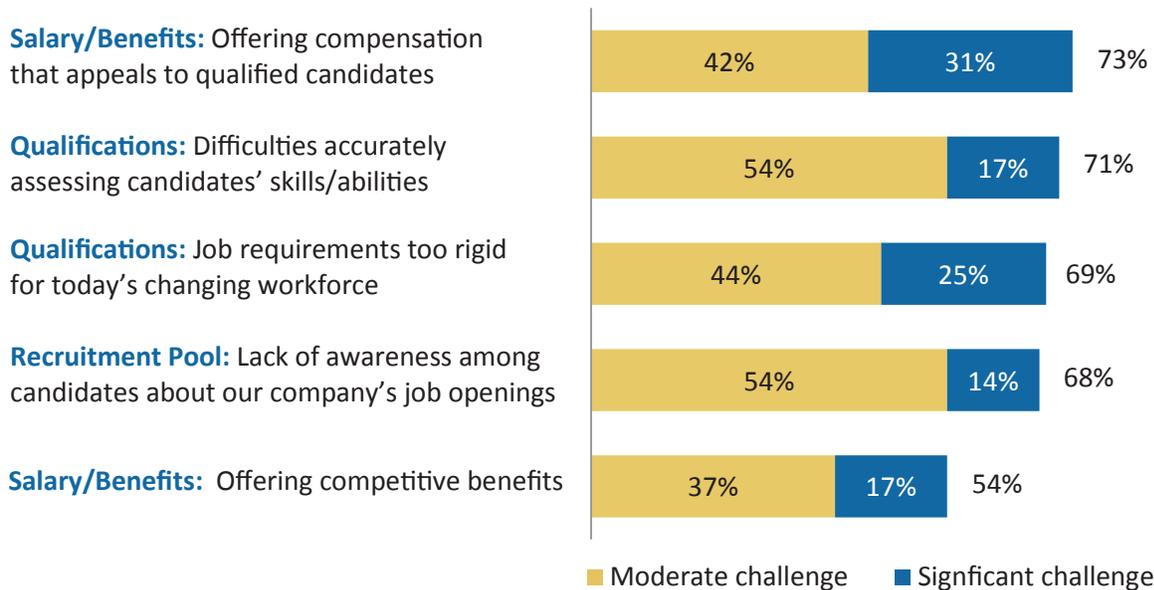
-HR Director, Commercial Bakery Manufacturer

*“In manufacturing and baking, we don’t do a good job of marketing the part of making the product. It’s not fun and sexy to score the dough or cutting it to form what the bread will look like. We don’t make it desirable to potential talent. In our company, we have revamped our onboarding process so that when we interview them, they get a bakery tour and a bag of goodies, and we tell them what their specific job is and how they contribute to the end product. “*

-HR Director, Commercial Bakery Manufacturer

Offering compensation that appeals to qualified candidates was indicated as a moderate or significant challenge by 73% of executives. In the area of qualifications, 71% of respondents reported difficulties accurately assessing candidates’ skills and abilities. Another 69% indicated challenges with job requirements that are too rigid for today’s changing workforce.

#### Additional Recruitment Challenges



Q.: To what extent do RECRUITMENT-RELATED CHALLENGES contribute to the skills shortage at your company for hourly, skilled production positions?  
 Note: Based on a Scale of 1=‘Not a Challenge’ to 3=‘Significant Challenge’

## E2. Recruitment Solutions

Although U.S. commercial bakery manufacturers indicated employer/industry branding is one of their biggest recruitment-related challenges, concerted company branding efforts are not being widely used in the industry to address the workforce gap compared to other solutions being applied.

Two-thirds of companies indicated they use strategies to foster a positive workplace environment and culture. These strategies can include an internal company website, addressing working conditions, and fostering collaboration and teamwork.

Only 61% of companies are engaged in employer branding efforts such as company website development, having a social media presence, or being involved in community events, leaving 39% of the industry out of such initiatives. The use of employer branding efforts differs significantly by company size - only half of mid-size and smaller bakeries are engaged in employer branding efforts.

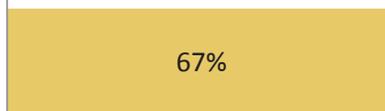
Regular outreach to high schools and other educational organizations about careers in bakery manufacturing is used by only 46% of companies, signaling another opportunity for bakery manufacturers to improve recruitment-related challenges.

### Employer/Industry Branding:

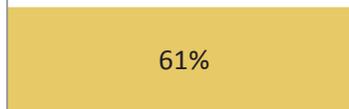
### Recruitment Solutions

% of companies using strategy

Strategies to **foster a positive workplace environment** and culture (e.g., internal company website/social media; address working conditions; foster collaboration and teamwork)

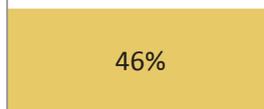


**Employer branding** efforts (e.g., Website/Facebook video on company appeal, working in a manufacturing setting; social media marketing; community events)



**By Annual Sales:**  
 <\$100 mil: 50%  
 \$100 mil+ : 69%

**Regular outreach** to high school, technical schools and community and 4-year colleges about careers in bakery manufacturing



Q.: Which of the following RECRUITMENT-RELATED STRATEGIES is your company currently using to address the skills shortage for hourly, skilled production positions?

In the area of finding talent, the top strategies being used in U.S. commercial baking are online job boards (96%) and hiring unskilled production staff and training them into skilled positions (94%). Eighty percent of companies use third-party search firms.

Smaller companies are statistically less likely to use some strategies in the area of finding talent. Less than 60% of mid-size and smaller bakeries use online application and resume process and target unique talent pools.

More than 30% of bakery manufacturers are not initiating formal relationships with local organizations to assist with recruitment efforts or developing a formal employee referral program.

### Recruitment Solutions

#### Finding Talent – Top Strategies:

% of companies using strategy

- Online job boards (e.g., Monster.com, CareerBuilder)
- Hire hourly, unskilled production employees and train them into skilled positions
- Use third-party search firms
- Online application and resume process via company website (vs. paper-only application)
- Target underutilized or new talent pools (e.g., women, military veterans, Millennials)
- Formal relationship with local, non-profit organizations or coalitions
- Formal employee referral programs



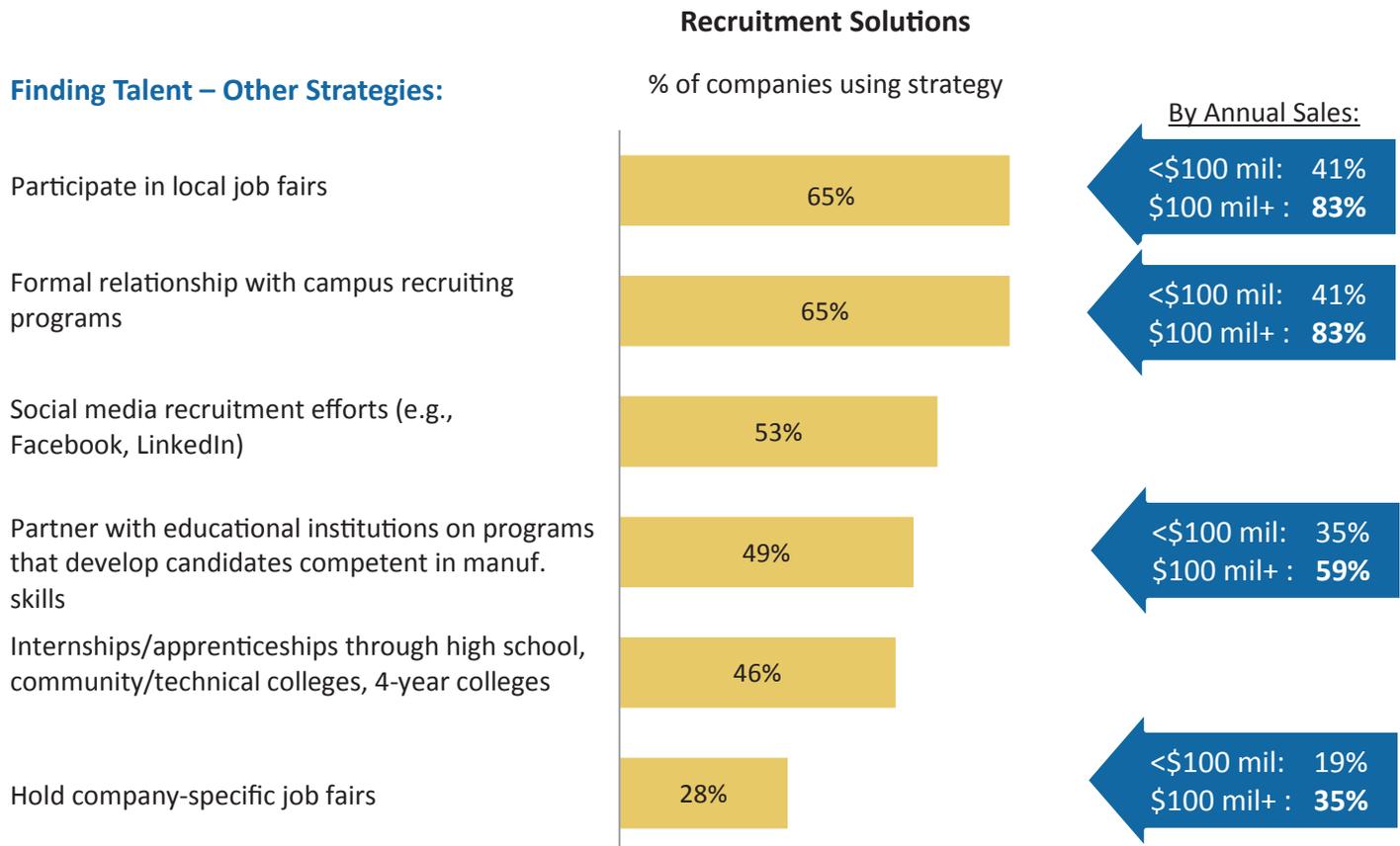
Q.: Which of the following RECRUITMENT-RELATED STRATEGIES is your company currently using to address the skills shortage for hourly, skilled production positions?

#### Voices from Baking: Online Application and Resume Process

*“We advertise open hourly production positions on our website. It’s interesting in the last 6 months since we’ve been doing this, we have had no problems getting applications. They’re mostly referrals. It’s a culture shift to go online. The process is easy and clean. Then, we filter applications out. Managers have access so they can review resumes online. Maybe it’s a bit of a barrier to those applying for hourly, unskilled production positions. But we’re using it a bit as a screener and an exercise to see if they’ll put together a cover letter, resume and post their application online. We want to see their willingness to develop that skill and make the effort and be flexible and have the drive to step out of their comfort zone to do something that uses technology.”*

-HR Manager, Commercial Bakery Manufacturer

Other possible strategies for finding talent also reveal significant opportunities for many baking companies. One-third of baking manufacturers do not participate in local job fairs or have formal relationships with a campus recruiting program. This percentage is even higher among small to mid-size companies. Only half of companies partner with educational institutions to help develop manufacturing candidates, with significantly fewer mid-size and smaller companies employing this strategy. Each of these strategies should be considered by baking companies in helping solve their recruitment-related challenges.



Q.: Which of the following RECRUITMENT-RELATED STRATEGIES is your company currently using to address the skills shortage for hourly, skilled production positions?

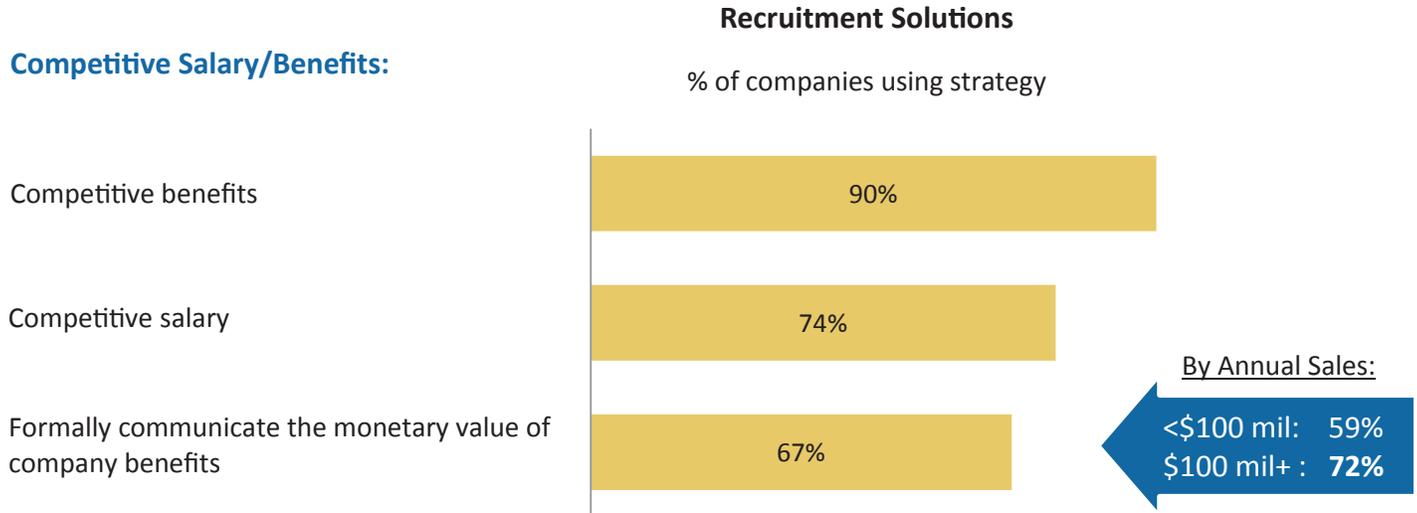
### Case Example: Manufacturing Engineering Apprenticeship Program

In order to hire and retain engineering and maintenance talent, **Kroger** created an **Apprenticeship Program for Engineering**. Partnering with the US Department of Labor, the program is in its pilot stage in six manufacturing plants throughout the southeastern United States. Candidates are drawn from both existing positions within the Kroger Company as well as from high schools, vocational schools, and community colleges close to the plants in order to train them for maintenance tech and electrician positions.

Kroger and the Department of Labor work alongside one other to produce a 2 to 3 year curriculum that is supervised by teams made up of DOL state representatives as well as Kroger HR & Engineering leaders. In some cases, the Kroger Apprenticeship Program staff members coordinate directly with local educational institutions to co-facilitate program. Upon graduating from the program, trainees are skilled in highly technical engineering and maintenance positions and are often hired by Kroger.

In the area of competitive salary & benefits as a recruitment strategy, the biggest opportunity for the baking industry lies in developing a formal plan to communicate the monetary value of company benefits to candidates and current employees, particularly among mid-size and smaller companies. Additionally, one-quarter of companies report that they do not offer competitive salaries to potential candidates, an obstacle to attracting and retaining quality employees.

Q.: Which of the following RECRUITMENT-RELATED STRATEGIES is your company currently using to address the skills shortage for hourly, skilled production positions?



#### Case Example: Employee Health & Wellness

Seven years ago, **The Bama Companies** faced increasing medical care costs by double digits and a desire to engage their workforce in their personal health. Bama's CEO, Paula Marshall, has a passion to provide resources for team members to leave Bama better than when they arrived. **Bama's Employee Health & Wellness Programs** span from providing access to medical care to targeted personal intervention programs that help team members improve their health from point A to B. Programs are also unique in that some reach broad employee groups while others are targeted interventions to help individuals reach personal goals. The programs include:

- 1) Bama Clinic: Full medical facility with diagnostic, lab and x-ray
- 2) Onsite Fitness Centers with trainers & classes
- 3) Individual Nutrition Consulting
- 4) Bama Fit Academy

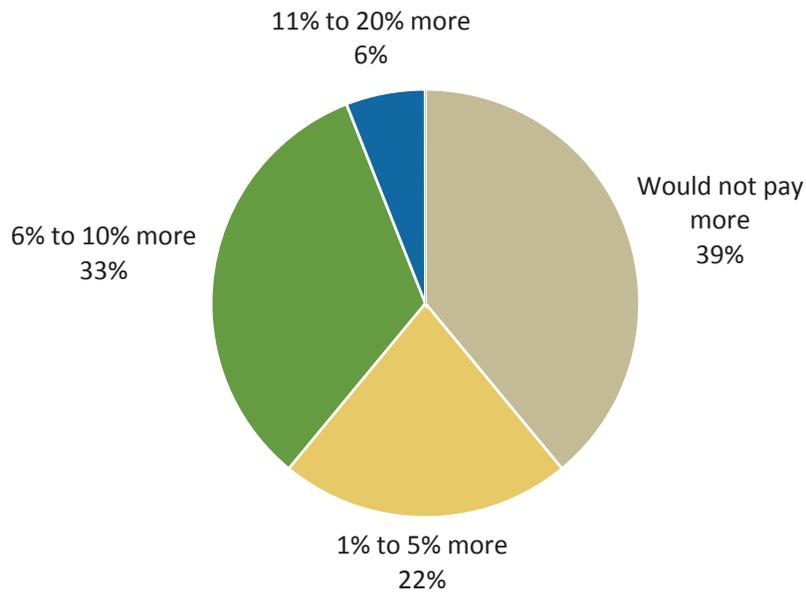
As part of the Bama Fit Academy, outcome-based metrics demonstrate that employees' actual medical risk in 5 Key Health Indicator (KHI) categories are being lowered. These gender-specific KHIs are measured annually during biometric screenings (i.e., body composition, blood pressure, LDL cholesterol, HDL cholesterol, and blood glucose). In addition to 30+ additional lab results that are tracked, the five KHIs are tracked across the population and tied to a team member's health insurance premium amount. From 2011 to 2014, the average number of risks per person was reduced by 15%. The number of people with risks was reduced by 19% in all 5 categories. Tobacco usage was also reduced by 40 percent.

**E3. Additional Recruitment Issues**

**Hourly Pay Increases**

Manufacturers may need to increase hourly pay in order to attract and retain skilled workers. More than 60% of bakery manufacturers indicated they would pay more to tackle the skills shortage among hourly, skilled production employees. One third of these companies would pay 6% to 10% more, while 22% of companies would pay 1% to 5% more. The remaining 39% indicated they would not pay more to tackle the skills shortage among these job positions.

**How much more is your company willing to pay employees to tackle the talent shortage among hourly, skilled production employees?**



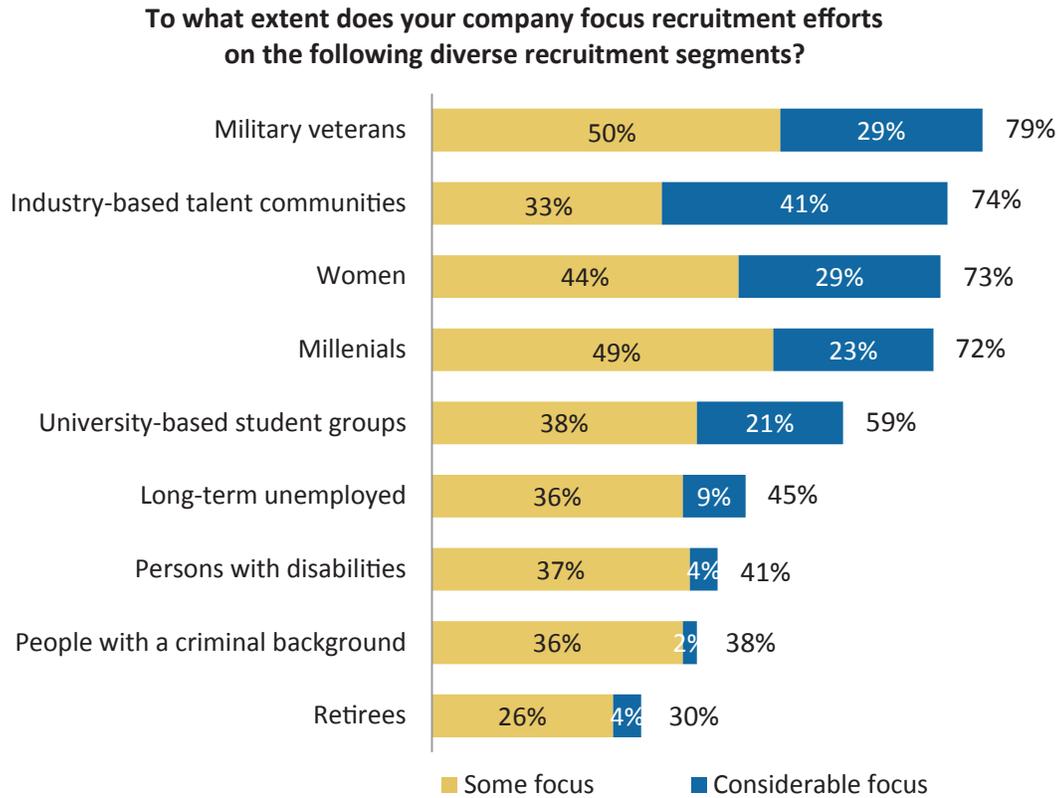
**Voices from Baking: Above Average Pay**

*“An employee may come in at 2:30am and work until 10:15 that evening. This is hard on the home life. No matter how much you explain to them what these hours are like, there’s no way to prepare yourself. Our people are better paid on average than other area competitors. This helps us get better employees.”*

-VP Human Resources, Commercial Bakery Manufacturer

**Diverse Recruitment Segments**

U.S. commercial bakery manufacturers tend to focus their recruitment efforts on military veterans (79% some or considerable focus), industry-based talent communities (74%), women (73%) and millennials (72%). Industry-based talent communities are of particular emphasis, rated a considerable focus for 41% of companies. Less recruitment focus is on retirees, people with a criminal background and people with disabilities.



**Voices from Baking: Millennials**

*“We have Millennials who are completely different from Baby Boomers. Millennials care about companies that give back to the employee and know how they contribute to the company and the world, even among our hourly, plant floor associates. We have build-your-own benefits packages. Millennials like that they can create customized benefits packages that fit their lifestyles and life priorities.”*

-HR Director, Commercial Bakery Manufacturer

### Case Example: Women In Recovery

As a result of its commitment to addressing the skills gap, **The Bama Companies** incorporated second-chance programs into its hiring practices for people with a criminal background in 2010. Shortly after, a relationship was bridged with the non-profit organization, Family & Children Services, and their **Women In Recovery Program**.

Women In Recovery is an intensive, outpatient alternative for eligible women facing long prison sentences for non-violent, drug-related offenses. The program helps women conquer their drug addiction, recover from trauma, and acquire the essential economic, emotional, and social tools to build successful lives. The program provides the needed soft skills training to ready their participants for the workforce and the Bama staffing team works directly with Family & Children Services management to find a mutual fit for employment.

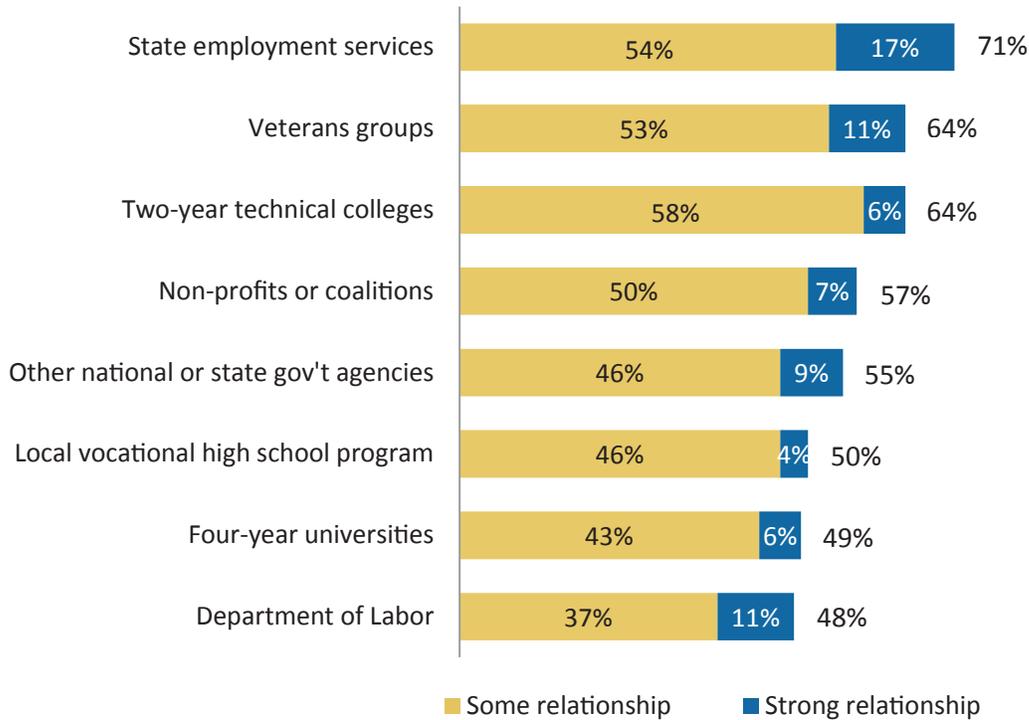
Program successes include:

- 75% retention of Women In Recovery employees integrated at Bama in 2010
- Retention rates are seven times higher among Bama Women In Recovery employees than general hires
- Lower Bama employee turnover and lower company costs
- 65% of Bama Women In Recovery employees promoted beyond entry level positions

**Relationships with Institutions**

Many manufacturers engage with various community institutions in order to tap new talent. The majority of bakery manufacturers have some relationship or strong relationship with state employment services (71%), veterans groups (64%) and two-year technical colleges (64%). Around half of companies have relationships with local vocational high school programs, four-year universities and the Department of Labor.

**What is your company’s relationship with educational, non-profit and government bodies to develop/acquire hourly, skilled production employees?**



**Case Example: Growing a Maintenance Team through Partnership**

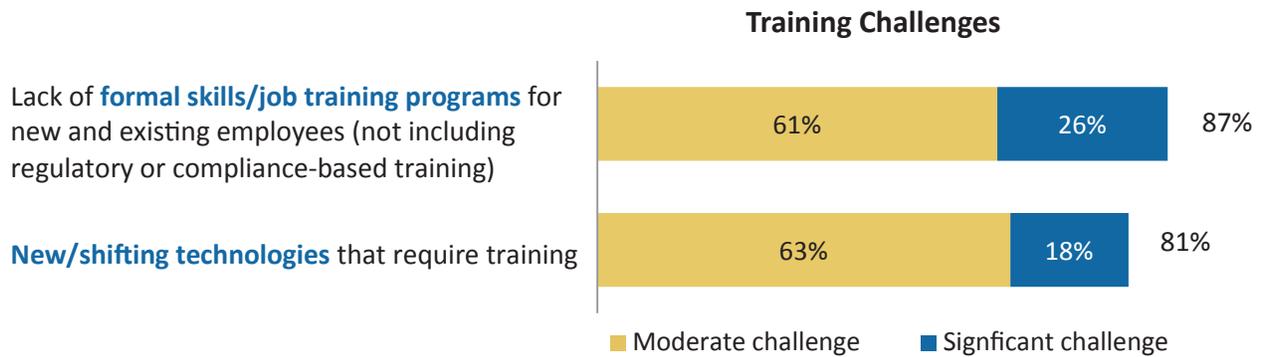
**King’s Hawaiian** established an **Educational Partnership** with Lanier Technical College in Georgia to fill gaps in skilled workers. The partnership focuses on attracting and training potential hourly, maintenance employees for King’s Hawaiian, as well as training existing employees in maintenance-related fields. For both students and current employees, King’s Hawaiian and the college have created curricula for learning hydraulics, pneumatics, machining, metal work, PLC and electrical skills. By creating this program, the company is simultaneously filling specialization gaps and providing employees access to career advancement.

Another program goal is to increase computer aptitude among candidates and employees. The program ensures that those who have existing mechanical knowledge are taught to be computer-literate and that those who have only computer skills can learn mechanics as well.

## F. TRAINING: CHALLENGES & SOLUTIONS

### F1. Training Challenges

Just over one quarter of baking companies indicated that the lack of formal skills training for new and existing employees in hourly, skilled production positions is a significant challenge, with 61% rating it a moderate challenge. New and shifting technologies that require training is a significant challenge for 18% of manufacturers, and a moderate challenge for 63% of companies.



Q.: To what extent do TRAINING-RELATED CHALLENGES contribute to the skills shortage at your company for hourly, skilled production positions?  
 Note: Based on a Scale of 1='Not a Challenge' to 3='Significant Challenge'

### Voices from Baking: Training

*“Bakeries can be some of the worst at being old school with management asking themselves, ‘Why should we change anything?’ Our company is moving away from a traditional business approach toward a high performing work model. The idea is to get away from the old top-down leadership model. We want our employees to operate with that ownership mentality that it’s their company. We are giving associates on the floor tactical authority and responsibilities to get the job done. Problem solving and decision-making is best made by those impacted by the outcome - instead of a supervisor or manager always making them. We have to shepherd associates through starting to make decisions on their own to guide them into more of a decision-making role. The manager then becomes a coach to help empower them. Flexibility and mastery are also important principles - we have to give people opportunities to grow, to take on more responsibility, make more money, and master technical skills.*

*Teamwork also becomes a driving part of operations. Teamwork is so incredibly important rather than an hourly versus management mentality or maintenance versus operations. We need to work toward common goals and bring down those silos and competitiveness. The driving idea behind a focus on Teamwork is that the employees who work together on a piece of equipment or in a certain area are a team. Not only do they each do their functional job, but they’re also responsible to the team. If a piece of equipment breaks down, or there’s an ingredient issue, they fix it as a team instead of immediately calling a supervisor to fix it. We don’t want our people to be afraid to make decisions and be wrong and get fired. The principle around this new operating structure is respecting and empowering the capabilities of our employees. We sometimes make judgments about our hourly people without recognizing that they have a good work ethic and want to do a good job. We’re looking at this as a 10-year trajectory to move our company in this direction. This new culture is about investing more in our hourly employees.”*

-Manager Training & Development, Commercial Bakery Manufacturer

**F2. Training Solutions**

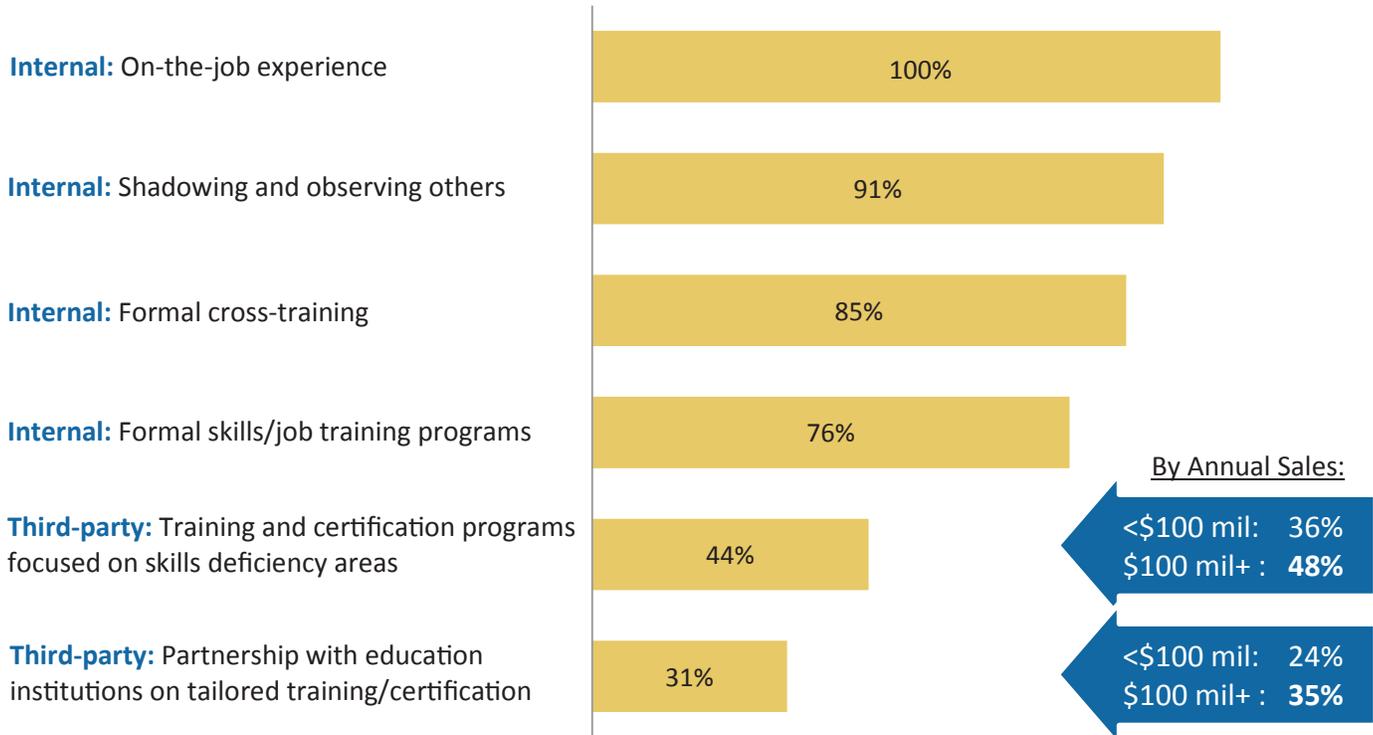
In U.S. commercial baking, manufacturers tend to rely on informal methods of training for hourly, skilled production positions such as on-the-job experience and job shadowing. For machine operator positions, all bakeries reported using on-the-job training, with 91% using job shadowing. Three-fourths of companies report having an internal formal job skills training program for machine operators, revealing an opportunity for more bakeries to develop such programming.

Only 44% of companies use third-party training and certification programs focused on skills deficiency areas, and 31% partner with education institutions on tailored training/certification. The use of third-party trainings are statistically lower among mid-size and smaller manufacturers.

**Machine Operators:**

**Training Solutions**

% of companies using strategy



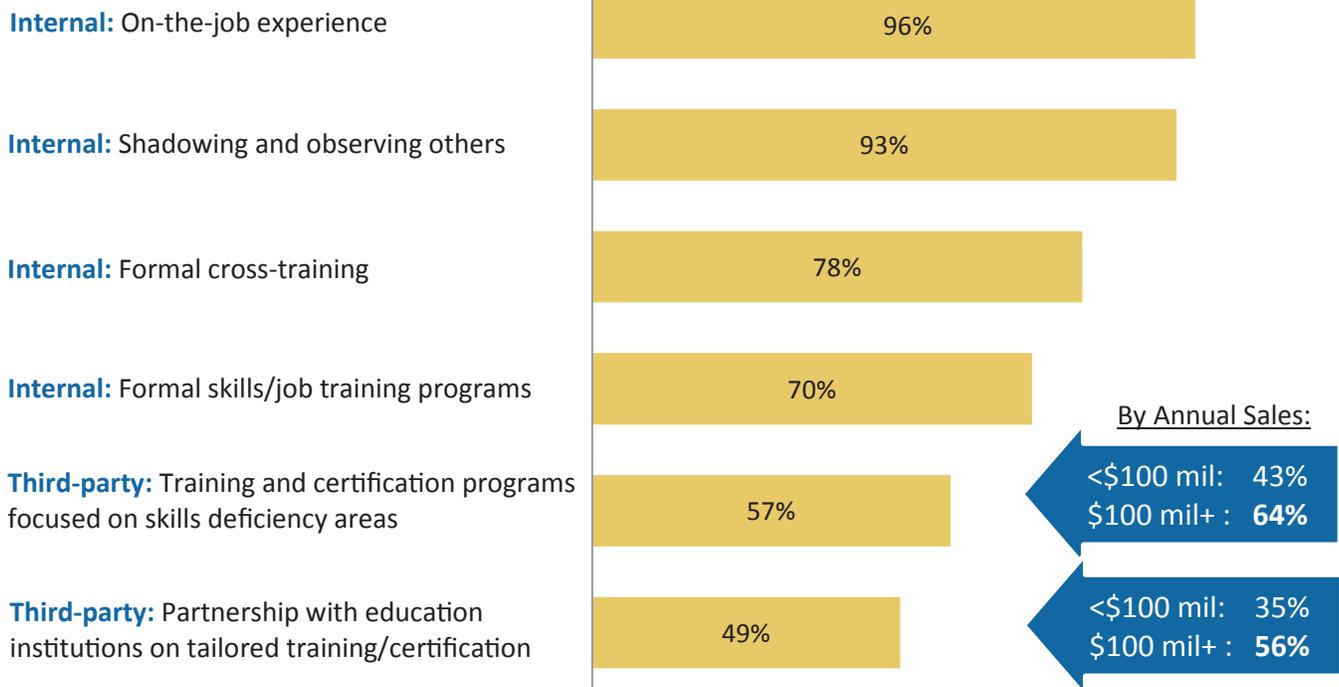
Q.: Which of the following TRAINING-RELATED STRATEGIES is your company currently using to address the skills shortage for hourly, skilled production positions?

Among hourly maintenance and engineering positions, similar internal training solutions are being applied compared to machine operators. Companies rely on on-the-job experience (96%) and job shadowing (93%). However, companies appear to be slightly better at leveraging third-party relationships to help train their hourly maintenance staff than machine operators. Nearly six in ten companies (57%) use third-party training and certification programs focused on skills deficiency areas, and half partner with education institutions on tailored training/certification. Thirty percent of companies do not have formal internal skills/job training programs for hourly maintenance/engineering.

**Maintenance/Engineering:**

**Training Solutions**

% of companies using strategy



Q.: Which of the following TRAINING-RELATED STRATEGIES is your company currently using to address the skills shortage for hourly, skilled production positions?

**Case Example: Competency-Based Skills Training**

**Albertsons** created the Vons Los Angeles Safeway plant’s **Supervisor-Led Competency-Based Skills Training Program** to address gaps in skills among new employees. When an employee starts a new production position in the manufacturing industry, training often centers on knowledge passed down through word-of-mouth from experienced staff, resulting in mistakes. With Safeway’s program, new employees develop basic skills in the first days of the supervisor-led training, then purposefully move into higher skill levels as training progresses, and being required to demonstrate acquired competencies at prescribed points in the program.

Program highlights include:

- Competency-based training
- Supervisor-driven
- Scaffold approach – Mastery of basic skills following by more complex skills
- Use of formative and summative assessment techniques

### **F3. Challenges to Implementing Formal Skills Training Programs**

Although manufacturers know the value of implementing formal skills training programs, there are many barriers to implementing such programs for hourly, skilled production positions. Two-thirds of companies indicated difficulties with managing trainings across multiple shifts and varying schedules. Manufacturers also indicated challenges with staffing of trainings in terms of insufficient staff to develop the training (62%), time to implement the training (57%), and staff who know how to train (49%). Only 21% of executives indicated there is a lack of financial resources and lack of commitment by senior leaders to prioritize employee training and development.

#### **What are the challenges to implementing formal skills/job training programs for hourly, skilled production positions?**

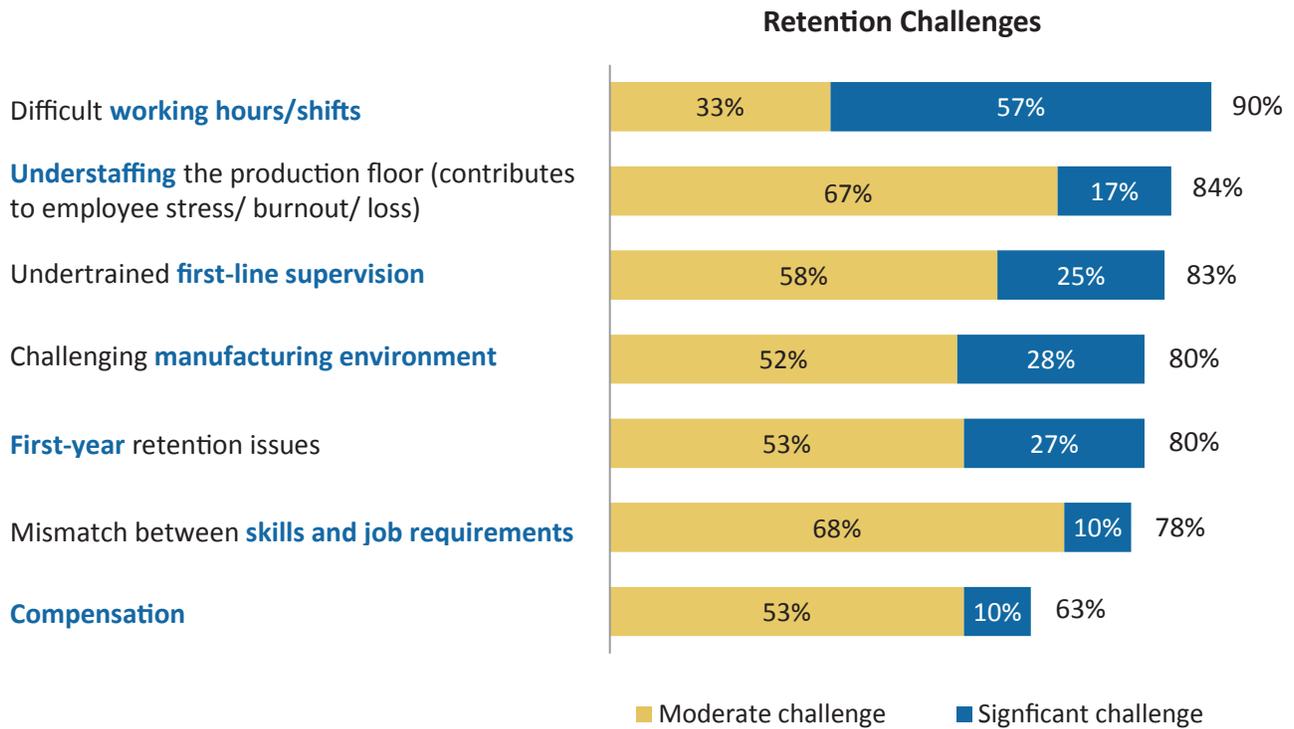


Note: Multiple responses accepted

## G. RETENTION: CHALLENGES & SOLUTIONS

### G1. Retention Challenges

A full 90% of companies report that the issue of difficult working hours and shifts creates a challenge in retaining employees. Other top retention challenges include understaffing the production floor (84%) and undertrained first-line supervision (83%). Eight in ten companies reported retention issues due to the challenging manufacturing environment and first-year retention issues.



Q.: To what extent do RETENTION-RELATED CHALLENGES contribute to the skills shortage at your company for hourly, skilled production positions?  
 Note: Based on a Scale of 1='Not a Challenge' to 3='Significant Challenge'

### Voices from Baking: Understaffing & Difficult Work Hours

*“One of the biggest challenges for our bakery is that we’re understaffed so we burn people out. It hurts with retention. In many cases an employee works a 12-hour shift, then is asked to stay four more hours because we don’t have someone to replace them.”*

-HR Manager, Commercial Bakery Manufacturer

*“It’s difficult to find skilled employees that have the courage to come into a manufacturing facility and work long, hard, arduous hours – 10 to 12 hour days. We try to attract them with more pay than if they worked, for example, at Target. We start out at \$16 when everyone else is starting out at \$10 because of the hard work and rotating shifts. Rotating shifts are hard for work/life balance. If you can find the right fit with someone who doesn’t mind the rotating shifts, nine times out of ten you’ll be successful.”*

-Production Manager, Commercial Bakery Manufacturer

## G2. Retention Solutions

To address retention issues among hourly, skilled production positions, 83% of companies utilize a formal on-boarding process for new employees. Three-fourths of companies focus on improved work environment and work culture. Only 65% of companies have formal first-line supervisor training, and far fewer mid-size and small companies have such training. Only 26% of companies indicate they modify their work hours and staffing to reduce stress.

Additional strategies that commercial bakery manufacturers can implement to improve retention of hourly, skilled production employees include development of formal employee recognition programs, hiring more full-time production staff and modifying work hours to lessen employee stress and burnout.



Q.: Which of the following RETENTION-RELATED STRATEGIES is your company currently using to address the skills shortage for hourly, skilled production positions?

### Case Example: Onboarding Talent

The **ARYZTA** company-wide **Onboarding and New Hire Sponsor Program** was developed to provide a positive and welcoming experience for new hourly, production employees. The program is intended to accelerate the productivity of new hires and enhance job satisfaction so new employees have an effective introduction to the company. Such a system helps build an immediate personal connection between the new hire and the organization and helps retain people ARYZTA hires. Sponsors are selected by bakery management for a 14-day period, and sponsors are asked to help evaluate new hire performance. The sponsor is also reviewed by the new hire, providing a 360-degree evaluation process.

### Case Example: Building an Equitable PTO Policy

At The Bakery Cos., senior leadership set out to create a way to help people rest from the hard work they do for the company each day and rejuvenate by spending time with their loved ones without thinking about work or simply having time to themselves to recharge. **The Bakery Cos. Paid Time Off Policy** grew from this simple concept - care for those that are helping create a world class organization.

All associates of The Bakery Cos. are entered into the PTO program immediately upon hire, with starting minimum limits the same for both hourly and salaried employees. All work hours accrue to the total annual benefit rather than a pay period limitation including overtime and normal hours worked. Associates who work overtime and have many hours with the seasonal summer bump find themselves hitting their total annual benefit sooner than December which allows them to use the Paid Time Off benefit even sooner. The Bakery Cos.' senior leadership was determined to ensure that its associates were able to achieve the maximum benefit of days off in a year.

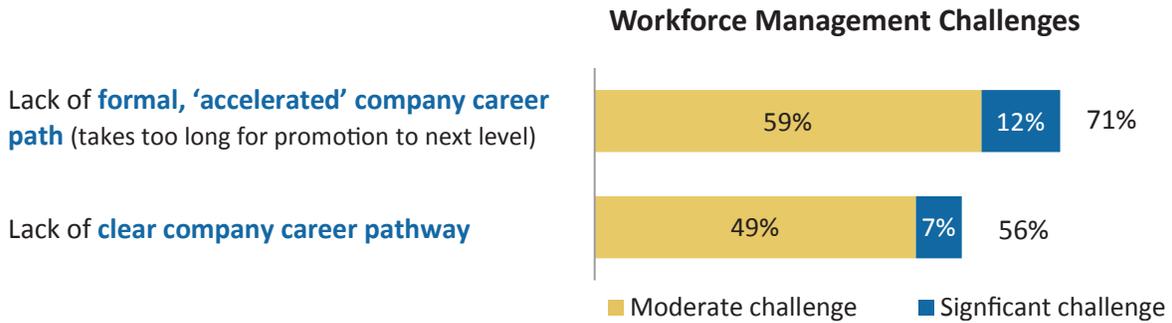
Highlights of The Bakery Cos. hourly paid-time-off policy:

- Hourly Paid Time Off accrues from normal time worked, overtime, and other PTO taken.
- The PTO plan is built to bolster longevity and career growth while providing boundaries that help make the business continually able to deliver on productivity and efficiency measures.
- Paid Time Off is able to be used for whatever specific holidays or dates the associate wants. The 8 company-recognized holidays are built into the plan as open available days giving each associate the ability to use them on whatever day they prefer.
- The Bakery Cos. stumbled before they got the policy right. The way a PTO program rolls out for each company may look different.
- PTO is approved on the basis of seniority and first-come-first-served basis for days off as it relates to the needs of the business and those able to take PTO.
- Changes in the development of the program were well-received and driven by feedback from hourly associates.

**H. WORKFORCE MANAGEMENT: CHALLENGES & SOLUTIONS**

**H1. Workforce Management Challenges**

In the area of workforce management, 71% of commercial bakery manufacturers rated lack of an ‘accelerated’ company career path as a moderate or significant challenge. Only 56% of companies indicated that lack of a clear company career pathway is a moderate or significant challenge.



Q.: To what extent do WORKFORCE MANAGEMENT-RELATED CHALLENGES contribute to the skills shortage at your company for hourly, skilled production positions?  
 Note: Based on a Scale of 1=‘Not a Challenge’ to 3=‘Significant Challenge’

**Voices from Manufacturing: Lack of Clear Company Career Path**

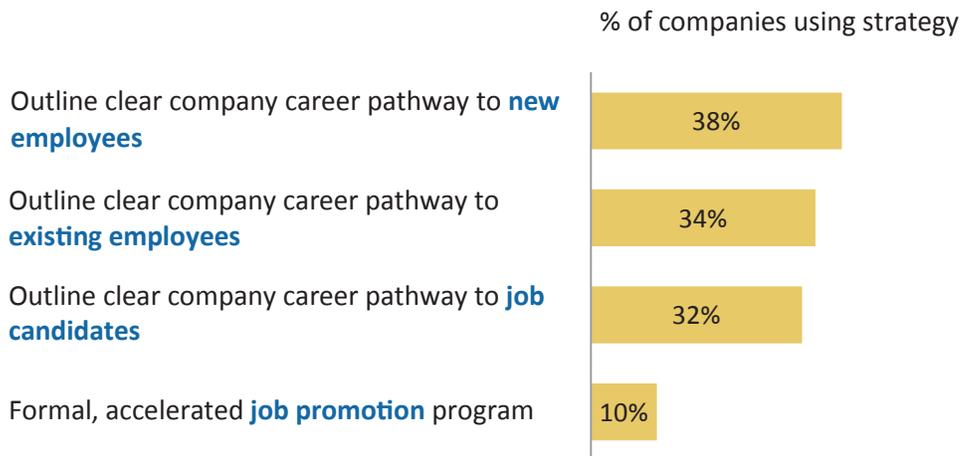
*“We need to better understand how to retain employees and understand why they leave. Often times an employee leaves the person they work for, namely their supervisors. Therefore, our company has a strong emphasis on leadership development. Employees also leave companies because they don’t see a clear career path for themselves. Older employees stay longer so younger people don’t see positions becoming vacant soon enough for them. There are also employees who do hard work in factories with no recognition, or they do meaningless work that isn’t fulfilling. We want to attack things that cause staff to leave and institute reasons for employees to stay.”*

-President, General Manufacturing

## H2. Workforce Management Solutions

Few manufacturers indicated they outline a company career pathway to new employees (38%), existing employees (34%) and job candidates (32%). Only 10% of companies have a formal, accelerated job promotion program.

### Workforce Management Solutions



Q.: Which of the following WORKFORCE MANAGEMENT-RELATED STRATEGIES is your company currently using to address the skills shortage for hourly, skilled production positions?

### Case Example: Training Future Leaders

**ARYZTA's Excellence-In-Leadership Training Program (EIL)** is offered to those employees that exhibit leadership qualities at the company. It is a robust 8 module training over 8 months. The program is for any staff member that is currently in a leadership position, aspires to become a leader, or is already demonstrating leadership qualities – including hourly, skilled production positions. ARYZTA is building this EIL platform from the lower levels up through management.

This program is designed to provide ARYZTA front-line leaders, supervisors and managers with the foundational knowledge, skills and behaviors they need to succeed in their roles with content customized to meet the learning needs of today's bakery employees. The content is low theory, high practical application, with group discussions and practice exercises throughout. Participants are encouraged to apply their experiences in ARYZTA's real work environments to the material.

## Voices from Baking: Training & Promoting from Within

*“We do 90% of our hiring in the general production job category. We don’t struggle to get applicants there. But we struggle to be picky enough to find those that won’t just stay but will move up. When the general unemployment rate goes up we track better with finding quality employees. We’re specifically looking for those who want to go into manufacturing as a career.”*

-HR Director, Commercial Bakery Manufacturer

*“Given our location in the Midwest, there isn’t a large enough labor pool with skills inside our industry. A significant portion of managing our workforce is developing them in-house. We have a large portion of temps that we use for unskilled positions with packing. That can become a pipeline into temps becoming company employees and eventually moving into skilled positions.”*

-Training & Development Director, Commercial Bakery Manufacturer

*“People who are financially driven are hard to attract. If we grow them from within, we have a much better stick rate. Within baking, you have to get to know the machine over 20 years – that mature employee knows from a noise a machine makes, what needs to be done. They have a level of comfort with the people and environment and the machines and so can make a better decision faster. Our strategy is intentionally looking at our employees and attracting and retaining them through good programming. We have good potential leaders on the floor who can’t read or write in English. They’ve memorized the way to do business but we can’t grow them. I’d rather develop internally. But sometimes we can’t grow them into leadership positions. “*

-HR Director, Commercial Bakery Manufacturer

## IV. STUDY RECOMMENDATIONS

---

In order to adequately address the workforce gap within U.S. Commercial Baking, a coordinated effort is required from all key stakeholders:

- ✓ Industry-wide collaboration and coalition building at national and local levels
  - Manufacturers
  - Industry associations & support organizations
  - Educational institutions
  - Government organizations (local, state, national)
  
- ✓ Corporate-level commitment and company-wide involvement in the issue
  - Sufficient time & resources to implement solutions

Following are key solutions based on findings from this multi-phase study on the workforce gap in U.S. Commercial Baking that can be implemented by individual companies or industry-wide. Research findings and recommendations will be reviewed and discussed at an industry meeting to be convened in late 2016 involving key stakeholders from the U.S. commercial baking industry and industry trade associations/organizations. The meeting will involve developing action plans for addressing current and projected employment gaps and ways to attract and retain skilled talent in the industry. It is recommended that additional research be conducted regarding the actual effectiveness of each of these approaches in mitigating the workforce gap in U.S. commercial baking.

### Recruitment

---

#### Attracting Talent

- Industry branding: Implement industry-wide efforts to increase awareness of bakery manufacturing as a desired career
- Employer branding: Implement company-level strategies to increase awareness of employment opportunities and benefits (e.g., competitive pay, valuable benefits, career path, positive work environment, team-based approach)

#### Finding Talent

- Tap diverse talent pools (e.g., women, veterans, Millennials)
- Implement formal employee referral programs
- Leverage technology for recruitment (e.g., social media, online job boards, online application and resume process)
- Create partnerships with local & state organizations and educational institutions to access potential job candidates

#### Develop the Talent Pool

- Partner with educational institutions on developing programs to train candidates who are competent in manufacturing skills
- Offer internships/apprenticeships through high schools, community/ technical colleges and 4-year colleges

#### Salary and Benefits

- Provide competitive salary and benefits in order to compensate for difficult working hours, environment
- Formally communicate the monetary value of company benefits

## Training

---

### Train Internal Talent

- Identify high potential current employees and job candidates and provide training in leadership and other key skills
- Formally train hourly, skilled production positions in:
  - Baking industry-specific technical skills
  - Leadership skills
  - Problem solving
- Provide formal, first-line supervisor training
- Address barriers to implementing formal skills training (lack of staff time, scheduling difficulties)

## Retention

---

### Retaining Talent

- Implement improvements in workplace environment, culture
- Implement employee recognition programs
- Foster collaboration and teamwork to create a sense of cohesion
- Offer performance-based pay
- Hire more full-time production staff to reduce employee burnout
- Offer flexible schedules/staffing

## Workforce Management

---

### Career Path

- Provide a clear career path for potential and existing employees

## Report Reference List

---

Morrison, T., Maciejewski, B. Giffi, C., DeRocco, E.S., McNelly, J., & Carrick, G. (2011). *Boiling Point? The skills gap in U.S. manufacturing*. Deloitte & The Manufacturing Institute. Retrieved from <http://www.themanufacturinginstitute.org/~media/A07730B2A798437D98501E798C2E13AA.ashx>

*Overwhelming Support: U.S. public opinions on the manufacturing industry*. (2014). Deloitte & The Manufacturing Institute. Retrieved from [http://www.themanufacturinginstitute.org/~media/DD8C9A2E99B34E89B2438453755E60E8/2015\\_Public\\_Perception\\_of\\_Manufacturing.pdf](http://www.themanufacturinginstitute.org/~media/DD8C9A2E99B34E89B2438453755E60E8/2015_Public_Perception_of_Manufacturing.pdf)

Smith, D., De Leon, D.S., Marshall, B., & Cantrell, S.M. (2012). *Solving the Skills Paradox: Seven ways to close your critical skills gaps*. Accenture Institute for High Performance. Retrieved from <http://www.accenture.com/sitecollectiondocuments/pdf/accenture-solving-the-skills-paradox.pdf>

*Talent Shortage and Hiring Practices Study* (2015). Brandon Hall Group. Retrieved from <https://membership.brandonhall.com/posts/984837>

*The Future of the Manufacturing Workforce*. (2014). Manpower. Retrieved from <http://www.manpower.us/en/employers/industry-focus/manufacturing.htm>

*The Skills Gap in U.S. Manufacturing: 2015 and beyond* (2015). Deloitte & the Manufacturing Institute. Retrieved from <http://www.themanufacturinginstitute.org/~media/827DBC76533942679A15EF7067A704CD.ashx>

*The U.S. Skills Gap: Could it Threaten a Manufacturing Renaissance?* (2013). The Boston Consulting Group. Retrieved from [https://www.bcgperspectives.com/content/articles/lean\\_manufacturing\\_us\\_skills\\_gap\\_could\\_threaten\\_manufacturing\\_renaissance/](https://www.bcgperspectives.com/content/articles/lean_manufacturing_us_skills_gap_could_threaten_manufacturing_renaissance/)

*U.S. Talent Shortage Survey (2015)*. Manpower Group. Retrieved from <http://www.manpowergroup.us/campaigns/talent-shortage-2015/assets/pdf/2015-Talent-Shortage-Whitepaper.pdf>

## Additional Resources

---

*Bridging the Skills Gap*. (2012). American Society for Training & Development. Retrieved from [http://nist.gov/mep/upload/Bridging-the-Skills-Gap\\_2012.pdf](http://nist.gov/mep/upload/Bridging-the-Skills-Gap_2012.pdf)

*Current Issues in HR: Closing the Manufacturing Skills Gap*. (2013). Society for Human Resource Management Foundation. Retrieved from <http://www.shrm.org/about/foundation/products/documents/4-13%20skills%20gap%20briefing.pdf>

*Expanding Apprenticeship: A way to enhance skills and careers* (2010). The Urban Institute. Retrieved from <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/901384-Expanding-Apprenticeship-A-Way-to-Enhance-Skills-and-Careers.PDF>

Hatch, C.J. (2013). *Skills Gap or Training Gap? The role of manufacturing in solving the skills gap problem*. Michigan State University. Retrieved from [http://www.reicenter.org/upload/documents/colearning/hatch2013\\_report.pdf](http://www.reicenter.org/upload/documents/colearning/hatch2013_report.pdf)

Hemphill, T.A., Llilevik, W., & Perry, M.J. (2013). Confronting the U.S. Advanced Manufacturing Skills Gap. *The American*. American Enterprise Institute. Retrieved from <https://www.aei.org/publication/confronting-the-u-s-advanced-manufacturing-skills-gap/>

*How the cool kids attract and retain talent* (2015). YouEarnedIt. Retrieved from <http://youearnedit.com/blog/how-the-cool-kids-attract-and-retain-talent-in-2015/>

Jasinowki, J. (2014). Manufacturing and the skills crisis. *Huffington Post*. Retrieved from [http://huffingtonpost.com/jerry-jasinowski/skills-gap\\_b\\_5478427](http://huffingtonpost.com/jerry-jasinowski/skills-gap_b_5478427)

Kuchuris, P., & Zenk-Batsford, K. (2014). Tighten the gap: Three strategies for addressing the skills gap in manufacturing. *Industry Week*. Retrieved from <http://www.industryweek.com/print/gap-strategies>

*Overcoming the Manufacturing Skills Gap: A guide for building a workforce-ready talent pipeline in your community* (2014). National Association of Manufacturers. Retrieved from [http://www.nam.org/uploadedFiles/NAM/Site\\_Content/Issues/Workforce/Workforce\\_Task\\_Force\\_Toolkit/MFGWorkforce.pdf](http://www.nam.org/uploadedFiles/NAM/Site_Content/Issues/Workforce/Workforce_Task_Force_Toolkit/MFGWorkforce.pdf)

*The Shocking Truth about the Skills Gap*. (2014). Careerbuilder. Retrieved from <http://www.careerbuildercommunications.com/pdf/skills-gap-2014.pdf>

Wells, A. (2014). Why the manufacturing skills gap is serious. *IMPO's 2014 Jobs Report*. Retrieved from <http://manufacturing.net/print/blogs/2014/06/why-the-manufacturing-skills-gap-is-serious>

*Women in Manufacturing Study: Exploring the gender gap*. (2015). Deloitte, the Manufacturing Institute & APICS Supply Chain Council. Retrieved from [http://www.themanufacturinginstitute.org/~/\\_media/E2D87C9ED3854BD88A8ADB1B947F8A86.ashx](http://www.themanufacturinginstitute.org/~/_media/E2D87C9ED3854BD88A8ADB1B947F8A86.ashx)