How do you reshape today’s workforce and attract tomorrow’s talent?

2022 Aerospace and Defense Workforce Study

October 2022

The better the question. The better the answer. The better the world works.
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Workforce and talent concerns remain top of mind for aerospace and defense (A&D) companies as they look at an increasingly competitive marketplace for highly skilled employees, both today and into the future. With rising employee turnover compounding an industry-wide shortage of talent, many companies are considering, or beginning to implement, more comprehensive talent strategies to help their workforces meet increasing demand.

This initial progress underpinned the key findings of the 2022 Aerospace and Defense Workforce Study, conducted by the Aerospace Industries Association (AIA) and the American Institute of Aeronautics and Astronautics (AIAA) in collaboration with Ernst & Young LLP (EY US). Over 30 A&D companies responded, representing nearly 850,000 global employees.

The results of this year's survey were largely tracked with the results from the 2021 survey, with many companies reporting that they mobilized new procedures and workflows to maintain operations during the COVID-19 pandemic. Within the last 12 to 18 months, many A&D companies began to introduce flexible work schedules, continued to make investments in diversity and inclusion programs, and explored opportunities to enhance their employee value propositions.

While most companies responding to the survey indicated that they have largely begun to adapt to a post-pandemic world, they also noted that the pandemic’s lingering effects have continued to impact operations, from development and supply chain disruptions to delivery and quality issues as a result of ongoing challenges with hiring and retention. In addition, despite steps taken to address workforce and employee concerns, a significant percentage of respondents (41%) said that they believed that their employee engagement worsened over the past 12 months.

In many ways, COVID-19 accelerated the talent shortage, or the Great Resignation, that is now challenging companies across a wide range of industries. The U.S. Bureau of Labor Statistics reported that some 47 million Americans either quit or changed jobs in 2021.¹ This trend continues as employees leave for a broad range of reasons, from higher pay to better opportunities for career advancement. This exodus of talent hasn’t spared A&D companies. In the 2022 survey, 69% of respondents reported that turnover increased in the last 12 months. Moreover, A&D companies are competing not only with each other, but also with multiple industries as they seek to recruit employees with strong technical skills to their workforce. This talent shortage may be coming at an inopportune time for A&D companies. Many organizations are ramping up production to meet increasing demand caused by the rebound of air travel from the pandemic, the need for advanced defense capabilities due to rising geopolitical tensions, and a renewed vision and prioritization of space travel and deep space exploration.

As they seek to address this looming talent shortage, many A&D companies are also investigating opportunities to distinguish themselves in terms of employee recognition, career development, improved compensation and flexible work arrangements.

Strengthening the employee value proposition is a priority

A&D companies are exploring four primary areas as they position their workforces for the future. As noted last year, many companies are seeking to enhance their employee value proposition (EVP) – the unique set of characteristics, features and benefits that a company offers to its workforce. In this year’s survey, many companies also said that they are attempting to develop more inclusive EVPs for their current workforces and new hires by adding programs around mental wellbeing, leadership and technical degree/apprenticeship opportunities. To further attract new talent, companies are also investigating opportunities to position their workforces for the future. As noted last year, these efforts are impacting diversity and supplier diversity demographics, among other measurements.

To augment this effort and the needed development of A&D talent pipelines, many are partnering with universities to offer discounted-tuition courses, emphasizing programs that cover science, technology, engineering and mathematics (STEM). At the same time, organizations are also experimenting with knowledge transfer programs from the older to the newer generations of their workforces, including, but not limited to, mentorship programs, job shadowing and development planning.

Diversity, equity and inclusion continues to be a key industry issue

As in last year’s survey, employers said that their companies were continuing to make diversity, equity and inclusion (DEI) a workforce and business imperative, taking strides to improve their diversity and inclusion programs. To that end, many respondents reported that they launched a detailed DEI strategy, which has included creating executive advisory boards or advocate councils to support these initiatives within business areas and key functions. A&D companies also released benchmarking reports, with a comprehensive set of quantitative metrics that look at how DEI efforts are impacting gender and supplier diversity demographics, among other measurements.

This white paper further elaborates on the survey results and discusses what A&D organizations are doing to improve their employee value propositions and address workforce challenges going forward.

¹ Liu, Jennifer, “Roughly 47 million people quit their jobs last year: ‘All of this is uncharted territory,’” CNBC, February 1, 2022, https://www.cnbc.com/2022/02/01/roughly-47-million-people-quit-their-job-last-year.html.
2022 Aerospace and Defense Workforce Study

The survey respondents represent a total global headcount of about 850,000 employees, with over 250,000 US employees with security clearances and about 105,000 veterans in the US across all of the organizations that participated.

Employee demographics

<table>
<thead>
<tr>
<th></th>
<th>2022</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
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<td>25.64%</td>
<td>24.79%</td>
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<tr>
<td>Hispanic</td>
<td>8.95%</td>
<td>8.68%</td>
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<tr>
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<td>10.03%</td>
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<tr>
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<tr>
<td>American Indian or Alaskan Native</td>
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<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
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<td>0.41%</td>
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</table>

Executive demographics

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<tr>
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<th>2022</th>
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</thead>
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<td>3.66%</td>
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<td>5.69%</td>
<td>5.29%</td>
</tr>
<tr>
<td>Asian</td>
<td>6.39%</td>
<td>6.62%</td>
</tr>
<tr>
<td>2 or More Races</td>
<td>1.48%</td>
<td>1.02%</td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>0.42%</td>
<td>0.54%</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0.19%</td>
<td>0.11%</td>
</tr>
</tbody>
</table>

DEI

Organizations are increasingly focused on their DEI agenda, including improving their DEI metrics, investing in different initiatives and expanding their outreach.

<table>
<thead>
<tr>
<th></th>
<th>2022</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>65%</td>
<td>66%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>34%</td>
<td>50%</td>
</tr>
<tr>
<td>Black</td>
<td>34%</td>
<td>50%</td>
</tr>
<tr>
<td>Asian</td>
<td>84%</td>
<td>84%</td>
</tr>
</tbody>
</table>

Future of work

A&D organizations are providing greater flexibility in where, when and how employees work.

22% strongly agree
47% agree
84% of respondents provide remote working options to their employees
81% of respondents provide flexible working hours to their employees

The talent shortage

Organizations are exploring ways of providing a differentiated EVP offering in an attempt to improve talent attraction and retention amidst strong competition.

91% of respondents believe that their organization needs to review the competitiveness of their compensation programs in order to address employee turnover
69% of respondents believe that their organization’s turnover has significantly increased within the last 12 months

Employee and talent outlook

As the A&D industry evolves, reskilling will be central to positioning the workforce to accommodate this evolution.

The top five areas of investment that companies are currently prioritizing in reskilling are:

1. Leadership 66%
2. Cybersecurity 44%
3. Engineering skills 44%
4. Data science/analytics 28%
5. Digital skill sets 22%
Survey methodology

The survey was administered to a targeted population of AIA and AIAA corporate members using a Qualtrics platform. Only fully completed responses were included in the results. The survey was initiated on June 15, 2022, and closed on July 15, 2022, covering organizations with a significant US-based workforce.

The survey received a high response rate from a diverse group of companies. Respondents represent a total global headcount of nearly 850,000 employees, including over 250,000 with security clearances and more than 100,000 veterans across all of the organizations that participated.

Survey details

The survey results highlight the importance of the talent issue within the A&D sector, and better enable business leaders and policymakers to make informed decisions about programs and policies that strengthen recruiting, retention, development and overall A&D workforce efforts. The goals of the survey included identification of:

- Corporate employee demographic data to understand the impact of DEI efforts
- Strategies that the A&D community can implement to develop a compelling EVP
- The continued investment in digital transformation and the required reskilling of the workforce to prepare employees for the future of the industry
- Engagement efforts between the A&D community and STEM education and apprenticeship programs to promote the industry’s diverse career paths

In the survey, 60 questions were asked, using a variety of formats, including multiple choice, free-form response, ranking and selecting all responses that apply to a given question.

Survey participants

<table>
<thead>
<tr>
<th>The Acutronic Group</th>
<th>Ball Aerospace &amp; Technologies Corporation</th>
<th>Embraer S.A.</th>
<th>L3Harris Technologies, Inc.</th>
<th>Rolls-Royce North America, Inc.</th>
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</thead>
<tbody>
<tr>
<td>Aeroliant Manufacturing, Inc.</td>
<td>The Boeing Company</td>
<td>General Dynamics Corporation</td>
<td>Machine Specialties, Inc.</td>
<td>Sierra Space Corporation</td>
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<tr>
<td>American Pacific Corporation</td>
<td>CPI Aerostructures, Inc.</td>
<td>Huntington Ingalls Industries, Inc.</td>
<td>Northrop Grumman Corporation</td>
<td></td>
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<tr>
<td>Applied Composites</td>
<td>Eaton Aerospace LLC</td>
<td>Intelligent Light</td>
<td>Perryman Company Partnership</td>
<td></td>
</tr>
<tr>
<td>BAE Systems, Inc.</td>
<td>Elbit Systems of America, LLC</td>
<td>Jet Propulsion Laboratory</td>
<td>Raytheon Technologies Corporation</td>
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</tbody>
</table>
Demographics and DEI continue to be key issues as the industry evolves

Building on last year’s survey data, the 2022 A&D Workforce Study examined demographic data and strategies across various subsectors and organizational sizes, including racial/ethnic diversity, gender diversity, LGBTQ+ representation and workforce age distribution.

While the percentage of women in the industry continues to lag other US industries, there was incremental improvement, with women now accounting for 25.6% of the A&D workforce, as compared with 24.8% last year. The survey also tracked the racial and ethnic composition of the US A&D industry. Black representation across the workforce as a whole increased slightly to 10.0% from 9.8%, while Hispanic representation also grew slightly, to 9.0% from 8.7% last year. Black and Hispanic representation in the executive workforce also improved, to 5.7% and 4.8% from 5.3% and 3.7%, respectively, in 2021. While incremental year-over-year improvements have been made, these numbers highlight the reality that the US A&D industry is less diverse than the overall US labor force.

Respondents also indicated that DEI was at the forefront of organizational and talent strategies in 2021. Many companies introduced DEI initiatives and created executive advisory boards or advocate councils to support DEI efforts within their business areas and key functions. In this year’s survey, 66% of companies said that they include DEI within their company’s mission/vision/values statement, and 84% agreed with the statement that their company demonstrated a commitment to celebrating and embracing different backgrounds, ideas and beliefs.

Overall demographics 2022 2021 2020 2019 2018 2017

<table>
<thead>
<tr>
<th></th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of workforce women</td>
<td>25.6</td>
<td>24.8</td>
<td>24.3</td>
<td>23.8</td>
<td>24.0</td>
<td>24.0</td>
</tr>
<tr>
<td>% of workforce Black</td>
<td>10.1</td>
<td>9.8</td>
<td>5.9</td>
<td>5.8</td>
<td>6.8</td>
<td>5.0</td>
</tr>
<tr>
<td>% of workforce Hispanic</td>
<td>9.0</td>
<td>8.7</td>
<td>7.6</td>
<td>6.8</td>
<td>7.6</td>
<td>6.0</td>
</tr>
<tr>
<td>% of workforce Asian</td>
<td>9.0</td>
<td>8.8</td>
<td>11.1</td>
<td>9.0</td>
<td>10.0</td>
<td>7.6</td>
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<tr>
<td>% of workforce on executive payroll</td>
<td>0.7</td>
<td>1.2</td>
<td>1.4</td>
<td>1.7</td>
<td>1.3</td>
<td>1.3</td>
</tr>
<tr>
<td>% of executive women</td>
<td>25.6</td>
<td>24.8</td>
<td>24.3</td>
<td>23.8</td>
<td>24.0</td>
<td>24.0</td>
</tr>
<tr>
<td>% of executive Black</td>
<td>10.1</td>
<td>9.8</td>
<td>5.9</td>
<td>5.8</td>
<td>6.8</td>
<td>5.0</td>
</tr>
<tr>
<td>% of executive Hispanic</td>
<td>9.0</td>
<td>8.7</td>
<td>7.6</td>
<td>6.8</td>
<td>7.6</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Demographic data for “non-binary” and “reporting other gender identification” gender classifications were captured within the 2022 survey results; however, representation was less than 1% for each category.

In addition to prioritizing DEI, organizations are starting to report a wide range of metrics regarding these issues. The 2022 survey showed that most companies (70%) are establishing employee resource groups, which are typically responsible for the oversight of DEI efforts and the review of metrics, such as gender, race/ethnicity and supply chain diversity. Overall, 63% of surveyed companies said that they reported DEI metrics quarterly, while 19% reported annually.

As respondents’ organizational and talent strategies were examined, the employee experience continued to be a primary focus. For example, 65% of respondents conduct pay gap reporting, 55% have launched customized DEI learning programs, and 52% implement data-driven DEI strategies measured in real time.

In what ways does your company focus on DEI in recruitment and retention efforts?

- Anti-harassment training: 84%
- Employee resource groups: 75%
- Cultural months (Black History Month, Pride Month, etc.): 69%
- Attending career fairs of minority groups: 66%
- Company-wide responses to significant current events affecting certain groups: 66%
- Unconscious bias training: 63%
- Acknowledgment of holidays of all cultures: 59%
- Initiatives addressing corporate climate: 55%
- Other: 9%

Survey respondents were given the opportunity to check all that apply in each section.
To continue efforts for attracting and retaining diverse talent, A&D companies will need to remain focused on recruiting and other efforts aimed at talent. The survey shed light on strategies that companies are leveraging to continue these efforts, including 70% of respondents that sponsored employee resource groups; 69% that celebrated cultural months, such as Black History Month and Pride Month; and 66% of respondents that attended career fairs hosted intentionally for underrepresented populations.

To compete more effectively with other sectors for diverse talent, A&D companies need to show that they prioritize inclusiveness and a healthy work environment that allows diverse talent groups to thrive. To that end, companies need to take tangible steps to show that they have a diverse, equitable and inclusive workplace. These actions can be augmented by delivering training programs that focus on inclusive teaming to demonstrate how leaders should support diverse talent and encourage diversity of thought.

A look at the demographic data also reveals limited movement in the distribution of employees across tenure durations, with just a slight increase of 2% in workers recording one year or less of tenure. In terms of workforce age composition, survey results showed that employees aged 55 and older represent over a quarter (28%) of the overall workforce (a 2% increase from last year). Survey results also revealed that 42% of the overall workforce has less than five years of tenure at their current company, which is also a 2% increase from last year. Coupled with the accelerated wave of retirements, this confirms the need for A&D organizations to aggressively address knowledge transfer and succession planning in order to meet demand increases.

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**Does your company collect data on the number of LGBTQ+ employees?**

- 50% of organizations currently collect data on the LGBTQ+ representation or plan to in the future.

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**In order to increase ethnic minority representation in your talent pool, have you begun recruiting from different universities (i.e., HBCUs)?**

- 69% Yes
- 31% No

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**How strongly do you agree or disagree that your company demonstrates a commitment to celebrating and embracing different backgrounds, ideals and beliefs?**

- Strongly agree: 50%
- Agree: 34%
- Neither agree nor disagree: 16%
A&D companies continue to grapple with a talent shortage, especially for workers with engineering skills and those with strong digital capabilities (e.g., data, analytics, automation). After two years of travel restrictions that severely impeded the commercial aviation industry, many maintenance, repair and overhaul (MRO) suppliers and airlines are scrambling to manage their talent demands. The historic slump in air travel demand due to the COVID-19 pandemic cost more than 100,000 jobs.² After the recent rebound there has been a rush to hire in a tight labor market amid rising supply chain and operating costs.³

In this environment, retention continues to be a major issue. Most of the respondents (69%) in this year’s survey agreed with the statement that their organization’s turnover had significantly increased over the last 12 months. This happened even though many companies made a concerted effort to address the looming talent shortage over the past year, offering more differentiated benefits and additional career progression opportunities. Not only has retention been a key challenge, but inflation has also driven the desire for wage increases to maintain standards of living. Several respondents said that they are increasing short-term incentive programs as a result.

Over the last 12 months, our organization’s employee turnover has significantly increased

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What alternative work arrangements has your company put in place for employees?

Remote/flexible work
To further address concerns that emerged during the COVID-19 pandemic, companies have begun to implement a wide range of alternative work arrangements, such as remote working options (84%) and hybrid work options with specific requirements for in-person days (72%). Knowing that much of the workforce must work on-site, organizations continued to offer flexible hours (81%), a slight drop from 85% last year. The topic of flexible work arrangements has presented, and will continue to present, a unique challenge for A&D companies because they require many of these skilled workers to work on-site. Year over year, there was a marked increase in in-person activities and a corresponding decrease in remote activities across employee engagement strategies. This is due to a combination of factors, namely better safety protocols, including vaccinations, that elevated confidence for spending more time in person, as well as a desire by both employers and employees for more personal interaction.

What percentage of your total workforce is aligned to the following working modalities?

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While 65% of respondents believe that they successfully operationalized more flexible work arrangements, many respondents acknowledged that there are still ongoing questions about these arrangements going forward. Offering worker flexibility has further created new questions about organizations’ real estate footprint and specifically how large that footprint should be going forward. To that end, some organizations are bringing together their human resources, real estate and other relevant functions to evaluate the path forward and answer foundational questions with regard to leases, geographic footprint, cost allowability/allocability and return-to-office policies. According to a recent EY survey, 78% of employers are planning moderate to extensive changes to their real estate strategy.

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Attrition

Overall turnover rose to 7.1% in 2022, up from 5.8% in 2021. Companies cited a number of reasons for higher attrition rates - chief among them employees seeking opportunity for higher pay, which 78% of employers cited as a factor, and employees seeking better job/career advancement, which 75% of employers selected. These were significantly higher than other responses, with more flexibility in choosing work locations (31%) as the third-highest factor. Employers also mentioned that employees left their jobs to pursue remote working opportunities, a better work environment and comprehensive programs that helped them address issues related to their financial, physical, emotional and social wellbeing.

What are the primary drivers employees have referenced when leaving your company?

- Opportunity for increased total pay (base/bonus) - 78%
- Better job/career advancement - 75%
- Enhanced flexibility in work location/opportunity for more remote work - 31%
- Location of the worksite/workplace/strong work environment - 28%
- Other - 9%
- Better overall wellbeing programs (financial/physical/emotional/social) - 6%
- Increased learning and development opportunities - 6%

EVP

Understanding why employees are leaving is just the first step toward addressing attrition. Within the ongoing battle for talent, a majority of A&D companies reported the critical need to enhance their EVPs. For example, 59% of respondents said that deploying a compelling EVP to become an employer of choice represented an essential step forward in creating a sustainable future of work for their organization.

In addition, respondents provided insight into the desired retention strategies that they would like to see implemented to further their efforts to mitigate attrition. According to the survey, 91% of respondents believe that a full review of their compensation programs and then comparing them with peer companies to assess any significant gaps would be a critical step for addressing employee turnover.

Furthermore, 69% of respondents believed that providing increased rotational and career development opportunities and increasing the ability of leadership to listen to and recognize employee needs would drive positive change amid the ongoing wave of attrition.

Which of the following employee engagement strategies have you seen a demonstrated impact from?

- Regular, fully virtual team sessions - 53%
- More frequent group sessions in person once/twice a year - 50%
- Regular communication that acknowledges different work models - 47%
- More frequent 1:1 sessions with advisors and peers - 47%
- Supporting available line managers to increase their understanding of how to manage fully remote workers - 44%
- More frequent 1:1 sessions with advisors and peers - in person - 41%
- More frequent group sessions with advisors and peers - in person - 38%
- Creating specific career pathways for fully remote workers - 34%
- Other - 9%

Which of the following has your organization implemented to attract and retain talent?

- Hiring employees from a broader geographic footprint without requiring relocation - 66%
- Having a policy to allow employees to relocate to a new location not within commuting distance - 34%
- Flexibility in compensation ranges based on remote work location - 31%
- Having a policy to allow employees to work from any location on a temporary basis - 25%
- Other - 34%
The effort to enhance engagement is part of a multistakeholder approach to address the relatively broad age distribution (from 25 years old and under through 55 years and older) that many A&D organizations have within their workforce. Some organizations have begun to develop a comprehensive strategy that encompasses career progression and direct manager support for younger generations. For older members of the workforce, A&D companies have begun to provide more robust part-time and flexible work programs. Companies also noted that they are starting to take steps to engage professionals who are starting their careers by accelerating career paths for top performers (63%), developing communities of interest (63%) and dedicating mentorship programs (56%) to help them learn from senior employees.

**How is your company engaging and supporting early-career talent (<5 years of experience)?**

<table>
<thead>
<tr>
<th>How your company is engaging and supporting early-career talent (&lt;5 years of experience)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerated career paths for top performers</td>
<td>63%</td>
</tr>
<tr>
<td>Communities of interest (groups who meet to talk about topics of mutual interest)</td>
<td>63%</td>
</tr>
<tr>
<td>Community outreach programs</td>
<td>59%</td>
</tr>
<tr>
<td>Nontraditional progressions (lateral moves, creation of new roles, etc.)</td>
<td>59%</td>
</tr>
<tr>
<td>Dedicated mentorship programs with senior colleagues</td>
<td>56%</td>
</tr>
<tr>
<td>Professional networks for various underrepresented groups</td>
<td>56%</td>
</tr>
<tr>
<td>Unique learning opportunities</td>
<td>50%</td>
</tr>
<tr>
<td>Reverse mentoring programs (where junior employees mentor more senior employees)</td>
<td>22%</td>
</tr>
<tr>
<td>Other</td>
<td>19%</td>
</tr>
</tbody>
</table>
Digitalization and broader transformation efforts require reskilling across the industry

While the talent shortage generates headlines today, the skills shortage is where A&D companies most often feel the pain on the ground and in digitization efforts. To that end, A&D companies continue to invest in their digital infrastructures to better meet the product and service needs of their customers and to ensure data and information security. As referenced above, according to this year’s survey, A&D companies are increasing their investment in technologies, such as cybersecurity, automation and data analytics, as they accelerate this transformation through upgraded systems and processes.

Which of the following have you offered your remote workforce to increase engagement?

<table>
<thead>
<tr>
<th>Engagement strategies for remote workers:</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software to support collaboration</td>
<td>78%</td>
</tr>
<tr>
<td>Online learning solutions</td>
<td>72%</td>
</tr>
<tr>
<td>Wellbeing initiatives to access from any location</td>
<td>69%</td>
</tr>
<tr>
<td>Help desk to support home workplace</td>
<td>68%</td>
</tr>
<tr>
<td>Additional hardware items</td>
<td>56%</td>
</tr>
<tr>
<td>Training to enhance skills in online facilitation</td>
<td>53%</td>
</tr>
<tr>
<td>Social platforms to stay connected</td>
<td>44%</td>
</tr>
<tr>
<td>Reimbursement for internet/phone expenses</td>
<td>19%</td>
</tr>
<tr>
<td>Stipend to cover at-home workplace setup</td>
<td>13%</td>
</tr>
<tr>
<td>None of the above</td>
<td>9%</td>
</tr>
</tbody>
</table>

In this year’s study, three of the top five areas for reskilling investment were directly related to digital needs, including cybersecurity, data science and digital skill sets. To unlock the full potential of this digital transformation, organizations are taking initial steps to help their workforce adapt to new technologies, creating individualized learning pathways (or learning experiences directly tied to the specific capability gaps of an individual employee) that will close critical skills gaps and support employees through the transformation process.

Additionally, many organizations said that they were helping workers develop leadership skills, with 66% of respondents saying that they made significant investments in this area, up 11% from 2021. This represents a major shift from the 2021 survey, when employers ranked engineering skills as their top priority; this year, engineering was ranked as a top priority by 45% of respondents. An additional 44% consider cybersecurity to be one of the top three areas for investment.

When evaluating the effect of remote working modalities on the employee experience, companies have started to devote resources to improve employee engagement for remote workers. Improving collaboration plays a critical role in the digitalization effort, with 78% of companies saying that they were providing more software to support collaboration. In addition, 72% said that they were improving online learning solutions, while 69% said that they were providing wellbeing initiatives to support access from any location.

Which of the following elements of workforce technology would you like to see your organization enhance moving forward?

<table>
<thead>
<tr>
<th>Desired improvements of workforce technology:</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expanded use of Microsoft Office 365/Teams/Other tools for work or collaboration</td>
<td>78%</td>
</tr>
<tr>
<td>Enhanced approach to workforce analytics and integrated dashboards</td>
<td>75%</td>
</tr>
<tr>
<td>Addressing increasing cybersecurity risks</td>
<td>72%</td>
</tr>
<tr>
<td>Developing new solutions for workforce demand planning</td>
<td>69%</td>
</tr>
<tr>
<td>Using technology for employee health and safety</td>
<td>69%</td>
</tr>
<tr>
<td>Moving to a greater focus on cloud-based technology</td>
<td>44%</td>
</tr>
<tr>
<td>Updating technology support model</td>
<td>34%</td>
</tr>
</tbody>
</table>
Looking ahead to additional opportunities for optimization, 78% of the companies said that they would like to see their organizations expand the use of digital collaboration tools to facilitate virtual meetings and file sharing, while 75% said that their organizations should focus on enhancing their approaches to workforce analytics and 72% said that cybersecurity was an area of opportunity. As they assessed remote learning possibilities, some companies highlighted learning gamification as a desired area of investment, along with promoting concepts such as microlearning and creating greater access to learning with mobile capabilities.

As A&D organizations reskill employees, they also need to take steps to proactively define desired skill sets by role, assess talent capabilities and align individuals to individualized learning journeys. Leading organizations are using AI to understand the skills market to quantify where they are either leading, on par with or lagging behind the competition at a skill level. There also continues to be a need for mentoring and knowledge transfer across the industry to develop key skills for future generations. By enabling managers to facilitate a culture of learning, organizations are attempting to promote knowledge transfer that is at risk of being lost when tenured employees age out.

What are your company’s top three areas of investment into reskilling?

Top areas of reskilling investment:

- Leadership: 66%
- Cybersecurity: 44%
- Engineering skills: 44%
- Data science/analytics: 28%
- Digital skill sets: 22%
- Program management: 22%
- Adaptive skill sets (critical thinking, agility): 19%
- Manufacturing skills: 19%
- Artificial intelligence: 6%
- Computer skills: 6%
- Business acumen: 3%
- Response to new automation tools: 3%
- Sustainability: 3%
The current talent shortage and skills gaps underscore the importance of focusing on the workforce of tomorrow

To build a workforce for the future, A&D companies are also seeking to expand their collaboration with a wide range of educational institutions, from high schools to two- and four-year colleges. Many are investing in youth and next-generation education programs targeted at STEM disciplines through tuition reimbursement and scholarship programs. Other companies expressed interest in reaching out to trade schools and other secondary schools. For example, the survey found a 15% year-over-year increase in companies attending high school career fairs, as well as a 4% increase in respondents participating in university career fairs and internships. In addition, 56% of respondents said that they were involved in career fairs at trade schools.

How does your company get involved with schools?

Engagement with schools/apprenticeship programs, etc.:
- Career fairs at universities: 88% at present, 88% in next 4-5 years
- Internships: 72%
- Sponsorship of events (e.g., STEM fairs, case competitions): 56%
- Career fairs at trade schools: 53%
- Summer programs: 44%
- Career fairs at high schools: 41%
- On-site company visits for high schoolers: 31%
- High school visitations: 22%
- Other: 9%

As they bring new employees on board, companies are also recognizing a need to pay greater attention to career development and leadership programs. As organizations look to understand tomorrow’s desired competencies, they are also taking steps to determine how to better engage and prepare the next generation by trying to offer more hands-on experience. Many companies said that, while engineers learn deep technical knowledge in school, they lack sufficient knowledge in the actual workflow of a design process to fix problems.

As they strive to develop competencies, companies ranked the following three competencies as key for developing a workforce for the future: engineering skills (78%), data science and analytics (47%), and leadership (47%). This mix may change over the next four to five years, however, with 63% of organizations expecting data science and analytics to be a key competency, up from 41% in last year’s survey. In addition, 56% said that they expect leadership skills to grow in importance over the next four to five years, up from 6% last year.

Like many industries, the A&D sector is amid a generational transition. Recognizing this, many are establishing reverse mentorship programs to pair senior leaders with newer entrants into the workforce. Given that both millennials and Gen Zs grew up in the digital age, they have mature perspectives on many key areas, such as digitization, experience and technology.
In last year’s survey, many A&D companies focused on developing a more compelling EVP as they sought to attract and retain talent amid the challenges of the COVID-19 pandemic. While this focus remained top of mind in 2022, this year, many recognized that they need to continue preparing employees for the future of the industry. This entails moving forward with human-focused strategies to drive sustainable success as part of a broader workforce transformation effort. Here are several high-level recommendations that companies can consider to compete for talented workers as they complete their transformations for a digital future.

The talent shortage starts at the local level

Many organizations find that competition for talent starts in local markets, rather than with competitors in other regions. In fact, several employers are seeing people leave their organizations to join nontraditional competitors. To better understand local talent, market-leading companies are using market data, data analytics and internet data scraping to answer the following questions:

- Where does my workforce come from and go to?
- What am I offering with regard to compensation, total rewards and flexibility, compared with my competitors?
- How do my local attrition and talent attraction success rates compare with my competitors?

Marketing your EVP is just as important as having a compelling EVP

The 2022 A&D Workforce Study – and this white paper – sought to uncover how organizations are improving their overall EVP. Leading entities are now focusing on how to more effectively improve their go-to-market strategy for highlighting the benefits of working at their organization and how to create an exciting, engaging candidate experience. This also applies to retention efforts where companies are articulating the benefits of working at their organization.

Which of the following are critical to a sustainable future of work for your organization?

- Developing a workforce strategy and plan to ensure necessary talent and skills to match future business needs
- Developing and implementing a compelling EVP to make us an employer of choice
- Investing in upskilling our workforce for evolving work and technology requirements
- Reviewing how work gets done from a people/process/technology perspective
- Aligning our operating model and organization structure to remove friction from new ways of working
- Looking at alternative staffing models (fulltime/part-time/contract/outsource/gig)

Conclusion: future of work and talent shortage

- Where does my workforce come from and go to?
- What am I offering with regard to compensation, total rewards and flexibility, compared with my competitors?
- How do my local attrition and talent attraction success rates compare with my competitors?
One best-in-class example: sending welcome packages to new hires.

Use analytics to maximize ROI on your workforce investments

While compensation remains a main factor driving employee attraction and retention as identified in the EY 2022 Work Reimagined Survey, total rewards are a significant differentiator to attract and retain talent. The EY survey highlighted that organizations are taking targeted actions in this space, focusing on 401(k) plans, wellness programs and newer types of rewards, such as tutoring assistance, pet care and fitness. In looking across the market, many leaders are increasingly using analytics to assess employee total rewards preferences, often segmented by age demographics. Many conduct a conjoint analysis by asking respondents a series of questions to rank their preferences between options. This approach helps employers gain insights into what employees value and make comparisons against the areas receiving higher investment, which, in turn, helps expand ROI on total rewards investment.

Forecasting attrition can reduce regrettable attrition

Leading organizations have begun to build algorithms to predict turnover and, more importantly, the loss of high performers, also called “regrettable turnover.” Analytics teams are maturing these algorithms across a variety of variables, such as worker tenure, location, satisfaction, compensation competitiveness and skills, to home in on more accurate insights. As these models mature, they can also deliver greater insights across key segmentation factors, such as person, job/role and location. While developing this type of capability can take a few cycles to refine, it can be a powerful, proactive tool for reducing the risk and impact of attrition.

Successful transformation requires an intentional focus on people

Transformation is a consistent theme from this year’s study and is only going to remain so. To meet demand, companies have to focus on their people, as engagement plays a critical role in any transformation. Through a recent EY study, results showed that transformations are 2.5 times more likely to be successful when people are at the center of the transformation. EY analysis identified the following key people areas of focus to drive transformation:

- Adaptive skills – 137% increase in transformation success when investing in adaptive skills
- Engaging in networks – 145% increase in transformation success when collaboration across groups is established and promoted
- Focus on behaviors – 135% increase in transformation success when new ways of working are set and actively developed

For more detailed analysis on EY research, see How transformations with humans at the center can double your success.

Culture starts with leaders but is realized through influencers

Culture is increasingly a key factor in determining workforce engagement and retention. Recent research shows that companies are increasingly focused on improving culture. Leading organizations look to their leaders at the top of the organization to define culture; these companies also identify influencers who can promote desired culture. Influencers are key because they not only change culture, but they also break down organizational silos through their personal networks to accelerate change across an organization.
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