UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☑ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2021

OR

☐ TRANSITION PERIOD PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE TRANSITION PERIOD FROM TO
Commission File Number: 001-33584

DHI Group, Inc.
(Exact name of Registrant as specified in its Charter)

Delaware **(State or other jurisdiction of incorporation or organization)**	**20-3179218** **(I.R.S. Employer Identification No.)**
6465 South Greenwood Plaza, Suite 400 **Centennial, Colorado** **(Address of principal executive offices)**	**80111** **(Zip Code)**

(212) 448-6605
(Registrant's telephone number, including area code)
Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	DHX	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☑

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "non-accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ **Accelerated filer** ☑ **Non-accelerated filer** ☐ **Smaller Reporting Company** ☑

Emerging Growth Company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b) by the registered public accounting firm that prepared or issued its audit report. ☑

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

The aggregate market value of common stock held by non-affiliates of the registrant was approximately $158,000,000 as of June 30, 2021, the last business day of the registrant's second fiscal quarter of 2021.

As of February 4, 2022, there were 49,914,534 shares of the registrant's common stock, par value $.01 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Part III incorporates information from certain portions of the registrant's definitive proxy statement to be filed with the Securities and Exchange Commission within 120 days after the fiscal year end of December 31, 2021.

DHI GROUP, INC.
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NOTE CONCERNING FORWARD-LOOKING STATEMENTS

Information contained herein contains forward-looking statements. You should not place undue reliance on those statements because they are subject to numerous uncertainties and factors relating to our operations and business environment, all of which are difficult to predict and many of which are beyond our control. Forward-looking statements include information concerning our possible or assumed future results of operations, and descriptions of our business strategy. These statements often include words such as “may,” “will,” “should,” “believe,” “expect,” “anticipate,” “intend,” “plan,” “estimate” or similar expressions. These statements are based on assumptions that we have made in light of our experience in the industry as well as our perceptions of historical trends, current conditions, expected future developments and other factors we believe are appropriate under the circumstances. Although we believe that these forward-looking statements are based on reasonable assumptions, you should be aware that many factors could affect our actual financial results or results of operations and could cause actual results to differ materially from those in the forward-looking statements. These factors include, but are not limited to:

- our ability to execute our tech-focused strategy;
- write-offs of goodwill, tradename and intangible assets;
- competition from existing and future competitors;
- changes in the recruiting and career services business and technologies, and the development of new products and services;
- failure to develop and maintain our reputation and brand recognition;
- failure to increase or maintain the number of customers who purchase recruitment packages;
- failure to attract qualified professionals or grow the number of qualified professionals who use our websites;
- results of operations fluctuating on a quarterly and annual basis;
- inability to successfully integrate future acquisitions or identify and consummate future acquisitions;
- misappropriation or misuse of our intellectual property, claims against us for intellectual property infringement or the failure to enforce our ownership or use of intellectual property;
- disruption resulting from unsolicited offers to purchase the company;
- failure of our businesses to attract, retain and engage users;
- unfavorable decisions in proceedings related to future tax assessments;
- taxation risks in various jurisdictions for past or future sales;
- significant downturn not immediately reflected in our operating results;
- our indebtedness;
- covenants in our Credit Agreement (as defined below);
- inability to borrow funds under our Credit Agreement or refinance our debt;
- compliance with the continued listing standards of the New York Stock Exchange (the “NYSE”);
- volatility in our stock price;
- failure to maintain internal controls over financial reporting;
- failure to timely and efficiently scale and adapt our existing technology and network infrastructure;
- capacity constraints, systems failures or breaches of network security;
- failure to realize the full potential of our network;
- decrease in user engagement;
- Internet search engine methodologies and their impact on our search result rankings;
- failure to halt the operations of websites that aggregate our data, as well as data from other companies;
- our reliance on third-party data hosting facilities;
- compliance with laws and regulations concerning collection, storage and use of professionals’ professional and personal information;
- a review of strategic alternatives may occur from time to time and the possibility that such review will not result in a transaction;
- loss of key executives and technical personnel and our ability to attract and retain key executives, including our CEO;
- increases in the unemployment rate, cyclicality or downturns in the United States or worldwide economies or the industries we serve, labor shortages, or job shortages;
- decreases or delays in business-to-business technology advertising spending could harm our ability to generate advertising revenue;
- compliance with changing corporate governance requirements and costs incurred in connection with being a public company;
- changes in foreign currency exchange rates; and
- the impact of the novel coronavirus disease ("COVID-19") or other public health issues could have on our business and financial condition and the economy in general.

NON-GAAP FINANCIAL MEASURES

Information contained herein contains certain non-GAAP financial measures. These measures are not in accordance with, or an alternative for, generally accepted accounting principles in the United States ("GAAP"). Such measures presented herein include Adjusted earnings before interest, taxes, depreciation, amortization, non-cash stock based compensation expense, impairment, gain or loss on sale of business, income or loss on discontinued operations, and other income or expense ("Adjusted EBITDA"), and Adjusted EBITDA Margin. See Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" for definitions of these measures as well as reconciliations to the comparable GAAP measure.

PART I

Item 1. Business

Information Availability
Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, proxy and information statements and other material information concerning us are available free of charge on the Investors page of our website at www.dhigroupinc.com. Our reports filed with the SEC are also available by visiting http://www.sec.gov.

Introduction and Summary
This section provides an overview of DHI Group, Inc. ("DHI" or the "Company"). Please see our consolidated financial statements included elsewhere in this report for additional discussion regarding our results of operations for the year ended December 31, 2021.

(in thousands)		FY 2021		FY 2020	Change
Revenues	**$**	**119,903**	**$**	**111,167**	**8 %**
Operating loss	**$**	**(1,752)**	**$**	**(32,390)**	**(95) %**
Loss before income taxes	**$**	**(1,031)**	**$**	**(35,223)**	**(97) %**
Loss from continuing operations[1]	**$**	**(402)**	**$**	**(32,397)**	**(99) %**
Net loss	**$**	**(29,742)**	**$**	**(30,015)**	**(1) %**
Diluted loss per share - continuing operations[2]	**$**	**(0.01)**	**$**	**(0.67)**	**(99) %**
Diluted loss per share	**$**	**(0.64)**	**$**	**(0.62)**	**3 %**
Net cash flows from operating activities	**$**	**28,581**	**$**	**18,683**	**53 %**
Adjusted EBITDA [3]	$	26,162	$	22,634	16 %
Adjusted EBITDA Margin [3]		22 %		20 %	n.m.

(1) Loss from continuing operations for the year ended December 31, 2021 includes the negative impact of a right-of-use asset impairment, disposition, severance and related costs, and gain on investment, all net of tax, and discrete tax items of $1.2 million. Loss from continuing operations for the year ended December 31, 2020 includes the negative impact of impairments of investment, intangible assets and goodwill and disposition, severance and related costs, all net of tax, and discrete tax items of $36.5 million.

(2) Diluted loss per share from continuing operations for the year ended December 31, 2021 includes the negative impact of $1.2 million, net of tax, and $0.02 per share related to the items identified in number 1 above. Diluted loss per share from continuing operations for the year ended December 31, 2020 includes the negative impact of $36.5 million, net of tax, and $0.75 per share related to the items identified in number 1 above.

(3) For a description of these non-GAAP measures and reasons why management believes they provide useful information to investors, please see "Management's Discussion and Analysis of Financial Condition and Results of Operations, Liquidity and Capital Resources, and Non-GAAP Measures" located elsewhere in this report.

2021 Highlights

2021 marked the formal inflection point in the multi-year effort to return DHI to meaningful growth with revenue increasing for the first time since 2012. Having laid the foundation for the Company's turnaround through a renewed commitment to innovation and to building a high performing sales and marketing team, DHI's primary goals for 2021 were to further establish its brands as leaders in the marketplace and to deliver innovative services to help employers attract technology professionals in a challenging recruiting market and to help technologists advance their careers. DHI's investments in sales and marketing, supported by a dramatically improved Dice product, drove growth in bookings and revenue while ClearanceJobs continued delivery of features that enhanced its status as the leading career marketplace for cleared professionals. The company increased its investments in both product development and sales and marketing, while maintaining its historically strong EBITDA margins. Additionally, as the pandemic continued, there was no breakdown in workforce productivity and employees became further engaged in the organization. Key results include:

Establish Dice and ClearanceJobs as the preferred career specialists

Dice Marketplace launched during the first quarter as a comprehensive and flexible platform through which recruiters and candidates can rapidly and confidently search, match and communicate in real-time. The three major components of the marketplace are recruiter profiles, an enhanced candidate profile that focuses deeply on exposing tech skills, and in-platform instant messaging. Dice also furthered its value to clients and commitment to an inclusive recruiting experience by launching Unbiased Sourcing mode for TalentSearch, mitigating unconscious bias and anonymizing candidate information associated with bias. A testament to Dice's differentiation from competitors, the TalentSearch skills matching algorithms are patent pending.

ClearanceJobs further cemented its position as a leader in the security cleared recruitment market, solving challenges for recruiter workflow by launching CJ Team Recruiting, enabling recruitment teams to combine candidate pipelines and tag candidates to signal action from other recruiters on the team; and CJ Meetings, which allows recruiters and candidates to synchronize their Google or Outlook calendars to efficiently schedule telephone calls, video calls, or in-platform chats. Additionally, ClearanceJobs launched CJ Video, giving recruiters and candidates the ability to deliver video messages, integrate videos into profiles and perform group broadcasts, all of which are streamed and hosted in-platform.

Best-in-class sales & marketing engine

The success of our new business sales teams manifested in growing our client base. Client counts for Dice and ClearanceJobs exceed prior years, growing 17% and 9% year-over-year respectively.

Dice exceeded its targets for delivering marketing qualified leads to its three new business teams, a significant contributor to increased booking results.

Dice marketing launched a brand awareness campaign for the first time in years, delivering over 190 million impressions and driving increased traffic to Dice.com.

In the fourth quarter, DHI's overall revenue growth was 25% year-over-year.

ClearanceJobs maintained over $1 million in annual recurring revenue from government contracts, a large whitespace opportunity for the brand.

Return to Growth

Clients continue to find value in DHI services, with revenue renewal rates at 87% for Dice and 96% for ClearanceJobs in 2021.

Bookings strengthened throughout the year across all sales units, growing to $133.4 million to end 2021, a 35% increase, indicating momentum for revenue growth heading into 2022.

The Company maintained a strong EBITDA margin of 22% while continuing to make strategic investments to maximize growth opportunities.

Company Profile

DHI was incorporated in Delaware on June 28, 2005 and is a leading provider of artificial intelligence-powered software products, online tools and services to deliver career marketplaces to candidates and employers globally. DHI's brands — Dice and ClearanceJobs (the Company transferred majority ownership of the eFinancialCareers ("eFC") brand and business to eFC management on June 30, 2021) — enable recruiters and hiring managers to efficiently search, match and connect with highly skilled technologists in specialized fields, particularly technology and those with active government security clearances. Our mission is to empower technology professionals and organizations that hire them to compete and win through expert insights and relevant employment connections by delivering three key value propositions:

- Providing the best search and match solution for recruiters and employers through software services;
- Delivering the most relevant and personalized technology career related content; and
- Aggregating and analyzing workforce intelligence data to deliver specialized insights.

The majority of our revenues today are generated through the sale of recruitment packages, which allow customers to promote jobs on our websites and source candidates through our resume databases. Recruitment packages are typically provided through contractual arrangements with annual, quarterly or monthly payment terms.

Our Products and Services

We help organizations find the best talent, and we help technology and security cleared professionals find the best jobs to advance their careers. Through our software solutions, our vision is to create indispensable career marketplaces that match the highest quality candidates with the right career opportunities. Our solutions are available individually or bundled in packages, including:

- ***Talent profiles.*** Each of our brands provides access to relevant candidate profiles, resumes, and social and web profiles creating a broader pool of talent for our clients. We help clients quickly find and connect with top talent to make their recruiting efforts more efficient.
- ***Job postings.*** Our job platforms are focused on specific verticals tailored to technology and security-cleared individuals, making it easier for professionals to search for relevant jobs. In turn, the applications received by clients are more likely to be relevant and qualified compared to applications received on generalist sites. Providing professionals with the most relevant job postings benefits both the talent and the recruiting organization.
- ***Employer Branding.*** Each of our brands has a suite of offerings that help clients amplify their brand to reach more professionals. Solutions include display advertising, email, enhanced job postings or company profiles, and social targeting.
- ***Managed Services.*** This premium service delivers sourced and screened candidates to recruiters and employers.
- ***Content and data.*** Each of our brands provides tailored content to help professionals manage their careers and provide employers insight into recruiting strategies and trends.

Industry and Skill Focused Brands

During 2021 we offered our talent acquisition and career development products and tools through the following key brands:

Service	Yrs. in Operation	Specialized Focus	Primary Source of Revenues
Dice[2]	31	Technology and engineering in the U.S.	Recruitment packages[1], career fairs and open houses
ClearanceJobs	19	Security-cleared professionals	Recruitment packages[1]
eFinancialCareers[3]	21	Financial services and technology	Recruitment packages[1] and job postings

[1] Recruitment packages are a combination of job postings and/or access to our candidate profiles.

[2] Includes Career Events

3 Transferred majority ownership of eFC to eFC's management on June 30, 2021.

Dice has been a go-to destination for technology and engineering talent in the United States for the past 31 years. The job postings available on Dice, from both technology and non-technology companies across many industries, include positions for software engineers, big data professionals, systems administrators, database specialists, project managers, and a variety of other technology and engineering professionals. Dice had approximately 79,000 job postings as of December 31, 2021 and during 2021, Dice had, on average, approximately 1.3 million monthly users.

Customers can purchase recruitment packages, job postings or advertisements. Recruitment packages offer our customers the ability to access candidate profiles and post up to a specified number of jobs. Candidate Match and Search on Dice is powered by IntelliSearch, a proprietary machine-learning technology that is foundational to many Dice products and services. Approximately 90% of Dice revenue was derived from recruitment packages in 2021.

Professionals can post their resumes, search jobs and access our career-related content, news and tools. Skill Center, a tool implemented by Dice, uses data aggregated from across the web to show skills trends, giving professionals insights into potential skills gaps and development areas. Salary Predictor and Salary Calculator offer real-time salary tools leveraging predictive analysis to help tech professionals and employers discover tailored salary estimates based on skills, job titles, years of experience and location. Job Search and Job Alerts deliver tailored and personalized career opportunities to candidates.

ClearanceJobs is a leading online career marketplace dedicated to matching security-cleared professionals with the best hiring companies searching for employees. Authorized U.S. government contractors, federal agencies, national laboratories and universities utilize The Cleared Network to quickly and easily find candidates with specific, active security clearance requirements to fill open jobs in a range of disciplines. ClearanceJobs NextGen platform provides opportunities for employers and candidates to engage in real-time through messaging and employers to promote brand differentiators through BrandAmp and Pulse. The majority of candidates with resumes on our site have high-level security clearance. ClearanceJobs had approximately 60,000 job postings as of December 31, 2021 and during 2021, ClearanceJobs had, on average, 616,000 monthly users.

eFinancialCareers On June 30, 2021, the Company transferred majority ownership and control of eFC to eFC's management. The eFC business is one of the world's leading financial services careers websites, operating websites in multiple markets in four languages mainly across the United Kingdom, Continental Europe, Asia, Australia, the Middle East and North America. Professionals from across many sectors of the financial services industry, including asset management, risk management, investment banking, and information technology, use eFinancialCareers to advance their careers. Employers can engage with financial services professionals through real-time messaging and promote their employment brand through Recruiter Profiles.

Our Industry

We primarily operate in the talent discovery and acquisition segment of the broader market for human capital management services through career sites for technology professionals. There is a shortage of skilled professionals worldwide and we believe that the overall demand for talent acquisition and career development products and services has significant long-term growth potential.

We also believe that certain industries that employ highly-skilled and highly-paid professionals will experience particularly strong demand for effective recruiting solutions due to the scarcity of such professionals. For example, as of December 2021, the seasonally unadjusted U.S. unemployment rate was 2.0% for computer-related occupations as compared to the overall national average of 3.9%, seasonally adjusted. We believe that there are four major trends that will continue to shape demand for talent acquisition services:

- ***Greater competition for professional talent***. The candidate-employer relationship has changed, with the balance of power shifting towards the candidates. As more companies leverage technology to advance their business, employers will increasingly need to hire tech talent to compete. According to analysis from the U.S. Bureau of Labor Statistics and CBRE Research, high tech jobs and creative industries are significant drivers to economic expansion.
- ***Continued professional interest in career brands specific to industry and skills.*** Our services focus on domains or industries that require specialized skills and knowledge and, thus, customized content, profiles and search parameters. In addition, the technology professionals often share a sense of personal identity and community that goes beyond the confines of their careers. We believe that both specialized skills and the sense of personal identity and community lead professionals in our verticals to prefer specialized career brands over generalist ones.
- ***Talent attraction and retention becoming more of a strategic priority for companies.*** The *PWC 24th Annual Global CEO Survey* found that 28% of CEOs in North America are 'extremely concerned' about the availability of key skills as a threat to their organizations' growth prospects and 49% of CEOs plan increases of 10% or more in their long term investment in digital transformation. Hiring skilled technologists is a key driver to moving digital innovation forward.
- ***Increased use of data and analytics in human capital management and increased need for insights.*** As many companies prove the power of analytics in marketing and other business domains, organizations are seeking to gain a competitive advantage by applying data-driven insights to improve their hiring, retention and leadership capabilities.

In this environment, we believe there is an opportunity for career management and talent acquisition tools that leverage the common interests, goals and skills of select professional communities. We believe that a focus on professional communities allows organizations to more efficiently identify talent, with more complete data and insights about that talent.

Our Value Proposition

We are a leading provider of data, insights and employment connections through specialized online professional communities organized around common professional interests and skill sets powered by technology. This specialized approach provides technology professionals with more relevant career related information and opportunities, enhancing their ability to maximize their careers. Through engaging with professionals, we are able to build rich and unique data sets around valuable talent pools. The combination of our focused online professional websites and rich data sets allows organizations to find and hire professional talent more efficiently and effectively, and therefore incentivizes them to source talent through our online professional communities. The benefits our services provided to both professionals and recruiting customers create a robust marketplace.

Benefits we provide to Professionals

***Relevant employment connections*.** When professionals post their resumes or apply for jobs on our websites, they can make valuable connections with organizations who prize their skills and expertise. Professionals can avoid having to “sort through the clutter” on generalist career sites and get the most out of their time by using our more focused services.

***Skills/industry-specific career management tools, information and insights*.** We provide professionals with targeted and relevant career development tools, content and news. For example, Dice and ClearanceJobs provide professionals with market and salary information and local market trends. In addition, the Salary Predictor allows professionals to evaluate their market value and map out which skills will increase their value. We believe our career development services and tools provide professionals with the insights they need to propel their careers forward, and thus increase the engagement of professionals with our sites.

Benefits we provide to our Customers

Large pools of qualified and hard-to-reach professionals. We seek to improve the efficiency of the recruiting process for our customers by providing efficient access to large pools of highly qualified and hard-to-reach professionals. Because the communities of professionals who visit our websites are highly-skilled and specialized within specific industries, we believe our customers who post jobs receive applications from candidates who are better qualified for the positions, and that they receive fewer irrelevant applications than when using generalist sites. In addition, since our resume data and resume search functions are highly tailored by specialty, we believe that our customers can more efficiently identify talent using our resume databases than by using broader services.

Relevant information on prospective candidates. We believe that the specialized nature of our job posting and resume search products makes them inherently more relevant and efficient for recruiting. Using all of these products together gives our customers the most complete view of a prospective candidate, and allows them to not only identify the best talent but also tailor their recruiting approach to each individual.

Hyper-targeted candidate outreach and employer branding. We offer recruiting customers the ability to target hard-to-find professionals with messages in the online forums they frequent. Our social targeting service leverages our social aggregation capabilities to assemble candidate target lists based on specific factors like skill sets, work experience, location, or interests; then executes hyper-targeted employer branding or job search campaigns in online forums where specific potential candidates spend time.

Our Strategic Goals

Since arriving in April of 2018, CEO Art Zeile has led an aggressive effort to focus and build on our legacy of market leadership in technology talent acquisition and reinvigorate the business in multiple respects, including delivering best-in-class candidate quality and match capabilities; transforming Dice from its job board legacy into an indispensable career marketplace modeled on our market-leading and high growth brand, ClearanceJobs; investing in functional excellence to drive growth and product innovation; and transforming/expanding our sales team to drive renewed growth.

Delivering best-in-class candidate quality and match capabilities for technology roles. We believe candidate quality is the essential foundation of success in our industry and we intend to differentiate our business by leading in this respect. In 2021, we dramatically improved the quality of our Dice candidates to a level we believe is best-in-class and plan continued vigilance and innovation to drive continued improvements. We are also building on our unique legacy and intellectual property in the technology jobs space to create match capabilities for both candidates and clients that are reducing the time and effort required in job searching and talent acquisition. Our proprietary and patent-pending machine-learning technology including IntelliSearch, powers many Dice and ClearanceJobs products and is foundational to providing relevant job opportunities for candidates and efficient search and match solutions for clients.

Building indispensable tech-focused career marketplaces. ClearanceJobs has established a unique franchise in the market for cleared professionals, many with tech experience. Built on a unique cohort of candidates and specialized employer and recruiter tools together, ClearanceJobs is a highly interactive two-sided marketplace environment. These attributes provide clear and measurable ROI for clients and has contributed to ClearanceJobs more than doubling its revenue over the past five years. With nearly 20 years in the market, we believe ClearanceJobs is a highly defensible and valuable business. We are in the process of transforming our Dice brand into a similar career marketplace customized for the needs of its unique candidate and client communities. We officially launched all elements of the career marketplace features for Dice in 2021, focusing on landing launches and driving adoption with customers. We expect these changes to transform the way our stakeholders use Dice and to drive results as adoption increases.

Investing in functional excellence and product innovation. Since joining DHI, CEO Art Zeile has built a leadership team capable of driving growth and supporting a culture of high performance. The leadership team continually advances their functional areas to drive results in the business, working towards the common goal of launching and landing innovative products in the market. Specifically, in 2021 the Company released a number of products to help employers find tech candidates and technologists further their careers. These include, at Dice: the Marketplace, Unbiased Sourcing Mode, TalentSearch Personalization, Brand.io and TalentSearch Social Data Refresh; at ClearanceJobs: Shared Talent Pipelines, Team Recruiting, Meetings and Video.

We are investing to further increase the pace of innovation by adding engineers to our technology team, centered around a development model to increase the quality and speed of product delivery. Our marketing team is focused on delivering results at lower cost in terms of driving traffic to Dice, increasing marketing qualified leads, growing visible profiles and applications with less spend and with more to come as we leverage new capabilities in customer relationship management (CRM), product marketing, and digital analytics, among others.

Transforming our sales and customer success efforts to drive growth. As early leaders in online talent acquisition, DHI's brands have a legacy of strong recurring clients and revenue and, as a result, renewals have historically provided the majority of the Company's revenues. We believe there is significant opportunity to grow our customer base and expand to new revenue opportunities, particularly with commercial accounts, or clients who recruit for their own needs, with an expanded and better enabled sales force and at ClearanceJobs by growing relationships directly with government agencies. Our customer success team executed new strategies to drive proactive external engagement and report real-time feedback to better include the customer voice to influence our product roadmap. We will continue to grow our sales team as opportunities arise.

Marketing and Sales

We focus our long-term consumer marketing efforts on growing the number of professionals who visit and engage with our websites, which we believe increases the attractiveness of our websites to our customers. We use a combination of direct marketing, branding and communications initiatives, including content, to increase our brand awareness, traffic, new and updated profiles and applications to job postings. We primarily engage in digital media including search engine marketing, online advertising, social media, email and content marketing. Many of our brands use strategic alliances with relevant publishers, trade associations and industry groups to increase reach and traffic. Some of our brands have also invested in broader awareness campaigns through digital media and partnerships.

Our customer marketing efforts are primarily focused on lead generation activities, such as digital media, email campaigns and participation in industry events. We use marketing communications, such as media relations, social media, and thought leadership content, to enhance brand awareness and client relationships. Many of our ongoing customer marketing efforts focus on driving increased customer understanding of our product innovation and tools to drive increased product usage.

We sell our products primarily through our direct sales force. We have a number of direct sales teams organized by brand, market segment, and geography. Our field sales groups target Fortune 1000 companies, large staffing and recruiting firms and other large and mid-size businesses. Our strategy in 2021 focused on refining recently implemented sales processes, methodologies, and forecasting to drive improvements to better address market opportunities and our clients' needs. We increased our focus on customer success to drive renewal rates with existing customers and implemented an auto-renewal policy which resulted in uninterrupted access to our services for clients. Our in-house sales teams focus on generating new business from recruiters as well as small and mid-size companies, renewing customer contracts, increasing the service levels customers’ purchase and servicing the needs of our largest clients. As of December 31, 2021, we employed approximately 119 sales personnel in the United States. In addition to our internal sales organization, we also use ad networks to help generate ad sales.

We also invest in fraud detection initiatives and maintain teams of account managers and customer support specialists who work to ensure customers get the most from our products and services by providing training and assistance. In addition to technologies we leverage for fraud detection, our customer support departments perform some compliance functions, such as reviewing the websites for false or inaccurate job postings.

Customers

We currently serve a diversified customer base consisting of approximately 9,400 customers in total. No one customer accounted for more than 10% of our revenues in 2021. Our customers include small, mid-sized and large direct employers, staffing companies, recruiting agencies, consulting firms and marketing departments of companies. As of December 31, 2021 notable customers of the Dice and ClearanceJobs businesses included AT&T, Adecco, Amazon, Cisco, Oracle, Kforce, ManTech, Microsoft, NCI, 7-Eleven , Samsung, Bank of America and DISH Network.

Technology

We use a variety of open source and proprietary technologies to support our website services. Our websites provide a multitenancy technology platform with multiple application services developed to perform at scale. We primarily utilize Amazon Web Services (AWS) as our cloud infrastructure platform, which enables us to scale our compute, network, and storage capacity on an as-needed basis. Our application services and data connections are continually monitored 24/7 for performance and stability. Our application and infrastructure architecture enable us to ensure global reach, as well as advantages in resiliency and cloud delivery. Job seekers and customers can access our websites with any standard web browser, mobile web browsers, and iOS and Android applications. Our websites also utilize AWS disaster recovery, redundancy, and resiliency services, including multi-availability zone, multi-region, redundant storage and networking solutions, and self-healing capabilities.

Competition

The market for talent acquisition services is highly competitive with multiple online and offline competitors. With the evolution of the online recruiting model, there has been an increasing need to provide ease-of-use and relevance to professionals, as well as an efficient and cost-effective recruitment method for direct employers, recruiters and staffing companies. Additionally, further technological advancements and evolution of social networks increasing the interaction between candidates and potential employers have made it easier for new competitors to emerge, and advertisers have many alternatives available to reach their target audiences. Our ability to maintain our existing customer base and generate new customers depends to a significant degree on the quality of our candidate databases and audiences, the quality of our services, our ability to enhance our websites and the underlying technology of our websites to meet the needs of a rapidly-evolving marketplace, our pricing strategy and ability to introduce value-added products and services, contracting alternatives such as subscription or consumption based models, and our reputation among our candidates and our customers and potential customers, who are increasingly sophisticated and demanding. Our competitors include:

- social and professional networking sites, such as LinkedIn, Facebook, Twitter and Google;
- niche or specialist professional networking sites such as GitHub and Stack Overflow;
- generalist job boards, some of which have substantially greater resources and brand recognition than we do, such as CareerBuilder, Monster, StepStone, and Seek which, unlike specialized job boards, permit customers to enter into a single contract to find professionals across multiple occupational categories and attempt to fill all of their hiring needs through a single website;

- aggregators and distributors of job postings and profiles, including Indeed (owned by Recruit), TalentBin (owned by Monster Worldwide), Entelo, ZipRecruiter, Google and Craigslist;
- career-focused community sites such as Glassdoor;
- newspaper and magazine publishers, national and regional advertising agencies, executive search firms and search and selection firms that carry classified advertising, many of whom have developed, begun developing or acquired new media capabilities, such as recruitment websites, or have partnered with generalist job boards;
- specialized services focused specifically on the industries we service, such as FT.com, Doximity, Upwork and JobServe;
- new and emerging competitors with new business models and products;
- our customers, who seek to recruit candidates directly by using their own resources, including corporate websites; and
- general business sites and print publications, as well as technology news and information community sites, such as Google News, Digg.com and Reddit.com.

Intellectual Property

We seek to protect our intellectual property through a combination of service marks, trademarks, copyrights and other methods of restricting disclosure of our proprietary or confidential information. As we continue to develop and improve our technology, patents may become a more significant part of our intellectual property in the foreseeable future. We generally enter into confidentiality agreements with our employees, consultants and vendors. We also seek to control access to and distribution of our technology, documentation and other proprietary information.

We generally pursue the registration of the material service marks we own in the United States and internationally, as applicable. We own a number of registered, applied for and/or unregistered trademarks and service marks that we use in connection with our businesses. Our trademarks and registered trademarks in the United States and other countries include DICE, and CLEARANCEJOBS.COM. Registrations for trademarks may be maintained indefinitely, as long as the trademark owner continues to use and police the trademarks and timely renews registrations with the applicable governmental office. Although we generally pursue the registration of our material service marks and other material intellectual property we own, where applicable, we have trademarks and/or service marks that have not been registered in the United States and/or other jurisdictions. We have not registered the copyrights in the content of our websites and do not intend to register such copyrights.

The steps we have taken to protect our copyrights, trademarks, service marks and other intellectual property may not be adequate, and third parties could infringe, misappropriate or misuse our intellectual property. If this were to occur, it could harm our reputation and affect our competitive position. See Item 1A. “Risk Factors—Misappropriation or misuse of our intellectual property could harm our reputation, affect our competitive position and cost us money.”

Investments

DHI has made no significant investments through acquisitions during the past five years. See also note 8 of the notes to consolidated financial statements.

Regulation and Legislation

User Privacy

We collect, store and use a variety of information about both professionals and customers on our website properties. Within the websites, the information that is collected, stored, and used has been provided by the professionals or customers with the intent of making it publicly available. We do not ask professionals or customers to supply social security numbers. Our business data is separated from website operations by a variety of security layers including network segmentation, physical and logical access controls, firewalls, and many industry-accepted, best-practice information security controls.

We post our privacy policies on our websites so that our users can access and understand the terms and conditions applicable to the collection, storage, and use of information collected from users. Our privacy policies also disclose the types of information we gather, how we use it and how a user can correct or change their information. Our privacy policies also explain the circumstances under which we share this information and with whom. Professionals who register for our websites have the option of indicating specific areas of interest in which they are willing to receive offers via email or postal mail. These offers contain content created either by us or our third-party partners.

To protect confidential information and to comply with our obligations to our users, we impose constraints on our customers to whom we provide user data, which are consistent with our commitments to our users. Additionally, when we provide lists to third parties, including to our advertiser customers, it is under contractual terms that are consistent with our obligations to our users and with applicable laws and regulations.

U.S. Government Regulation

We are subject to a number of government regulations that regulate our products and online service offerings, including content, copyright infringement, user privacy, advertising and promotional activities, taxation, access charges, liability for third-party activities, and jurisdiction. In addition, federal, state, and local governmental organizations have enacted and also are considering, and may consider in the future, other legislative and regulatory proposals that would regulate the Internet. Areas of potential regulation include, but are not limited to, libel, electronic contracting, pricing, quality of products and services, and intellectual property ownership.

There are a number of U.S. laws and regulations that affect companies conducting business online. Certain laws regulate commercial electronic messages. Such laws frequently provide a right on the part of the recipient to request the sender to stop sending messages, and establish penalties for the sending of email messages that are not compliant with such laws, including messages that are intended to deceive the recipient as to source or content or that do not provide an electronic method of informing the sender of the recipient’s decision not to receive further commercial emails.

We are subject to federal, state and local laws and regulations regarding privacy and protection of data. Our privacy policies and terms of use agreements describe our practices concerning the use, storage, transmission and disclosure of user data. Any failure by us to comply with our privacy policies or terms of use agreements, or privacy-related laws and regulations, could result in proceedings against us by governmental authorities or others, which could harm our business. The interpretation of these privacy and data protection laws and various regulators’ approach to their enforcement, as well as our products and services, continue to evolve over time. We face the risk that these laws may be interpreted and applied in conflicting ways in different jurisdictions or in a manner that is not consistent with our current data protection practices, or that new and unclear laws will be enacted. There currently are a number of proposals pending before federal, state, and local legislative and regulatory bodies. There are laws as well as a number of legislative proposals in the United States, at both the federal and state level, that impose obligations in areas affecting our business, or may do so in the future. For example, California adopted the California Consumer Privacy Act of 2018, or CCPA, which became effective on January 1, 2020. The CCPA has been characterized as the first privacy statute of its kind to be enacted in the United States as it includes significant penalties for non-compliance, as well as creating the right for consumers to bring a private action in certain circumstances. More recently, on November 3, 2020, California enacted the California Privacy Rights Act ("CPRA"). The CPRA, which goes into effect on January 1, 2023, expands upon the protections provided by the CCPA, including new limitations on the sale or sharing of consumers’ personal information, and the creation of a new state agency to enforce the CPRA’s protections.

Complying with these varying requirements could cause us to incur additional costs and change our business practices. Further, any failure by us to adequately protect our users’ privacy and data could result in a loss of confidence in our products and services and, ultimately, in a loss of customers, which could have an adverse effect on our business, and could subject the Company to penalties or liability.

Furthermore, favorable laws may change, including, for example, in the United States where the FCC voted to repeal net neutrality regulations. Given uncertainty around these rules, including changing interpretations, amendments or repeal, coupled with potentially significant political and economic power of local network operators, we could experience discriminatory or anti-competitive practices that could impede our growth, cause us to incur additional expense, or otherwise negatively affect our business.

The application of laws and regulations affecting online business to our products and services is often unclear, and these laws and how various jurisdictions interpret these laws continue to evolve. Compliance with these laws may be expensive and could harm our business. Any failure by the Company to comply with these laws and regulations could result in actions against us by governmental authorities or other entities, which could harm our business, including governmental or court orders that we cease certain activities.

See Item 1A. Risk Factors "Our business is subject to U.S. government regulation of the Internet and taxation, which may have a material adverse effect on our business" and "Capacity constraints, systems failures or breaches of our network security could materially and adversely affect our business. If we fail to manage our technical operations infrastructure, our existing customers may experience services outages, and our new customers may experience delays in the deployment of our solution."

Human Capital Disclosures

Employees

As of December 31, 2021, we had 470 employees. Our employees are not represented by any union and are not the subject of a collective bargaining agreement. We believe that we have a good relationship with our employees and experienced increased engagement among team members during the year as evidenced by results from our annual engagement survey and below average turnover rate. We offer flexible work schedules, abbreviated hours on Fridays, flexible paid time off and remote working opportunities for all team members to promote work/life balance. In 2021, we introduced a free mental health app for all employees and closed offices for two working days to allow employees to focus on their mental health. We have made it a priority to support our employees as they work from home, including increased flexibility surrounding personal and family commitments and a quarterly work from home stipend. The Company budgets for professional development training by both functional group and at the individual level each year. Professional development could include attending an online class to learn a new skillset, attending a conference or finding opportunities within the organization to grow skillsets. Additionally the Company has a tuition reimbursement program designed to provide employees with financial assistance in continuing their education.

Diversity

Inclusion and diversity remain key priorities for the Company. The diverse backgrounds, skills and experiences of executive officers, board members, and employees are important to both our values and performance. We believe that a diverse board, management team and workforce that is reflective of our diverse customer base will position us to better understand customers' wants and needs, which we believe drives our ability to deliver superior customer value and successfully innovate. Diverse perspectives amongst our management team and board allows them to evaluate issues through different experiences and perspectives and help guide the Company in a thoughtful way. The Company's internal Diversity, Equity and Inclusion program is based on promoting a culture of inclusivity, and includes Allyship training and Unconscious Bias training, which teaches team members how to better support marginalized groups. Additionally, managers participate in Inclusive Leadership trainings. The Company has employee resource groups led by employees of underrepresented populations to share experiences and have a shared space. The internal policies of the Company encourage hiring diverse candidates and our culture is inclusive, ensuring that all team members are treated fairly and equally, amongst other things. In 2021, the Company introduced inclusive fertility benefits which support all paths to parenthood.

Item 1A. Risk Factors

Summary Risk Factors

Our business is subject to a number of risks that may prevent us from achieving our objectives, or may adversely affect our business, financial condition, operations, cash flows, and prospects. These risks are outlined and discussed more fully below and include:

Risks Related to Our Business

- our ability to execute our tech-focused strategy in a competitive business environment that is constantly changing;
- failure to develop and maintain our brand, attract customers and recruit new qualified users;
- misappropriation or misuse of our intellectual property, claims against us for intellectual property infringement or failure to enforce our ownership of our intellectual property;
- acquisitions and our ability to successfully integrate acquisitions;
- the results of our operations fluctuate on a quarterly and annual basis;
- disruption resulting from unsolicited offers to purchase the Company;
- taxation risks in various jurisdictions and the potential for unfavorable decisions related to tax assessments;
- a significant downturn in our customers' businesses;

Risks Related to Our Indebtedness

- our indebtedness and our ability to borrow in case of adverse changes within the credit market;
- the covenants set forth in our Credit Agreement;

Risks Related to Ownership of Our Securities

- compliance with the listing standards of the NYSE;
- the volatility of our stock price;
- our ability to maintain internal controls over financial reporting;

Risks Related to Our Technology

- our ability to scale, adapt and maintain our technology and infrastructure;
- capacity constraints, systems failures or breaches of our network security;
- any decrease in our user engagement;
- our ability to halt operations of third-party websites that aggregate our data;
- our reliance on third-party hosting facilities;

Regulatory Risks

- our compliance with laws and regulations concerning the collection, storage and use of professional and personal information, including the CCPA;
- U.S. government regulation of the Internet and taxation;

General Risk Factors

- our ability to navigate the cyclicality or downturns of the U.S. and worldwide economies; and
- the impacts of the COVID-19 pandemic or other public health issues that may arise.

Risks Related to Our Business

We may not be successful in executing our tech-focused strategy which could have a material adverse effect on our results of operations.

We may not be successful in pursing our tech-focused strategy, which includes narrowing priorities to initiatives related to connecting technology professionals with employers. There can be no assurance that the allocation of resources behind our tech-focused business and sales and marketing efforts will result in the strengthening of our competitive position, the failure of which could have a material adverse effect on our financial condition and results of operations. As a result of our strategic focus on the tech sector and divesting our businesses operating in different sectors, we have an increased dependence on the economic health of that sector and may not have the mitigating benefits of exposure to a portfolio of diverse industries in the event of a tech sector downturn.

A write-off of all or a part of our goodwill and intangible assets would hurt our operating results and reduce our net worth.

We have significant intangible assets and goodwill. As of December 31, 2021, we had $128.1 million and $23.8 million of goodwill and acquired intangible assets, respectively, on our balance sheet, which represented approximately 58% and 11%, respectively, of our total assets. We do not amortize goodwill nor our indefinite-lived acquired intangible asset, which is the Dice trademarks and brand name, under U.S. GAAP and instead are required to review them at least annually for impairment. The annual impairment test for the Dice trademarks and brand name is performed on October 1 of each year. DHI has experienced impairment charges in the past. Most recently, during the first and third quarters of 2020, because of the impacts of the COVID-19 pandemic and its potential impact on future earnings and cash flows for the tech-focused reporting unit and those that are attributable to the Dice trademarks and brand name, the Company recorded impairment charges totaling $37.8 million. In the event an impairment is identified again in the future, a charge to earnings would be recorded. Although it would not affect our cash flow or liquidity position, a write-off in future periods of all or a part of our goodwill or intangible asset would have a material adverse effect on our overall results of operations. See Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates—Goodwill and Indefinite-Lived Acquired Intangible Assets.”

We operate in a highly competitive developing market and we may be unable to compete successfully against existing and future competitors.

The market for career services is highly competitive and barriers to entry in the market are relatively low. There are multiple generalist job boards, as well as a number of existing and emerging alternative business models seeking to compete in our target markets. We do not own any patented technology that would preclude or inhibit competitors from entering the recruiting and career development services market. We compete with other companies that direct all or portions of their websites toward certain segments or sub-segments of the industries we serve. We compete with generalist job boards, some of which have substantially greater resources and brand recognition than we do, such as CareerBuilder, Monster.com, Snagajob, Stepstone and Seek, which, unlike specialist job boards, permit customers to enter into a single contract to find professionals across multiple occupational categories and attempt to fill all of their hiring needs through a single website, as well as job boards focused specifically on the industries we service, such as FT.com, JobServe, Doximity, and Upwork. We also compete with newspaper and magazine publishers, national and regional advertising agencies, executive search firms and search and selection firms that carry classified advertising, many of whom have developed, begun developing or acquired new media capabilities, such as recruitment websites, or have recently partnered with generalist job boards. We also compete with general business sites and print publications, as well as technology news and information community sites, such as Google News, Digg.com and Reddit.com. In addition, we face competition from aggregators of classified advertising, including Indeed, TalentBin, Entelo, ZipRecruiter, Google, and Craigslist. Social and professional networking sites, such as LinkedIn, Facebook, Twitter and Google compete with us in providing professional services. We also compete with new competitors, including career-focused community sites such as Glassdoor and talent relationship management software providers such as Avature and SmashFly, and emerging competitors with new business models and products that customers are more willing to trial during periods when talent is scarce.

We must adapt our business model to keep pace with rapid changes in the recruiting and career services business, including rapidly changing technologies and the development of new products and services.

Providing online recruiting and career development services is a rapidly evolving business, and we will not be successful if our business model does not keep pace with new trends and developments. The adoption of recruiting and job seeking, particularly among those who have historically relied on traditional recruiting methods, requires acceptance of a new way of conducting business, exchanging information and applying for jobs. If we are unable to adapt our business model to keep pace with changes in the recruiting business, or if we are unable to continue to demonstrate the value of our online services to our customers, our business, results of operations, financial condition and liquidity could be materially adversely affected. Our success is also dependent on our ability to adapt to rapidly changing technology and to make investments to develop new products and services. Accordingly, to maintain our competitive position and our revenue base, we must continually modernize and improve the features, reliability and functionality of our service offerings and related products in response to our competitors. Future technological advances in the career services industry may result in the availability of new recruiting and career development offerings. Some of our competitors have longer operating histories, larger client bases, longer relationships with clients, greater brand or name recognition, or significantly greater financial, technical, marketing and public relations resources than we do. As a result, they may be in a position to respond more quickly to new or emerging technologies and changes in customer requirements, and to develop and promote their products and services more effectively than we can. We may not be able to adapt to such technological changes or offer new products on a timely or cost-effective basis or establish or maintain competitive positions. If we are unable to develop and introduce new products and services, or enhancements to existing products and services, in a timely and successful manner, our business, results of operations, financial condition and liquidity could be materially and adversely affected.

Trends that could have a critical impact on our success include: rapidly changing technology in online recruiting, evolving industry standards relating to online recruiting, developments and changes relating to the Internet and mobile devices, evolving government regulations, competing products and services that offer increased functionality, changes in requirements for customers and professionals, and privacy protection concerning data available and transactions conducted over the Internet.

If we fail to develop and maintain our reputation and brand recognition our business could be adversely affected.

We believe that establishing and maintaining the identity of our key brands, Dice and ClearanceJobs, is critical in attracting and maintaining the number of professionals and customers using our services, and that the importance of brand recognition will increase due to the growing number of services similar to ours and relatively low barriers to entry. Promotion and enhancement of our brands will depend largely on our success in continuing to provide high quality recruiting and career development services. If users do not perceive our existing career and recruiting services to be of high quality, or if we introduce new services or enter into new ventures that are not favorably received by users, the uniqueness of our brands could be diminished and accordingly the attractiveness of our websites to professionals and customers could be reduced. We may also find it necessary to increase substantially our financial commitment to creating and maintaining a distinct brand loyalty among users. If we cannot provide high quality career services, fail to protect, promote and maintain our brands or incur excessive expenses in an attempt to improve our career services or promote or maintain our brands, our business, results of operations, financial condition and liquidity could be materially adversely affected.

Our business is largely based on customers who purchase recruitment packages. Any failure to increase or maintain the number of customers who purchase recruitment packages could adversely impact our revenues.

Our customers typically include recruiters, staffing firms, consulting firms and direct hiring companies. Customers can choose to purchase recruitment packages, classified postings, advertisements, or career fair and recruitment event booth rentals. Most of our revenues are generated by the fees we earn from our customers who purchase recruitment packages. Our growth depends on our ability to retain our existing recruitment package customers and to increase the number of customers who purchase recruitment packages, as well as introduce new pricing options. Any of our customers may decide not to continue to use our services in favor of alternate services, lack of need, or because of budgetary constraints or other reasons. We cannot assure you that we will be successful in continuing to attract new customers or retaining existing customers or that our future sales efforts in general will be effective. If our existing customers choose not to use our services, decrease their use of our services, or change from being recruitment package customers to purchasing individual classified postings, our services, job postings and resumes posted on our websites could be reduced, search activity on our websites could decline, the usefulness of our services to customers could be diminished, and we could experience declining revenues and/or incur significant expenses. Dice recruitment package customers at December 31, 2021, 2020, and 2019 were 6,004, 5,150, and 6,000, respectively, while

ClearanceJobs recruitment package customers at December 31, 2021, 2020, and 2019 were 1,878, 1,718, and 1,674, respectively.

If we fail to attract qualified professionals to our websites or grow the number of qualified professionals who use our websites, our revenues could decline.

The value of our websites to our customers is dependent on our ability to continuously attract professionals with the experience, education and skill-sets our customers seek. For example, the professionals who post their resumes on Dice.com are generally highly educated, have extensive work experience, and the majority are currently employed. To grow our businesses, we must continue to convince qualified professionals that our services will assist them in finding employment, so that customers will choose to use our services to find employees. If we are unable to increase the number of professionals using our websites, or if the professionals who use our websites are viewed as unattractive by our customers, our customers could seek to list jobs and search for professionals elsewhere, which could cause our revenues to decline.

We expect our operating results to fluctuate on a quarterly and annual basis.

Our revenue and operating results could vary significantly from quarter-to-quarter and year-to-year and may fail to match our past performance because of a variety of factors, some of which are outside of our control. Any of these events could cause the market price of our common stock to fluctuate. Factors that may contribute to the variability of our operating results include:

- the size and seasonal variability of our customers’ recruiting and marketing budgets;
- the emergence of new competitors in our market whether by established companies or the entrance of new companies;
- the cost of investing in our technology infrastructure may be greater than we anticipate;
- our ability to increase our customer base and customer and professional engagement;
- disruptions or outages in the availability of our websites, actual or perceived breaches of privacy and compromises of our customers’ or professionals’ data;
- changes in our pricing policies or those of our competitors;
- macroeconomic changes, in particular, deterioration in labor markets, which would adversely impact sales of our hiring solutions, or economic growth that does not lead to job growth, for instance increases in productivity;
- costs associated with data security which is becoming increasingly complex;
- the timing and costs of expanding our organization and delays or inability in achieving expected productivity;
- the timing of certain expenditures, including hiring of employees and capital expenditures;
- our ability to increase sales of our products and solutions to new customers and expand sales of additional products and solutions to our existing customers;
- the extent to which existing customers renew their agreements with us and the timing and terms of those renewals; and
- general industry and macroeconomic conditions.

If we are not able to successfully identify or integrate future acquisitions our management’s attention could be diverted, and our efforts to integrate future acquisitions could consume significant resources.

An important component of our tech-focused strategy is developing new capabilities that strengthen and expand our position in the global technology talent acquisition market and broaden the talent solutions through the acquisition of other complementary businesses and technologies. Our further growth may depend in part on our ability to identify additional suitable acquisition opportunities or consummate such acquisitions on terms that are beneficial to us. We may not be able to identify suitable acquisition opportunities or consummate such acquisitions on favorable terms or at all. In addition, the anticipated results or operational benefits of any businesses we acquire may not be realized and we may not be successful in integrating other acquired businesses into our operations. Failure to manage and successfully integrate acquired businesses could harm our business. Even if we are successful in making an acquisition, we may encounter numerous risks, including the following:

- expenses, delays and difficulties in integrating the operations, technologies and products of acquired companies;
- potential disruption of our ongoing operations;
- diversion of management’s attention from normal daily operations of our business;
- inability to maintain key business relationships and the reputations of acquired businesses;
- the difficulty of integrating acquired technology and rights into our services and unanticipated expenses related to such integration;
- the impairment of relationships with customers and partners of the acquired companies or our customers and partners as a result of the integration of acquired operations;

- the impairment of relationships with employees of the acquired companies or our employees as a result of integration of new management personnel;
- entry into markets in which we have limited or no prior experience and in which our competitors have stronger market positions;
- dependence on unfamiliar employees, affiliates and partners;
- the amortization of acquired companies' intangible assets;
- insufficient revenues to offset increased expenses associated with the acquisition;
- inability to maintain our internal standards, controls, procedures and policies;
- reduction or replacement of the sales of existing services by sales of products and services from acquired business lines;
- potential loss of key employees of the acquired companies;
- difficulties integrating the personnel and cultures of the acquired companies into our operations;
- in the case of foreign acquisitions, uncertainty regarding foreign laws and regulations and difficulty integrating operations and systems as a result of cultural, systems and operational differences; and
- the impact of potential liabilities or unknown liabilities of the acquired businesses.

If any of these risks materialize, they could have a material adverse effect on our business, results of operations, financial condition and liquidity. In addition, any acquisition of other businesses or technologies may require us to seek debt or equity financing. Such financing might not be available to us on acceptable terms or at all. Market disruption and volatility, poor economic conditions in the capital markets and global economy, including in connection with the COVID-19 pandemic, could adversely impact our ability to obtain additional financing on favorable terms or at all.

Misappropriation or misuse of our intellectual property could harm our reputation, affect our competitive position and cost us money.

Our success and ability to compete are dependent in part on the strength of our intellectual property rights, the content included on our websites, the goodwill associated with our trademarks, trade names and service marks, and on our ability to use U.S. and foreign laws to protect them. Our intellectual property includes, among other things, the content included on our websites, our logos, brands, domain names, the technology that we use to deliver our products and services, the various databases of information that we maintain and make available and the appearance of our websites. We claim common law protection on certain names and marks that we have used in connection with our business activities and the content included on our websites. We also own a number of registered or applied-for trademarks and service marks that we use in connection with our business, including DICE and CLEARANCEJOBS.COM, some of which we have acquired through business acquisitions. Although we generally pursue the registration of material service marks and other material intellectual property we own, where applicable, we have copyrights, trademarks and/or service marks that have not been registered in the United States and/or other jurisdictions. We generally enter into confidentiality and work-for-hire agreements with our employees, consultants, and vendors to protect our intellectual property rights. We also seek to control access to and distribution of our technology, documentation and other proprietary information as well as proprietary information licensed from third parties. Policing our intellectual property rights worldwide is a difficult task, and we may not be able to identify infringing users. The steps we have taken to protect our proprietary rights may not be adequate, and third parties could infringe, misappropriate or misuse our intellectual property rights. If this were to occur, it could harm our reputation and affect our competitive position. It could also require us to spend significant time and money in litigation. In addition, the laws of foreign countries do not necessarily protect intellectual property rights to the same extent as the laws of the United States. We have licensed in the past (on a royalty free basis), and expect to license in the future, various elements of our distinctive trademarks, service marks, trade dress, content and similar proprietary rights to third parties. We enter into strategic marketing arrangements with certain third-party web site operators pursuant to which we license our trademarks, service marks and content to such third parties in order to promote our brands and services and to generate leads to our websites. While we attempt to ensure that the quality of our brands is maintained by these licensees, we cannot assure you that third-party licensees of our proprietary rights will always take actions to protect the value of our intellectual property and reputation, and if they fail to do so, such failure could adversely affect our business and reputation.

Actions of activist shareholders could cause us to incur substantial costs, divert management's attention and resources, and have an adverse effect on our business.

We have been the subject of activity by activist shareholders in the past and shareholder activism generally is increasing. Responding to shareholder activism can be costly and time-consuming, disrupt our operations, and divert the attention of management and our employees from our strategic initiatives. Activist campaigns can create perceived uncertainties as to our future direction, strategy, or leadership and may result in the loss of potential business opportunities, harm our ability to attract new employees, investors, customers, and other partners, and cause our stock price to experience periods of volatility.

If our business fails to attract and retain users, particularly users who create and post original content on our web properties, our financial results will be adversely affected.

Our reliance upon user-generated content requires that we develop and maintain tools and services designed to facilitate: creation of user-generated content, participation in discussion surrounding such user-generated content, evaluation of user-generated content, and distribution of user-generated content. If our development efforts fail to facilitate such activities on our web properties, the level of user engagement and interaction will not increase and may decline. Even if we succeed in facilitating such activities on our sites, there can be no assurance that such improvements will be deployed in a timely or cost-effective manner. If we fail to increase user engagement and interaction on our web properties, we will not attract and retain a loyal user base or the advertisers who desire to reach them, which will adversely affect our business and our ability to maintain or grow our revenue.

We may be impacted by unfavorable decisions in proceedings related to future tax assessments.

We operate in a number of jurisdictions and are from time to time subject to audits and reviews by various taxation authorities with respect to income, payroll, sales and use, and other taxes for current and past periods. We may become subject to future tax assessments by various authorities. The determination of our worldwide provision for income taxes and current and deferred tax assets and liabilities requires judgment and estimation. There are many transactions and calculations where the ultimate tax determination is uncertain. Although we believe our tax estimates are reasonable, the ultimate tax outcome may differ materially from the tax amounts recorded in our consolidated financial statements. Any amount we might be required to pay in connection with an ongoing audit or review or a future tax assessment may have a material adverse effect on our financial position, cash flows or overall results of operations.

Taxation risks could subject us to liability for past sales and cause our future sales to decrease.

We do not collect sales or use tax in certain jurisdictions on all the services we provide in the United States. Our operations, and any future expansion of them, along with other aspects of our evolving business, may result in additional sales or use tax obligations.

Currently, the individual states' laws and regulations determine which services performed over the Internet are subject to sales tax. A number of states have been considering or have adopted initiatives that could impose sales tax on certain services delivered electronically. Additionally, many states have implemented laws or regulations requiring out-of-state vendors to collect sales tax, which may increase our tax filing obligations. Also, a state may take the position that certain services we provide are subject to sales tax under existing regulations. The imposition by state and local governments of various taxes upon certain services delivered over the Internet could create administrative burdens for us, put us at a competitive disadvantage if they do not impose similar obligations on all of our online competitors and potentially decrease our future sales.

Because we recognize most of our revenue from our contracts over the term of the agreement, a significant downturn in these businesses may not be immediately reflected in our operating results.

We recognize revenue from sales of our recruiting contracts over the terms of the agreements, which, on average, is approximately 12 months, meaning a significant portion of the revenue we report in each quarter is generated from agreements entered into during previous quarters. Consequently, a decline in new or renewed agreements in any one quarter may not significantly impact our revenue in that quarter but may, instead, negatively affect our revenue in future quarters. In addition, we may be unable to adjust our fixed costs in response to reduced revenue. Accordingly, the effect of significant declines in the sales of these offerings may not be reflected in our short-term results of operations.

Risks Related to Our Indebtedness

We have indebtedness which could affect our financial condition, and, if adverse changes in the credit markets occur, we may not be able to borrow funds under our revolving credit facility or refinance our indebtedness.

As of December 31, 2021, we had $23.0 million of outstanding indebtedness under our credit agreement dated November 14, 2018 (the "Credit Agreement") and the facility provides capacity for us to borrow an additional $67.0 million. If we cannot generate sufficient cash flow from operations to service our debt, we may need to further refinance our debt, dispose of assets or issue equity to obtain necessary funds. We do not know whether we will be able to take any of these actions, if necessary, on a timely basis or on terms satisfactory to us or at all.

Our Credit Agreement consists of a revolving facility and matures in November 2023. The funding of the revolving facility is dependent on a number of financial institutions. It is possible that one or more of the lenders will refuse or be unable to satisfy their commitment to lend to us should we need to borrow funds under the revolving credit facility. If borrowings are unavailable to us and we cannot generate sufficient revenues to fund our operations, our business will be adversely affected. In addition, the inability to borrow could hinder growth if we need funds to complete an acquisition. Our indebtedness could limit our ability to: obtain necessary additional financing for working capital, capital expenditures or other purposes in the future; plan for, or react to, changes in our business and the industries in which we operate; make future acquisitions or pursue other business opportunities; or react in an extended economic downturn.

The terms of our Credit Agreement may restrict our current and future operations, which would adversely affect our ability to respond to changes in our business and to manage our operations.

Our Credit Agreement contains, and any future indebtedness of ours would likely contain, a number of restrictive covenants that impose significant operating and financial restrictions on us, including restrictions on our ability to, among other things:

- incur additional debt;
- pay dividends and make other restricted payments;
- repurchase our own shares;
- create liens;
- make investments and acquisitions;
- engage in sales of assets and subsidiary stock;
- enter into sale-leaseback transactions;
- enter into transactions with affiliates;
- transfer all or substantially all of our assets or enter into merger or consolidation transactions; and
- make capital expenditures.

Our Credit Agreement also requires us to maintain certain financial ratios. A failure by us to comply with the covenants or financial ratios contained in our Credit Agreement could result in an event of default under our Credit Agreement which could adversely affect our ability to respond to changes in our business and manage our operations. In the event of any default under our Credit Agreement, the lenders under our Credit Agreement will not be required to lend any additional amounts to us. Our lenders also could elect to declare all amounts outstanding to be due and payable and require us to apply all of our available cash to repay these amounts. If the indebtedness under our Credit Agreement were to be accelerated, there can be no assurance that our assets would be sufficient to repay this indebtedness in full.

Cessation of London Inter-bank Offered Rate ("LIBOR") and other benchmark rates, or uncertainty related to the potential for any of the foregoing, may adversely affect us.

On July 27, 2017, the United Kingdom's Financial Conduct Authority announced that it intends to stop persuading or compelling banks to submit LIBOR rates after 2021. These reforms will cause LIBOR to cease to exist and will cause the establishment of an alternative reference rate(s). LIBOR may be replaced by the Secured Overnight Financing Rate ("SOFR") or other benchmark rates over the next several years. As an alternative, the U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, is considering replacing U.S. dollar LIBOR with a newly created index, calculated based on repurchase agreements backed by treasury securities. The Company intends to continue monitoring the developments with respect to the planned phasing out of the USD LIBOR tenors used by the Company, which is currently planned for June 30, 2023, and work with its lenders to ensure any transition away from LIBOR will have minimal impact on its financial condition. However, it is not possible to predict the effect of these changes, other reforms or the establishment of alternative reference rates in the United Kingdom, the United States or elsewhere. There can be no assurances as to what alternative interest rates may be and whether such interest rates will be more or less favorable than LIBOR and any other unforeseen impacts of the potential discontinuation of LIBOR. It is not possible to predict the effect of these changes, other reforms or the establishment of alternative reference rates in the United Kingdom, the United States or elsewhere. Refer to Note 12 in the notes to consolidated financial statements and Item 7A. "Quantitative and Qualitative Disclosures about Market Risk - Interest Rate Risk." for additional information about the Company's credit facility.

Risks Related to Ownership of Our Securities

If we do not meet the continued listing requirements of the NYSE our common stock may be delisted.

Our common stock is listed on the NYSE. The NYSE requires us to continue to meet certain listing standards, including standards related to the trading price of our common stock, as well as our global market capitalization. While we are currently in compliance with the NYSE continued listing requirements, we cannot assure you that we will remain in compliance. If we do not meet the NYSE's continued listing standards, we will be notified by the NYSE and we will be required to take corrective action to meet the continued listing standards; otherwise our common stock will be delisted from the NYSE. A delisting of our common stock on the NYSE would reduce the liquidity and market price of our common stock and the number of investors willing to hold or acquire our common stock, which could negatively impact our ability to access the public capital markets. A delisting would also reduce the value of our equity compensation plans, which could negatively impact our ability to retain key employees.

Our stock price has been volatile in the past and may be subject to volatility in the future.

The trading price of our common stock has been volatile in the past and could be subject to fluctuations in response to various factors, some of which are beyond our control. Factors such as announcements of variations in our quarterly financial results and fluctuations in revenue could cause the market price of our common stock to fluctuate. Fluctuations in the valuation of companies perceived by investors to be comparable to us or in valuation metrics, such as our price to earnings ratio, could impact our stock price. Additionally, the stock markets have at times experienced price and volume fluctuations that have affected and might in the future affect the market prices of equity securities of many companies. These fluctuations have, in some cases, been unrelated or disproportionate to the operating performance of these companies. Further, the trading prices of publicly traded shares of companies in our industry have been particularly volatile and may be very volatile in the future. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes, or political unrest, may negatively impact the market price of our common stock.

Failure to maintain effective internal control over financial reporting could have a material adverse effect on our business, operating results and stock price.

Maintaining effective internal control over financial reporting is necessary for us to produce reliable financial reports and is important in helping to prevent financial fraud. If we are unable to maintain adequate internal controls, our business and operating results could be harmed. We are required to satisfy the requirements of Section 404 of Sarbanes Oxley and the related rules of the SEC, which require, among other things, our management to assess annually the effectiveness of our internal control over financial reporting and our independent registered public accounting firm to issue a report on that assessment. We may be unable to remedy deficiencies before the requisite deadlines for those reports. Any failure to remediate deficiencies noted by our independent registered public accounting firm or to implement required new or improved controls or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations or result in material misstatements in our financial statements. If our management or our independent registered public accounting firm were to conclude in their reports that our internal control over financial reporting was not effective, investors could lose confidence in our reported financial information, and the trading price of our stock could drop significantly.

Risks Related to Our Technology

We may not timely and effectively scale and adapt our existing technology and network infrastructure to ensure that our websites are accessible within an acceptable load time.

A key element to our continued growth is the ability of our users (whom we define as anyone who visits our website, regardless of whether or not they are a customer), enterprises and professional organizations in all geographies to access our website within acceptable load times. We call this "website performance." We have experienced, and may in the future experience, website disruptions, outages and other performance problems due to a variety of factors, including infrastructure changes, human or software errors, capacity constraints due to an overwhelming number of users accessing our website simultaneously, and denial of service or fraud or security attacks. In some instances, we may not be able to identify the cause or causes of these website performance problems within an acceptable period of time. It may become increasingly difficult to maintain and improve our website performance, especially during peak usage times and as our solutions become more complex and our user traffic increases. If our websites are unavailable when users attempt to access them or do not load as quickly as they expect, users may seek other websites to obtain the information for which they are looking, and may not return to our websites as often in the future, or at all. This would negatively impact our ability to attract customers, enterprises and professional organizations and increase engagement on our websites. We expect to continue to make significant investments to maintain and improve website performance and to enable rapid releases of new features and products. To the extent that we do not effectively address capacity constraints, upgrade our systems as needed and continually develop our technology and network architecture to accommodate actual and anticipated changes in technology, our business and operating results may be harmed.

Capacity constraints, systems failures or breaches of our network security could materially and adversely affect our business. If we fail to manage our technical operations infrastructure, our existing customers may experience services outages, and our new customers may experience delays in the deployment of our solution.

We derive almost all of our revenues from the purchase of recruitment products and services and employment advertising offered on our Dice and ClearanceJobs websites. As a result, our operations depend on our ability to maintain and protect our website services, most of which are housed within Amazon Web Services. System failures, including network, software or hardware failures, which cause interruption or an increase in response time of our services, could substantially decrease usage of our services and could reduce the attractiveness of our services to both our customers and professionals. An increase in the volume of queries conducted through our services could strain the capacity of the software or hardware we employ. This could lead to slower response times or system failures and prevent users from accessing our websites for extended periods of time, thereby decreasing usage and attractiveness of our services. Our technology operations are dependent in part on our ability to protect our operating systems against, among other events:

- physical damage from acts of God;
- terrorist attacks or other acts of war;
- power loss;
- telecommunications failures;
- network, hardware or software failures;
- physical and electronic break-ins;
- cyber security attacks;
- computer viruses or worms;
- identity theft;
- phishing attempts; and
- similar events.

Although we maintain insurance against fires, floods, and general business interruptions, the amount of coverage may not be adequate in any particular case. Furthermore, the occurrence of any of these events could result in interruptions, delays or cessations in service to users of our services, which could materially impair or prohibit our ability to provide our services and significantly impact our business.

Additionally, overall Internet usage could decline if any well-publicized compromise of security occurs or if there is a perceived lack of security of personal and corporate information stored within our systems to facilitate hiring and recruitment business processes. “Hacking” involves efforts to gain unauthorized access to information or systems or to cause intentional malfunctions or loss or corruption of data, software, hardware or other computer equipment, and online job boards, in particular, have been targeted by hackers who seek to gain unauthorized access to job seeker and customer data for purposes of implementing “phishing” or other schemes. Despite our implementation of numerous security measures; including access controls, network security, information security risk management processes, software development security, cryptography, operational security, business continuity and disaster recovery, and physical security, our websites, servers, our databases and other systems as well as those of our customers' may be vulnerable to computer hackers, physical or electronic break-ins, sabotage, computer viruses, worms, phishing attacks and similar disruptions from unauthorized tampering with our computer systems.

Our systems, like the systems of many other websites, have been targeted in the past in cyber-attacks and hacks and will continue to be subject to such attacks. While such targets and hacks have not had material impacts on our results of operations and financial condition in the past, we cannot guarantee that similar attacks will not have such material impacts in the future. Because the techniques used to obtain unauthorized access, disable or degrade service, or sabotage systems change frequently, such techniques often are not recognized until launched against a target and may originate from less regulated and remote areas around the world, we may be unable to proactively address these techniques or to implement adequate preventative measures. We will continue to review and enhance our security measures in an attempt to prevent unauthorized and unlawful intrusions, although in the future it is possible we may not be able to prevent all intrusions, and such intrusions could result in our network security or computer systems being compromised and possibly result in the misappropriation or corruption of proprietary or personal information or cause disruptions in our services. We might be required to expend significant capital and resources to protect against, remediate or alleviate problems caused by such intrusions. We may also not have a timely remedy against a hacker who is able to penetrate our network security.

Our networks could also be affected by viruses or malware or other similar disruptive problems, and we could inadvertently transmit these viruses or malware to our users or other third parties. Our hardware and back-up systems could fail causing our services to be interrupted. Our customers may fall prey to successful phishing attacks and indavertently give unauthorized access to view our candidate profiles. Any of these occurrences, and negative publicity arising from any such occurrences, could harm our business or give rise to a cause of action against us. Our general business interruption insurance policies have limitations with respect to covering interruptions caused by computer viruses or hackers. We have not added specific insurance coverage to protect against these risks. Our activities and the activities of third party contractors involve the storage, use and transmission of proprietary and personal information, including personal information collected from professionals who use our websites. Accordingly, security breaches could expose us to a risk of loss or litigation and possibly liabilities. We cannot assure that contractual provisions attempting to limit our liability in these areas will be successful or enforceable, or that other parties will accept such contractual provisions as part of our agreements. Any security breaches or our inability to provide users with continuous access to our networks could materially impact our ability to provide our services as well as materially impact the confidence of our customers in our services, either of which could have a material adverse effect on our business.

If our users or customers do not find our candidate profiles useful, it could adversely impact demand for our products and services and the growth of our business.

Our product integrates publicly available data on the Internet to create aggregated profiles of prospective candidates’ professional experience and other employment-related data. These profiles are made available to our customers through our TalentSearch product to help them identify prospective technical candidates in a way that reduces their need to search multiple websites, while delivering more relevant candidates and useful employment information to recruiters and employers that use it. Candidates sought out through the socially aggregated profiles may not be interested in the opportunities presented to them by the recruiters and employers who use the product, which could decrease its demand.

If Internet search engines’ methodologies are modified or our search result page rankings decline for other reasons, our user engagement could decline.

We depend in part on various Internet search engines, such as Google, Bing and Yahoo!, to direct a significant amount of traffic to our websites. Our ability to maintain the number of visitors directed to our websites is not entirely within our control. Our competitors’ search engine optimization, or SEO, efforts may result in their websites receiving a higher search result page ranking than ours, or Internet search engines could revise their methodologies in an attempt to improve their search results, which could adversely affect the placement of our search result page ranking. If search engine companies modify their search algorithms in ways that are detrimental to our new user growth or in ways that make it harder for our users to use our websites, or if our competitors' SEO efforts are more successful than ours, overall growth in our user base could slow, user engagement could decrease, and we could lose existing users. These modifications may be prompted by search engine companies entering the online professional networking market or aligning with competitors. Our websites have experienced fluctuations in search result rankings in the past, and we anticipate similar fluctuations in the future. Any reduction in the number of users directed to our websites would harm our business and operating results.

We may not be able to halt the operations of websites that aggregate our data as well as data from other companies, including social networks, or copycat websites that have misappropriated our data in the past or may misappropriate our data in the future. These activities could harm our brand and our business.

From time to time, third parties have misappropriated our data through website scraping, robots or other means and aggregated this data on their websites with data from other companies. In addition, "copycat" websites have misappropriated data on our network and attempted to imitate our brand or the functionality of our websites. These activities could degrade our brands and harm our business. When we have become aware of such websites, we have employed technological or legal measures in an attempt to halt their operations. However, we may not be able to detect all such websites in a timely manner and, even if we could, technological and legal measures may be insufficient to stop their operations. In some cases, particularly in the case of websites operating outside of the United States, our available remedies may not be adequate to protect us against such websites. Regardless of whether we can successfully enforce our rights against these websites, any measures that we may take could require us to expend significant financial or other resources.

We rely on the services of third-party data center hosting facilities. Interruptions or delays in those services could impair the delivery of our service and harm our business.

Our Dice and Clearancejobs website applications utilize cloud computing technology. It is hosted pursuant to service agreements on technology platforms by third-party service providers, primarily through Amazon Web Services (AWS). We do not control the operation of these providers or their facilities, and the facilities are vulnerable to damage, interruption or misconduct. Unanticipated problems at these facilities could result in lengthy interruptions in our services. If the services of one or more of these providers are terminated, disrupted, interrupted or suspended for any reason, we could experience disruption in our ability to provide our services, which may harm our business and reputation. Further, any damage to, or failure of, the cloud services we use could result in interruptions in our services. Interruptions in our service may damage our reputation, reduce our revenue, cause us to issue credits or pay penalties, cause customers to terminate their agreements and adversely affect our renewal rates and our ability to attract new customers. While we believe our application and network architecture and use of multiple availability zones and regions within Amazon Web Services Cloud reduce our risk, our business would be harmed if our customers and potential customers believe our services are unreliable.

Regulatory Risks

We may be liable with respect to the collection, storage, and use of the personal and professional information of the professionals, who use our websites and our current practices may not be in compliance with proposed new laws and regulations.

Our business depends on our ability to collect, store, use, and disclose personal and professional data from the professionals who use our websites. Our policies concerning the collection, use and disclosure of personally identifiable information are described on our websites. In recent years, class action lawsuits have been filed and the Federal Trade Commission and state agencies have commenced investigations with respect to the collection, use, sale and storage by various Internet companies of users' personal and professional information. While we believe we are in compliance with current law, we cannot ensure that we will not be subject to lawsuits or investigations for violations of law. Moreover, our current practices regarding the collection, storage and use of user information may not be in compliance with currently pending legislative and regulatory proposals by the United States federal government and various state and foreign governments intended to limit the collection and use of user information. While we have implemented and intend to implement additional programs designed to enhance the protection of the privacy of our users, these programs may not conform to all or any of these laws or regulations and we may consequently incur civil or criminal liability for failing to conform. As a result, we may be forced to change our current practices relating to the collection, storage and use of user information. Our failure or our perceived failure to comply with laws and regulations could also lead to adverse publicity and a loss of consumer confidence if it were known that we did not take adequate measures to assure the confidentiality of the personally identifiable information that our users had given to us. This could result in a loss of customers and revenue and materially adversely impact the success of our business. Concern among prospective customers and professionals regarding our use of personal information collected on our websites, such as credit card numbers, email addresses, phone numbers and other personal information, could keep prospective customers from using our career services websites. Internet-wide incidents or incidents with respect to our websites or databases, including misappropriation of our users' personal information, penetration of our network security, or changes in industry standards, regulations or laws could result in regulatory penalties, liability to the persons whose information was compromised, as well as legal expenses, and could deter people from using the Internet or our websites to conduct transactions that involve confidential information, which could have a material adverse impact on our business. We generally comply with industry standards and are subject to the terms of our privacy policies and privacy-related obligations to third parties (including voluntary third-party certification bodies such as TrustArc). We strive to comply with all applicable laws, policies, legal obligations and industry codes of conduct relating to privacy and data protection, to the extent possible. However, it is possible that these obligations may be interpreted and applied in new ways and/or in a manner that is inconsistent from one jurisdiction to another and may conflict with other rules or our practices or that new regulations could be enacted.

We continue to see increased regulation of data privacy and security, including the adoption of more stringent subject matter specific state laws and national laws regulating the collection and use of data, as well as security and data breach obligations. For example, California adopted the California Consumer Privacy Act of 2018, or CCPA, which became effective on January 1, 2020. The CCPA established a new privacy framework for covered businesses by, among other things, creating an expanded definition of personal information, establishing new data privacy rights for consumers in the State of California and creating a new and potentially severe statutory damages framework for violations of the CCPA and for businesses that fail to implement reasonable security procedures and practices to prevent data breaches. More recently, on November 3, 2020, California enacted the California Privacy Rights Act, or CPRA. The CPRA, which goes into effect on January 1, 2023, expands upon the protections provided by the CCPA, including new limitations on the sale or sharing of consumers' personal information, and the creation of a new state agency to enforce the CPRA's protections.

The uncertainty and changes in the requirements of multiple jurisdictions may increase the cost of compliance, reduce demand for our websites, restrict our ability to offer services in certain locations or subject us to sanctions by state or national data protection regulators, all of which could harm our business, financial condition, and results of operations. Failure to provide adequate privacy protections and maintain compliance with the new data privacy laws, including the CCPA, could have a material adverse effect on our financial condition and results of operations.

Our business is subject to U.S. government regulation of the Internet and taxation, which may have a material adverse effect on our business.

Congress and various state and local governments have passed legislation that regulates various aspects of the Internet, including content, copyright infringement, user privacy, taxation, access charges, liability for third-party activities and jurisdiction. In addition, federal, state, and local governmental organizations are also considering legislative and regulatory proposals that would regulate the Internet. Areas of potential regulation include libel, pricing, quality of products and services and intellectual property ownership. A number of proposals have been made at the state and local level that would impose taxes on the sale of goods and services through the Internet. Such proposals, if adopted, could substantially impair the growth of commerce over the Internet and could adversely affect our business, future results of operations, financial condition and liquidity. We may be subject to restrictions on our ability to communicate with our customers through email, text messages and phone calls. Several jurisdictions have proposed or adopted privacy related laws that restrict or prohibit unsolicited email or "spam." These laws may impose significant monetary penalties for violations. For example, the CAN-SPAM Act of 2003, or "CAN-SPAM," imposes complex and often burdensome requirements in connection with sending commercial email. Among other requirements, CAN-SPAM obligates the sender of commercial emails to provide recipients with the right to "opt-out" of receiving future emails from the sender. In addition, some states have passed laws regulating commercial email practices that are significantly more restrictive and difficult to comply with than CAN-SPAM, some portions of which may not be preempted by CAN-SPAM. If we were found to be in violation of CAN-SPAM or applicable state laws governing email not preempted by CAN-SPAM, we could be required to pay large penalties, which would adversely affect our financial condition, harm our business operations and marketing efforts, injure our reputation and erode candidate and customer trust. The scope of those regulations is unpredictable.

Changes in laws or regulations that adversely affect the growth, popularity or use of the Internet, including laws impacting net neutrality, could decrease the demand for our service and increase our cost of doing business. Certain laws intended to prevent network operators from discriminating against the legal traffic that traverse their networks have been implemented in many jurisdictions. In others, the laws may be nascent or non-existent. Furthermore, favorable laws may change, including for example in the United States where the FCC voted to repeal existing net neutrality regulations. Given uncertainty around these rules, including changing interpretations, amendments or repeal, coupled with potentially significant political and economic power of local network operators, we could experience discriminatory or anti-competitive practices that could impede our growth, cause us to incur additional expense or otherwise negatively affect our business.

Due to the global nature of the Internet, it is possible that the governments of other states and foreign countries might attempt to regulate its transmissions or prosecute us for violations of their laws. We might unintentionally violate such laws or such laws may be modified and new laws may be enacted in the future. Any such developments (or developments stemming from enactment or modification of other laws) may significantly harm our business, operating results and financial condition.

General Risk Factors

We may from time to time consider strategic alternatives that may enhance stockholder value, which may result in the use of a significant amount of our management resources or significant costs, and we may not be able to fully realize the potential benefits of any such transaction.

We may consider from time to time strategic alternatives to ensure the Company's ownership structure optimizes the Company's ability to achieve growth initiatives through its strategic plan and to maximize stockholder value. The consideration of strategic alternatives could result in, among other things, a sale, merger, consolidation or business combination, asset divestiture, partnering or other collaboration agreements, or potential acquisitions or recapitalizations, in one or more transactions, or continuing to operate with our current business plan and strategy. There can be no assurance that any review of strategic alternatives will result in the identification or consummation of any transaction. Although there would be uncertainty that considering any possible transaction would result in definitive agreements or the completion of such transaction, we may devote a significant amount of our management resources to analyzing and pursuing such a transaction, which could negatively impact our operations. In addition, we may incur significant costs in connection with seeking such transactions or other strategic alternatives regardless of whether the transaction is completed. In the event that we consummate a strategic alternative in the future, we cannot be certain that we would fully realize the potential benefit of such a transaction and cannot predict the impact that such strategic transaction might have on our operations or stock price. We do not undertake to provide updates or make further comments regarding the evaluation of strategic alternatives, unless otherwise required by law.

If we fail to attract or retain key executives and personnel, there could be a material adverse effect on our business.

Our performance is substantially dependent on the performance of senior management and key technical personnel. We have employment agreements, which include non-compete provisions, with all members of senior management and certain key technical personnel. However, we cannot assure you that any of these senior managers or others will remain with us or that they will not compete with us in the event they cease to be employees, which could have a material adverse effect on our business, results of operations, financial condition and liquidity. In addition, we have not purchased key person life insurance on any members of our senior management. Our future success also depends upon our continuing ability to identify, attract, hire and retain highly qualified personnel, including skilled technical, management, product and technology, and sales and marketing personnel, all of whom are in high demand and are often subject to competing offers. There has in the past been, and there may in the future be, a shortage of qualified personnel in the career services market. We also compete for qualified personnel with other companies. A loss of a substantial number of qualified employees, or an inability to attract, retain and motivate additional highly skilled employees required for expansion of our business, could have a material adverse effect on our business. In addition, the recent significant decline in our stock price may undermine the use of our equity as a retention tool and may make it more difficult to retain key personnel.

We may be adversely affected by cyclicality, volatility or an extended downturn in the United States or worldwide economies, or in or related to the industries we serve.

Our revenues are generated primarily from servicing customers seeking to hire qualified professionals in the technology and finance sectors. Demand for these professionals tends to be tied to economic and business cycles. Increases in the unemployment rate, specifically in the technology industry, cyclicality or an extended downturn in the economy could cause our revenues to decline. For example, during the recession in 2001, employers reduced or postponed their recruiting efforts, including their recruitment of professionals in the technology industry. The 2001 economic recession, coupled with the substantial indebtedness incurred by our predecessor, Dice Inc., resulted in Dice Inc. filing for Chapter 11 protection in 2003. As of December 2021, the seasonally unadjusted U.S. unemployment rate was 2.0% for computer-related occupations as compared to the overall national average of 3.9%, seasonally adjusted. The increase in unemployment and decrease in recruitment activity experienced during 2008 and 2009 resulted in decreased demand for our services. During 2009, we experienced a 29% decline in revenues compared to 2008. If the economic environment experienced during 2008 and 2009 returns, our ability to generate revenue may be adversely affected.

In addition, the general level of economic activity in the regions and industries in which we operate significantly affects demand for our services. When economic activity slows, many companies hire fewer employees. Therefore, our operating results, business and financial condition could be significantly harmed by an extended economic downturn or future downturns, especially in regions or industries where our operations are heavily concentrated. Further, we may face increased pricing pressures during such periods as customers seek to use lower cost or fee services. Additionally, the labor market and certain of the industries we serve have historically experienced short-term cyclicality. It is difficult to estimate the total number of passive or active job seekers or available job openings in the United States or abroad during any given period. If there is a labor shortage, qualified professionals may be less likely to seek our services, which could cause our customers to look elsewhere for attractive employees. Such labor shortages would require us to intensify our marketing efforts toward professionals so that professionals who post their resumes on our websites remain relevant to our customers, which would increase our expenses. Furthermore, if there is a shortage of available job openings in a particular region or sector we serve, the number of job postings on our websites could decrease, causing our business to be adversely affected. For example, the continued depression of oil prices led to decreased demand for energy professionals worldwide. Oil prices reached decade lows in 2016 and remained depressed. This decline in demand significantly decreased the sales of energy industry job postings and the use of related services and adversely impacted the results of Rigzone, a business we disposed of in 2018. As a result, we recorded a $24.6 million impairment of goodwill and intangible assets and $34.8 million impairment of goodwill at our former Corporate & Other segment for the fiscal years ended December 31, 2016 and 2015, respectively.

Any economic downturn or recession in the United States or abroad for an extended period of time could have a material adverse effect on our business, financial condition, results of operations and liquidity. Based on historical trends, improvements in labor markets and the need for our services generally lag behind overall economic improvements. Additionally, there has historically been a lag from the time customers begin to increase purchases of our services and the impact to our revenues due to the recognition of revenue occurring over the length of the contract, which can be several months to a year.

Volatility in global financial markets may limit our ability to access capital markets at a time when we would like, or need, to raise capital, which could have an impact on our ability to react to changing economic and business conditions. Accordingly, if the domestic or global economies worsen or volatility occurs, our business, results of operations and financial condition could be materially and adversely affected.

We could be subject to infringement and other claims relating to our services or the content on our websites that may result in costly litigation, the payment of damages or the need to revise the way we conduct business.

We cannot be certain that our technology, offerings, services or content do not or will not infringe upon the intellectual property or other proprietary rights of third parties, or otherwise violate laws. From time to time we receive notices alleging potential infringement of intellectual property or other proprietary rights of third parties or non-compliance with applicable laws. In seeking to protect our marks, copyrights, domain names and other intellectual property rights, or in defending ourselves against claims of infringement or non-compliance that may or may not be without merit, we could face costly litigation and the diversion of our management's attention and resources. Claims against us could result in the need to develop alternative trademarks, content, technology or other intellectual property or enter into costly royalty or licensing agreements, or substantially modify or cease to offer one or more of our services, which could have a material adverse effect on our business, results of operations, financial condition and liquidity. If we were found to have infringed on a third party's intellectual property or other proprietary rights, or failed to comply with applicable laws, among other things, the value of our brands and our business reputation could be impaired, and our business could suffer.

If we are unable to enforce or defend our ownership or use of intellectual property, our business, competitive position and operating results could be harmed.

The success of our business depends in large part on our intellectual property rights, including existing and future trademarks and copyrights, which are and will continue to be valuable and important assets of our business. Our business could be harmed if we are not able to protect the content of our databases and our other intellectual property. We have taken measures to protect our intellectual property, such as requiring our employees and consultants with access to our proprietary information to execute confidentiality agreements. In the future, we may sue competitors or other parties who we believe to be infringing our intellectual property. We may in the future also find it necessary to assert claims regarding our intellectual property. These measures may not be sufficient or effective to protect our intellectual property. We also rely on laws, including those regarding copyrights and trademarks to protect our intellectual property rights. Current laws, or the enforceability of such laws, specifically in foreign jurisdictions, may not adequately protect our intellectual property or our databases and the data contained in them. In addition, legal standards relating to the validity, enforceability and scope of protection of intellectual property rights in Internet related businesses are uncertain and evolving, and we cannot assure you of the future viability or value of any of our proprietary rights. Others may develop technologies similar or superior to our technology. A significant impairment of our intellectual property rights could require us to develop alternative intellectual property, incur licensing or other expenses or limit our product and service offerings.

We incur increased costs and will continue to incur these costs as a result of being a public company.

As a public company, we have incurred and will continue to incur significant levels of legal, accounting and other expenses. In addition, the Sarbanes Oxley Act of 2002 (“Sarbanes Oxley”), the Dodd-Frank Act and related rules of the Securities and Exchange Commission (the “SEC”) and the NYSE regulate corporate governance practices of public companies and impose significant requirements relating to disclosure controls and procedures and internal control over financial reporting. Compliance with these public company requirements involves significant costs, the commitment of significant management resources, and is time consuming. We are required to expend considerable time and resources complying with public company regulations.

COVID-19 could continue to have an adverse impact on our business.

The spread of the COVID-19 pandemic throughout 2020 caused an economic downturn on a global scale, as well as significant volatility in the financial markets. In March 2020, the World Health Organization declared the spread of the COVID-19 virus a pandemic. COVID-19 slowed recruitment activity for our businesses in 2020 as employers slowed hiring, which reduced our revenues and operating cash flows. We believe the pandemic could negatively impact our future financial performance, but, based on information currently available, we are not anticipating a significant negative long-term impact on our business and operations, results of operations, financial condition, cash flows, liquidity and capital and financial resources. However, the situation is uncertain and rapidly changing. The Company cannot at this time predict the ultimate impact that the COVID-19 pandemic will have on its financial condition and operations. In an effort to protect the health and safety of our employees, we have taken action to adopt certain policies at our office locations, including working from home, closing of our office locations where necessary, and suspending employee travel at times. We may have to take further actions that we determine are in the best interests of our employees or as required by federal, state, or local authorities.

The impact of the COVID-19 pandemic continues to unfold. The extent of the pandemic’s effect on our operational and financial performance will depend in large part on future developments, which cannot be predicted with confidence at this time. Future developments include the duration, scope and severity of the pandemic, the actions taken to contain or mitigate its impact, the impact on governmental programs and budgets, the continued development of treatments or vaccines, and the resumption of widespread economic activity. While we expect the pandemic could negatively impact our financial performance in the future, due to the inherent uncertainty of the unprecedented and rapidly evolving situation, we may not be able to predict the likely impact of the COVID-19 pandemic on our future operations.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We do not own any properties. Our corporate headquarters is located at 6465 South Greenwood Plaza, Suite 400, Centennial, Colorado, where we lease approximately 28,000 square feet. We lease approximately 45,000 square feet of office space in Urbandale, Iowa and 16,000 square feet of office space in New York, New York, of which 12,000 square feet was subleased during the third quarter of 2018.

We believe that our facilities are adequate for current and anticipated future use, although we may from time to time lease additional facilities as operations require.

Item 3. Legal Proceedings

From time to time we may be involved in disputes or litigation relating to claims arising out of our operations. We are currently not a party to any material unrecorded pending legal proceedings. See also Note 13 of the notes to consolidated financial statements.

Item 4. Mine Safety Disclosures

None.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock is listed on the NYSE under the ticker symbol "DHX". We have not listed our stock on any other markets or exchanges. Prior to July 18, 2007, there was no public market for our common stock.

Holders

As of December 31, 2021, there were 19 stockholders of record of our common stock. A significant number of the outstanding shares of common stock which are beneficially owned by individuals and entities are registered in the name of Cede & Co. Cede & Co. is a nominee of The Depository Trust Company, a securities depository for banks and brokerage firms.

Dividend Policy

We have not declared or paid any cash dividends on our stock as a public company. We currently anticipate that all future earnings will be retained by the Company to support our long-term growth strategy. Accordingly, we do not anticipate paying periodic cash dividends on our stock for the foreseeable future.

Furthermore, we are restricted by our Credit Agreement in the amount of cash dividends that we can pay.

The payment of any future dividends will be at the discretion of our board of directors and subject to the Credit Agreement and will depend upon, among other things, future earnings, operations, capital requirements, our general financial condition, contractual restrictions and general business conditions.

Repurchases of Equity Securities

Our board of directors approved a stock repurchase program that permitted the Company to repurchase our common stock. The following table summarizes the stock repurchase plans approved by the board of directors:

	May 2018 to May 2019	**May 2019 to May 2020**	**May 2020 to May 2021(1)**	**February 2021 to June 2022(2)**
Approval Date	May 2018	April 2019	May 2020	February 2021
Authorized Repurchase Amount of Common Stock	$7 million	$7 million	$5 million	$20 million

(1) During the first quarter of 2021, the Company completed its purchases under the plan, which consisted of 2.2 million shares for $5.0 million, effectively ending the plan prior to its original expiration date.

(2) During the second quarter of 2021, the Company ended its $8 million stock repurchase program approved in February 2021 and allowed for the purchase of an additional $12.0 million of our common stock through June 2022, bringing total authorized purchases under the plan to $20.0 million.

Under each plan, management has discretion in determining the conditions under which shares may be purchased from time to time.

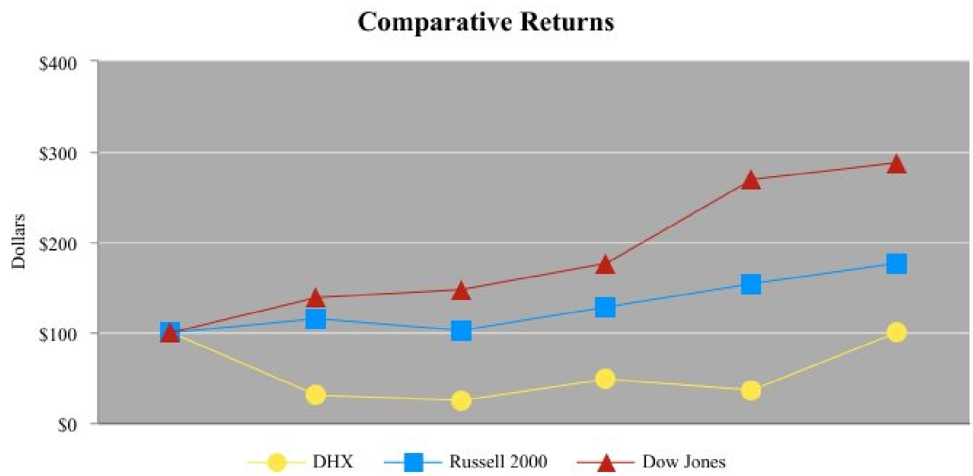
During the three months ended December 31, 2021, purchases of our common stock pursuant to the Stock Repurchase Plans were as follows:

Period	(a) Total Number of Shares Purchased [1]	(b) Average Price Paid per Share [2]		(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs	
October 1 through October 31, 2021	245,611	$	4.86	245,611	$	9,818,244
November 1 through November 30, 2021	265,675	$	5.26	265,675	$	8,421,921
December 1 through December 31, 2021	447,832	$	5.89	447,832	$	5,784,018
Total	959,118			959,118		

[1] No shares of our common stock were purchased other than through a publicly announced plan or program.
[2] Average price paid per share includes costs associated with the repurchases.

Performance Graph

The following graph shows the total shareholder return of an investment of $100 in cash on December 31, 2016 through December 31, 2021 (the last trading day of our common stock on the NYSE in 2021) for (i) our common stock, (ii) the Russell 2000 and (iii) the Dow Jones Internet Composite Index, at the closing price on December 31, 2021. All values assume reinvestment of the full amount of all dividends, if any.



	12/31/2016		12/31/2017		12/31/2018		12/31/2019		12/31/2020		12/31/2021	
DHX	$	100.00	$	30.40	$	24.32	$	48.16	$	35.52	$	99.84
Russell 2000	$	100.00	$	114.65	$	102.02	$	128.06	$	153.62	$	176.39
Dow Jones Internet Composite Index	$	100.00	$	138.08	$	147.07	$	175.96	$	269.23	$	287.40

The returns shown on the graph do not necessarily predict future performance. The performance graph is not deemed “filed” with the SEC.

Item 6. Reserved

None.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion should be read in conjunction with our consolidated financial statements and the related notes included elsewhere in this Annual Report. Certain statements we make under this Item 7 constitute "Forward-Looking Statements" under the Private Securities Litigation Reform Act of 1995. See also "Note Concerning Forward-Looking Statements."

You should keep in mind that any forward-looking statement made by us herein, or elsewhere, speaks only as of the date on which it is made. New risks and uncertainties come up from time to time, and it is impossible to predict these events or how they may affect us. We have no obligation to update any forward-looking statements after the date hereof, except as required by federal securities law.

Overview

We are a provider of software products, online tools and services that deliver career marketplaces to candidates and employers in the United States. DHI's brands, Dice and ClearanceJobs, enable recruiters and hiring managers to efficiently search, match and connect with highly skilled technologists in specialized fields, particularly technology and active government security clearance. Professionals find ideal employment opportunities, relevant job advice and personalized data that help manage their technologists' lives.

In online recruitment, we specialize in employment categories in which there has been a long-term scarcity of highly skilled, highly qualified professionals relative to market demand, specifically technologists who work in a variety of industries or have active government security clearances. Our websites serve as online two-sided marketplaces where employers and recruiters source and connect with prospective employees, and where technologists find relevant job opportunities, data and information to further their careers. Our websites offer job postings, news and content, career development and recruiting services tailored to the specific needs of the professional community that each website serves.

Majority ownership and control of DHI's eFinancialCareers ("eFC") business, which provides career websites to the financial services industry and has operations in the United Kingdom, Continental Europe, Asia, the Middle East and North America, was transferred to eFC management on June 30, 2021. The Company retained a 40% common share interest. As a result, all ongoing DHI operations, which include the Dice and ClearanceJobs brands, are in the United States subsequent to June 30, 2021.

We have been in the recruiting and career development business for over 30 years. Based on our operating structure, we have identified one reportable segment, Tech-focused, which includes the Dice and ClearanceJobs businesses and corporate related costs. The Dice and ClearanceJobs businesses and corporate related costs are aggregated into the Tech-focused reportable segment primarily because the Company does not have discrete financial information for those brands or costs. As a result of the eFC separation, the eFC business was deconsolidated from the Company's consolidated financial statements as of June 30, 2021 and is reflected as a discontinued operation.

Our Revenues and Expenses

We derive the majority of our revenues from customers who pay fees, either annually, quarterly or monthly, to post jobs on our websites and to access our searchable databases of resumes. Our fees vary by customer based on the number of individual users of our databases of resumes, the number and type of job postings and profile views purchased and the terms of the packages purchased. Our Company sells recruitment packages that can include access to our databases of resumes and job posting capabilities. We believe the key metrics that are material to an analysis of our businesses are our total number of Dice and ClearanceJobs recruitment package customers and the revenue, on average, that these customers generate. The tables below detail this customer data.

Recruitment Package Customers

Recruitment Package Customers:	December 31, 2021	December 31, 2020	Increase (Decrease)	Percent Change
Dice	6,004	5,150	854	17%
ClearanceJobs	1,878	1,718	160	9%

Average Monthly Revenue per Recruitment Package Customer (1)

	FY 2021	FY 2020	Increase (Decrease)	Percent Change
Dice	$1,137	$1,132	$5	—%
ClearanceJobs	$1,419	$1,346	$73	5%

(1) Calculated by dividing recruitment package customer revenue by the daily average count of recruitment package customers during each month, adjusted to reflect a thirty day month. The simple average of each month is used to derive the amount for each period.

Dice had 6,004 recruitment package customers as of December 31, 2021, which was an increase of 854, or 17%, year over year and average revenue per recruitment package customer for Dice increased for the year ended December 31, 2021. The increases were driven by strong renewal rates and new business activity. ClearanceJobs had 1,878 recruitment package customers as of December 31, 2021 compared to 1,718 as of December 31, 2020, an increase of 9%, and average revenue per recruitment package customer increased. The increases for ClearanceJobs were due to continued high demand for professionals with government clearance and consistent product releases and enhancements driving activity on the site.

Deferred revenue, as shown on the consolidated balance sheets, reflects customer billings made in advance of services being rendered. Backlog consists of deferred revenue plus customer contractual commitments not invoiced representing the value of future services to be rendered under committed contracts. We believe backlog to be an important measure of our business as it represents our ability to generate future revenue. A summary of our deferred revenue and backlog is as follows:

Summary of Deferred Revenue and Backlog:	December 31, 2021	December 31, 2020	Decrease	Percent Change
	(in thousands, except percentages)			
Deferred Revenue	**$ 46,146**	**$ 36,582**	$ 9,564	26 %
Contractual commitments not invoiced	46,497	27,849	18,648	67 %
Backlog[1]	$ 92,643	$ 64,431	$ 28,212	44 %

(1) Backlog consists of deferred revenue plus customer contractual commitments not invoiced representing the value of future services to be rendered under committed contracts.

Backlog at December 31, 2021 increased $28.2 million from December 31, 2020 due to the strong technology recruitment market driving bookings growth for both Dice and ClearanceJobs, investments in product, sales and marketing and a focus on signing multi-year contracts.

To a lesser extent, we also generate revenue from advertising on our various websites or from lead generation and marketing solutions provided to our customers. Advertisements include various forms of rich media and banner advertising, text links, sponsorships, and custom content marketing solutions. Lead generation information utilizes advertising and other methods to deliver leads to a customer.

The Company continues to evolve and develop new software products and features to attract and engage qualified professionals and match them with employers. Our ability to grow our revenues will largely depend on our ability to grow our customer bases in the markets in which we operate by acquiring new customers while retaining a high proportion of the customers we currently serve, and to expand the breadth of services our customers purchase from us. We continue to make investments in our business and infrastructure to help us achieve our long-term growth objectives, such as the innovative products in the table below.

Product Releases	
2021	**2020**
Dice Marketplace, Dice TalentSearch Social Data Refresh, Brand.io, TalentSearch Personalization, Unbiased Sourcing Mode	Dice IntelliSearch-Based Job Alerts, Dice Private Email, Dice Remote Jobs, Dice Recruiter Profile, Dice Instant Messaging
ClearanceJobs Meetings, ClearanceJobs Video, Team Recruiting, Shared Talent Pipelines, Quality of Use Improvements	ClearanceJobs Client Team Dashboard, ClearanceJobs Workflow, ClearanceJobs Favorites, ClearanceJobs Self-Serve BrandAmp, ClearanceJobs Candidate Search and ClearanceJobs Broadcast Message upgrades

Other material factors that may affect our results of operations include our ability to attract qualified professionals that become engaged with our websites and our ability to attract customers with relevant job opportunities. The more qualified professionals that use our websites, the more attractive our websites become to employers and advertisers, which in turn makes them more likely to become our customers, positively impacting our results of operations. If we are unable to continue to attract qualified professionals to engage with our websites, our customers may no longer find our services attractive, which could have a negative impact on our results of operations. Additionally, we need to ensure that our websites remain relevant in order to attract qualified professionals to our websites and to engage them in high-value tasks, such as posting resumes and applying to jobs.

The largest components of our expenses are personnel costs and marketing and sales expenditures. Personnel costs consist of salaries, benefits, and incentive compensation for our employees, including commissions for salespeople. Personnel costs are categorized in our statement of operations based on each employee's principal function. Marketing expenditures primarily consist of online advertising, brand promotion and lead generation to employers and job seekers.

Critical Accounting Estimates

This discussion of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates, judgments and assumptions that affect the reported amount of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. We evaluate our estimates, including our critical accounting estimates, on an ongoing basis. We based our estimates of the carrying value of certain assets and liabilities on historical experience and on various other assumptions that we believe are reasonable. In many cases, we could reasonably have used different accounting policies and estimates. In some cases, changes in the accounting estimates are reasonably likely to occur from period to period. Our actual results may differ from these estimates under different assumptions or conditions. We believe the following critical accounting estimates affect our more significant judgments used in the preparation of our consolidated financial statements.

Goodwill

We record goodwill when the purchase price paid for an acquisition exceeds the estimated fair value of the net identified tangible and intangible assets acquired.

We determine whether the carrying value of recorded goodwill is impaired on an annual basis or more frequently if indicators of potential impairment exist. In testing goodwill for impairment, a qualitative assessment can be performed and if it is determined that the fair value of the reporting unit is more likely than not less than the carrying amount, the impairment review process compares the fair value of the reporting unit in which the goodwill resides to the carrying value of that reporting unit. If the fair value of the reporting unit is less than its carrying amount, an impairment charge is recorded for the amount the carrying value exceeds the fair value. Our annual impairment test for goodwill is performed on October 1 of each year.

The annual impairment test for the Tech-focused reporting unit performed as of October 1, 2021 resulted in the fair value of the reporting unit being substantially in excess of the carrying value with fair value exceeding the carrying value by 100%. During the third quarter of 2020, the impacts of the COVID-19 pandemic continued and the Company's projected earnings and cash flows for the Tech-focused reporting unit declined as compared to the projections used in the March 31, 2020 analysis. As a result, the Company performed an interim impairment analysis as of September 30, 2020, which resulted in the Company recording an impairment charge of $23.6 million during the three month period ended September 30, 2020.

Results for the Tech-focused reporting unit for the fourth quarter of 2021 and estimated future results as of December 31, 2021 have exceeded the projections used in the October 1, 2021 analysis. As a result, the Company believes it is not more likely than not that the fair value of the reporting unit is less than the carrying value as of December 31, 2021. Therefore, no quantitative impairment test was performed as of December 31, 2021. No impairment was recorded during the years ended December 31, 2021 and 2019.

The amount of goodwill as of December 31, 2021 allocated to the Tech-focused reporting unit was $128.1 million. The discount rate applied for the Tech-focused reporting unit in the October 1, 2021 analysis was 11.5%. An increase to the discount rate applied or reductions to future projected operating results could result in future impairment of the Tech-focused reporting unit's goodwill. It is reasonably possible that changes in judgments, assumptions and estimates the Company made in assessing the fair value of goodwill could cause the Company to consider some portion or all of the goodwill of the Tech-focused reporting unit to become impaired. In addition, a future decline in the overall market conditions, uncertainty related to COVID-19, political instability, and/or changes in the Company's market share could negatively impact the estimated future cash flows and discount rates used to determine the fair value of the reporting unit and could result in an impairment charge in the foreseeable future.

The determination of whether or not goodwill has become impaired is judgmental in nature and requires the use of estimates and key assumptions, particularly assumed discount rates and projections of future operating results, such as forecasted revenues and earnings before interest, taxes, depreciation and amortization margins and capital expenditure requirements. Fair values are determined by using a combination of a discounted cash flow methodology and a market comparable method. The discounted cash flow methodology is based on projections of the amounts and timing of future revenues and cash flows, assumed discount rates and other assumptions as deemed appropriate. We consider factors such as historical performance, anticipated market conditions, operating expense trends and capital expenditure requirements. Additionally, the discounted cash flows analysis takes into consideration cash expenditures for product development, other technological updates and advancements to our websites and investments to improve our candidate databases. The market comparable method indicates the fair value of a business by comparing it to publicly traded companies in similar lines of business or to comparable transactions or assets. Considerations for factors such as size, growth, profitability, risk and return on investment are analyzed and compared to the comparable businesses and adjustments are made. A market value of invested capital of the publicly traded companies is calculated and then applied to the entity's operating results to arrive at an estimate of value. Changes in our strategy and/or market conditions could significantly impact these judgments and require adjustments to recorded amounts of goodwill.

Indefinite-Lived Acquired Intangible Assets

The indefinite-lived acquired intangible assets include the Dice trademarks and brand name. The Dice trademark, trade name and domain name is one of the most recognized names of online technology recruiting and career development. Since Dice's inception in 1991, the brand has been recognized as a leader in recruiting and career development services for technology and engineering professionals. Currently, the brand is synonymous with the most specialized online marketplace for industry-specific technologists. The brand has a significant online and offline presence in online recruiting and career development services. Considering the recognition and the awareness of the Dice brand in the talent acquisition and staffing services market, Dice's long operating history and the intended use of the Dice brand, the remaining useful life of the Dice trademark, trade name and domain name was determined to be indefinite.

We determine whether the carrying value of recorded indefinite-lived acquired intangible asset is impaired on an annual basis or more frequently if indicators of potential impairment exist. The impairment review process is performed on October 1 of each year and compares the fair value of the indefinite-lived acquired intangible asset to its carrying value. If the carrying value exceeds the fair value, an impairment loss is recorded. The impairment test performed as of October 1, 2021 resulted in the fair value of the Dice trademarks and brand name exceeding the carrying value by 32%. During the first quarter of 2020, because of the initial impacts of the COVID-19 pandemic and its potential impact on future earnings and cash flows that are attributable to the Dice trademarks and brand name, the Company performed an interim impairment analysis. As a result of the analysis, the Company recorded an impairment charge of $7.2 million during the first quarter of 2020. During the third quarter of 2020, the impacts of the COVID-19 pandemic continued and the Company's projected earnings and cash flows that are attributable to the Dice trademarks and brand name declined as compared to the projections used in the March 31, 2020 analysis. As a result, the Company performed an interim impairment analysis as of September 30, 2020, which resulted in the Company recording an additional impairment charge of $8.0 million during the three month period ended September 30, 2020.

Revenues attributable to the Dice trademarks and brand name for the fourth quarter of 2021 and estimated future results as of December 31, 2021 have exceeded the projections used in the October 1, 2021 analysis. As a result, the Company believes it is not more likely than not that the fair value of the Dice trademarks and brand name is less than the carrying value as of December 31, 2021. Therefore, no quantitative impairment test was performed as of December 31, 2021. No impairment was recorded during the years ended December 31, 2021 and 2019.

The projections utilized in the October 1, 2021 analysis included increasing revenues at rates approximating industry growth projections. The Company’s ability to achieve these revenue projections may be impacted by, among other things, uncertainty related to COVID-19, competition in the technology recruiting market, challenges in developing and introducing new products and product enhancements to the market and the Company’s ability to attribute value delivered to customers. The October 1, 2021 analysis included operating margins during the year ending December 31, 2021 that approximate operating margins for the year ended December 31, 2020 and then increasing modestly. If future cash flows that are attributable to the Dice trademarks and brand name are not achieved, the Company could realize an impairment in a future period. The Company's operating results attributable to the Dice trademarks and brand name through December 31, 2021 and projections of future results have met or exceeded those included in the projections utilized in the October 1, 2021 analysis. In the October 1, 2021 analysis, the Company utilized a relief from royalty rate method to value the Dice trademarks and brand name using a royalty rate of 4.0% based on comparable industry studies and a discount rate of 12.5%.

The determination of whether or not indefinite-lived acquired intangible assets have become impaired involves a significant level of judgment in the assumptions underlying the approach used to determine the value of the indefinite-lived acquired intangible assets. Fair values are determined using a profit allocation methodology which estimates the value of the trademark and brand name by capitalizing the profits saved because the company owns the asset. We consider factors such as historical performance, anticipated market conditions, operating expense trends and capital expenditure requirements. Changes in our strategy, uncertainty related to COVID-19, and/or changes in market conditions could significantly impact these judgments and require adjustments to recorded amounts of intangible assets. If projections are not achieved, the Company could realize an impairment in the foreseeable future.

Income Taxes

We utilize the asset and liability method of accounting for income taxes. Under this method, deferred income taxes are recognized for differences between the financial statement and tax bases of assets and liabilities at enacted statutory tax rates in effect for the years in which the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

The calculation of our tax liabilities involves dealing with uncertainties in applying tax laws and regulations in numerous jurisdictions. Tax benefits from uncertain tax positions are recognized when it is more likely than not that the positions will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits. Because of the complexity of some of these uncertainties, the ultimate resolution could result in a payment that is materially different from our current estimate of the accrual for unrecognized tax benefits.

Cyclicality

The labor market and certain of the industries that we serve have historically experienced short-term cyclicality. However, we believe that online career websites continue to provide economic and strategic value to the labor market and industries that we serve.

Any slowdown in recruitment activity that occurs could negatively impact our revenues and results of operations. Alternatively, a decrease in the unemployment rate or a labor shortage, including as a result of an increase in job turnover, generally means that employers (including our customers) are seeking to hire more individuals, which would generally lead to more job postings and increases in demand for access to our candidate profiles, which have a positive impact on our revenues and results of operations. Based on historical trends, improvements in labor markets and the need for our services generally lag behind overall economic improvements. Additionally, there has historically been a lag from the time customers begin to increase purchases of our recruitment services and the impact to our revenues due to the recognition of revenue occurring over the length of the contract, which can be several months to over a year.

From time to time, we see market slowdowns, which can lead to lower demand for recruiting technology and security cleared professionals. If recruitment activity slows in the industries in which we operate during 2022 and beyond, our revenues and results of operations could be negatively impacted.

Results of Operations

Our historical financial information discussed in this Annual Report has been derived from the Company's financial statements and accounting records for the years ended December 31, 2021, 2020 and 2019. Consolidated operating results in dollars and as a percent of revenue follows:

(in thousands)	For the year ended December 31, 2021	2020	2019	2021 vs 2020	2020 vs 2019
Revenues	**$ 119,903**	**$ 111,167**	**$ 117,272**	**$ 8,736**	**$ (6,105)**
Operating expenses:					
Cost of revenues	15,088	14,286	13,533	802	753
Product development	16,020	14,887	14,703	1,133	184
Sales and marketing	43,701	39,693	42,702	4,008	(3,009)
General and administrative	28,583	26,625	25,827	1,958	798
Depreciation	16,344	10,259	8,428	6,085	1,831
Impairment of intangible assets	—	15,200	—	(15,200)	15,200
Impairment of goodwill	—	22,607	—	(22,607)	22,607
Impairment of right-of-use asset	1,919	—	—	1,919	—
Disposition related and other costs	—	—	1,414	—	(1,414)
Total operating expenses	**121,655**	**143,557**	**106,607**	**(21,902)**	**36,950**
Loss on sale of business	$ —	$ —	$ (537)	—	537
Operating income (loss)	**$ (1,752)**	**$ (32,390)**	**$ 10,128**	**$ 30,638**	**$ (42,518)**

	For the year ended December 31, 2021	2020	2019
Revenues	**100.0%**	**100.0%**	**100.0%**
Operating expenses:			
Cost of revenues	12.6 %	12.9 %	11.5 %
Product development	13.4 %	13.4 %	12.5 %
Sales and marketing	36.4 %	35.7 %	36.4 %
General and administrative	23.8 %	24.0 %	22.0 %
Depreciation	13.6 %	9.2 %	7.2 %
Impairment of intangible assets	— %	13.7 %	— %
Impairment of goodwill	— %	20.3 %	— %
Impairment of right-of-use asset	1.6 %	— %	— %
Disposition related and other costs	— %	— %	1.2 %
Total operating expenses	**101.5 %**	**129.1 %**	**90.9 %**
Loss on sale of business	— %	— %	0.5 %
Operating income (loss)	**(1.5) %**	**(29.1) %**	**8.6 %**

Comparison of Years Ended December 31, 2021 and 2020

Revenues

	Year Ended December 31, 2021	Year Ended December 31, 2020	Increase (Decrease)	Percent Change
	(in thousands, except percentages)			
Tech-focused				
Dice[1]	$ 86,257	$ 82,190	$ 4,067	4.9 %
ClearanceJobs	33,646	28,977	4,669	16.1 %
Total revenues	**$ 119,903**	**$ 111,167**	**$ 8,736**	**7.9 %**

(1) Includes Dice and Career Events.

We experienced an increase in revenue of $8.7 million, or 7.9%. Revenue at Dice increased by $4.1 million, or 4.9%, compared to the same period of 2020 due to improvements in renewal rates and new business activity along with consistently increasing customer counts during 2021, which drives additional revenue in future periods. Revenues for ClearanceJobs increased by $4.7 million, or 16.1%, as compared to the same period of 2020, driven by continued high demand for professionals with government clearance and consistent product releases and enhancements driving activity on the site.

Cost of Revenues

	Year Ended December 31, 2021	Year Ended December 31, 2020	Increase	Percent Change
	(in thousands, except percentages)			
Cost of revenues	$ 15,088	$ 14,286	$ 802	5.6 %
Percentage of revenues	12.6 %	12.9 %		

Cost of revenues increased by $0.8 million, or 5.6%, driven by an increase of $0.4 million associated with web hosting and cloud computing, consistent with the Company's investment in its products and tools to enhance sales processes. The Company also experienced $0.4 million increase in headcount related costs.

Product Development Expenses

	Year Ended December 31, 2021	Year Ended December 31, 2020	Increase	Percent Change
	(in thousands, except percentages)			
Product development	$ 16,020	$ 14,887	$ 1,133	7.6 %
Percentage of revenues	13.4 %	13.4 %		

Product development expenses increased $1.1 million, or 7.6%, Within product development, the Company experienced a decrease in capitalized labor of $0.7 million, which increased expense, along with an increase in consulting costs of $0.3 million.

Sales and Marketing Expenses

	Year Ended December 31, 2021	Year Ended December 31, 2020	Increase	Percent Change
	(in thousands, except percentages)			
Sales and marketing	$ 43,701	$ 39,693	$ 4,008	10.1 %
Percentage of revenues	36.4 %	35.7 %		

Sales and marketing expenses increased $4.0 million, or 10.1%, from the same period in 2020. The increase was primarily driven by $2.4 million increase in compensation related costs due to increased headcount and higher quota attainment versus sales plan, and a $1.5 million increase in discretionary marketing expenses as customer recruitment activity rebounded.

General and Administrative Expenses

	Year Ended December 31,			
	2021	2020	Increase	Percent Change
	(in thousands, except percentages)			
General and administrative	$ 28,583	$ 26,625	$ 1,958	7.4 %
Percentage of revenues	23.8 %	24.0 %		

General and administrative costs increased $2.0 million or 7.4%, primarily due to an increase in compensation related costs of $2.9 million with business performance driving achievement for the bonus and stock-based compensation plans. This was partially offset by lower bad debt expense of $0.7 million.

Depreciation

	Year Ended December 31,			
	2021	2020	Increase	Percent Change
	(in thousands, except percentages)			
Depreciation	$ 16,344	$ 10,259	$ 6,085	59.3 %
Percentage of revenues	13.6 %	9.2 %		

Depreciation expense increased $6.1 million or 59.3% from the same period in 2020, in connection with increasing internal development costs during 2019 and 2020 that were then placed in service, primarily in late 2020, and depreciated. Internal development costs are reflected as purchases of fixed assets in the consolidated statements of cash flows.

Impairment of Intangible Assets

	Year Ended December 31,			
	2021	2020	Decrease	Percent Change
	(in thousands, except percentages)			
Impairment of intangible assets	$ —	$ 15,200	$ (15,200)	(100.0)%
Percentage of revenues	— %	13.7 %		

The Company has an indefinite-lived acquired intangible asset related to the Dice trademarks and brand name. During the first and third quarters of 2020, because of the impacts of the COVID-19 pandemic, the Company performed an interim impairment analysis of the Dice trademarks and brand name. As a result of the analysis, the Company recorded an impairment charge of $15.2 million during the nine months ended September 30, 2020. See also Note 10 of the notes to consolidated financial statements.

Impairment of Goodwill

	Year Ended December 31,			
	2021	2020	Decrease	Percent Change
	(in thousands, except percentages)			
Impairment of goodwill	$ —	$ 22,607	$ (22,607)	(100.0)%
Percentage of revenues	— %	20.3 %		

During the third quarter of 2020, because of the impacts of COVID-19 pandemic, the Company performed an interim impairment analysis of goodwill. As a result of the analysis, the Company recorded an impairment charge of $22.6 million in the third quarter of 2020. See also Note 11 of the notes to consolidated financial statements.

Impairment of right-of-use asset

	Year Ended December 31,			
	2021	2020	Increase	Percent Change
	(in thousands, except percentages)			
Impairment of right-of-use asset	$ 1,919	$ —	$ 1,919	— %
Percentage of revenues	1.6 %	— %		

During the third quarter of 2021, due to the continuing impacts of COVID-19 on the real estate markets and its impact on the future cash flows attributable to its ROU assets, the Company performed an impairment analysis of a sublease within its ROU assets. As a result, the Company recorded an impairment charge of $1.9 million during the third quarter of 2021.

Operating Income (Loss)

	Year Ended December 31, 2021	Year Ended December 31, 2020	Increase	Percent Change
	(in thousands, except percentages)			
Revenue	$ 119,903	$ 111,167	$ 8,736	7.9 %
Operating income (loss)	(1,752)	(32,390)	$ 30,638	(94.6)%
Percentages of revenues	(1.5)%	(29.1)%		

Operating loss for the year ended December 31, 2021 was $1.8 million, a negative margin of 1.5%, compared to operating loss of $32.4 million, a negative margin of 29.1%, for the same period in 2020. The decrease in operating loss and improved percentage margin was primarily driven by non-cash impairments of goodwill and intangible assets of $37.8 million during the 2020 period, partially offset by increased investments in sales and marketing, higher depreciation, and the ROU asset impairment of $1.9 million in the third quarter of 2021.

Income from equity method investment

	Year Ended December 31, 2021	Year Ended December 31, 2020	Increase	Percent Change
	(in thousands, except percentages)			
Income from equity method investment	$ 190	$ —	$ 190	— %
Percentage of revenues	0.2 %	— %		

During the fourth quarter of 2021, the Company recorded $0.2 million of income related to its proportionate share of eFinancialCareer's ("eFC") net income.

Interest Expense and Other

	Year Ended December 31, 2021	Year Ended December 31, 2020	Decrease	Percent Change
	(in thousands, except percentages)			
Interest expense and other	$ 667	$ 831	$ (164)	(19.7)%
Percentage of revenues	0.6 %	0.7 %		

Interest expense and other decreased by $0.2 million, or 19.7%, from the same period in 2020. The decrease in interest expense was primarily due to lower weighted average debt outstanding during the year. The 2020 period included a $0.2 million gain recognized in the second quarter of 2020 on the sale of the Company's 20% interest in BioSpace.

Impairment of investment

	Year Ended December 31, 2021	Year Ended December 31, 2020	Decrease	Percent Change
	(in thousands, except percentages)			
Impairment of investment	$ —	$ 2,002	$ (2,002)	(100.0)%
Percentage of revenues	— %	1.8 %		

During the first quarter of 2020, due to the impacts from the COVID-19 pandemic, the Company determined the value of its 7.6% interest in a leading tech skills assessment company to be zero. Accordingly, the Company recorded an impairment charge of $2.0 million during the first quarter of 2020.

Gain on investment

	Year Ended December 31, 2021	2020	Increase	Percent Change
	(in thousands, except percentages)			
Gain on investment	$ 1,198	$ —	$ 1,198	— %
Percentage of revenues	1.0 %	— %		

The gain on investment relates to a minority interest representing less than 1% of the common stock of a technology company that became publicly traded during the first quarter of 2021 after filing an initial public offering. The Company sold 100% of this investment during the third quarter of 2021. See also Note 8 of the notes to consolidated financial statements.

Income Taxes

	Year Ended December 31, 2021	2020
	(in thousands, except percentages)	
Loss before income taxes	$ (1,031)	$ (35,223)
Income tax benefit	(629)	(2,826)
Effective tax rate	61.0 %	8.0 %

A reconciliation between the income tax benefit at the federal statutory rate and the reported income tax benefit is summarized as follows:

	Year Ended December 31, 2021	2020
Federal statutory rate	$ (216)	$ (7,397)
Gain on sale of businesses or investments	(251)	(42)
Stock-based compensation	(84)	432
Nondeductible impairment	—	5,029
State tax expense (benefit), net of federal effect	110	(514)
Change in accrual for unrecognized tax benefits	(155)	(216)
Executive compensation	541	323
Research and development tax credits	(478)	(530)
Other	(96)	89
Income tax benefit	$ (629)	$ (2,826)

Our effective income tax rate was 61.0% and 8.0% for the years ended December 31, 2021 and 2020, respectively. The 2021 tax rate differed from the federal statutory rate primarily because of the utilization of a capital loss carryforward to offset a gain on an investment; deduction limitations on executive compensation; and tax credits for research and development. The 2020 tax rate differed from the federal statutory rate primarily because of tax deficiencies in stock-based compensation; nondeductible impairment charges; state tax benefits; and tax credits for research and development.

Income (loss) from discontinued operations, net of tax

	For the year ended December 31, 2021	2020	Decrease	Percent Change
	(in thousands, except percentages)			
Income (loss) from discontinued operations, net of tax	$ (29,340)	$ 2,382	$ (31,722)	(1,332)%
Percentage of revenues	(24.5)%	2.1 %		

During the second quarter of 2021, the Company transferred majority ownership of its eFC business to eFC management and has recorded it as a discontinued operation. As a result, the Company experienced a loss from discontinued operations, net of tax, of $29.3 million. The loss was comprised of $28.1 million related to the reclassification of currency translation adjustments and $5.2 million from the removal of eFC's net assets. The loss was partially offset by the recording of an equity method investment of $3.6 million and eFC's earnings during the period. Income from discontinued operations for the year ended December 31, 2020 represents eFC's earnings during the period.

Earnings per Share

	Year Ended December 31, 2021	2020
	(in thousands, except per share amounts)	
Loss from continuing operations	$ (402)	$ (32,397)
Income (loss) from discontinued operations, net of tax	(29,340)	2,382
Net Loss	$ (29,742)	$ (30,015)
Weighted-average shares outstanding - diluted	46,333	48,278
Diluted loss per share - continuing operations	$ (0.01)	$ (0.67)
Diluted earnings (loss) per share - discontinued operations	$ (0.63)	$ 0.05
Diluted loss per share	$ (0.64)	$ (0.62)

Diluted loss per share from continuing operations was $0.01 and $0.67 for the years ended December 31, 2021 and 2020, respectively. The decrease in diluted loss per share was primarily driven by the non-cash impairment charges during 2020 and the gain on investment in the 2021 period, partially offset by the ROU asset impairment and higher depreciation expense in the 2021 period. Diluted loss per share was $0.64 and $0.62 for the years ended December 31, 2021 and 2020, respectively. Current year to date loss per share is primarily driven by the loss on discontinued operations. The prior year loss per share is primarily driven by the impairment charges.

Comparison of Years Ended December 31, 2020 and 2019

Revenues

	Year Ended December 31, 2020	2019	Increase (Decrease)	Percent Change
	(in thousands, except percentages)			
Tech-focused:				
Dice[(1)]	$ 82,190	$ 92,527	$ (10,337)	(11.2)%
ClearanceJobs	28,977	24,745	4,232	17.1 %
Total revenues	**$ 111,167**	**$ 117,272**	**$ (6,105)**	**(5.2)%**

(1) Includes Dice and Career Events

We experienced a decrease in revenue of $6.1 million, or 5.2%. Revenue at Dice decreased by $10.3 million, or 11.2%, compared to the same period in 2019 due to the impact of the COVID-19 pandemic driving lower renewal rates year over year. Revenues for ClearanceJobs increased by $4.2 million, or 17.1%, as compared to the same period of 2019, driven by continued high demand for professionals with government clearance and consistent product releases and enhancements driving activity on the site.

Cost of Revenues

	Year Ended December 31, 2020	2019	Increase	Percent Change
	(in thousands, except percentages)			
Cost of revenues	$ 14,286	$ 13,533	$ 753	5.6 %
Percentage of revenues	12.9 %	11.5 %		

Cost of revenues increased by $0.8 million, or 5.6%, primarily driven by an increase in compensation related costs of $1.8 million, partially offset by higher capitalization of internal development costs of $1.0 million, which decreased operating expense. Together, this increased expense $0.8 million.

Product Development Expenses

	Year Ended December 31,			
	2020	2019	Increase	Percent Change
	(in thousands, except percentages)			
Product development	$ 14,887	$ 14,703	$ 184	1.3 %
Percentage of revenues	13.4 %	12.5 %		

Product development expenses increased $0.2 million or 1.3%, driven by increases in compensation related costs from higher wages. This was partially offset by higher capitalization of internal development costs, which decrease operating expense. Together, this increased expense $0.8 million. The higher capitalization of internal development costs resulted from the Company's continued focus on the design and development of product enhancements and features for the Company's sites. These increases were offset by a decrease in travel, software subscriptions, and other costs due to COVID-19 of $0.6 million.

Sales and Marketing Expenses

	Year Ended December 31,			
	2020	2019	Decrease	Percent Change
	(in thousands, except percentages)			
Sales and marketing	$ 39,693	$ 42,702	$ (3,009)	(7.0)%
Percentage of revenues	35.7 %	36.4 %		

Sales and marketing expenses decreased $3.0 million, or 7.0%, from the same period in 2019. Sales and marketing had an increase in compensation related costs of $4.7 million. This increase was offset by $5.6 million in reduced discretionary marketing expenses realized from efficiencies in vendor selection and volumes and $2.1 million reduction in other operational costs due to the COVID-19 pandemic, including consulting and traveling costs.

General and Administrative Expenses

	Year Ended December 31,			
	2020	2019	Increase	Percent Change
	(in thousands, except percentages)			
General and administrative	$ 26,625	$ 25,827	$ 798	3.1 %
Percentage of revenues	24.0 %	22.0 %		

General and administrative costs increased $0.8 million or 3.1%, primarily due to an increase in compensation costs of $1.0 million and non-cash stock based compensation costs of $0.6 million, partially offset by a decrease in other operational costs of $0.8 million, including recruiting, consulting, and travel costs.

Depreciation

	Year Ended December 31,			
	2020	2019	Increase	Percent Change
	(in thousands, except percentages)			
Depreciation	$ 10,259	$ 8,428	$ 1,831	21.7 %
Percentage of revenues	9.2 %	7.2 %		

Depreciation expense increased $1.8 million or 21.7%, from the same period in 2019, in connection with higher headcount driving higher capitalization of internal development costs, which are reflected as purchases of fixed assets in the consolidated statements of cash flows.

Impairment of intangible assets

	Year Ended December 31,			
	2020	2019	Increase	Percent Change
	(in thousands, except percentages)			
Impairment of intangible assets	$ 15,200	$ —	$ 15,200	— %
Percentage of revenues	13.7 %	— %		

The Company has an indefinite-lived acquired intangible asset related to the Dice trademarks and brand name. During the first and third quarters of 2020, due to the impacts of the COVID-19 pandemic, the Company performed interim impairment analyses of the Dice trademarks and brand name. As a result of the analyses, the Company recorded impairment charges totaling $15.2 million during the three month periods ended March 31, 2020 and September 30, 2020. See also Note 10 of the notes to consolidated financial statements.

Impairment of goodwill

	Year Ended December 31,			
	2020	2019	Increase	Percent Change
	(in thousands, except percentages)			
Impairment of goodwill	$ 22,607	$ —	$ 22,607	— %
Percentage of revenues	20.3 %	— %		

During the first and third quarters of 2020, due to the impacts of the COVID-19 pandemic, the Company performed interim impairment analyses of goodwill. As a result of the analyses, the Company recorded an impairment charge of $22.6 million during the three months ended September 30, 2020. See also Note 11 of the notes to consolidated financial statements.

Disposition Related and Other Costs

	Year Ended December 31,			
	2020	2019	Decrease	Percent Change
	(in thousands, except percentages)			
Disposition related and other costs	$ —	$ 1,414	$ (1,414)	(100.0)%
Percentage of revenues	— %	1.2 %		

The disposition related and other costs of $1.4 million for the year ended December 31, 2019, as described in note 16 to consolidated financial statements, are primarily due to severance and related costs incurred in reorganizing the Tech-focused business.

Loss on sale of business

	Year Ended December 31,			
	2020	2019	Decrease	Percent Change
	(in thousands, except percentages)			
Loss on sale of business	$ —	$ 537	$ (537)	(100.0)%
Percentage of revenues	— %	0.5 %		

Loss on sale of business for the year ended December 31, 2019 included a loss of $0.5 million on the 2018 sale of Hcareers due to the finalization of the working capital terms and related contingencies. See also note 6 to consolidated financial statements.

Operating Income (Loss)

	Year Ended December 31,			
	2020	2019	Increase (Decrease)	Percent Change
	(in thousands, except percentages)			
Revenue	$ 111,167	$ 117,272	$ (6,105)	(5.2)%
Operating income (loss)	$ (32,390)	$ 10,128	$ (42,518)	(419.8)%
Percentage of revenues	(29.1)%	8.6 %		

Operating loss for the year ended December 31, 2020 was $32.4 million, a negative margin of 29.1%, as compared to operating income of $10.1 million, a positive margin of 8.6%, for the same period in 2019. The decrease in operating income and percentage margin was primarily driven by the non-cash impairments of goodwill and intangible assets of $37.8 million in the 2020 period, partially offset by the decrease in disposition and related costs of $1.4 million in the 2019 period.

Interest Expense and Other

	Year Ended December 31,			
	2020	2019	Decrease	Percent Change
	(in thousands, except percentages)			
Interest expense	$ 831	$ 703	$ 128	18.2 %
Percentage of revenues	0.7 %	0.6 %		

Interest expense increased by $0.1 million, or 18.2%, from the same period in 2019. Interest expense increased $0.3 million, primarily due to the higher weighted-average debt outstanding during the year ended December 31, 2020 as the Company borrowed on its revolving credit facility in the first quarter of 2020 for liquidity protection during the COVID-19 pandemic. The increase in interest expense was partially offset by a $0.2 million gain recognized in the second quarter of 2020 on the sale of the Company's 20% interest in BioSpace.

Impairment of Investment

	Year Ended December 31,			
	2020	2019	Increase	Percent Change
	(in thousands, except percentages)			
Impairment of investment	$ 2,002	$ —	$ 2,002	— %
Percentage of revenues	1.8 %	— %		

During the first quarter of 2020, due to the impacts from the COVID-19 pandemic, the Company determined the value of its 7.6% interest in a leading tech skills assessment company to be zero. Accordingly, the Company recorded an impairment charge of $2.0 million during the first quarter of 2020.

Income Taxes

	Year Ended December 31,	
	2020	2019
	(in thousands, except percentages)	
Income (loss) before income taxes	$ (35,223)	$ 9,425
Income tax expense (benefit)	(2,826)	2,794
Effective tax rate	8.0 %	29.6 %

A reconciliation between tax expense (benefit) at the federal statutory rate and the reported income tax expense (benefit) is summarized as follows:

	Year Ended December 31,	
	2020	2019
Federal statutory rate	$ (7,397)	$ 1,979
Loss (gain) on sale of businesses or investments	(42)	84
Stock-based compensation	432	281
Nondeductible impairment	5,029	—
State tax expense (benefit), net of federal effect	(514)	405
Change in accrual for unrecognized tax benefits	(216)	209
Executive compensation	323	147
Research and development tax credits	(530)	(558)
Other	89	247
Income tax expense (benefit)	$ (2,826)	$ 2,794

Our effective income tax rate was 8.0% and 29.6% for the years ended December 31, 2020 and 2019, respectively. The 2020 tax rate differed from the federal statutory rate primarily because of tax deficiencies in stock-based compensation; nondeductible impairment charges; state tax benefits; and tax credits for research and development. The 2019 tax rate differed from the federal statutory rate primarily because of tax deficiencies in stock-based compensation; state tax expense; and tax credits for research and development.

Earnings (Loss) per Share

	Year Ended December 31,	
	2020	2019
	(in thousands, except per share amounts)	
Income (loss) from continuing operations	$ (32,397)	$ 6,631
Income from discontinued operations, net of tax	2,382	5,920
Net income (loss)	(30,015)	12,551
Weighted-average shares outstanding-diluted	48,278	51,633
Diluted earnings (loss) per share - continuing operations	(0.67)	0.13
Diluted earnings per share - discontinued operations	0.05	0.11
Diluted earnings (loss) per share	(0.62)	0.24

Diluted earnings (loss) per share from continuing operations was $(0.67) and $0.13 for the years ended December 31, 2020 and 2019, respectively and diluted earnings (loss) per share was $(0.62) and $0.24 for the years ended December 31, 2020 and 2019, respectively. The loss per share for the 2020 period was primarily driven by the non-cash impairment charges.

Liquidity and Capital Resources

Non-GAAP Financial Measures

We have provided certain non-GAAP financial information as additional measures for our operating results. These measures are not in accordance with, or an alternative for, measures in accordance with U.S. GAAP and may be different from similarly titled non-GAAP measures reported by other companies. We believe the presentation of non-GAAP measures, such as Adjusted EBITDA and Adjusted EBITDA margin, provides useful information to management and investors regarding certain financial and business trends relating to our financial condition and results of operations.

Adjusted EBITDA and Adjusted EBITDA Margin

Adjusted EBITDA and Adjusted EBITDA Margin are non-GAAP metrics used by management to measure operating performance. Management uses Adjusted EBITDA as a performance measure for internal monitoring and planning, including preparation of annual budgets, analyzing investment decisions and evaluating profitability and performance comparisons between us and our competitors. The Company also uses this measure to calculate amounts of performance based compensation under the senior management incentive bonus program. Adjusted EBITDA represents net income plus (to the extent deducted in calculating such net income) interest expense, income tax expense, depreciation and amortization, non-cash stock based compensation, losses resulting from certain dispositions outside the ordinary course of business, certain writeoffs in connection with indebtedness, impairment charges with respect to long-lived assets, expenses incurred in connection with an equity offering or any other offering of securities by the Company, extraordinary or non-recurring non-cash expenses or losses, losses from equity method investments, transaction costs in connection with the credit agreement, deferred revenues written off in connection with acquisition purchase accounting adjustments, severance and retention costs related to dispositions and reorganizations of the Company, and losses related to legal claims and fees that are unusual in nature or infrequent, minus (to the extent included in calculating such net income) non-cash income or gains, including income from equity method investments, interest income, business interruption insurance proceeds, and any income or gain resulting from certain dispositions outside the ordinary course of business, and gains related to legal claims that are unusual in nature or infrequent.

We also consider Adjusted EBITDA, as defined above, to be an important indicator to investors because it provides information related to our ability to provide cash flows to meet future debt service, capital expenditures and working capital requirements and to fund future growth. We present Adjusted EBITDA as a supplemental performance measure because we believe that this measure provides our Board, management and investors with additional information to measure our performance, provide comparisons from period to period and company to company by excluding potential differences caused by variations in capital structures (affecting interest expense) and tax positions (such as the impact on periods or companies of changes in effective tax rates or net operating losses), and to estimate our value.

We understand that although Adjusted EBITDA is frequently used by securities analysts, lenders and others in their evaluation of companies, Adjusted EBITDA has limitations as an analytical tool, and you should not consider it in isolation, or as a substitute for analysis of our liquidity or results as reported under GAAP. Some limitations are:

- Adjusted EBITDA does not reflect our cash expenditures, or future requirements for capital expenditures or contractual commitments;
- Adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs;
- Adjusted EBITDA does not reflect the significant interest expense, or the cash requirements necessary to service interest or principal payments on our debt;
- Although depreciation and amortization are non-cash charges, the assets being depreciated and amortized often will have to be replaced in the future, and Adjusted EBITDA does not reflect any cash requirements for such replacements; and
- Other companies in our industry may calculate Adjusted EBITDA differently than we do, limiting its usefulness as a comparative measure.

To compensate for these limitations, management evaluates our liquidity by considering the economic effect of excluded expense items independently, as well as in connection with its analysis of cash flows from operations and through the use of other financial measures, such as capital expenditure budget variances, investment spending levels and return on capital analysis.

Adjusted EBITDA Margin is computed as Adjusted EBITDA divided by Revenues. Prior to 2019, Adjusted EBITDA was divided by Adjusted Revenues, which represented Revenues less revenues of divested businesses. For the years ended December 31, 2021, 2020, and 2019, revenues of divested businesses was zero. Accordingly, Adjusted Revenues is no longer used in the computation. Adjusted EBITDA and Adjusted EBITDA Margin are not measurements of our financial performance under GAAP and should not be considered as an alternative to revenue, net income, operating income, cash provided by operating activities, or any other performance measures derived in accordance with GAAP as a measure of our profitability or liquidity.

A reconciliation of Adjusted EBITDA for the years ended December 31, 2021, 2020 and 2019 follows (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Reconciliation of Net Income (loss) to Adjusted EBITDA:			
Net income (loss)	**$ (29,742)**	**$ (30,015)**	**$ 12,551**
Interest expense	748	1,031	703
Income tax expense (benefit)	(629)	(2,826)	2,794
Depreciation	16,344	10,259	8,428
Non-cash stock based compensation	7,681	5,764	5,145
Loss on sale of business	—	—	537
Income from equity method investment	(190)	—	—
Disposition related and other costs	—	—	1,414
Impairment of intangible assets	—	15,200	—
Impairment of goodwill	—	22,607	—
Impairment of investment	—	2,002	—
Impairment of right-of-use asset	1,919	—	—
Gain on investments	(1,198)	(200)	—
Legal contingencies and related fees	—	—	123
Severance and related costs	1,969	1,194	—
Loss (income) on discontinued operations, net of tax	29,340	(2,382)	(5,920)
Other	(80)	—	1
Adjusted EBITDA	$ 26,162	$ 22,634	$ 25,776

	2021	2020	2019
Reconciliation of Operating Cash Flows to Adjusted EBITDA:			
Net cash provided by operating activities	**$ 28,581**	**$ 18,683**	**$ 22,923**
Interest expense	748	1,031	703
Amortization of deferred financing costs	(147)	(147)	(147)
Income tax expense (benefit)	(629)	(2,826)	2,794
Deferred income taxes	569	2,918	(2,493)
Change in accrual for unrecognized tax benefits	156	446	(107)
Change in accounts receivable	1,102	(859)	(1,694)
Change in deferred revenue	(10,075)	8,193	4,583
Disposition related and other costs	—	—	1,414
Legal contingencies and related fees	—	—	123
Discontinued operations results	(3,593)	(7,290)	(9,083)
Severance and related costs	1,969	1,194	—
Changes in working capital and other	7,481	1,291	6,760
Adjusted EBITDA	$ 26,162	$ 22,634	$ 25,776

A reconciliation of Adjusted EBITDA Margin for the years ended December 31, 2021, 2020 and 2019 follows (in thousands, except percentages):

	Year Ended December 31,		
	2021	2020	2019
Revenues	$ 119,903	$ 111,167	$ 117,272
Adjusted EBITDA	$ 26,162	$ 22,634	$ 25,776
Adjusted EBITDA Margin	22 %	20 %	22 %

Cash Flows

We have summarized our cash flows for the years ended December 31, 2021, 2020 and 2019 as follows (in thousands):

	Year Ended December 31,		
	2021	2020	2019
Cash from operating activities	$ 28,581	$ 18,683	$ 22,923
Cash used in investing activities	(19,304)	(15,904)	(11,505)
Cash used in financing activities	(15,387)	(542)	(12,423)

We have financed our operations primarily through cash provided by operating activities and borrowings under our revolving credit facility. At December 31, 2021, we had cash of $1.5 million compared to $4.5 million at December 31, 2020.

Liquidity

Our principal internal sources of liquidity are cash on hand, as well as the cash flow that we generate from our operations. In addition, we had $67.0 million in borrowing capacity under our $90.0 million Credit Agreement at December 31, 2021, subject to certain availability limits including our consolidated leverage ratio, which generally limits borrowings to 2.5 times annual adjusted EBITDA levels, as defined in the Credit Agreement. We believe that our existing cash and cash equivalents, cash generated from operations and available borrowings under our Credit Agreement will be sufficient to satisfy our currently anticipated cash requirements through at least the next 12 months and the foreseeable future thereafter. However, it is possible that one or more lenders under the revolving credit facility may refuse or be unable to satisfy their commitment to lend to us or we may need to refinance our debt and be unable to do so. In addition, our liquidity could be negatively affected by a decrease in demand for our products and services. We may also make acquisitions and may need to raise additional capital through future debt financings or equity offerings to the extent necessary to fund such acquisitions, which we may not be able to do on a timely basis or on terms satisfactory to us or at all.

Comparison of Years Ended December 31, 2021 and 2020

Operating Activities

Net cash flows from operating activities primarily consists of net income adjusted for certain non-cash items, including depreciation, changes in deferred tax assets and liabilities, stock based compensation, impairments, and the effect of changes in working capital. Net cash flows from operating activities were $28.6 million and $18.7 million for the years ended December 31, 2021 and 2020, respectively, an increase of $9.9 million. Cash inflow from operations is driven by earnings and is dependent on the amount and timing of billings and cash collection from our customers. Cash provided by operating activities during the year ended December 31, 2021 increased primarily due to strong billings to and collections from customers.

Investing Activities

During the year ended December 31, 2021, cash used in investing activities was $19.3 million compared to $15.9 million of cash used in investing activities during the year ended December 31, 2020. Cash used in investing activities during the year ended December 31, 2021 increased from the comparable 2020 period due to cash transferred to the eFC business and cash paid for investment, partially offset by lower internal development costs, primarily driven by lower headcount and development activities dedicated to the transfer of the eFC business, partially offset by higher proceeds from sale of investments.

Financing Activities

Cash used in financing activities during the year ended December 31, 2021 was $15.4 million primarily due to $3.0 million of net borrowings on long-term debt and $18.4 million of repurchases of common stock. Cash used during the year ended December 31, 2020 was $0.5 million primarily due to $10.0 million of net borrowings on long-term debt and $10.5 million of repurchases of common stock.

Comparison of Years Ended December 31, 2020 and 2019

Operating Activities

Net cash flows from operating activities primarily consist of net income adjusted for certain non-cash items, including depreciation, changes in deferred tax assets and liabilities, stock based compensation, impairments, and the effect of changes in
working capital. Net cash flows from operating activities were $18.7 million and $22.9 million for the years ended December 31, 2020 and 2019, respectively, a decrease of $4.2 million. Cash inflow from operations is driven by earnings and is dependent on the amount and timing of billings and cash collection from our customers. Cash provided by operating activities during the year ended December 31, 2020 decreased primarily due to lower billings to customers resulting from the COVID-19 pandemic, partially offset by cost savings implemented by the Company in response to the COVID-19 pandemic.

Investing Activities

During the year ended December 31, 2020, cash used in investing activities was $15.9 million compared to $11.5 million of cash used in investing activities during the year ended December 31, 2019. Cash used by investing activities during the year ended December 31, 2020 increased from the comparable 2019 period due to higher capitalization of internally developed software of $1.9 million and $2.5 million lower receipts from the sale of businesses and equity investments.

Financing Activities

Cash used in financing activities during the year ended December 31, 2020 was $0.5 million primarily due to $10.0 million of net borrowings on long-term debt and $10.5 million of repurchases of common stock. Cash used during the year ended December 31, 2019 was $12.4 million primarily due to $8.0 million of net repayments on long-term debt and $4.4 million of repurchases of common stock.

Financings and Capital Requirements

Credit Agreement

We have a $90 million revolving credit facility, which matures November 2023, with $23 million of borrowings on the facility at December 31, 2021, leaving $67 million available for future borrowings. Borrowings under the Credit Agreement bear interest, payable at least quarterly, at the Company's option, at a London Interbank Offered Rate ("LIBOR") rate or a base rate, plus a margin. Assuming an interest rate of 1.88% (the rate in effect on December 31, 2021) on our current borrowings, interest payments are expected to be $0.4 million per year in 2022-2023. The Credit Agreement contains various customary affirmative and negative covenants and also contains certain financial covenants, including a consolidated leverage ratio and a consolidated interest coverage ratio. As of December 31, 2021, the Company was in compliance with all of the financial covenants under the Credit Agreement. Refer to Note 12 in the notes to consolidated financial statements and Item 7A. "Quantitative and Qualitative Disclosures about Market Risk - Interest Rate Risk."

Contractual Obligations

The Company has operating leases for corporate office space and certain equipment. The leases have terms from one year to eight years, some of which include options to renew the lease, and are included in the lease term when it is reasonably certain that the Company will exercise the option. No leases include options to purchase the leased property. As of December 31, the value of our obligations under operating leases was $6.9 million. See note 7 to consolidated financial statements for further information.

We make commitments to purchase advertising from online vendors, which we pay for on a monthly basis. We have no significant long-term obligations to purchase a fixed or minimum amount with these vendors.

Other Capital Requirements

As of December 31, 2021, we recorded approximately $0.8 million of unrecognized tax benefits as liabilities, and we are uncertain if or when such amounts may be settled. Related to the unrecognized tax benefits considered permanent differences, we have also recorded a liability for potential penalties and interest. Included in the balance of unrecognized tax benefits at December 31, 2021 are $0.8 million of tax benefits that would affect the effective tax rate if recognized. The Company believes it is reasonably possible that as much as $0.2 million of its unrecognized tax benefits may be recognized in the next twelve months.

The Company's Board of Directors approved a stock repurchase program that permits the Company to repurchase its common stock. During the year ended December 31, 2021, the Company repurchased 3.9 million shares for $15.3 million. As of December 31, 2021, the value of shares available to be purchased under the current plan was $5.8 million. Management has discretion in determining the conditions under which shares may be purchased from time to time. See note 14 of notes to consolidated financial statements for further information.

We anticipate capital expenditures in 2022 to be approximately $16 million to $19 million. The increase over prior periods is due to the additional investments in the development of new products and features. We intend to use operating cash flows to fund capital expenditures.

Recent Accounting Pronouncements

For a discussion of new accounting pronouncements affecting the Company, refer to note 2 of notes to consolidated financial statements included in Item 8 of this Annual Report.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We have exposure to financial market risks, including changes in foreign currency exchange rates, interest rates, and other relevant market prices.

Foreign Exchange Risk

Prior to June 30, 2021, we conducted business serving multiple markets, in four languages, mainly across Europe, Asia, Australia, and North America using the eFinancialCareers ("eFC") name. Subsequent to June 30, 2021, our operations are conducted within the United States. As a result, our current operations are not subject to foreign exchange risk.

The Company's investment in eFC, as described in note 8 to consolidated financial statements, which is recorded under the equity method of accounting, subjects the Company to foreign exchange risk because the functional currency of eFC is the British Pound Sterling. Accordingly, the Company must translate its share of eFC's net income into United States dollars. The Company's share of eFC's net income is not expected to be significant.

Interest Rate Risk

We have interest rate risk primarily related to borrowings under our Credit Agreement. Borrowings under our Credit Agreement bear interest, at our option, at a LIBOR rate or base rate plus a margin. The margin ranges from 1.75% to 2.50% on the LIBOR loans and 0.75% to 1.50% on the base rate, as determined by our most recent consolidated leverage ratio. As of December 31, 2021, we had outstanding borrowings of $23.0 million under our Credit Agreement. If interest rates were to rise by 1.0%, annual interest expense on our current borrowings would increase by approximately $0.2 million.

LIBOR is the subject of recent proposals for reform. On July 27, 2017, the United Kingdom’s Financial Conduct Authority announced that it intends to stop persuading or compelling banks to submit LIBOR rates after 2021. These reforms will cause LIBOR to cease to exist and will cause the establishment of an alternative reference rate(s). The U.S. Federal Reserve, in conjunction with the Alternative Reference Rates Committee, is considering replacing U.S. dollar LIBOR with a newly created index, calculated based on repurchase agreements backed by treasury securities. The Company intends to continue monitoring the developments with respect to the planned phasing out of the USD LIBOR tenors used by the Company, which is currently planned for June 30, 2023. The Company is working with its lenders to ensure any transition away from LIBOR will have minimal impact on its financial condition, but can provide no assurances regarding the impact of the discontinuation of LIBOR. See Item 1A - Risk Factors – Cessation of London Inter-bank Offered Rate (“LIBOR”) and other benchmark rates, or uncertainty related to the potential for any of the foregoing, may adversely affect us.

Item 8. Financial Statements and Supplementary Data

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of DHI Group, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of DHI Group, Inc. and subsidiaries (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of operations, comprehensive income (loss), shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2021, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 11, 2022, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing a separate opinion on the critical audit matters or on the accounts or disclosures to which they relate.

Discontinued Operations - Transfer of majority interest in eFinancialCareers– Refer to Notes 1 and 4 to the financial statements

Critical Audit Matter Description

On June 30, 2021, the Company transferred majority ownership and control of its eFinancialCareers business (“eFC”) to eFC management, while retaining a 40% common share interest (the “eFC Transaction”). As a result, eFC was deconsolidated as of June 30, 2021 and is reflected as a discontinued operation.

The deconsolidation and related evaluation of the loss of control required significant accounting judgments. This required a high degree of auditor judgment and increased level of effort when performing audit procedures to evaluate the reasonableness of management’s judgments.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the deconsolidation of eFC included the following, among others:

- We tested the effectiveness of controls over the accounting and reporting for significant non-recurring transactions, which included the deconsolidation of eFC.
- With the assistance of firm specialists having expertise in consolidation accounting, we evaluated management’s accounting judgments related to the deconsolidation of eFC.
- We evaluated the presentation and disclosure of the eFC Transaction in the financial statements.

Goodwill – Refer to Notes 2, 4 and 11 to the financial statements

Critical Audit Matter Description

The Company determines whether the carrying value of recorded goodwill is impaired on an annual basis or more frequently if indicators of potential impairment exist. If the fair value of the reporting unit is less than its carrying amount, an impairment charge is recorded for the amount the carrying value exceeds the fair value. Fair values are determined by using a combination of a discounted cash flow methodology and a market comparable method. Determining the fair value of a reporting unit is judgmental in nature and requires the use of estimates and key assumptions, particularly assumed discount rates and projections of future operating results, such as forecasted revenues and earnings before interest, taxes, depreciation and amortization (EBITDA) margins. Changes in these assumptions could have a significant impact on the determination of fair value.

On June 30, 2021, the Company transferred a majority interest of eFC, which was part of the Tech-focused reporting unit, to eFC management. In order to account for the eFC Transaction and allocate the reporting unit goodwill, the Company performed an interim valuation analysis to determine the fair value of eFC and the continuing business as of June 30, 2021. The Company allocated $5.3 million and $128.1 million of goodwill to eFC and the continuing business, respectively, using a relative fair value approach.

Given the significant judgments made by management to determine the relative fair value of, and goodwill allocated to, eFC and the continuing business, performing auditing procedures to evaluate the reasonableness of management's judgments regarding the business and valuation assumptions utilized in the valuation models, particularly the forecasts of future revenue and EBITDA margins and the selection of the discount rates, required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the forecasts of future revenues and EBITDA margins and selection of the discount rates used by management to estimate the fair value of eFC and the continuing business included the following, among others:

- We tested the effectiveness of controls over management's determination of the fair value of eFC and the continuing business, including controls related to management's forecasts of future revenues and EBITDA margins and selection of the discount rates.
- We tested the allocation of goodwill to eFC and the continuing business based on the weighting of the relative fair value.
- We evaluated the reasonableness of management's forecasts of future revenues and EBITDA margins by comparing the forecasts with:
  - Historical revenues and EBITDA margins and forecasted information in industry reports.
  - Internal communications to management and the Board of Directors.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodology and (2) valuation assumptions, including the discount rates, by:
  - Testing the source information underlying the determination of the assumption and testing the mathematical accuracy of the calculation.
  - Developing a range of independent estimates and comparing those to the assumptions selected by management.

/s/ Deloitte & Touche LLP

Des Moines, Iowa

February 11, 2022

We have served as the Company's auditor since 2005.

DHI GROUP, INC.
CONSOLIDATED BALANCE SHEETS
As of December 31, 2021 and 2020 (in thousands, except per share data)

	December 31, 2021	December 31, 2020
ASSETS		
Current assets		
Cash and cash equivalents	$ 1,540	$ 4,542
Accounts receivable, net of allowance for doubtful accounts of $733 and $1,001	18,385	16,134
Income taxes receivable	354	533
Prepaid and other current assets	4,177	4,101
Current assets of discontinued operations	—	8,175
Total current assets	**24,456**	**33,485**
Fixed assets, net	20,581	23,033
Capitalized contract costs	9,131	6,189
Operating lease right-of-use assets	6,888	10,804
Investments	3,769	—
Investments, at fair value	3,000	—
Acquired intangible assets	23,800	23,800
Goodwill	128,100	128,100
Other assets	1,853	1,378
Non-current assets of discontinued operations	—	14,198
Total assets	**$ 221,578**	**$ 240,987**
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable and accrued expenses	$ 15,859	$ 15,308
Deferred revenue	45,217	35,547
Operating lease liabilities	2,388	2,075
Current liabilities of discontinued operations	—	12,455
Total current liabilities	**63,464**	**65,385**
Deferred revenue	929	1,035
Operating lease liabilities	6,982	9,371
Long-term debt, net	22,730	19,583
Deferred income taxes	9,315	9,765
Accrual for unrecognized tax benefits	785	941
Other long-term liabilities	1,011	2,049
Non-current liabilities of discontinued operations	—	5,288
Total liabilities	**105,216**	**113,417**
Commitments and contingencies (Note 13)		
Stockholders' equity		
Convertible preferred stock, $.01 par value, authorized 20,000 shares; no shares issued and outstanding	—	—
Common stock, $.01 par value, authorized 240,000; issued 73,584 and 71,233 shares, respectively; outstanding: 48,756 and 51,220 shares, respectively	738	714
Additional paid-in capital	241,854	233,554
Accumulated other comprehensive loss	(61)	(28,519)
Accumulated earnings	24,229	53,971
Treasury stock, 24,828 and 20,013 shares, respectively	(150,398)	(132,150)
Total stockholders' equity	**116,362**	**127,570**
Total liabilities and stockholders' equity	**$ 221,578**	**$ 240,987**

See accompanying notes to consolidated financial statements.

DHI GROUP, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
For the years ended December 31, 2021, 2020 and 2019
(in thousands, except per share amounts)

	For the year ended December 31,		
	2021	2020	2019
Revenues	$ 119,903	$ 111,167	$ 117,272
Operating expenses:			
Cost of revenues	15,088	14,286	13,533
Product development	16,020	14,887	14,703
Sales and marketing	43,701	39,693	42,702
General and administrative	28,583	26,625	25,827
Depreciation	16,344	10,259	8,428
Impairment of intangible assets	—	15,200	—
Impairment of goodwill	—	22,607	—
Impairment of right-of-use asset	1,919	—	—
Disposition related and other costs (Note 16)	—	—	1,414
Total operating expenses	121,655	143,557	106,607
Loss on sale of business (Note 6)	—	—	(537)
Operating income (loss)	(1,752)	(32,390)	10,128
Income from equity method investment	190	—	—
Interest expense and other	(667)	(831)	(703)
Impairment of investment	—	(2,002)	—
Gain on investment	1,198	—	—
Income (loss) before income taxes	(1,031)	(35,223)	9,425
Income tax expense (benefit)	(629)	(2,826)	2,794
Income (loss) from continuing operations	(402)	(32,397)	6,631
Income (loss) from discontinued operations, net of tax	(29,340)	2,382	5,920
Net income (loss)	$ (29,742)	$ (30,015)	$ 12,551
Basic earnings (loss) per share - continuing operations	$ (0.01)	$ (0.67)	$ 0.14
Diluted earnings (loss) per share - continuing operations	$ (0.01)	$ (0.67)	$ 0.13
Basic earnings (loss) per share - discontinued operations	$ (0.63)	$ 0.05	$ 0.12
Diluted earnings (loss) per share - discontinued operations	$ (0.63)	$ 0.05	$ 0.11
Basic earnings (loss) per share	$ (0.64)	$ (0.62)	$ 0.26
Diluted earnings (loss) per share	$ (0.64)	$ (0.62)	$ 0.24
Weighted-average basic shares outstanding	46,333	48,278	48,739
Weighted-average diluted shares outstanding	46,333	48,278	51,633

See accompanying notes to consolidated financial statements.

DHI GROUP, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
For the years ended December 31, 2021, 2020 and 2019
(in thousands)

	For the year ended December 31,		
	2021	2020	2019
Net income (loss)	$ (29,742)	$ (30,015)	$ 12,551
Other comprehensive income (loss):			
Foreign currency translation adjustment	395	729	1,988
Cumulative translation adjustments reclassified to the Statements of Operations	28,063	—	—
Total other comprehensive income (loss)	28,458	729	1,988
Comprehensive income (loss)	$ (1,284)	$ (29,286)	$ 14,539

See accompanying notes to consolidated financial statements.

DHI GROUP, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
For the years ended December 31, 2021, 2020, and 2019 (in thousands)

	Convertible Preferred Stock		Common Stock			Treasury Stock				
	Shares Issued	Amount	Shares Issued	Amount	Additional Paid-in Capital	Shares	Amount	Accumulated Earnings	Accumulated Other Comprehensive Loss	Total
Balance at January 1, 2019	**—**	**$ —**	**87,522**	**$ 876**	**$ 383,123**	**34,126**	**$ (278,843)**	**$ 71,435**	**$ (31,236)**	**$ 145,355**
Net income								12,551		12,551
Other comprehensive income									1,988	1,988
Stock based compensation					5,704					5,704
Restricted stock issued			2,258	23						23
Restricted stock forfeited or withheld to satisfy tax obligations			(560)	(5)		616	(1,904)			(1,909)
Performance-based restricted stock units eligible to vest			449	4						4
Performance-based restricted stock units forfeited			(160)	(2)						(2)
Retirement of treasury stock (Note 14)			(20,000)	(200)	(161,600)	(20,000)	161,800			—
Purchase of treasury stock under stock repurchase plan						849	(2,519)			(2,519)
Balance at December 31, 2019	**—**	**—**	**69,509**	**696**	**227,227**	**15,591**	**(121,466)**	**83,986**	**(29,248)**	**161,195**
Net loss								(30,015)		(30,015)
Other comprehensive income									729	729
Stock based compensation					6,327					6,327
Restricted stock issued			2,173	22						22
Purchase of treasury stock related to vested restricted and performance stock units			(430)	(4)		874	(2,248)			(2,252)
Performance-based restricted stock units forfeited			(19)	—						—
Purchase of treasury stock under stock repurchase plan						3,548	(8,436)			(8,436)
Balance at December 31, 2020	**—**	**—**	**71,233**	**714**	**233,554**	**20,013**	**(132,150)**	**53,971**	**(28,519)**	**127,570**
Net loss								(29,742)		(29,742)
Other comprehensive income									395	395
Cumulative translation adjustments reclassified to the Statements of Operations									28,063	28,063
Stock based compensation					8,303					8,303
Restricted stock issued			2,267	23	(5)					18
Performance-based restricted stock units eligible to vest			813	8						8
Restricted stock forfeited or withheld to satisfy tax obligations			(685)	(7)	2	666	(2,073)			(2,078)
Performance based restricted stock forfeited or withheld to satisfy tax obligations			(44)	—		244	(907)			(907)
Purchase of treasury stock under stock repurchase plan						3,905	(15,268)			(15,268)
Balance at December 31, 2021	**—**	**$ —**	**73,584**	**$ 738**	**$ 241,854**	**24,828**	**$ (150,398)**	**$ 24,229**	**$ (61)**	**$ 116,362**

See accompanying notes to consolidated financial statements.

DHI GROUP, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
For the years ended December 31, 2021, 2020 and 2019
(in thousands)

	For the year ended December 31,		
	2021	**2020**	**2019**
Cash flows from (used in) operating activities:			
Net income (loss)	$ (29,742)	$ (30,015)	$ 12,551
Adjustments to reconcile net income to net cash flows from (used in) operating activities:			
Depreciation	17,118	12,019	9,743
Deferred income taxes	(569)	(2,918)	2,493
Amortization of deferred financing costs	147	147	147
Stock based compensation	8,303	6,327	5,704
Impairment of intangible assets	—	15,200	—
Impairment of goodwill	—	23,626	—
Impairment of right-of-use asset	1,919	—	—
Impairment of investment	—	2,002	—
Change in accrual for unrecognized tax benefits	(156)	(446)	107
Income from equity method investment	(190)	—	—
Gain on sale of investment	(1,198)	(200)	—
Loss on sale of businesses	—	—	537
Loss on disposition of discontinued operations	30,203	—	—
Changes in operating assets and liabilities:			
Accounts receivable	(1,102)	859	1,694
Prepaid expenses and other assets	(1,032)	(1,405)	(904)
Capitalized contract costs	(2,990)	(175)	453
Accounts payable and accrued expenses	(1,520)	139	(5,621)
Income taxes receivable/payable	261	480	(338)
Deferred revenue	10,075	(8,193)	(4,583)
Other, net	(946)	1,236	940
Net cash flows from operating activities	28,581	18,683	22,923
Cash flows from (used in) investing activities:			
Cash transferred with discontinued operations	(3,195)	—	—
Cash received from sale of business, net	—	—	2,683
Cash paid for investment	(3,000)	—	—
Cash received from sale of investments	1,198	200	—
Purchases of fixed assets	(14,307)	(16,104)	(14,188)
Net cash flows used in investing activities	(19,304)	(15,904)	(11,505)
Cash flows from (used in) financing activities:			
Payments on long-term debt	(11,000)	(26,444)	(28,000)
Proceeds from long-term debt	14,000	36,444	20,000
Payments under stock repurchase plan	(15,409)	(8,294)	(2,519)
Purchase of treasury stock related to vested restricted and performance stock units	(2,978)	(2,248)	(1,904)
Net cash flows used in financing activities	(15,387)	(542)	(12,423)
Effect of exchange rate changes	10	22	(86)
Net change in cash and cash equivalents for the period	(6,100)	2,259	(1,091)
Cash and cash equivalents, beginning of period	7,640	5,381	6,472
Cash and cash equivalents, end of period	$ 1,540	$ 7,640	$ 5,381

See accompanying notes to consolidated financial statements.

1. ORGANIZATION AND PRINCIPAL ACTIVITIES

DHI Group, Inc. (“DHI” or the “Company”), a Delaware corporation, was incorporated on June 28, 2005. DHI is a leading provider of data, insights and employment connections through its specialized services for technology professionals and other select online communities. Its mission is to empower tech professionals and organizations to compete and win through expert insights and relevant employment connections. Employers and recruiters use its websites and services to source, hire and connect with the most qualified and highly-skilled tech professionals, while professionals use its websites and services to find ideal employment opportunities, relevant job advice and tailored career-related data. For over 30 years, through its predecessor companies, the Company was built on providing employers and professionals with career connections, news, tools and information.

On June 30, 2021, the Company transferred majority ownership and control of its eFinancialCareers ("eFC") business to eFC's management, while retaining a 40% common share interest. The eFC business was significant to the Company and the transfer was considered to be a strategic shift from the financial services industry and from the geographies eFC serves that had a major effect on the Company's operations. As a result, the eFC business was deconsolidated from the Company's consolidated financial statements as of June 30, 2021 and is reflected as a discontinued operation in the Consolidated Balance Sheets and the Consolidated Statements of Operations for all periods presented. The historical Consolidated Statements of Comprehensive Income (Loss), Stockholders’ Equity and Cash Flows have not been revised to reflect the effects of the transfer of control of eFC. For further information on discontinued operations, see Note 4, “Discontinued Operations.” Unless noted otherwise, discussion in the notes to the consolidated financial statements pertain to continuing operations.

The Company allocates resources and assesses financial performance on a consolidated basis, as all services pertain to the Company's Tech-focused strategy. As a result, the Company has a single reportable segment, Tech-focused, which now includes only the Dice and ClearanceJobs brands, as well as corporate related costs. All operations are in the United States and the Company no longer has revenues and long-lived assets, which includes fixed assets and lease right of use assets, outside of the United States.

2. SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation — The consolidated financial statements include the accounts of DHI and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation. Investments in companies that are not consolidated are included in the Company's consolidated financial statements as described in notes 4 and 8 to the consolidated financial statements.

Revenue Recognition — We recognize revenue when control of the promised goods or services is transferred to our customers at an amount that reflects the consideration to which we expect to receive in exchange for those goods or services. Revenue is recognized net of customer discounts ratably over the service period. Billings with customers are based on contractual schedules. Customer billings delivered in advance and payments received in advance of services being rendered are recorded as deferred revenue and recognized over the service period. We generate revenues from the following sources:

Recruitment packages. Recruitment package revenues are derived from the sale to recruiters and employers of a combination of job postings and/or access to candidate profiles on Dice and ClearanceJobs. Certain of the Company’s arrangements include multiple performance obligations, which primarily consists of the ability to post jobs and access to candidate profiles. The Company determines the units of accounting for multiple performance obligations in accordance with Topic 606. Specifically, the Company considers a performance obligation as a separate unit of accounting if it has value to the customer on a standalone basis. The Company’s arrangements do not include a general right of return. Services to customers buying a package of available job postings and access to candidate profiles are delivered over the same period and revenue is recognized ratably over the length of the underlying contract, typically from one to twelve months. The separation of the package into two deliverables results in no change in revenue recognition because delivery of the two services occurs over the same time period.

Advertising revenue. Advertising revenue is recognized over the period in which the advertisements are displayed on the websites or at the time a promotional e-mail is sent out to the audience.

Classified revenue. Classified job posting revenues are derived from the sale of job postings to recruiters and employers. A job posting is the ability to list a job on the website for a specified time period. Revenue from the sale of classified job postings is recognized ratably over the length of the contract or the period of actual usage.

Career fair and recruitment event booth rentals. Career fair and recruitment event revenues, both live and virtual, are derived from renting booth space to recruiters and employers. Revenue from these sales are recognized when the career fair or recruitment event is held.

Concentration of Credit Risk—Cash and cash equivalents are maintained with several financial institutions. Deposits held with banks may exceed the amount of insurance provided on such deposits. These deposits may be redeemed upon demand. The Company believes it is not exposed to any significant credit risk.

The Company performs credit evaluations of its customers' financial condition as needed and does not require collateral on accounts receivable. No single customer represents 10% or more of revenues for the years ended December 31, 2021, 2020 and 2019.

Allowance for Doubtful Accounts—The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. If the financial condition of DHI's customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required.

Statements of Cash Flows—All bank deposits are considered cash and cash equivalents.

The supplemental disclosures to the accompanying consolidated statements of cash flows are as follows (in thousands):

	2021	2020	2019
Supplemental cash flow information:			
Interest paid	$ 825	$ 1,100	$ 639
Taxes paid	393	457	1,506
Non-cash investing and financing activities:			
Capital expenditures on fixed assets included in accounts payable and accrued expenses	144	110	140
Share repurchases included in accounts payable and accrued expenses	—	141	—

Fixed Assets—Depreciation of equipment, furniture and fixtures, computer software and capitalized website development costs are provided under the straight-line method over estimated useful lives ranging from two to five years. Amortization of leasehold improvements is provided over the shorter of the term of the related lease or the estimated useful life of the improvement. The cost of additions and improvements is capitalized, and repairs and maintenance costs are charged to operations in the periods incurred.

Capitalized Software Costs—Capitalized software costs consist of costs to purchase and develop software for internal use. The Company capitalizes incurred software development costs in accordance with the Internal Use Software subtopic of the FASB ASC. Costs incurred during the application-development stage for software bought and further customized by outside vendors for the Company's use and software developed by a vendor for the Company's proprietary use have been capitalized. These costs are amortized over the software's estimated useful life, which generally approximates two years.

Website Development Costs—The Company capitalizes certain costs incurred in designing, developing, testing and implementing enhancements to its websites. These costs are amortized over the enhancement's estimated useful life, which generally approximates two years. Costs related to the planning and post implementation phases of website development efforts are expensed as incurred.

Capitalized Contract Costs—The Company capitalizes certain contract acquisition costs consisting primarily of commissions paid when contracts are signed. For costs incurred to obtain new business sales contracts, the Company capitalizes and expenses these costs over an average customer life, which was approximately two years as of December 31, 2021. For the remaining sales contracts, the Company capitalizes and expenses these costs over a weighted average contract term, which was approximately one year as of December 31, 2021. See note 5 for additional disclosures.

Leases—We determine if an arrangement is a lease at inception. The Company primarily has operating leases for corporate office space and certain equipment. Operating lease assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease assets and liabilities are recognized at the commencement date of the lease based on the present value of lease payments over the lease term. When readily available, the Company uses the implicit rate in determining the present value of the lease payments. When leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on information available at the commencement of the lease, including the lease term. Because the implicit rate in each lease is not available, the Company used its incremental borrowing rate to determine the present value of lease payments. Leases with an initial term of 12 months or less are not recorded on the balance sheet. Variable components of the lease payments, such as utilities and maintenance, are expensed as incurred and are not included in determining the present value. Operating lease expense is recognized on a straight-
line basis over the lease term.

Equity Method Investment—The Company has a 40% non-controlling common share interest in the eFC and Rigzone businesses as the Company does not have the ability to direct the activities of the businesses that most significantly impact their economic performance. The 40% common share interest is being accounted for under the equity method of accounting as the Company does have the ability to exercise significant influence over the businesses. The recorded value is adjusted based on the Company's proportionate share of the businesses net income and is recorded three months in arrears. See note 8 for additional disclosures.

Goodwill and Indefinite-Lived Acquired Intangible Assets—Goodwill is recorded when the purchase price paid for an acquisition exceeds the estimated fair value of the net identified tangible and intangible assets acquired. The indefinite-lived acquired intangible assets include the Dice trademarks and brand name. The Company performs a test for impairment of goodwill and indefinite-lived intangible assets annually on October 1, or more frequently if indicators of potential impairment exist, to determine if the carrying value of the recorded asset is impaired. The impairment review process for goodwill compares the fair value of the reporting unit in which goodwill resides to its carrying value. The impairment review process for indefinite-lived intangible assets compares the fair value of the assets to their carrying value. The determination of whether or not the asset has become impaired involves a significant level of judgment in the assumptions underlying the approach used to determine the value of the Company's reporting units or the intangible asset. Changes in the Company's strategy and/or market conditions could significantly impact these judgments and require adjustments to recorded amounts of goodwill or indefinite-lived intangible assets. See Notes 10 and 11 for discussion of impairment charges.

Foreign Currency Translation—For the Company's foreign operations, which entirely related to eFC prior to June 30, 2021, whose functional currency is not the U.S. dollar, the assets and liabilities are translated into U.S. dollars at current exchange rates. Resulting translation adjustments are reflected as Other Comprehensive Income (Loss). Revenue and expenses are translated at average exchange rates for the period. Transaction gains and losses that arise from exchange rate fluctuations on transactions denominated in a currency other than the functional currency are charged to operations as incurred. Translation adjustments subsequent to June 30, 2021 relate to the Company's equity method investment in eFC.

Advertising Costs—The Company expenses advertising costs as they are incurred. Advertising expense for the years ended December 31, 2021, 2020 and 2019 was $12.5 million, $10.9 million and $17.0 million, respectively.

Income Taxes—The Company recognizes deferred taxes by the asset and liability method. Under this method, deferred income taxes are recognized for differences between the financial statement and tax bases of assets and liabilities at enacted statutory tax rates in effect for the years in which the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized. The primary sources of temporary differences are stock-based compensation, amortization and impairment of intangible assets, depreciation of fixed assets, and capitalized contract costs.

Stock-Based Compensation—The Company has a plan to grant equity awards to certain employees and directors of the Company and its subsidiaries. See Note 17 for additional disclosures.

Fair Value of Financial Instruments—The carrying amounts reported in the consolidated balance sheets for cash and cash equivalents, accounts receivable, and accounts payable and accrued expenses approximate their fair values. The Company's long-term debt consists of borrowings under its credit facility. Investments consist of promissory notes and common share ownership interests in businesses. See Notes 3 and 12 for additional disclosures.

Risks and Uncertainties—The Company is subject to the risks, expenses and uncertainties frequently encountered by companies in the rapidly evolving markets for online products and services. These risks include the failure to develop and extend the Company's web sites and brands, the rejection of the Company's services by consumers, vendors and/or advertisers, the inability of the Company to maintain and increase the levels of traffic on its web sites, as well as other risks and uncertainties. In the event that the Company does not successfully execute its business plan, certain assets may not be recoverable.

Use of Estimates—The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities as of the date of the financial statements, and reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates. DHI's significant estimates include the useful lives and valuation of fixed assets and intangible assets, goodwill, lease right-of-use assets, income taxes, and
the assumptions used to value the Performance-Based Restricted Stock Units ("PSUs") of the Company.

Earnings per Share—The Company follows the Earnings Per Share topic of the FASB ASC in computing earnings per share ("EPS"). Basic EPS is calculated by dividing income from continuing operations, income from discontinued operations, and net income by the weighted average number of shares outstanding. When the effects are dilutive, diluted earnings per share is calculated using the weighted average number of shares outstanding, and the dilutive effect of stock-based compensation awards as determined under the treasury stock method. Certain stock awards were excluded from the computation of diluted earnings per share due to their anti-dilutive effect. See Note 20 for additional disclosures.

New Accounting Pronouncements— In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. ASU 2016-13 changes how entities will account for credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. The guidance replaces the current "incurred loss" model with an "expected loss" model that requires consideration of a broader range of information to estimate expected credit losses over the lifetime of a financial asset. ASU 2016-13 is effective for interim and annual reporting periods in fiscal years beginning after December 15, 2022 for Smaller Reporting Companies. The Company is evaluating the expected impact of this standard on its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles-Goodwill and Other-Internal-Use Software: Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract.* The new standard requires entities that are customers in cloud computing arrangements to defer implementation costs if they would be capitalized by the entity in software licensing arrangements under the internal-use software guidance. ASU No. 2018-15 is effective for fiscal years beginning after December 15, 2019 and interim periods within those years. The amendments allow either a retrospective or prospective approach to all implementation costs incurred after adoption. The Company adopted this standard, effective January 1, 2020, under the prospective approach, and capitalized implementation costs are included in other assets on the Company's balance sheet.

In December 2019, the FASB issued ASU No. 2019-12, *Simplifying the Accounting for Income Taxes*, which eliminates certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating taxes during interim quarters and the recognition of deferred tax liabilities for outside basis differences. This guidance also simplifies aspects of accounting for franchise taxes, specifies the timing for recognizing certain income tax effects of changes in tax laws or rates and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill. The pronouncement is effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. The Company adopted this standard on January 1, 2021, and the adoption did not have a material effect on the Company's consolidated financial statements.

3. FAIR VALUE MEASUREMENTS

The FASB ASC topic on Fair Value Measurements and Disclosures defines fair value, establishes a framework for measuring fair value and requires certain disclosures for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. As a basis for considering assumptions, a three-tier fair value hierarchy is used, which prioritizes the inputs used in measuring fair value as follows:

- Level 1 – Quoted prices for identical instruments in active markets.
- Level 2 – Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-derived valuations, in which all significant inputs are observable in active markets.
- Level 3 – Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

The carrying amounts reported in the consolidated balance sheets for cash and cash equivalents, accounts receivable, other assets, accounts payable and accrued expenses and long-term debt approximate their fair values. Investments, current, are carried at fair value using values available on a public exchange based on a Level 1 input. Investments, non-current that are carried at fair value use a discounted cash flow technique based on the probability of one or more possible outcomes, based on Level 3 inputs, which inputs and fair value did not change during the year ended December 31, 2021. The fair value of long-term debt was estimated using present value techniques and market based interest rates and credit spreads. The estimated fair value of long-term debt is based on Level 2 inputs.

Certain assets and liabilities are measured at fair value on a non-recurring basis. These assets include equity investments, operating lease right-of-use assets, and goodwill and intangible assets which resulted from prior acquisitions. Items valued using such internally generated valuation techniques are classified according to the lowest level input or value driver that is significant to the valuation. Thus, an item may be classified in Level 3 even though there may be some significant inputs that are readily observable. Such instruments are not measured at fair value on an ongoing basis but are subject to fair value adjustments in certain circumstances, for example, when there is evidence of impairment.

On June 30, 2021, the Company transferred majority ownership and control of its eFC business to eFC's management, while retaining a 40% common share interest. The Company valued its 40% interest in eFC utilizing a combination of a discounted cash flow and a market approach. The discounted cash flow included declining revenues for the years ending December 31, 2021 and 2022 as compared to the year ended December 31, 2020 and then increasing moderately. The discounted cash flow also included operating margin declines for the year ending December 31, 2022 compared to the year ending December 31, 2021 and then increasing moderately. The Company utilized a discount rate of 19.0%. The market approach included the analysis of data from transactions on guideline companies and applied multiples of those transactions to eFC's results

Impairment—The Company performs annual impairment tests for goodwill and the Dice trademarks and brand name as of October 1 of each year or more frequently if indicators of potential impairment exist. See notes 10 and 11 for additional disclosures. The Company evaluates the carrying value of equity investments at each reporting period as described in note 8.

4. DISCONTINUED OPERATIONS

As further described in Note 1, on June 30, 2021, the Company transferred majority ownership and control of its eFC business to eFC's management, while retaining a 40% common share interest. As a result, we have reflected eFC's financial results as discontinued operations in the consolidated balance sheets and the consolidated statements of operations for all periods presented.

The assets and liabilities classified as discontinued operations on the consolidated balance sheets were as follows (in thousands):

	December 31, 2020
Cash and cash equivalents	$ 3,098
Accounts receivable, net	4,164
Income taxes receivable	511
Prepaid and other current assets	402
Current assets of discontinued operations	**8,175**
Fixed assets, net	1,511
Capitalized contract costs	1,545
Goodwill	5,253
Deferred income taxes	19
Operating lease right-of-use assets	5,601
Other assets	269
Non-current assets of discontinued operations	**14,198**
Total assets of discontinued operations	**$ 22,373**
Accounts payable and accrued expenses	$ 4,118
Operating lease liabilities	1,335
Deferred revenue	6,879
Income taxes payable	123
Current liabilities of discontinued operations	**12,455**
Deferred income taxes	171
Deferred revenue	33
Accrual for unrecognized tax benefits	406
Operating lease liabilities	4,333
Other long-term liabilities	345
Non-current liabilities of discontinued operations	**5,288**
Total liabilities of discontinued operations	**$ 17,743**

The results of discontinued operations on the consolidated statements of operations were as follows (in thousands):

	For the year ended December 31,		
	2021	2020	2019
Revenues	$ 12,130	$ 25,711	$ 32,098
Operating expenses	(10,821)	(22,926)	(25,201)
Operating income	1,309	2,785	6,897
Loss on disposition of discontinued operations[(1)]	(30,203)	—	—
Other income	1	4	2
Income (loss) before income taxes	(28,893)	2,789	6,899
Income tax expense	447	407	979
Net income (loss)	$ (29,340)	$ 2,382	$ 5,920

(1) The loss was comprised of $28.1 million related to the reclassification of currency translation adjustments and $5.2 million from the removal of eFC's net assets. The loss was partially offset by the recording of an equity investment of $3.6 million and eFC's earnings during the six month period ended June 30, 2021.

Depreciation, fixed asset purchases and other significant non-cash items related to discontinued operations were as follows (in thousands):

	For the year ended December 31,		
	2021	2020	2019
Depreciation	$ 774	$ 1,760	$ 1,315
Purchases of fixed assets	$ 447	$ 225	$ 2,052
Cash paid for amounts included in measurement of lease liabilities:			
Operating cash flows from operating leases	$ 804	$ 1,520	$ 1,469

5. REVENUE RECOGNITION

The Company recognizes revenue when control of the promised goods or services is transferred to our customers at an amount that reflects the consideration to which we expect to receive in exchange for those goods or services. Revenue is recognized net of customer discounts ratably over the service period. Customer billings delivered in advance of services being rendered are recorded as deferred revenue and recognized over the service period. The Company generates revenue from recruitment packages, advertising, classifieds, and virtual and live career fair and recruitment event booth rentals.

Disaggregation of revenue

Our brands primarily serve the technology and security cleared professions. The following table provides information about disaggregated revenue by brand (in thousands):

	For the Year Ended December 31,		
	2021	2020	2019
Dice [(1)]	$ 86,257	$ 82,190	$ 92,527
ClearanceJobs	33,646	28,977	24,745
Total	$ 119,903	$ 111,167	$ 117,272

(1) Includes Dice U.S. and Career Events.

Contract Balances

The following table provides information about opening and closing balances of receivables and contract liabilities from contracts with customers as required under Topic 606 (in thousands):

	As of December 31, 2021	As of December 31, 2020
Receivables	$ 18,385	$ 16,134
Short-term contract liabilities (deferred revenue)	45,217	35,547
Long-term contract liabilities (deferred revenue)	929	1,035

We receive payments from customers based upon contractual billing schedules; accounts receivable is recorded when customers are invoiced per the contractual billing schedules. As the Company's standard payment terms are less than one year, the Company elected the expedient, where applicable. As a result, the Company did not consider the effects of a significant financing component. Contract liabilities include customer billings delivered in advance of performance under the contract, and associated revenue is realized when services are rendered under the contract.

Receivables increase due to customer billings and decrease by cash collected from customers. Contract liabilities increase due to customer billings and are decreased as performance obligations are satisfied under the contracts.

The Company recognized the following revenues as a result of changes in the contract liability balances in the respective periods (in thousands):

	Year Ended December 31, 2021	Year Ended December 31, 2020	Year Ended December 31, 2019
Revenue recognized in the period from:			
Amounts included in the contract liability at the beginning of the period	$ 35,692	$ 42,309	$ 45,511

Transaction price allocated to the remaining performance obligations

Under the guidance of Topic 606, the following table includes estimated deferred revenue expected to be recognized in the future related to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting period (in thousands):

	2022	2023	2024	Total
Tech-focused	$ 45,217	$ 830	$ 99	$ 46,146

6. SALE OF BUSINESSES

The Company sold the Hcareers business on May 22, 2018. During the second quarter of 2019, the related escrow of $1.7 million and working capital terms and contingencies were finalized. This resulted in the Company recording an additional loss on sale of $0.5 million and receiving cash of $0.7 million from the escrow and $0.2 million from working capital.
The Company sold the RigLogix portion of the Rigzone business on February 20, 2018. In the first quarter of 2019, the related escrow of $0.4 million was released to the Company.

The Company sold the Health eCareers business on December 4, 2017. In the second quarter of 2019, the related escrow of $1.5 million was released to the Company.

7. LEASES

The Company has operating leases for corporate office space and certain equipment. The leases have terms from one year to eight years, some of which include options to renew the lease, and are included in the lease term when it is reasonably certain that the Company will exercise the option.

The components of lease cost were as follows (in thousands):

	Year Ended December 31, 2021	Year Ended December 31, 2020	Year Ended December 31, 2019
Operating lease cost*	$ 2,277	$ 2,551	$ 2,785
Sublease income	(543)	(1,018)	(1,322)
Total lease cost	$ 1,734	$ 1,533	$ 1,463

*Includes short-term and variable lease costs, which are immaterial.

Supplemental cash flow information related to leases was as follows (in thousands):

	Year Ended December 31, 2021	Year Ended December 31, 2020	Year Ended December 31, 2019
Cash paid for amounts included in measurement of lease liabilities:			
Operating cash flows from operating leases	$ 2,299	$ 4,315	$ 4,632
Right-of-use assets obtained in exchange for lease obligations:			
Operating leases	$ —	$ 292	$ 7,434

Supplemental balance sheet information related to leases was as follows (in thousands, except lease term and discount):

	Year Ended December 31, 2021	Year Ended December 31, 2020
Operating lease right-of-use assets	$ 6,888	$ 10,804
Operating lease liabilities - current	2,388	2,075
Operating lease liabilities - non-current	6,982	9,371
Total operating lease liabilities	$ 9,370	$ 11,446
Weighted average remaining lease term		
Operating leases	3.6 years	4.6 years
Weighted average discount rate		
Operating leases	3.8 %	3.9 %

The Company reviews its ROU assets for impairment if indicators of impairment exist. The impairment review process compares the fair value of the ROU asset to its carrying value. If the carrying value exceeds the fair value, an impairment loss is recorded. During the year ended December 31, 2021, due to the continuing impacts of COVID-19 on the real estate markets and its impact on the future cash flows attributable to its ROU assets, the Company recorded an impairment charge of $1.9 million. No impairment was recorded during the years ended December 31, 2020 and 2019.

As of December 31, 2021, future operating lease payments were as follows: (in thousands):

		Operating Leases
2022	$	2,703
2023		2,451
2024		1,965
2025		1,946
2026		992
Thereafter		82
Total lease payments		10,139
Less imputed interest		(769)
Total	$	9,370

As of December 31, 2021, the Company has no additional operating or finance leases that have not yet commenced. No leases include options to purchase the leased property. Our lease agreements do not contain any material residual value guarantees or material restrictive covenants. We do not have any lease agreements with related parties.

8. INVESTMENTS

Investments, Current, at Fair Value

Through its predecessor companies, the Company owned a minority interest representing less than 1% of the common stock of a technology company that completed an initial public offering ("IPO") and became publicly traded during the first quarter of 2021. Prior to the IPO, the Company had elected the measurement alternative in accordance with FASB ASC 321, Investments – Equity Securities. As of December 31, 2020, it was not practicable to estimate the fair value of its interest because there were no observable transactions for the investment. Accordingly, the investment was carried at its original cost, less impairments, which resulted in a carrying value of zero as of December 31, 2020. The investment was accounted for as an equity security, with realized and unrealized gains and losses included in earnings. During the third quarter of 2021, the investment was sold for $1.2 million. Accordingly, the recorded value as of December 31, 2021 was zero. A realized gain of $1.2 million has been recorded for the year ended December 31, 2021.

Investments, Non-current, at Fair Value

During the third quarter of 2021, the Company invested $3.0 million through a subordinated convertible promissory note (the "Note") of $3.0 million with a values-based career destination company that allows the next generation workforce to search for jobs at companies whose people, perks and values align with their unique professional needs. The Note earns interest at 6.00% and matures at the earlier of a Qualified Financing, as described in the Note, or settled in cash on or after August 20, 2022, at the option of the Company. Upon a Qualified Financing, the Company will convert its investment into shares of preferred stock at 80% of the per share value in the Qualified Financing. The investment is recorded as a trading security at fair value with realized and unrealized gains and losses included in earnings. The Note is recorded at $3.0 million as of December 31, 2021 and there was no gain or loss included in earnings during the year ended December 31, 2021.

Investments, Non-current

Rigzone is a website dedicated to delivering online content, data, and career services in the oil and gas industry in North America, Europe, the Middle East, and Asia Pacific. Oil and gas companies, as well as companies that serve the energy industry, use Rigzone to find talent for roles such as petroleum engineers, sales professionals with energy industry expertise and skilled tradesmen. On August 31, 2018, the Company transferred a majority ownership and control of the Rigzone business to Rigzone management, while retaining a 40% common share interest. The Company has evaluated the 40% common share interest in the Rigzone business and has determined the investment meets the definition and criteria of a variable interest entity ("VIE"). The Company evaluated the VIE and determined that the Company does not have a controlling financial interest in the VIE, as the Company does not have the power to direct the activities of the VIE that most significantly impact the VIE's economic performance. The common share interest is being accounted for under the equity method of accounting as the

Company has the ability to exercise significant influence over Rigzone. As accumulated earnings of the VIE have been approximately zero since the date of transfer, the investment is recorded at zero at December 31, 2021.
As further described in Notes 1 and 4, on June 30, 2021, the Company transferred majority ownership and control of its eFC business to eFC's management, while retaining a 40% common share interest with zero proceeds received from the transfer. The Company incurred approximately $0.1 million in selling costs and recognized a $30.2 million loss on the transfer in the second quarter of 2021, which included a $28.1 million charge related to accumulated foreign currency loss that was previously a reduction to equity.

eFC is a financial services careers website, operating websites in multiple markets in four languages mainly across the United Kingdom, Continental Europe, Asia, the Middle East and North America. Professionals from across many sectors of the financial services industry, including asset management, risk management, investment banking, and information technology, use eFC to advance their careers. The Company has evaluated the 40% common share interest in the eFC business and has determined the investment meets the definition and criteria of a variable interest entity ("VIE"). The Company evaluated the VIE and determined that the Company does not have a controlling financial interest in the VIE, as the Company does not have the power to direct the activities of the VIE that most significantly impact the VIE's economic performance. The common share interest is being accounted for under the equity method of accounting as the Company has the ability to exercise significant influence over eFC. The investment was recorded at its fair value on June 30, 2021, the date of transfer, which was $3.6 million. The Company's equity in net assets of eFC as of June 30, 2021 was $2.2 million. The difference between the Company's recorded value and its equity in net assets of eFC is amortized against the recorded value of the investment in accordance with ASC 323 *Investments - Equity Method and Joint Ventures*. The amortization was not material for the year ended December 31, 2021. The recorded value is further adjusted based on the Company's proportionate share of eFC's net income and is recorded three months in arrears. During the fourth quarter of 2021, the Company recorded $0.2 million of income related to its proportionate share of eFC's net income, net of currency translation adjustments and amortization of the basis difference.

At January 1, 2018, the Company held preferred stock representing a 10.0% interest in the fully diluted shares of a tech skills assessment company. During 2018, the skills assessment company completed an additional equity offering, lowering DHI's total interest to 7.6%. The Company did not adjust the recorded value of the investment because the shares issued under the new share offering were not similar to the Company's share rights. As of December 31, 2019 it was not practicable to estimate the fair value of the preferred stock as the shares are not traded. The investment was carried at its original cost of $2.0 million and was included in the other assets section of the consolidated balance sheets. During the three months ended March 31, 2020, based on the investment's historical cash burn rate, uncertainty of its ability to meet revenue and cash flow projections, current liquidity position, lack of access to additional capital, and impacts from the COVID-19 pandemic, the Company determined the value to be zero. Accordingly, the Company recorded an impairment charge of $2.0 million during the first quarter of 2020. As of December 31, 2021, there have been no additional shares issued that were similar to the Company's share rights and the investment is recorded at zero as of December 31, 2021.

On January 31, 2018, the Company transferred a majority ownership of the BioSpace business to BioSpace management, while retaining a 20% preferred share interest in the BioSpace business. During the second quarter of 2020, the Company sold its 20% interest in BioSpace to BioSpace management for $0.2 million. At the time of sale, the recorded value of the investment was zero. Accordingly, the Company recognized a $0.2 million gain on sale, which was included in interest expense and other on the consolidated statements of operations.

9. FIXED ASSETS, NET

Fixed assets, net consist of the following as of December 31, 2021 and 2020 (in thousands):

	2021	2020
Computer equipment and software	$ 4,654	$ 4,680
Furniture and fixtures	2,446	2,227
Leasehold improvements	1,817	1,817
Capitalized development costs	51,245	44,332
	60,162	53,056
Less: Accumulated depreciation and amortization	(39,581)	(30,023)
Fixed assets, net	$ 20,581	$ 23,033

10. ACQUIRED INTANGIBLE ASSETS, NET

Considering the recognition of the Dice brand, its long history, awareness in the talent acquisition and staffing services market, and the intended use, the remaining useful life of the Dice.com trademarks and brand name was determined to be indefinite. We determine whether the carrying value of recorded indefinite-lived acquired intangible assets is impaired on an annual basis or more frequently if indicators of potential impairment exist. The impairment review process compares the fair value of the indefinite-lived acquired intangible assets to its carrying value. If the carrying value exceeds the fair value, an impairment loss is recorded.

As of December 31, 2021 and 2020, the Company had an indefinite-lived acquired intangible asset of $23.8 million related to the Dice trademarks and brand name. The annual impairment test for the Dice trademarks and brand name is performed on October 1 of each year. During the first and third quarters of 2020, because of the initial impacts of the COVID-19 pandemic and its potential impact on future earnings and cash flows that are attributable to the Dice trademarks and brand name, the Company recorded an impairment charge of $7.2 million and $8.0 million, respectively. No impairment was recorded during the years ended December 31, 2021 and 2019.

The projections utilized in the October 1, 2021 analysis included increasing revenues at rates approximating industry growth projections. The Company’s ability to achieve these revenue projections may be impacted by, among other things, uncertainty related to COVID-19, competition in the technology recruiting market, challenges in developing and introducing new products and product enhancements to the market and the Company’s ability to attribute value delivered to customers. The October 1, 2021 analysis included operating margins during the year ending December 31, 2021 that approximate operating margins for the year ended December 31, 2020 and then increasing modestly. If future cash flows that are attributable to the Dice trademarks and brand name are not achieved, the Company could realize an impairment in a future period. The Company's operating results attributable to the Dice trademarks and brand name through December 31, 2021 and projections of future results have met or exceeded those included in the projections utilized in the October 1, 2021 analysis. In the October 1, 2021 analysis, the Company utilized a relief from royalty rate method to value the Dice trademarks and brand name using a royalty rate of 4.0% based on comparable industry studies and a discount rate of 12.5%.

The determination of whether or not indefinite-lived acquired intangible assets have become impaired involves a significant level of judgment in the assumptions underlying the approach used to determine the value of the indefinite-lived acquired intangible assets. Fair values are determined using a profit allocation methodology which estimates the value of the trademark and brand name by capitalizing the profits saved because the company owns the asset. We consider factors such as historical performance, anticipated market conditions, operating expense trends and capital expenditure requirements. Changes in our strategy, uncertainty related to COVID-19, and/or changes in market conditions could significantly impact these judgments and require adjustments to recorded amounts of intangible assets. If projections are not achieved, the Company could realize an impairment in the foreseeable future.

11. GOODWILL

The following table shows the carrying amount of goodwill as of December 31, 2021 and 2020, and the changes in goodwill for the years then ended (in thousands):

Goodwill at January 1, 2020	**$**	**150,707**
Impairment		(22,607)
Goodwill at December 31, 2020	**$**	**128,100**
Activity during 2021		—
Goodwill at December 31, 2021	**$**	**128,100**

Accumulated impairment losses at December 31, 2021 and 2020 was $22.6 million.

Goodwill as of December 31, 2021 and 2020, which was allocated to the Tech-focused reporting unit, was $128.1 million. There were no changes to goodwill during the year ended December 31, 2021.

During the third quarter 2020, because of the impacts of the COVID-19 pandemic and its potential impact on future earnings and cash flows for the reporting unit, the Company recorded an impairment charge of $22.6 million. On June 30, 2021, the

Company transferred a majority interest of its eFC business, which was part of the Tech-focused reporting unit, to management. As a result, the Company performed an interim impairment analysis of goodwill. The annual impairment test for the Tech-focused reporting unit is performed on October 1 of each year. The results of the impairment tests indicated that the fair value of the Tech-focused reporting unit was substantially in excess of the carrying value as of June 30, 2021 and October 1, 2021.

Results for the Tech-focused reporting unit for the fourth quarter of 2021 and estimated future results as of December 31, 2021 have exceeded the projections used in the October 1, 2021 analysis. As a result, the Company believes it is not more likely than not that the fair value of the reporting unit is less than the carrying value as of December 31, 2021. Therefore, no quantitative impairment test was performed as of December 31, 2021. No impairment was recorded during the years ended December 31, 2021 and 2019.

The projections utilized in the October 1, 2021 analysis included increasing revenues at rates approximating industry growth projections. The Company’s ability to achieve these revenue projections may be impacted by, among other things, uncertainty related to COVID-19, competition in the technology recruiting market, challenges in developing and introducing new products and product enhancements to the market and the Company’s ability to attribute value delivered to customers. The October 1, 2021 analysis included operating margins during the year ending December 31, 2021 that approximate operating margins for the year ended December 31, 2020 and then increasing modestly. If future cash flows that are attributable to the Tech-focused reporting unit are not achieved, the Company could realize an impairment in a future period.

The discount rate applied for the Tech-focused reporting unit in the October 1, 2021 analysis was 11.5%. An increase to the discount rate applied or reductions to future projected operating results could result in future impairment of the Tech-focused reporting unit’s goodwill. It is reasonably possible that changes in judgments, assumptions and estimates the Company made in assessing the fair value of goodwill could cause the Company to consider some portion or all of the goodwill of the Tech-focused reporting unit to become impaired. In addition, a future decline in the overall market conditions, uncertainty related to COVID-19, and/or changes in the Company’s market share could negatively impact the estimated future cash flows and discount rates used to determine the fair value of the reporting unit and could result in an impairment charge in the foreseeable future.

The determination of whether or not goodwill has become impaired is judgmental in nature and requires the use of estimates and key assumptions, particularly assumed discount rates and projections of future operating results, such as forecasted revenues and earnings before interest, taxes, depreciation and amortization margins and capital expenditure requirements. Fair values are determined either by using a discounted cash flow methodology or by using a combination of a discounted cash flow methodology and a market comparable method. The discounted cash flow methodology is based on projections of the amounts and timing of future revenues and cash flows, assumed discount rates and other assumptions as deemed appropriate. Factors such as historical performance, anticipated market conditions, operating expense trends and capital expenditure requirements are considered. Additionally, the discounted cash flows analysis takes into consideration cash expenditures for product development, other technological updates and advancements to the websites and investments to improve the candidate databases. The market comparable method indicates the fair value of a business by comparing it to publicly traded companies in similar lines of business or to comparable transactions or assets. Considerations for factors such as size, growth, profitability, risk and return on investment are analyzed and compared to the comparable businesses and adjustments are made. A market value of invested capital of the publicly traded companies is calculated and then applied to the entity’s operating results to arrive at an estimate of value. Changes in our strategy and/or market conditions could significantly impact these judgments and require adjustments to recorded amounts of goodwill.

12. INDEBTEDNESS

Credit Agreement**—**In November 2018, the Company, together with Dice Inc. (a wholly-owned subsidiary of the Company) and its wholly-owned subsidiary, Dice Career Solutions, Inc. (collectively, the “Borrowers”), entered into a Second Amended and Restated Credit Agreement (the “Credit Agreement”), which matures in November 2023, and replaces the previously existing credit agreement dated November 2015. The Credit Agreement provides for a revolving loan facility of $90 million, with an expansion option up to $140 million, as permitted in the Credit Agreement.

Borrowings under the Credit Agreement bear interest, at the Company’s option, at a LIBOR rate or a base rate plus a margin. The margin ranges from 1.75% to 2.50% on LIBOR loans and 0.75% to 1.50% on base rate loans, determined by the Company’s most recent consolidated leverage ratio. The Company incurs a commitment fee ranging from 0.30% to 0.45% on any unused capacity under the revolving loan facility, determined by the Company's most recent consolidated leverage ratio.

The facility may be prepaid at any time without penalty. Interest expense on long-term debt for the years ended December 31, 2021, 2020, and 2019 was $0.8 million, $1.1 million, and $0.9 million, respectively.

The Credit Agreement contains various customary affirmative and negative covenants and also contains certain financial covenants, including a consolidated leverage ratio and a consolidated interest coverage ratio. Borrowings are allowed under the Credit Agreement to the extent the consolidated leverage ratio, calculated on a pro forma basis, is equal to or less than 2.50 to 1.00. Negative covenants include restrictions on incurring certain liens; making certain payments, such as stock repurchases and dividend payments; making certain investments; making certain acquisitions; making certain dispositions; and incurring additional indebtedness. Restricted payments are allowed under the Credit Agreement to the extent the consolidated leverage ratio, calculated on a pro forma basis, is equal to or less than 2.00 to 1.00, plus an additional $5.0 million of restricted payments. The Credit Agreement also provides that the payment of obligations may be accelerated upon the occurrence of customary events of default, including, but not limited to, non-payment, change of control, or insolvency. As of December 31, 2021, the Company was in compliance with all of the financial covenants under the Credit Agreement.

The obligations under the Credit Agreement are guaranteed by two of the Company's U.S. based wholly-owned subsidiaries, and secured by substantially all of the assets of the Borrowers and the guarantors.

The amounts borrowed as of December 31, 2021 and 2020 are as follows (dollars in thousands):

	December 31, 2021	December 31, 2020
Amounts borrowed:		
Revolving credit facility	$ 23,000	$ 20,000
Less: deferred financing costs, net of accumulated amortization of $467 and $319	(270)	(417)
Total borrowed	$ 22,730	$ 19,583
Available to be borrowed under revolving facility	$ 67,000	$ 70,000
Interest rates:		
LIBOR rate loans:		
Interest margin	1.75 %	2.00 %
Actual interest rates	1.88 %	2.19 %
Commitment Fee	0.30 %	0.35 %

There are no scheduled payments until maturity of the Credit Agreement in November 2023.

13. COMMITMENTS AND CONTINGENCIES

Litigation

The Company is subject to various claims from taxing authorities, lawsuits and other complaints arising in the ordinary course of business. The Company records provisions for losses when claims become probable and the amounts are reasonably estimable. Although the outcome of these legal matters cannot be determined, it is the opinion of management that the final resolution of these matters will not have a material adverse effect on the Company's financial condition, operations or liquidity.

Tax Contingencies

The Company operates in a number of tax jurisdictions and is routinely subject to examinations by various tax authorities with respect to both income and indirect taxes. The determination of the Company's worldwide provision for taxes requires judgment and estimation. The Company has reserved for potential examination adjustments to our provision for income taxes and accrual of indirect taxes in amounts which the Company believes are reasonable.

14. EQUITY TRANSACTIONS

Stock Repurchase Plans— The Company's Board of Directors ("Board") approved a stock repurchase program that permits the Company to repurchase its common stock. Management has discretion in determining the conditions under which shares may be purchased from time to time. The following table summarizes the Stock Repurchase Plans approved by the Board of Directors:

	May 2018 to May 2019	May 2019 to May 2020	May 2020 to May 2021[(1)]	Feb 2021 to Jun 2022[(2)]
Approval Date	May 2018	April 2019	May 2020	February 2021
Authorized Repurchase Amount of Common Stock	$7 million	$7 million	$5 million	$20 million

(1) During the first quarter of 2021, the Company completed its purchases under the plan, which consisted of 2.2 million shares for $5.0 million, effectively ending the plan prior to its original expiration date.

(2) During the second quarter of 2021, the Company amended its $8.0 million stock repurchase program approved in February 2021 and allowed for the purchase of an additional $12.0 million of our common stock through June 2022, bringing total authorized purchases under the plan to $20.0 million.

As of December 31, 2021, the value of shares available to be purchased under the current plan was $5.8 million. During January 2022, the Company repurchased approximately 742,000 shares for $4.3 million under the current plan.

Purchases of the Company's common stock pursuant to the Stock Repurchase Plans were as follows:

	Year Ended December 31,		
	2021	2020	2019
Shares repurchased[(1)]	3,905,050	3,548,265	848,760
Average purchase price per share[(2)]	$ 3.92	$ 2.38	$ 2.97
Dollar value of shares repurchased (in thousands)	$ 15,323	$ 8,436	$ 2,519

(1) No shares of our common stock were purchased other than through a publicly announced plan or program.
(2) Average price paid per share includes costs associated with the repurchases.

There were 48,260, 63,451 and 4,310 unsettled shares as of December 31, 2021, 2020 and 2019, respectively.

The Company's Board approved the retirement of 20 million shares of treasury stock during the first quarter of 2019 and, as a result, the Company reduced additional paid in capital by $161.6 million and Common Stock by $0.2 million during the quarter. The value of treasury stock retired was computed based on the average repurchase price of all treasury shares as of March 31, 2019, which was $8.09 per share.

Convertible Preferred Stock—The Company has 20 million shares of convertible preferred stock authorized, with a $0.01 par value. No shares have been issued and outstanding since prior to our initial public offering in 2007. The rights, preferences, privileges and restrictions granted to and imposed on the convertible preferred stock are as set forth below. The Company currently has no preferred stock outstanding. The Company’s amended and restated certificate of incorporation permits the terms of any preferred stock to be determined at the time of issuance.

Dividend provisions

The preferred stockholders would be entitled to dividends only when dividends are paid to common shareholders. In the event of a dividend, the holders of the preferred shares would be entitled to share in the dividend on a pro rata basis, as if their shares had been converted into shares of common stock.

Conversion rights

Any holder of preferred stock has the right, at its option, to convert the preferred shares into shares of common stock at a ratio of one preferred stock share for one common stock share. The holders of 66 $^2/_3$% of all outstanding preferred stock have the right at any time to require all the outstanding shares of preferred stock to be converted into an equal number of shares of common stock. Voting rights include the right to vote at a special or annual meeting of stockholders on all matters entitled to be voted on by holders of common stock, voting together as a single class with the common stock. There are no redemption rights associated with the preferred stock.

Liquidation rights

Upon the occurrence of liquidation, the holders of the preferred shares shall be paid in cash for each share of preferred stock held, out of, but only to the extent of, the assets of the Company legally available for distribution to its stockholders, before any payment or distribution is made to any shareholders of common stock**.** The liquidation value is $2.17 per share, subject to adjustments for stock splits, stock dividends, combinations, or other recapitalizations of the preferred stock.

Dividends—No dividends were declared during the years ended December 31, 2021, 2020 or 2019. Our Credit Agreement limits our ability to declare and pay dividends. See note 12 for additional disclosures.

15. ACCUMULATED OTHER COMPREHENSIVE LOSS

FASB ASC topic on Comprehensive Income establishes standards for the reporting and display of comprehensive income and its components in a full set of general-purpose financial statements. This statement requires that all items that are required to be recognized as components of comprehensive income be reported in a financial statement with the same prominence as other financial statements. During the year ended December 31, 2021, the Company had $28.1 million of currency translation adjustments reclassified to the Statements of Operations related to the removal of eFC's net assets. The Company had no amounts reclassified out of accumulated other comprehensive income for the years ended December 31, 2020, and 2019. The foreign currency translation adjustments impact comprehensive income. Accumulated other comprehensive income (loss), net consists of the following components, net of tax (in thousands):

	Year Ended December 31,		
	2021	**2020**	**2019**
Foreign currency translation:			
Balance at beginning of year	$ (28,519)	$ (29,248)	$ (31,236)
Foreign currency translation adjustment	395	729	1,988
Cumulative translation adjustments reclassified to the Statements of Operations	28,063	—	—
Balance at end of year	$ (61)	$ (28,519)	$ (29,248)

16. DISPOSITION RELATED AND OTHER COSTS

In May 2017, the Company announced plans to divest a number of its online professional communities to achieve greater focus and resource allocation toward its core tech-focused business. The planned divestitures were completed in 2018 and included BioSpace, Hcareers, and Rigzone. The Company also ceased the Dice Europe operations in 2018 and vacated certain offices. In connection with the planned divestitures and reorganization to the tech-focused strategy, the Company incurred certain costs, including severance and retention, lease exit, business closure, professional fees related to activist shareholders, search, financial advisory, and legal services, and other costs to further these strategic objectives. The activities associated with disposition related and other costs were substantially completed during the year ended December 31, 2019. Disposition related and other costs were zero for the years ended December 31, 2021 and 2020 and were $1.4 million for the year ended December 31, 2019.

17. STOCK BASED COMPENSATION

Under the 2012 Omnibus Equity Award Plan, the Company has granted stock options, restricted stock and Performance-Based Restricted Stock Units ("PSUs") to certain employees and directors. The Company records expense based upon the number of awards outstanding with no estimate for forfeitures. Stock based compensation disclosures within this footnote include expense and shares related to the eFC business.

The Company recorded stock based compensation expense of $8.3 million, $6.3 million, and $5.7 million during the years ended December 31, 2021, 2020, and 2019, respectively. At December 31, 2021, there was $9.8 million of unrecognized compensation expense related to unvested awards, which is expected to be recognized over a weighted-average period of approximately 1.3 years.

Restricted Stock—Restricted stock is granted to employees of the Company and its subsidiaries, and to non-employee members of the Company's Board. These shares are part of the compensation plan for services provided by the employees or Board members. The closing price of the Company's stock on the date of grant is used to determine the fair value of the grants. The expense related to the restricted stock grants is recorded over the vesting period as described below. There was no cash flow impact resulting from the grants.

The restricted stock vests in various increments either quarterly or on the anniversaries of each grant, subject to the recipient's continued employment or service through each applicable vesting date. Vesting occurs over one year for Board members and over two to four years for employees.

A summary of the status of restricted stock awards as of December 31, 2021, 2020, and 2019 and the changes during the periods then ended is presented below:

	Year Ended December 31,					
	2021		2020		2019	
	Shares	Weighted- Average Fair Value at Grant Date	Shares	Weighted- Average Fair Value at Grant Date	Shares	Weighted- Average Fair Value at Grant Date
Non-vested at beginning of the period	3,877,853	$ 2.49	3,994,787	$ 2.46	4,518,932	$ 2.32
Granted	2,267,683	$ 2.98	2,172,550	$ 2.67	2,257,940	$ 2.72
Forfeited	(684,976)	$ 2.73	(430,136)	$ 2.81	(560,375)	$ 2.75
Vested	(2,088,728)	$ 2.43	(1,859,348)	$ 2.58	(2,221,710)	$ 2.36
Non-vested at end of period	3,371,832	$ 2.80	3,877,853	$ 2.49	3,994,787	$ 2.46

PSUs—PSUs are granted to employees of the Company and its subsidiaries. These shares are granted under two compensation agreements that are for services provided by the employees. The first agreement expired and was terminated during the first quarter of 2020 and there were no unvested shares as of March 31, 2020. Under the second agreement, the fair value of the PSUs are measured at the grant date fair value of the award, which was determined based on an analysis of the probable performance outcomes. The performance period is over one year and is based on the achievement of bookings targets during the year of grant, as defined in the agreement. The earned shares will then vest over a three year period, one-third on each of the first, second, and third anniversaries of the grant date, or if later, the date the Compensation Committee certifies the performance results with respect to the performance period. For the performance period ending December 31, 2020, as a result of the COVID-19 pandemic and its impact on the overall economy, the bookings targets were modified during the third quarter of 2020. Accordingly, the Company remeasured the awards.

There were no cash flow impact resulting from the grants.

A summary of the status of PSUs as of December 31, 2021, 2020, and 2019 and the changes during the periods then ended, is presented below:

	Year Ended December 31,					
	2021		2020		2019	
	Shares	Weighted- Average Fair Value at Grant Date	Shares	Weighted- Average Fair Value at Grant Date	Shares	Weighted- Average Fair Value at Grant Date
Non-vested at beginning of the period	1,352,438	$ 2.50	1,664,650	$ 2.53	1,255,000	$ 3.45
Granted	990,000	$ 2.62	911,460	$ 2.65	837,150	$ 2.54
Forfeited	(161,946)	$ 2.63	(695,628)	$ 3.26	(427,500)	$ 5.26
Vested	(586,717)	$ 2.32	(528,044)	$ 1.88	—	$ —
Non-vested at end of period	1,593,775	$ 2.62	1,352,438	$ 2.50	1,664,650	$ 2.53

Stock Options—The fair value of each option grant is estimated using the Black-Scholes option-pricing model using the weighted-average assumptions in the table below. This valuation model requires the Company to make assumptions and judgments about the variables used in the calculation, including the fair value of the Company's common stock, the expected life (the period of time that the options granted are expected to be outstanding), the volatility of the Company's common stock, a risk-free interest rate and expected dividends. The expected life of options granted is derived from historical exercise behavior. The risk-free rate for periods within the expected life of the option is based on the U.S. Treasury rates in effect at the time of grant. The stock options vest 25% after one year, beginning on the first anniversary date of the grant, and 6.25% each quarter following the first anniversary. There was no cash flow impact resulting from the grants. No stock options were granted during the years ended December 31, 2021, 2020, and 2019.

A summary of the status of options previously granted as of December 31, 2021, 2020, and 2019, and the changes during the periods then ended is presented below:

	Year Ended December 31, 2021		
	Options	**Weighted-Average Exercise Price**	**Aggregate Intrinsic Value**
Options outstanding at January 1	110,000	$ 7.40	$ —
Forfeited	(110,000)	$ 7.40	—
Options outstanding at December 31	—	$ —	$ —
Exercisable at December 31	—	$ —	$ —

	Year Ended December 31, 2020		
	Options	**Weighted-Average Exercise Price**	**Aggregate Intrinsic Value**
Options outstanding at January 1	190,000	$ 8.28	$ —
Forfeited	(80,000)	$ 9.48	—
Options outstanding at December 31	110,000	$ 7.40	$ —
Exercisable at December 31	110,000	$ 7.40	$ —

	Year Ended December 31, 2019		
	Options	**Weighted-Average Exercise Price**	**Aggregate Intrinsic Value**
Options outstanding at January 1	327,000	$ 8.35	$ —
Forfeited	(137,000)	$ 8.46	—
Options outstanding at December 31	190,000	$ 8.28	$ —
Exercisable at December 31	190,000	$ 8.28	$ —

18. INCOME TAXES

Deferred tax assets (liabilities) included in the balance sheet as of December 31, 2021 and 2020 are as follows (in thousands):

	2021	2020
Deferred tax assets:		
Capital loss carryforward	$ 4,971	$ 5,225
Allowance for doubtful accounts	221	252
Provision for accrued expenses and other, net	1,726	1,462
Stock-based compensation	2,245	1,761
Deferred revenue	142	127
Tax credit carryforward	306	258
	9,611	9,085
Less valuation allowance	5,139	5,306
Deferred tax asset, net of valuation allowance	4,472	3,779
Deferred tax liabilities:		
Acquired intangibles	(6,303)	(6,187)
Depreciation of fixed assets	(5,238)	(5,808)
Capitalized contract costs	(2,246)	(1,549)
Deferred tax liability	(13,787)	(13,544)
Net deferred tax liability	$ (9,315)	$ (9,765)
Recognized in consolidated balance sheets:		
Deferred tax liability	(9,315)	(9,765)
Net deferred tax liability	$ (9,315)	$ (9,765)

The Company had deferred tax assets of $5.0 million and $5.2 million, respectively, at December 31, 2021 and 2020 related to capital loss carryforwards and $0.3 million at December 31, 2021 and 2020 related to tax credit carryforwards. The capital losses expire in 2023 through 2025, and the tax credits expire in 2025 through 2030. The Company has recorded valuation allowances of $5.1 million and $5.3 million, respectively, at December 31, 2021 and 2020 in order to measure only the portion of the deferred tax assets which are more likely than not to be realized.

Tax expense (benefit) for the years ended December 31, 2021, 2020 and 2019 is as follows (in thousands):

	2021	2020	2019
Current income tax expense (benefit):			
Federal	$ (332)	$ (261)	$ 525
State	154	(79)	71
Current income tax expense (benefit)	(178)	(340)	596
Deferred income tax expense (benefit):			
Federal	(414)	(2,025)	1,657
State	(37)	(461)	541
Deferred income tax expense (benefit)	(451)	(2,486)	2,198
Income tax expense (benefit)	$ (629)	$ (2,826)	$ 2,794

A reconciliation between tax expense at the federal statutory rate and the reported income tax expense is summarized as follows:

	Year Ended December 31,		
	2021	2020	2019
Federal statutory rate	$ (216)	$ (7,397)	$ 1,979
Loss (gain) on sale of businesses or investments	(251)	(42)	84
Stock-based compensation	(84)	432	281
Nondeductible impairment	—	5,029	—
State tax expense (benefit), net of federal effect	110	(514)	405
Change in accrual for unrecognized tax benefits	(155)	(216)	209
Executive compensation	541	323	147
Research and development tax credits	(478)	(530)	(558)
Other	(96)	89	247
Income tax expense (benefit)	$ (629)	$ (2,826)	$ 2,794
Effective tax rate	61.0 %	8.0 %	29.6 %

An uncertain tax position represents the Company's expected treatment of a tax position taken in a filed tax return, or planned to be taken in a tax return not yet filed, that has not been reflected in measuring income tax expense for financial reporting purposes. At December 31, 2021 and 2020, the Company has recorded a liability of $0.8 million and $0.9 million, respectively, which consists of unrecognized tax benefits of $0.7 million and $0.9 million, respectively, and estimated accrued interest and penalties of $0.1 million and $0.0 million, respectively. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. During the years ended December 31, 2021, 2020 and 2019, interest expense (income) and penalties recorded in the consolidated statements of operations were $(27,000), $(195,000), and $91,000, respectively. Following is a reconciliation of the amounts of unrecognized tax benefits, net of tax and excluding interest and penalties, for the years ended December 31, 2021, 2020 and 2019 (in thousands):

	2021	2020	2019
Unrecognized tax benefits—beginning of period	$ 858	$ 903	$ 784
Increases in tax positions related to current year	165	134	154
Increases in tax positions related to prior year	—	—	41
Decreases in tax positions related to prior year	(42)	—	—
Lapse of statute of limitations	(251)	(179)	(76)
Unrecognized tax benefits—end of period	$ 730	$ 858	$ 903

The foregoing table indicates unrecognized tax benefits, net of tax and excluding interest and penalties. The balance of gross unrecognized benefits was $0.8 million, $0.9 million, and $1.0 million at December 31, 2021, 2020, and 2019, respectively. If the unrecognized tax benefits at December 31, 2021, 2020, and 2019 were recognized in full, tax benefits of $0.8 million, $0.9 million, and $1.2 million, respectively, would affect the effective tax rate.

The Company has filed income tax returns in the U.S. and various foreign jurisdictions. The foreign returns relate to the eFC business, of which the Company transferred a majority interest and control to eFC's management on June 30, 2021. See Notes 1 and 4 for additional disclosures. The Company is generally no longer subject to examinations by U.S. federal tax authorities for tax years prior to 2018, or by U.S. state and foreign authorities for tax years prior to 2017. The Company believes it is reasonably possible that as much as $0.2 million of its unrecognized tax benefits may be recognized by the end of 2022 as a result of a lapse of the statute of limitations.

19. EMPLOYEE SAVINGS PLAN

The Company has a savings plan (the "Savings Plan") that qualifies as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the Savings Plan, participating employees may defer a portion of their pretax earnings, up to the Internal Revenue Service annual contribution limit. The Company contributed $1.7 million, $1.6 million, and $1.4 million for the years ended December 31, 2021, 2020 and 2019, respectively, to match employee contributions to the Savings Plan.

20. EARNINGS (LOSS) PER SHARE

Basic earnings (loss) per share is computed based on the weighted-average number of shares of common stock outstanding. Diluted earnings per share is computed based on the weighted-average number of shares of common stock outstanding plus common stock equivalents, where dilutive. As shown in the table below, certain dilutive shares were excluded from the computation of shares contingently issuable upon exercise as we recognized a loss from continuing operations. The following is a calculation of basic and diluted earnings per share and weighted-average shares outstanding (in thousands, except per share amounts):

	2021	2020	2019
Income (loss) from continuing operations	$ (402)	$ (32,397)	$ 6,631
Income (loss) from discontinued operations, net of tax	$ (29,340)	$ 2,382	$ 5,920
Net Income (loss)	$ (29,742)	$ (30,015)	$ 12,551
Weighted-average shares outstanding—basic	46,333	48,278	48,739
Add shares issuable from stock-based awards	—	—	2,894
Weighted-average shares outstanding—diluted	$ 46,333	$ 48,278	$ 51,633
Basic earnings (loss) per share - continuing operations	$ (0.01)	$ (0.67)	$ 0.14
Diluted earnings (loss) per share - continuing operations	$ (0.01)	$ (0.67)	$ 0.13
Basic earnings (loss) per share - discontinued operations	$ (0.63)	$ 0.05	$ 0.12
Diluted earnings (loss) per share - discontinued operations	$ (0.63)	$ 0.05	$ 0.11
Basic earnings (loss) per share	$ (0.64)	$ (0.62)	$ 0.26
Diluted earnings (loss) per share	$ (0.64)	$ (0.62)	$ 0.24
Shares issuable from stock-based awards[1]	2,579	1,293	—
Shares excluded from the calculation of diluted earnings per share[2]	487	2,279	506

(1) Represents shares excluded from the computation of shares contingently issuable upon exercise as we recognized a net loss from continuing operations.
(2) Represents outstanding stock-based awards that were anti-dilutive and excluded from the calculation of diluted earnings per share.

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21. QUARTERLY RESULTS OF OPERATIONS (UNAUDITED)

The following is a summary of unaudited quarterly results of operations for 2021 and 2020 and has been restated to reflect the transfer of majority ownership and control of the eFC business to eFC's management, which is presented as a discontinued operation, as described in note 4:

	For the Three Months Ended				
	March 31	June 30	September 30	December 31	
	(in thousands, except per share amounts)				
2021					
Revenues	$ 26,676	$ 28,721	$ 30,758	$ 33,748	
Total operating expenses	26,860	28,233	32,973	33,589	
Operating income (loss)	$ (184)	$ 488	$ (2,215)	$ 159	
Income (loss) from continuing operations	2,012	(212)	(2,434)	232	
Income (loss) from discontinued operations, net of tax	659	(29,999)	—	—	
Net income (loss)	$ 2,671	$ (30,211)	$ (2,434)	$ 232	
Basic income (loss) per share - continuing operations	$ 0.04	$ —	$ (0.05)	$ 0.01	(1)
Diluted income (loss) per share - continuing operations	$ 0.04	$ —	$ (0.05)	$ —	(1)
Basic earnings (loss) per share - discontinued operations	$ 0.01	$ (0.64)	$ —	$ —	(1)
Diluted earnings (loss) per share - discontinued operations	$ 0.01	$ (0.64)	$ —	$ —	(1)
Basic earnings (loss) per share	$ 0.06	$ (0.64)	$ (0.05)	$ 0.01	(1)
Diluted earnings (loss) per share	$ 0.05	$ (0.64)	$ (0.05)	$ —	(1)
2020					
Revenues	$ 29,385	$ 27,596	$ 27,149	$ 27,037	
Total operating expenses	35,955	25,941	55,627	26,034	
Operating income (loss)	$ (6,570)	$ 1,655	$ (28,478)	$ 1,003	
Income (loss) from continuing operations	(7,535)	1,162	(26,993)	$ 969	
Income (loss) from discontinued operations, net of tax	985	700	(329)	$ 1,026	
Net income (loss)	$ (6,550)	$ 1,862	$ (27,322)	$ 1,995	
Basic income (loss) per share - continuing operations	$ (0.15)	$ 0.02	$ (0.56)	$ 0.02	(1)
Diluted income (loss) per share - continuing operations	$ (0.15)	$ 0.02	$ (0.56)	$ 0.02	(1)
Basic earnings (loss) per share - discontinued operations	$ 0.02	$ 0.01	$ (0.01)	$ 0.02	(1)
Diluted earnings (loss) per share - discontinued operations	$ 0.02	$ 0.01	$ (0.01)	$ 0.02	(1)
Basic earnings (loss) per share	$ (0.13)	$ 0.04	$ (0.57)	$ 0.04	(1)
Diluted earnings (loss) per share	$ (0.13)	$ 0.04	$ (0.57)	$ 0.04	(1)

(1) The sum of the quarters may not equal the full year amount.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosures

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), has evaluated the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the fiscal period covered by this report.

Based on such evaluations, the CEO and CFO have concluded that the disclosure controls and procedures are effective to provide reasonable assurance that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified by the SEC, and that such information is accumulated and communicated to management, including the CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act).

Management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that the Company's internal control over financial reporting was effective as of December 31, 2021.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Deloitte & Touche LLP has audited the Company's internal control over financial reporting as of December 31, 2021 and has issued a report regarding its assessment included herein.

Changes in Internal Controls

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) under the Exchange Act) occurred during the quarter ended December 31, 2021 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of DHI Group, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of DHI Group, Inc. and subsidiaries (the "Company") as of December 31, 2021, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2021, of the Company and our report dated February 11, 2022, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP

Des Moines, Iowa
February 11, 2022

Item 9B. Other Information

Effective on February 8, 2022, we entered into employment agreement amendments with Kevin Bostick, our Chief Financial Officer, and Chris Henderson, our Chief Operating Officer (each, an "Executive").

For each of the Executives, the amended employment agreements provide that such Executive would be entitled to receive (i) payment of the Executive's earned but unpaid bonus for a completed fiscal year upon any qualifying termination and (ii) such Executive's current target bonus amount (or, if higher, the amount of any annual bonus paid in respect of the calendar year prior to the calendar year of the termination of employment), if such qualifying termination occurs within the one year following a change of control.

The amendment for Mr. Henderson extends his post-employment restriction non-compete and non-solicit periods to twelve (12) months.

All other material provisions of the Executive's employment agreements remain the same. The foregoing descriptions are qualified in their entirety by reference to the full text of each amendment, which are filed as Exhibits 10.20 and 10.21 to this Annual Report on Form 10-K and incorporated by reference herein.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information called for by Item 10 (other than with respect to executive officers) will be set forth in our definitive proxy statement relating to our 2022 Annual Meeting of Stockholders (the "Proxy Statement") to be filed within 120 days of the Company's fiscal year end of December 31, 2021 and is incorporated herein by reference.

Executive Officers of the Company

Set forth below is information relating to the Company's executive officers as of February 11, 2022.

Name	Age	Position
Art Zeile	57	President and Chief Executive Officer
Kevin Bostick	54	Chief Financial Officer
Paul Farnsworth	50	Chief Technology Officer
Michelle Marian	56	Chief Marketing Officer
Arie Kanofsky	53	Chief Revenue Officer
Chris Henderson	54	Chief Operating Officer
Pam Bilash	63	Chief Human Resources Officer
Brian P. Campbell	57	Chief Legal Officer

Art Zeile has been President and Chief Executive Officer, as well as a director of the Company since April 2018. Prior to joining DHI, Art co-founded HOSTING, a cloud computing services company and served as its Chief Executive Officer from 2008 until 2016. At HOSTING, Art formulated a strategy for a rollup of cloud services companies in the U.S. and focused on managing security and compliance for mission critical web applications. Earlier in his career, Art served as CEO of QTC Management Inc, a healthcare technology company, from 2006 to 2007. Prior to joining QTC Management, Art co-founded Inflow Inc., a public data center company, and Link-VTC, one of the first companies to deliver videoconferencing services. Art earned a bachelor's degree in Astronautical Engineering from the U.S. Air Force Academy and served in the United States Air Force from 1988 until 1993. Art also received a master's degree in public policy from Harvard University.

Kevin Bostick has been Chief Financial Officer since joining the Company in December 2019. He has overall responsibility for the Company's financial organization, including financial planning, accounting, financial reporting, investor relations, treasury, internal audit and tax matters. Prior to joining DHI, Mr. Bostick was partner and CFO at Level 5 Capital Partners, a private equity firm, since 2018. From 2013 to 2018, Mr. Bostick served as president and CFO of 365 Data Centers, a data center company. He has also served as CFO at Elevation DC, Local Insight Media and New Global Telecom. Earlier in his career he held leadership roles at Level 3 Communications, JP Morgan and KPMG. Mr. Bostick holds an MBA from The Wharton School, University of Pennsylvania and a B.S. in accounting from Penn State University.

Paul Farnsworth is the Chief Technology Officer, joining the Company in February 2019, overseeing both the technology and product organizations at DHI. Prior to joining DHI, Mr. Farnsworth served as Chief Technology Officer at Reed Group, where he was responsible for all aspects of technology delivery and support including: product software delivery, end user environment support, hosting, vendor strategy, client professional services, and enterprise program management. Prior to Reed Group, he was the Senior Vice President of Information at Level 3 Communications, where he led the IT Solutions Delivery Group. He served as Programme Director at BT, with responsibility for customer facing portals and websites in Europe and India. Earlier in his career he held technology leadership roles of increasing responsibility at Qwest Corporation prior to its acquisition by CenturyLink. He has served as the Board Technology Advisor at SafeHarbor Technology Corporation and held board appointments at various startup and growth companies, advising on technology best practices and future roadmaps.

Michelle Marian is the Chief Marketing Officer, joining the Company in October 2018. Ms. Marian leads DHI's global marketing organization with responsibility for its digital marketing strategy, demand generation and branding. Prior to joining DHI, Ms. Marian was the Head of Global Digital Marketing at Crocs, where she was responsible for driving new customer growth and a data-driven customer centric approach to eCommerce. Prior to Crocs, she served as the Vice President of Marketing at Shopathome.com, defining the marketing strategy and execution of customer acquisition and engagement initiatives at the company. Earlier in her career, Ms. Marian held executive marketing positions at Webroot, Safeway, and AOL. Ms. Marian holds a Masters of International Business Studies from the University of South Carolina and a B.S. in International Business & Marketing from the University of Colorado at Boulder.

Arie Kanofsky is the Chief Revenue Officer, joining the Company in October 2019. Arie is responsible for driving growth and scaling sales opportunities for DHI's brands globally. Prior to joining DHI, Mr. Kanofsky was the VP of Growth and Head of Sales for Smartlinx Solutions. Previously, he was the Chief Sales Officer at Sterling Talent Solutions. Earlier in his career, he was the Director of Sales for JobFox. Mr. Kanofsky was also the co-founder and executive vice president of JobExpo.com (formerly CareerFairsUSA prior to its merger with JobExpo.com). Mr. Kanofsky holds a B.A. in Communication from the University of Tampa.

Chris Henderson is the Chief Operating Officer, joining the Company in April 2019. Mr. Henderson previously served as Chief Strategy Officer. Mr. Henderson is responsible for the overall strategy and operations of DHI, particularly as it relates to the development and execution of products and go-to-market solutions for each of the Company's brands. Prior to joining the Company, Mr. Henderson served as the CEO of the Universal Service Administrative Company, which delivers the FCC's $10 billion Universal Service effort to deliver high quality broadband to all Americans. Mr. Henderson previously held a number of senior roles in the public sector including Senior Advisor to Interior Secretary Ken Salazar and COO of City for the Denver under Mayor John Hickenlooper. He also spent twelve years at Vestar Capital Partners, a private equity firm, where he was managing director, member of the investment committee and co-head of the consumer group. Mr. Henderson holds an M.B.A. from Columbia University and a B.A. in Political Science from the University of Colorado at Boulder.

Pam Bilash is the Chief Human Resources Officer, joining the Company in January 2014 through its acquisition of onTargetjobs where she led the Human Resources team as Executive Vice President since 2009. Ms. Bilash brings the Company more than 25 years' experience in talent management and in the information industry. Prior to joining onTargetjobs, Ms. Bilash worked for Thomson Reuters in roles of increasing responsibility, culminating as Senior Vice President of Human Resources for the healthcare group and serving on their Human Resources leadership team, in addition to her executive duties. Ms. Bilash is a graduate of the University of Hartford.

Brian P. Campbell is the Chief Legal Officer and Corporate Secretary of DHI Group, Inc. since January 2020. He previously served as Senior Vice President, Corporate Development and General Counsel and Corporate Secretary and earlier at DHI as Vice President, Business and Legal Affairs since June 2003, after joining our predecessor, Dice Inc. in January 2000. Mr. Campbell is responsible for managing our legal affairs, including intellectual property, mergers and acquisitions, strategic alliances, corporate securities, real estate, litigation and employment law, as well as corporate development and supervising outside counsel. Mr. Campbell also oversees our privacy initiatives. Prior to joining the Company, Mr. Campbell served as Vice President, General Counsel and Corporate Secretary at CMP Media, where he worked since 1995. From 1988 to 1995, Mr. Campbell worked as a Corporate Associate at the law firm of Mudge, Rose, Guthrie, Alexander and Ferdon. Mr. Campbell is the immediate past Chair of the Small Law Department Network of the Association of Corporate Counsel and is a past president of the New York City Chapter of the Association of Corporate Counsel, where he served on the Board of Directors for six years and has been a member for twenty-five years. Mr. Campbell earned a J.D. from St. John's University School of Law and a B.A. (English) from the University of Virginia, and is currently a candidate for an M.B.A. (Management) degree from Molloy College.

The Company has also adopted a Code of Conduct and Ethics, which is applicable to all directors, officers and employees of the Company, including the principal executive officer, the principal financial officer and the principal accounting officer. A copy of the Company's Code of Conduct and Ethics is available under the Investors section of our website and in print to any stockholder who requests a copy from the Corporate Secretary. If the Company amends or waives the Code of Conduct and Ethics with respect to the directors, Chief Executive Officer, Chief Financial Officer or principal accounting officer, it will post the amendment or waiver at the same location on its website.

Item 11. Executive Compensation

The information called for by this Item will be set forth in the Proxy Statement and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information called for by this Item will be set forth in the Proxy Statement and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information called for by this Item will be set forth in the Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services

Our independent registered public accounting firm is Deloitte & Touche LLP, Des Moines, Iowa (PCAOB ID No. 34).

The information called for by this Item will be set forth in the Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibits

(a)	1.	Financial Statement Schedules
		The consolidated financial statements are listed under Item 8 of this Annual Report.
	2.	Financial Statement Schedules.
		See (b) below.
	3.	Exhibits.

2.1	Share Purchase Agreement, dated as of May 22, 2018, by and among DHI Group, Inc., OnTargetJobs Canada, Inc. and Virgil AcquisitionCo Inc. (incorporated by reference from Exhibit 2.1 to Company's Current Report on Form 8-K (File No. 001-33584) filed on May 29, 2018).
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference from Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-33584) filed on July 23, 2007).
3.2	Second Amended and Restated By-laws (incorporated by reference from Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-33584) filed on March 9, 2016).
3.3	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Dice Holdings, Inc., effective April 21, 2015 (incorporated by reference from Exhibit 3.1 to Company's Current Report on Form 8-K (File No. 001-33584) filed on April 21, 2015).
4.1	Specimen Stock Certificate (incorporated by reference from Exhibit 4.1 to Amendment No. 4 to the Company's Registration Statement on Form S-1 (File No. 333-141876) filed on June 22, 2007).
4.2	Second Amended and Restated Shareholders Agreement, dated as of July 23, 2007, by and between DHI Group, Inc. and the eFG Shareholders named therein (incorporated by reference from Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 001-33584) filed on July 23, 2007).
4.3	Institutional and Management Shareholders Agreement, dated as of July 23, 2007, by and among DHI Group, Inc., the Quadrangle Entities named therein, the General Atlantic Entities named therein and the Management Shareholders named therein (incorporated by reference from Exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 001-33584) filed on July 23, 2007).
4.4	Amendment No. 1 to Second Amended and Restated Shareholders Agreement, dated as of February 4, 2008, by and among DHI Group, Inc. and the eFG Shareholders named therein (incorporated by reference from Exhibit 4.4 to the Company's Annual Report on Form 10-K (File No. 001-33584) filed on March 25, 2008).
4.5*	Description of Capital Stock.
10.1†	The DHI Group, Inc. 2012 Omnibus Equity Award Plan, as amended and restated on March 11, 2020 (the "2012 Equity Plan") (incorporated by reference from Exhibit 4.1 to the Company's Registration Statement on Form S-8 (File No.333-182756) filed on October 9, 2020).
10.2†	Form of Stock Option Award Agreement under the 2012 Equity Plan (incorporated by reference from Exhibit 10.2 to the Company's Registration Statement on Form S-8 (File No. 333-182756) filed on July 19, 2012).
10.3†	Form of Restricted Stock Award Agreement under the 2012 Equity Plan (incorporated by reference from Exhibit 10.3 to the Company's Registration Statement on Form S-8 (File No. 333-182756) filed on July 19, 2012).
10.4†	Form of Performance-Based Restricted Stock Unit Award Agreement under the 2012 Equity Plan (incorporated by reference from Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 (File No. 001-33584) filed on August 1, 2019).
10.5†	The Employee Stock Purchase Plan (the "ESPP") (incorporated by reference from Exhibit 4.2 to the Company's Registration Statement on Form S-8 (File No. 333-182756) filed on October 9, 2020).
10.6†	Employment Agreement, dated as of April 24, 2019, between Dice, Inc. and Chris Henderson (incorporated by reference from Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 (File No. 001-33584) filed on August 1, 2019.
10.7†	Employment Agreement, dated as of February 19, 2019, between Dice, Inc. and Paul Farnsworth (incorporated by reference from Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019 (File No. 001-33584) filed on May 2, 2019.

10.8†	The DHI Group, Inc. Executive Cash Incentive Plan (incorporated by reference from Exhibit 10.12 to Amendment No. 2 to the Company’s Registration Statement on Form S-1 (File No. 333-141876) filed on June 8, 2007).
10.9†	Employment Agreement, dated as of January 31, 2000, and amended as of March 1, 2001, between Earthweb Inc. and Brian Campbell (incorporated by reference from Exhibit 10.7 to Amendment No. 6 to the Company’s Registration Statement on Form S-1 (File No. 333-141876) filed on July 11, 2007).
10.10†	Employment Agreement dated as of January 1, 2014 between Dice Inc. and Pamela Bilash (incorporated by reference from Exhibit 10.1 to the Company’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 (File No. 001-33584) filed on April 30, 2014).
10.11	Second Amended and Restated Credit Agreement dated as of November 14, 2018, among DHI Group, Inc., Dice Inc. and Dice Career Solutions, Inc., as Borrowers, the various lenders party thereto, JPMorgan Chase Bank, N.A., as administrative agent, Bank of America, N.A. and BMO Harris Bank N.A., as co-syndication agents and TD Bank, N.A., as documentation agent.
10.12†	Employment Agreement and Addendum to Employment Agreement dated as of April 9, 2018 between DHI Group, Inc., Dice Inc. and Art Zeile (incorporated by reference from Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 (File No. 001-33584) filed on August 2, 2018).
10.13†	Employment Agreement and Addendum to Employment Agreement dated as of September 9, 2018 between DHI Group, Inc. and Christian Dwyer (incorporated by reference from Exhibit 10.1 to the Company’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2018 (File No. 001-33584) filed on November 1, 2018).
10.14†	Employment Agreement and Addendum to Employment Agreement dated as of September 25, 2018, between DHI Group, Inc. and Michelle Marian.
10.15*†	Employment Agreement and Addendum to Employment Agreement dated as of October 17, 2019, between DHI Group, Inc. and Arie Kanofsky.
10.16†	Employment Agreement dated as of December 12, 2019 among DHI Group, Inc., Dice Inc. and Kevin Bostick (incorporated by reference from Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-33584) filed on December 13, 2019).
10.17†	Separation Agreement dated as of December 12, 2019 between DHI Group, Inc. and Luc Gregoire (incorporated by reference from Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 001-33584) filed on December 13, 2019).
10.18	Amendment No. 1 dated as of June 22, 2021 to the Second Amended and Restated Credit Agreement dated as of November 14, 2018, among DHI Group, Inc., Dice Inc. and Dice Career Solutions, Inc., as Borrowers, the various lenders party thereto, JPMorgan Chase Bank, N.A., as administrative agent, Bank of America, N.A. and BMO Harris Bank N.A., as co-syndication agents and TD Bank, N.A., as documentation agent.
10.19*†	Separation Agreement dated as of November 11, 2021 between DHI Group, Inc. and Christian Dwyer.
10.20*†	First Amendment, dated as of February 8, 2022, to Employment Agreement dated as of December 12, 2019 between Dice, Inc. and Kevin Bostick.
10.21*†	First Amendment, dated as of February 8, 2022, to Employment Agreement dated as of April 24, 2019 between Dice, Inc. and Chris Henderson.
10.22*†	First Amendment, dated as of February 8, 2022, to Employment Agreement dated as of February 19, 2019 between Dice, Inc. and Paul Farnsworth.
10.23*†	First Amendment, dated as of February 8, 2022, to Employment Agreement dated as January 1, 2014 between Dice, Inc. and Pamela Bilash.
10.24*†	First Amendment, dated as of February 8, 2022, to Employment Agreement dated as of October 17, 2019 between Dice, Inc. and Arie Kanofsky.
10.25*†	First Amendment, dated as of February 8, 2022, to Employment Agreement dated as of September 25, 2018 between Dice, Inc. and Michelle Marian.
21.1*	Subsidiaries of the Registrant.
23.1*	Consent Independent Registered Public Accounting Firm
31.1*	Certifications of Art Zeile, Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

31.2*	Certifications of Kevin Bostick, Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certifications of Art Zeile, Chief Executive Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certifications of Kevin Bostick, Chief Financial Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

*	Filed herewith.
†	Identifies a management contract or compensatory plan or arrangement.
(b)	Financial Statement Schedules.

SCHEDULE II

DHI GROUP, INC.
CONSOLIDATED VALUATION AND QUALIFYING ACCOUNTS
As of December 31, 2019, 2020 and 2021
(in thousands)

Column A	Column B	Column C	Column D	Column E
Description	Balance at Beginning of Period	Charged to Income	Deductions	Balance at End of Period
Reserves Deducted From Assets to Which They Apply:				
Reserve for uncollectible accounts receivable:				
Year ended December 31, 2019	$ 258	$ 877	$ (555)	$ 580
Year ended December 31, 2020	580	1,023	(602)	1,001
Year ended December 31, 2021	1,001	330	(598)	733
Deferred tax valuation allowance:				
Year ended December 31, 2019	$ 5,263	$ (191)	$ —	$ 5,072
Year ended December 31, 2020	5,072	233	—	5,305
Year ended December 31, 2021	5,305	(166)	—	5,139

See notes to consolidated financial statements included elsewhere herein.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the Registrant has duly caused this Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 11, 2022

DHI Group, Inc.
By: /S/ Art Zeile
Art Zeile
President and Chief Executive Officer
(on behalf of the registrant)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/S/ Art Zeile **Art Zeile**	President, Chief Executive Officer and Director (Principal Executive Officer)	February 11, 2022
/S/ Kevin Bostick **Kevin Bostick**	Chief Financial Officer (Principal Financial and Accounting Officer)	February 11, 2022
/S/ Brian Schipper **Brian Schipper**	Chairman and Director	February 11, 2022
/S/ Scipio Carnecchia **Scipio Carnecchia**	Director	February 11, 2022
/S/ Jim Friedlich **Jim Friedlich**	Director	February 11, 2022
/S/ Jennifer Deason **Jennifer Deason**	Director	February 11, 2022
/S/ David Windley **David Windley**	Director	February 11, 2022
/S/ Elizabeth Salomon **Elizabeth Salomon**	Director	February 11, 2022
/S/ Kathleen Swann **Kathleen Swann**	Director	February 11, 2022

EXHIBIT 4.5

DESCRIPTION OF CAPITAL STOCK

The following summary of the terms of the capital stock of DHI Group, Inc. (the "Company") is not meant to be complete and is qualified by reference to the Company's Amended and Restated Certificate of Incorporation and Second Amended and Restated By-laws, which are filed as exhibits to this Annual Report on Form 10-K and are incorporated by reference herein.

Capital Stock

The Company's authorized capital stock consists of 240,000,000 shares of common stock, par value $0.01 per share, and 20,000,000 shares of preferred stock, par value $0.01 per share.

Common Stock

The holders of common stock are entitled to one vote per share on all matters submitted to a vote of stockholders, including the election of directors. Holders of the common stock do not have any preemptive rights or cumulative voting rights, which means that the holders of a majority of the outstanding common stock voting for the election of directors can elect all directors then being elected. The holders of common stock are entitled to receive dividends when, as, and if declared by the board of directors out of legally available funds. Upon the Company's liquidation or dissolution, the holders of common stock will be entitled to share ratably in those Company assets that are legally available for distribution to stockholders after payment of liabilities and subject to the prior rights of any holders of preferred stock then outstanding. All of the outstanding shares of common stock are fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to the rights of the holders of shares of any series of preferred stock that may be issued in the future.

Preferred Stock

The Company's board of directors is authorized, subject to limitations prescribed by Delaware law and the certificate of incorporation, to determine the terms and conditions of the preferred stock, including whether the shares of preferred stock will be issued in one or more series, the number of shares to be included in each series and the powers, designations, preferences and rights of the shares. The board of directors is also authorized to designate any qualifications, limitations or restrictions on the shares without any further vote or action by the stockholders. The issuance of preferred stock may have the effect of delaying, deferring or preventing a change in control of the Company and may adversely affect the voting and other rights of the holders of the common stock, which could have an adverse impact on the market price of the common stock. The Company has no current plan to issue any shares of preferred stock.

Directors' Liability; Indemnification of Directors and Officers

The certificate of incorporation provides that a director will not be personally liable to the Company or the stockholders for monetary damages for breach of fiduciary duty as a director, except:

- for any breach of the duty of loyalty;
- for acts or omissions not in good faith or which involve intentional misconduct or knowing violations of law;
- for liability under Section 174 of the Delaware General Corporation Law (relating to unlawful dividends, stock repurchases or stock redemptions); or
- for any transaction from which the director derived any improper personal benefit.

This provision does not limit or eliminate the Company's rights or those of any stockholder to seek non-monetary relief such as an injunction or rescission in the event of a breach of a director's duty of care. The provisions will not alter the liability of directors under federal securities laws. In addition, the certificate of incorporation and by-laws provide that the Company indemnify each director and the officers, employees, and agents determined by the board of directors to the fullest extent provided by the laws of the State of Delaware.

Certain Certificate of Incorporation, By-Law and Statutory Provisions

The provisions of the certificate of incorporation and by-laws and of the Delaware General Corporation Law summarized below may have an anti-takeover effect and may delay, defer or prevent a tender offer or takeover attempt that you might consider in your best interest, including an attempt that might result in your receipt of a premium over the market price for your shares.

Special Meetings of Stockholders

The certificate of incorporation provides that special meetings of stockholders may be called only by the chairman or by a majority of the members of the board of directors. Stockholders are not permitted to call a special meeting of stockholders, to require that the chairman call such a special meeting, or to require that the board of directors request the calling of a special meeting of stockholders.

Stockholder Action; Advance Notice Requirements for Stockholder Proposals and Director Nominations

The certificate of incorporation provides that stockholders may not take action by written consent, but may only take action at duly called annual or special meetings, unless the action to be effected by written consent and the taking of such action by written consent have expressly been approved in advance by the board of directors. In addition, the by-laws will establish advance notice procedures for:

- stockholders to nominate candidates for election as a director; and
- stockholders to propose topics for consideration at stockholders' meetings.

Stockholders must notify the corporate secretary in writing prior to the meeting at which the matters are to be acted upon or directors are to be elected. The notice must contain the information specified in the by-laws. To be timely, the notice must be received at the Company's corporate headquarters not less than 90 days nor more than 120 days prior to the first anniversary of the date of the prior year's annual meeting of stockholders. If the annual meeting is advanced by more than 30 days, or delayed by more than 70 days, from the anniversary of the preceding year's annual meeting, or if no annual meeting was held in the preceding year or for the first annual meeting following this offering, notice by the stockholder, to be timely, must be received not earlier than the 120th day prior to the annual meeting and not later than the later of the 90th day prior to the annual meeting or the 10th day following the day on which the Company notifies stockholders of the date of the annual meeting, either by mail or other public disclosure. In the case of a special meeting of stockholders called to elect directors, the stockholder notice must be received not earlier than 120 days prior to the special meeting and not later than the later of the 90th day prior to the special meeting or 10th day following the day on which the Company notifies stockholders of the date of the special meeting, either by mail or other public disclosure. Notwithstanding the above, in the event that the number of directors to be elected to the board of directors at an annual meeting is increased and the Company does not make any public announcement naming the nominees for the additional directorships at least 100 days before the first anniversary of the preceding year's annual meeting, a stockholder notice of nomination shall also be considered timely, but only with respect to nominees for the additional directorships, if it is delivered not later than the close of business on the 10th day following the day on which such public announcement is first made. These provisions may preclude some stockholders from bringing matters before the stockholders at an annual or special meeting or from nominating candidates for director at an annual or special meeting.

Election and Removal of Directors

The Company's board of directors is divided into three classes. The directors in each class serve for a three-year term, one class being elected each year by the stockholders. The stockholders may only remove directors for cause and with the vote of at least 66-2/3% of the total voting power of the issued and outstanding capital stock entitled to vote in the election of directors. The board of directors may elect a director to fill a vacancy, including vacancies created by the expansion of the board of directors. This system of electing and removing directors may discourage a third party from making a tender offer or otherwise attempting to obtain control of the Company, because it generally makes it more difficult for stockholders to replace a majority of the Company's directors.

The certificate of incorporation and by-laws do not provide for cumulative voting in the election of directors.

Amendment of the Certificate of Incorporation and By-Laws

The certificate of incorporation provides that the affirmative vote of the holders of at least 66-2/3% of the voting power of the issued and outstanding capital stock entitled to vote in the election of directors is required to amend the following provisions of the certificate of incorporation:

- the provisions relating to the classified board of directors;
- the provisions relating to the number and election of directors, the appointment of directors upon an increase in the number of directors or vacancy, and the provisions relating to the removal of directors;
- the provisions requiring a 66-2/3% stockholder vote for the amendment of certain provisions of the certificate of incorporation and for the adoption, amendment or repeal of the by-laws; and
- the provisions relating to the restrictions on stockholder actions by written consent.

In addition, the board of directors is permitted to alter the by-laws without obtaining stockholder approval.

Anti-Takeover Provisions of Delaware Law

The Company is subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prevents an interested stockholder (defined generally as a person owning 15% or more of the corporation's outstanding voting stock) of a Delaware corporation from engaging in a business combination (as defined) for three years following the date that person became an interested stockholder unless various conditions are satisfied.

Transfer Agent and Registrar

The transfer agent and registrar for the common stock is Computershare Trust Company, N.A.

New York Stock Exchange Listing

The common stock is listed on the NYSE under the symbol "DHX."

GENERAL RELEASE

STRICTLY CONFIDENTIAL

THIS LEGAL DOCUMENT IS A GENERAL RELEASE WHICH WILL SERVE TO RELEASE AND WAIVE CLAIMS AND RIGHTS YOU MAY HAVE. YOU ARE ADVISED TO CONSULT WITH AN ATTORNEY BEFORE SIGNING THIS DOCUMENT.

GENERAL RELEASE AGREEMENT ("Agreement") dated as of November 11, 2021, between Christian Dwyer ("Employee", as hereinafter defined), residing at [redacted], and DHI Group, Inc. ("Employer", as hereinafter defined), 1450 Broadway, Floor 29, New York, NY 10018.

WHEREAS, the parties are desirous of entering into an Agreement concerning the termination of Employee's employment relationship:

NOW, THEREFORE, it is agreed as follows:

I. Transition Period; Resignation from Positions

A. During the period (the "Transition Period") commencing on the date hereof through the Separation Date (as defined below), Employee will continue to be employed by Employer and receive his compensation and benefits as described in the Employment Agreement (as defined below). During the Transition Period, Employee will no longer be an officer of the Employer or any of its affiliates, and his sole duly will be to assist in the transition of the Employee's duties and other transitional duties only as reasonably requested or instructed by the Board of Directors of Employer (the "Board") or the Chief Executive Officer ("CEO"). During the Transition Period, the Employer will not be obligated to assign to Employee any powers or duties or to permit Employee access to the Employer's facilities.

B. The parties agree that, except as provided in the prior paragraph, Employee's employment and any and all titles, positions, and appointments that Employee held with the Employer, whether as an officer, director, employee, consultant, trustee, committee member, agent, or otherwise, will terminate on the Separation Date. Effective immediately, Employee shall have no authority to act on behalf of the Employer and shall not hold himself out as having such authority, enter into any agreement, incur any obligations on behalf of any member of the Employer, commit the Employer in any manner, or otherwise act in an executive or other decision-making capacity with respect to the Employer, except as specifically requested by the Board or the CEO during the Transition Period. The Employee agrees to promptly execute such documents as the Employer, in its reasonable discretion, shall deem necessary to effect such resignations.

II. Definitions

I intend all words used by this Release to have their plain meanings in ordinary English. These terms shall have the following meaning:

A. Employee, I, Me, and My mean me, Christian Dwyer, and anyone who has/or obtains any legal rights or claims through me.

B. Employer means Dice Inc., Dice Career Solutions, Inc., DHI Group, Inc. and any subsidiary or affiliate of DHI Group, Inc. (collectively "DHI" and/or the "Employer"); any company related to DHI in the past or present; the past and present officers, directors, employees, attorneys, agents and representatives of DHI; any present or past employee benefit plan sponsored by DHI and/or the officers, directors, trustees, administrators, employees, attorneys, agents and representatives of such plan; and any person who acted on behalf of, or on instruction from, DHI.

C. My Claims means all of My rights to any relief of any kind from the Employer, including, but not limited to:

1. all claims I have now, whether or not I now know about the claims, including without limitation all claims arising out of or relating to My past employment with the Employer, the termination of that employment or statements or actions of the Employer up to the date of execution of this agreement or any claim of illegal or unfair treatment on any basis, including, but not limited to, tortious, contractual, quasi-contractual or promissory estoppel claims of wrongful discharge, misrepresentation, fraud, breach of contract; defamation; infliction of emotional distress; wrongful discharge; workers' compensation retaliation; violation of the Age Discrimination in Employment Act of 1967; the Older Workers Benefit Protection Act; Fair Labor Standards Act; Title VII of the Civil Rights Act of 1964, as amended; the Civil Rights Act of 1991; the Civil Rights Act of 1866 and 1871; the Equal Pay Act; the Family and Medical Leave Act; the National Labor Relations Act; the Occupational Safety and Health Act; the Rehabilitation Act; Executive Order 11246; the Worker Adjustment and Retraining Notification Act; the Americans with Disabilities Act; COBRA; the Employee Retirement Income Security Act; whistleblower protections statutes; and/or any other federal, state or local statute, law, ordinance, regulation, order, or principle of common law.

2. all claims I have now, whether or not I know about the claims, for any type of relief from the Employer, including but not limited to, all claims for back pay, front pay, lost benefits, reinstatement, liquidated damages, punitive damages, and damages from any alleged breach of contract, any tort claim and any alleged personal injury or damage; and

3. all claims for attorney's fees.

III. Agreement to Release My Claims.

In exchange for the payment indicated on Exhibit A attached hereto, which includes all amounts for any alleged damages of any kind and attorney's fees, and which is an amount substantially in excess of the amount that I would be entitled to receive under the terms of my employment with Employer; including my employment agreement, I agree to release, waive and give up all My Claims against the Employer and release, waive and give up all actions, causes of action, claims or administrative complaints that I have against the Employer. I will not bring any lawsuits or administrative claims against the Employer relating to the Claims that I have released nor will I allow any to be brought or continued on My behalf or in My name. The money and other consideration I receive pursuant to this Release is a full and fair payment for the release of My Claims and the Employer does not owe Me anything more for My Claims. I also agree, in exchange for the consideration I will receive, that I will not seek future employment with the Employer. Those provisions will be in effect upon receipt by the Employer of this Release, signed by Me, and after the expiration of the seven (7) day revocation period. I understand that I will not receive any payments under this Release if I revoke or rescind it, and in any event, I will not receive any payments until after the seven (7) day revocation period has expired.

I further agree:

A. I will reimburse the Employer for any cost; loss; expense, including reasonable attorney's fees; awards or judgments resulting from My failure to perform My obligations under this Release or from any misstatement or omission I have made in this Release; and

B. I will indemnify and hold the Employer harmless from any costs, liability or expense, including reasonable attorney's fees, arising from the taxation, if any, of any amounts received by Me pursuant to this Release, including but not limited to any penalties or administrative expenses.

C. I will not make any negative, critical, disparaging or derogatory remarks about the Employer or its current or former directors, officers, employees or other representatives or regarding the Employer's products or services. I will not initiate contact with any newspaper, magazine, journalist, or news media of any type for the purpose of providing information about the Employer or to encourage the writing of articles or news reports about the Employer, its products, services or current or former directors, officers, employees or other representatives.

IV. Payments, Consideration for Release.

I will receive from the Employer the payments indicated on Exhibit A attached hereto, less all applicable withholding deductions.

V. Additional Agreements and Understandings.

Even though the Employer will pay Me to settle and release any claims I may have, the Employer does not admit that it is legally obligated to Me and the Employer denies that it is responsible or legally obligated for any claims or that it has engaged in any improper conduct or wrongdoing against Me.

I agree that, except as may be required by law, I will not, directly or indirectly, disclose to anyone outside the Employer, any confidential or proprietary information concerning the Employer, including but not limited to confidential or proprietary information, processes or trade secrets (hereinafter referred to as "Confidential Information"). I also agree that I will not make use of any Confidential Information for My own purposes or for the benefit of anyone or any other entity other than for the Employer.

I agree to return to the Employer any and all documents, materials, records, computer discs, database information, client information, sales documents, financial statements, budgets, forecasts or other items in My possession or control belonging to the Employer or containing Confidential Information relating to the Employer; to surrender to the Employer any identification or credit cards, keys, telephones, cell phones, Blackberrys, computers, or other equipment or other such items owned by the Employer or within My possession; and to promptly reconcile any outstanding expense accounts.

By signing this Release, I acknowledge that I have been, at all times, an "at will" employee of the Employer; that I have not suffered a work related injury that I have not properly disclosed to the Employer; that I have been paid in full all wages due and owing to Me for any and all work performed for the Employer; and that I do not have knowledge of any facts that would give rise to a claim under the Family and Medical Leave Act.

I have read this Release very carefully and understand its terms. I am hereby being advised by the Employer to consult with an attorney prior to signing this Release. My decision to sign or not to sign this Release is My own voluntary decision made with full knowledge that the Employer has advised Me to consult with an attorney. In agreeing to sign this Release, I have not relied on any statements or explanation made by the Employer or its attorneys.

I am old enough to sign this Release and to be legally bound by the agreements that I am making. I represent that I have not filed for personal bankruptcy or been involved in any personal bankruptcy proceeding between the time any of My Claims may have accrued and the date of My signature below. I am legally able to receive the entire sum of money being paid to Me by the Employer in settlement of My Claims. I have not assigned or pledged any of My Claims or any portion of them to any third person. I am a resident of the State of CO and have executed this Release within the State of CO. I understand and agree that this Release contains all the agreements between the Employer and Me relating to this settlement.

VI. Forty-five Day Period to Consider the Release.

I understand that I have forty-five (45) days from the day that I receive this Release, not counting the day upon which I receive it, to consider whether I wish to sign this Release. If I cannot make up My mind in that period of time, the Employer may or may not allow more time. I acknowledge that if I sign this Release before the end of the forty-five (45) day period, it will be My personal, voluntary decision to do so.

VII. Right to Revoke

I understand that I may revoke or cancel this Release for any reason within seven (7) calendar days after I sign it. I understand that the revocation or cancellation must be in writing and hand delivered or mailed to the Employer. If mailed, the revocation or cancellation must be:

A. Postmarked within the seven (7) day period;

B. Properly addressed to:
Pam Bilash
Human Resources
DHI Group, Inc.
12150 Meredith Drive
Urbandale, IA 50323

VIII. Confidentiality

I understand that, except as required by law, the fact of this Release and the terms and conditions of this Release will be kept completely confidential and it will not be discussed, disclosed or revealed, directly or indirectly, to any person, corporation, or other entity other than to My accountant, attorney or other legal advisor and members of My immediate family. In the event that I violate this prohibition, I shall forfeit the amount of five thousand dollars ($5,000) to the Employer, and the Employer shall be entitled to collect that amount, through legal process or otherwise, from Me immediately, together with its costs and attorney's fees. This amount shall be as liquidated damages, not a penalty.

IX. Confidentiality, Non-Disclosure, and Non-Competition Agreement Remains in Effect

I acknowledge that I have executed a Confidentiality, Non-Disclosure, and Non-Compete Agreement between Myself and the Employer. I understand and agree that the terms of the Confidentiality, Non-Disclosure, and Non-Compete Agreement continue to remain in effect for the time period set forth in the Confidentiality, Non-Disclosure, and Non-Compete Agreement.

X. Arbitration

I agree that at the option of the Employer, any controversy of claim arising out of, or relating to this Agreement, or the alleged breach thereof shall be settled by arbitration. Judgment upon that award rendered by the arbitrator may be entered in any court having jurisdiction thereof. The arbitration shall be through and under the American Arbitration Association commercial arbitration rules. Reasonable attorney's fees of the prevailing party in connection with the arbitrator, as well as the costs of the American Arbitration Association and arbitrator, shall be assessed against the non-prevailing party.

XI. Integration

I understand that this Agreement constitutes the entire agreement between the Parties concerning the termination of Employee's employment relationship and that it cannot be modified in the future except in a writing signed by both the Employer and Me.

XII. Severability

If any provision of this Agreement is declared by any court of competent jurisdiction to be invalid for any reason, such invalidity shall not affect the remaining provisions. On the contrary, such remaining provisions shall be fully severable, and this Agreement shall be construed and enforced as if such invalid provisions never had been inserted in the Agreement.

XIII. Choice of Law

The parties agree that this Agreement shall be governed by the laws of the State of New York.

I understand and agree that none of this consideration will be submitted to Me until after My right to revoke this Release has expired.

Agreed To:

By: [signature]
Print Name: Christian Dwyer
Date: December 11, 2021

DHI Group, Inc.

By: [signature]
Print Name: Pam Bilash
Print Title: Chief Human Resources Officer
Date: November 11, 2021

EXHIBIT A

The terms presented herein are considered confidential and are not to be disclosed.

Name:	Christian Dwyer
Start Date:	September 27, 2018
Term Date:	January 2, 2022
Monthly Salary:	$26,666.67
Severance:	12 months (52 weeks)
Total Severance:	$320,000, less applicable tax withholdings and deductions. Severance will be paid according to the Company's normal payroll practices and schedule.
Annual bonus:	You will receive your 2021 bonus, less applicable tax withholdings and deductions. Your 2021 bonus will be paid in 2022 when all 2021 senior bonus are paid (but in no event later than March 15, 2022).
Equity:	You shall continue to vest in your equity and equity-based awards through the end of February 2022, including 16,667 shares of restricted stock related to the February 3, 2020, grant, 16,666 shares of restricted stock related to the January 26, 2021 grant, 15,726 PSUs related to the 2020 PSU grant and 33,332 PSUs related to the 2021 PSU grant. On your Separation Date, 22,455 shares of your unvested restricted stock related to the October 24, 2018, grant will accelerate and become fully vested. With respect to restricted stock and PSUs, other than as specified in the Separation Agreement, all unvested shares will be forfeited as of the Separation Date.
Health Benefits:	The Employer will pay the additional cost of continuing your medical and dental benefits under COBRA through February 28, 2023, provided you continue to pay the employee contribution for such benefits; notwithstanding the foregoing, the Employer's obligation to provide such benefits shall terminate in the event you become eligible to receive similar benefits before February 28, 2023.
Transition Services:	The Employer will provide 6 months of transition services with David Turner.

AMENDMENT TO
EMPLOYMENT AGREEMENT

This **FIRST AMENDMENT** (this "Amendment") to the Employment Agreement (the "Employment Agreement"), dated as of December 12, 2019, between Dice, Inc., a Delaware corporation (the "Company"), and Kevin Bostick ("Employee"), effective as of February 8, 2022.

WHEREAS, the Company and the Employee wish to amend the Employment Agreement as provided herein.

NOW, THEREFORE, in consideration of the mutual agreements and understandings set forth herein, the parties hereby agree as follows:

1. Except as defined herein, capitalized terms used herein shall have the meanings ascribed to such terms in the Employment Agreement.

2. Section 5(a) of the Employee's Employment Agreement is amended and replaced with the following:

"While employed by the Company and for a period of twelve (12) months after the termination of the Employee's employment with the Company, the Employee shall not, directly or indirectly, as an employee, employer, consultant, agent, principal, partner, manager, stockholder, officer, director, or in any other individual or representative capacity, engage, participate or in any way render services or assistance to any business that is competitive with the business of the Company. Notwithstanding the foregoing, the Employee may own less than two percent (2%) of any class of stock or security of any corporation which competes with the Company listed on a national securities exchange."

3. Section 5(b) of the Employee's Employment Agreement is amended and replaced with the following:

"While employed by the Company and for a period of twelve (12) months after the termination of the Employee's employment with the Company, the Employee shall not, directly or indirectly, solicit for employment or employ any person who was employed by the Company at the time of the Employee's termination from the Company."

4. Amendment of Addendum to Employment Agreement.

(a) Section 3(a) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(d), if there is a Termination (as herein defined) (but excluding by the Employee for Good Reason) other than during the Change of Control Period (as herein defined), the Employee shall be entitled to receive (i) a lump-sum severance payment equal to nine-months of his then-current annual base salary, (ii) his Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year, and (iii) accelerated vesting with respect to any equity grant to the Employee that the Employee has already vested in a majority of such grant at the date of termination."

(b) Section 3(b) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(d), if there is a Termination of the Employee's employment with the Company during the Change of Control Period, the Employee shall be entitled to receive (i) a lump-sum severance payment equal to (A) one hundred percent (100%) of his then current annual salary plus (B) the amount of his then-current bonus target (or, if higher, the amount of any Annual Bonus paid in respect of the calendar year prior to the calendar year of termination of employment), (ii) his Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year and (iii) accelerated vesting, effective upon such Termination, with respect to 100% of his outstanding equity-based awards (if any): provided, that vesting of any performance-based awards shall be governed by and determined in accordance with the applicable governing documents."

(c) The following subsection (d) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, "Change of Control Period" shall mean the period commencing immediately prior to a Change of Control and ending 12 months after the consummation of such Change of Control."

(d) The following subsection (e) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, "Termination" shall mean a termination of the Employee's employment by the Company without Cause (and other than due to death or disability) or by the Employee for Good Reason."

[Signature page follows]

IN WITNESS WHEREOF, the parties have executed and delivered this Amendment on the date first written above.

DICE, INC.

By: /s/ Brian P Campbell
Name: Brian P. Campbell
Title: Chief Legal Officer

EMPLOYEE

/s/ Kevin Bostick
Kevin Bostick

[Signature page to amendment to Employment Agreement between the Company and Kevin Bostick]

AMENDMENT TO
EMPLOYMENT AGREEMENT

This **FIRST AMENDMENT** (this "Amendment") to the Employment Agreement (the "Employment Agreement"), dated as of April 24, 2019, between Dice, Inc., a Delaware corporation (the "Company"), and Chris Henderson ("Employee"), effective as of February 08, 2022.

WHEREAS, the Company and the Employee wish to amend the Employment Agreement as provided herein.

NOW, THEREFORE, in consideration of the mutual agreements and understandings set forth herein, the parties hereby agree as follows:

1. Except as defined herein, capitalized terms used herein shall have the meanings ascribed to such terms in the Employment Agreement.

2. Section 5(a) of the Employee's Employment Agreement is amended and replaced with the following:

"While employed by the Company and for a period of twelve (12) months after the termination of the Employee's employment with the Company, the Employee shall not, directly or indirectly, as an employee, employer, consultant, agent, principal, partner, manager, stockholder, officer, director, or in any other individual or representative capacity, engage, participate or in any way render services or assistance to any business that is competitive with the business of the Company. Notwithstanding the foregoing, the Employee may own less than two percent (2%) of any class of stock or security of any corporation which competes with the Company listed on a national securities exchange."

3. Section 5(b) of the Employee's Employment Agreement is amended and replaced with the following:

"While employed by the Company and for a period of twelve (12) months after the termination of the Employee's employment with the Company, the Employee shall not, directly or indirectly, solicit for employment or employ any person who was employed by the Company at the time of the Employee's termination from the Company."

4. Section 5(d) of the Employee's Employment Agreement is amended and replaced with the following:

"The Employee hereby agrees from the date hereof and at all times following his termination of employment (i) not to participate or engage in any trade or commercial disparagement of the business or operations of the Company or any of its affiliates; and (ii) not to make any disparaging remarks or communications of any type concerning the Company or any of its affiliates or any of the officers, directors, employees, partners, members, managers, shareholders or agents of the Company or any of its affiliates. The Company hereby agrees from the date hereof and at all

times following the Employee's termination of employment to instruct its directors and officers not to make any disparaging remarks or communications of any type concerning the Employee. Nothing in this Section 5 shall prohibit disclosure (x) as may be ordered by any regulatory agency or court or as required by other lawful process, or (y) as may be necessary for the prosecution of claims relating to the performance or enforcement of this Agreement."

5. Amendment of Addendum to Employment Agreement.

(a) Section 3(a) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(d), if there is a Termination (as herein defined) (but excluding by the Employee for Good Reason) other than during the Change of Control Period (as herein defined), the Employee shall be entitled to receive (i) a lump-sum severance payment equal to nine-months of his then-current annual base salary, (ii) his Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year, and (iii) accelerated vesting with respect to any equity grant to the Employee that the Employee has already vested in a majority of such grant at the date of termination."

(b) Section 3(b) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(d), if there is a Termination of the Employee's employment with the Company during the Change of Control Period, the Employee shall be entitled to receive (i) a lump-sum severance payment equal to (A) one hundred percent (100%) of his then current annual salary plus (B) the amount of his then-current bonus target (or, if higher, the amount of any Annual Bonus paid in respect of the calendar year prior to the calendar year of termination of employment), (ii) his Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year and (iii) accelerated vesting, effective upon such Termination, with respect to 100% of his outstanding equity-based awards (if any): provided, that vesting of any performance-based awards shall be governed by and determined in accordance with the applicable governing documents."

(c) Section 4(c) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"For purposes of this Agreement only, termination for "Good Reason" shall mean termination by the Employee if (A) one of the following events occurs: (i) a material diminution in the responsibilities, title, or authority of the Employee, (ii) a material reduction in salary of the Employee, (iii) the Employee no longer reports to the Chief Executive Officer, or (iv) relocation of the Employee to Company office more than 50 miles from the Company's office in Centennial, Colorado; (B) the Employee notifies the Company in writing detailing and explaining the occurrence of a Good Reason event under subsection (A), the Employee's desired cure and cure period, the Employee's intention to terminate his employment due to Good Reason within 90 days of its occurrence and the date on which the Employee intends to terminate his employment (which must be no later than 180 days after the occurrence of the Good Reason event); and (C) the Company fails to remove or cure the Good Reason condition within 90 days of such written notification."

(d) The following subsection (e) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, "Change of Control Period" shall mean the period commencing immediately prior to a Change of Control and ending 12 months after the consummation of such Change of Control."

[Signature page follows]

IN WITNESS WHEREOF, the parties have executed and delivered this Amendment on the date first written above.

DICE, INC.

By: /s/ Brian Campbell
Name: Brian Campbell
Title: Chief Legal Officer

EMPLOYEE

/s/ Chris Henderson
Chris Henderson

[Signature page to amendment to Employment Agreement between the Company and Chris Henderson]

AMENDMENT TO
EMPLOYMENT AGREEMENT

This **FIRST AMENDMENT** (this "Amendment") to the Employment Agreement (the "Employment Agreement"), dated as of February 19, 2019, between Dice, Inc., a Delaware corporation (the "Company"), and Paul Farnsworth ("Employee"), effective as of February 8, 2022.

WHEREAS, the Company and the Employee wish to amend the Employment Agreement as provided herein.

NOW, THEREFORE, in consideration of the mutual agreements and understandings set forth herein, the parties hereby agree as follows:

1. Except as defined herein, capitalized terms used herein shall have the meanings ascribed to such terms in the Employment Agreement.

2. Section 5(a) of the Employee's Employment Agreement is amended and replaced with the following:

"While employed by the Company and for a period of twelve (12) months after the termination of the Employee's employment with the Company, the Employee shall not, directly or indirectly, as an employee, employer, consultant, agent, principal, partner, manager, stockholder, officer, director, or in any other individual or representative capacity, engage, participate or in any way render services or assistance to any business that is competitive with the business of the Company. Notwithstanding the foregoing, the Employee may own less than two percent (2%) of any class of stock or security of any corporation which competes with the Company listed on a national securities exchange."

3. Section 5(b) of the Employee's Employment Agreement is amended and replaced with the following:

"While employed by the Company and for a period of twelve (12) months after the termination of the Employee's employment with the Company, the Employee shall not, directly or indirectly, solicit for employment or employ any person who was employed by the Company at the time of the Employee's termination from the Company."

4. Section 5(d) of the Employee's Employment Agreement is amended and replaced with the following:

"The Employee hereby agrees from the date hereof and at all times following his termination of employment (i) not to participate or engage in any trade or commercial disparagement of the business or operations of the Company or any of its affiliates; and (ii) not to make any disparaging remarks or communications of any type concerning the Company or any of its affiliates or any of the officers, directors, employees, partners, members, managers, shareholders or agents of the Company or any of its affiliates. The Company hereby agrees from the date hereof and at all

times following the Employee's termination of employment to instruct its directors and officers not to make any disparaging remarks or communications of any type concerning the Employee. Nothing in this Section 5 shall prohibit disclosure (x) as may be ordered by any regulatory agency or court or as required by other lawful process, or (y) as may be necessary for the prosecution of claims relating to the performance or enforcement of this Agreement."

5. Amendment of Addendum to Employment Agreement.

(a) Section 1 of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Title and Job Description. The Employee shall be employed on a full-time basis, as the Chief Technology Officer of the Company. In such capacity, the Employee shall be responsible for such duties and any other responsibilities as are customary for such position and such duties as may reasonably be assigned by the Chief Executive Officer or Chief Operating Officer of the Company or the Board of Directors of Parent (the "Board") from time to time. The Employee shall report to the Chief Operating Officer of the Company. The Employee shall perform his duties and responsibilities in, and the principal office at which the Employee is employed shall be, the Company's offices in Centennial, Colorado and at such other location(s) to which the Company may reasonably require the Employee to travel for Company business purposes."

(b) Section 3(a) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(d), if there is a Termination (as herein defined) (but excluding by the Employee for Good Reason) other than during the Change of Control Period (as herein defined), the Employee shall be entitled to receive (i) a lump-sum severance payment equal to nine-months of his then-current annual base salary and (ii) his Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year."

(c) Section 3(b) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(d), if there is a Termination of the Employee's employment with the Company during the Change of Control Period, the Employee shall be entitled to receive (i) a lump-sum severance payment equal to (A) one hundred percent (100%) of his then current annual salary plus (B) the amount of his then-current bonus target (or, if higher, the amount of any Annual Bonus paid in respect of the calendar year prior to the calendar year of termination of employment), (ii) his Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year and (iii) accelerated vesting, effective upon such Termination, with respect to 100% of his outstanding equity-based awards (if any): provided, that vesting of any performance-based awards shall be governed by and determined in accordance with the applicable governing documents."

(d) Section 3(c) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(d), following a Termination, the Employee shall be reimbursed for the cost of health insurance continuation coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA"), in excess of the cost of such benefits that active employees of the Company are required to pay, for a period of twelve (12) months (or until the Employee obtains individual or family coverage through another employer, if earlier) (the "COBRA Period"), provided that the Employee elects COBRA coverage and subject to the conditions that: (i) the Employee is responsible for promptly notifying the Company if the Employee obtains alternative insurance coverage, (ii) the Employee will be responsible for the entire COBRA premium amount after the end of the COBRA Period; (iii) if the Employee declines COBRA coverage, then the Company shall not make any alternative payment to the Employee in lieu of paying for COBRA premiums, and (iv) such COBRA reimbursement payments shall be paid on an after tax basis as additional taxable compensation to the Employee."

(e) Section 3(d) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"The severance pay and severance benefits described in the foregoing provisions of this Section 3 are expressly conditioned upon the Employee's execution and delivery of the Company's customary general waiver and release of claims in favor of the Company and its affiliates, that has become effective and irrevocable in accordance with its terms within 60 days following the date of termination of employment. All payments (including any payments that would have been made between the date of termination of employment and the effective date of such release but excluding any payments in respect of equity awards) shall be made as soon as practicable but in any event within 10 days following the effective date of such release; provided that if such 60-day period spans two calendar years, in no event will any payments or benefits that constitute "deferred compensation" within the meaning of Section 409A ("Section 409A") of the Internal Revenue Code of 1986, as amended from time to time (the "Code"), be paid prior to the first day of such second calendar year. Any payments in respect of the settlement of equity awards (including equity awards that vested in accordance with this Section 3) shall be made in accordance with the agreements governing such grants."

(f) Section 3(e) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Upon termination of the Employee's employment for any reason, this Agreement shall terminate (and the Company shall not have any obligation to provide any compensation or benefits to the Employee except as specifically contemplated herein). Upon termination of the Employee's employment for any reason, whether voluntarily or involuntarily, the Employee shall be deemed to have resigned from all positions, directorships, and memberships held with the Company or any of its affiliates, whether as an employee, officer, director, trustee, consultant, or otherwise, and such resignations shall be effective upon such termination of employment without any other action required by the Employee. The Employee hereby agrees to execute all documentation reasonably requested by the Company to effectuate the foregoing, or otherwise authorizes the officers of the Company to execute all such documentation on his/her behalf."

(g) The following subsection (f) has been added to Section 3 of the Addendum to the Employee's Employment Agreement:

"Post-Employment Cooperation. The Employee agrees that upon reasonable notice and without any requirement that the Company obtain a subpoena or court order, the Employee shall provide reasonable cooperation in connection with any suit, action, or proceeding and any investigation or defense of any claims asserted against the Company or any of its affiliates, in either case that relates to events occurring during the Employee's employment with the Company as to which the Employee may have relevant information (including but not limited to furnishing relevant information and materials to the Company or its designee or providing testimony at depositions and at trial)."

(h) The following subsection (d) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, a "Change of Control" of the Company shall be deemed to have occurred if at any time on or after the date of the Employment Agreement one or more of the following events shall have occurred:

(i) the direct or indirect acquisition by any person or related group of persons (other than an acquisition from or by the Company or by a Company-sponsored employee benefit plan or by a person that directly or indirectly controls, is controlled by, or is under common control with, the Company) of beneficial ownership (within the meaning of Rule 13d-3 of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) of securities possessing more than fifty percent (50%) of the total combined voting power of the Company's outstanding securities; or

(ii) any stockholder-approved transfer or other disposition of all or substantially all of the Company's assets; or

(iii) the Company adopts any plan of liquidation providing for the distribution of all or substantially all of its assets; or

(iv) the consummation by the Company of a reorganization, merger or consolidation or sale or other disposition of all or substantially all of the assets of the Company or the acquisition of assets or stock of another corporation (a "Business Combination"), in each case, unless, following such Business Combination, (a) all or substantially all of the individuals and entities who were the beneficial owners, respectively, of the outstanding common stock and outstanding company voting securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 60% of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including, without limitation, a corporation which as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination of the outstanding Company common stock and outstanding Company voting securities, as the case may be, (b) no person (excluding any corporation resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, 20% or more of, respectively, the then outstanding shares of common stock of the corporation resulting from such Business Combination or the combined voting power of the then outstanding voting securities of such corporation except to the extent that such ownership existed prior to the Business Combination and (c) at least a majority of the members of the board of directors of the corporation resulting from such Business Combination were members of the incumbent board at the time of the execution of the initial agreement, or of the action of the board of directors, providing for such Business Combination; or

(v) a change in the composition of the Board over a period of thirty-six (36) months or less such that a majority of the Board members (rounded up to the next whole number) ceases, by reason of one or more contested elections for Board membership, to be comprised of individuals who are continuing directors."

(i) The following subsection (e) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, "Change of Control Period" shall mean the period commencing immediately prior to a Change of Control and ending 12 months after the consummation of such Change of Control."

[Signature page follows]

IN WITNESS WHEREOF, the parties have executed and delivered this Amendment on the date first written above.

DICE, INC.

By: /s/ Brian P. Campbell
Name: Brian P. Campbell
Title: Chief Legal Officer

EMPLOYEE

/s/ Paul Farnsworth
Paul Farnsworth

[Signature page to amendment to Employment Agreement between the Company and Paul Farnsworth]

AMENDMENT TO
EMPLOYMENT AGREEMENT

This **FIRST AMENDMENT** (this "Amendment") to the Employment Agreement (the "Employment Agreement"), dated as of January 1, 2014, between Dice, Inc., a Delaware corporation (the "Company"), and Pamela Bilash ("Employee"), effective as of February 08, 2022.

WHEREAS, the Company and the Employee wish to amend the Employment Agreement as provided herein.

NOW, THEREFORE, in consideration of the mutual agreements and understandings set forth herein, the parties hereby agree as follows:

1. Except as defined herein, capitalized terms used herein shall have the meanings ascribed to such terms in the Employment Agreement.

2. The following subsection (c) has been added to Section 5 of the Employee's Employment Agreement:

"The Employee hereby agrees that prior to commencing employment with, or commencing to provide services to, any other person or entity during any period during which the Employee remains subject to any of the covenants set forth in this Section 5, the Employee shall provide such employer with written notice of such provisions of this Agreement (which may be effected by advising such prospective employer of the location of the publicly filed agreements) with a copy of such notice or advice delivered simultaneously to the Company, and the Employee authorizes the Company and any of its affiliates to do the same."

3. The following subsection (d) has been added to Section 5 of the Employee's Employment Agreement:

"The Employee hereby agrees from the date hereof and at all times following her termination of employment (i) not to participate or engage in any trade or commercial disparagement of the business or operations of the Company or any of its affiliates; and (ii) not to make any disparaging remarks or communications of any type concerning the Company or any of its affiliates or any of the officers, directors, employees, partners, members, managers, shareholders or agents of the Company or any of its affiliates. The Company hereby agrees from the date hereof and at all times following the Employee's termination of employment to instruct its directors and officers not to make any disparaging remarks or communications of any type concerning the Employee. Nothing in this Section 5 shall prohibit disclosure (x) as may be ordered by any regulatory agency or court or as required by other lawful process, or (y) as may be necessary for the prosecution of claims relating to the performance or enforcement of this Agreement."

4. Amendment of Addendum to Employment Agreement.

(a) Section 1 of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"The Employee shall be employed on a full-time basis as Senior Vice President, Human Resources, of Dice Holdings, Inc. In such capacity, the Employee shall be responsible for the human resources function of the Company and any other responsibilities reasonably assigned by the Company from time to time. The Employee shall report to the Chief Executive Officer of the Company."

(b) The first sentence of Section 2 of the Addendum to the Employee's Employment Agreement is replaced with the following sentence:

"In consideration of the services to be rendered hereunder: the Employee shall be paid an annual base salary of $275,000 per year, plus the Employee shall be eligible for an annual target bonus (the "Annual Bonus") of 40% of the Employee's annual base salary based upon Company performance and MBOs."

(c) Section 3(a) of the Addendum to the Employee's Employment Agreement is amended and replaced in its entirety, including (i) and (ii) of such Section 3(a), with the following:

"Subject to Section 3(d), if there is a Termination (as herein defined) (but excluding by the Employee for Good Reason) other than during the Change of Control Period (as herein defined), the Employee shall be entitled to receive (i) a lump-sum severance payment equal to nine-months of her then-current annual base salary and (ii) her Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year."

(d) Section 3(b) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(d), if there is a Termination of the Employee's employment with the Company during the Change of Control Period, the Employee shall be entitled to receive (i) a lump-sum severance payment equal to (A) one hundred percent (100%) of her then current annual salary plus (B) the amount of her then-current bonus target (or, if higher, the amount of any Annual Bonus paid in respect of the calendar year prior to the calendar year of termination of employment), (ii) her Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year and (iii) accelerated vesting, effective upon such Termination, with respect to 100% of her outstanding equity-based awards (if any): provided, that vesting of any performance-based awards shall be governed by and determined in accordance with the applicable governing documents."

(e) Section 3(c) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(d), following a Termination, the Employee shall be reimbursed for the cost of health insurance continuation coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA"), in excess of the cost of such benefits that active employees of the Company are required to pay, for a period of twelve (12) months (or until the Employee obtains individual or family coverage through another employer, if earlier) (the "COBRA Period"), provided that the Employee elects COBRA coverage and subject to the conditions that: (i) the Employee is responsible for promptly notifying the Company if the Employee obtains alternative insurance coverage, (ii) the Employee will be responsible for the entire COBRA premium amount after the end of the COBRA Period; (iii) if the Employee declines COBRA coverage, then the Company shall not make any alternative payment to the Employee in lieu of paying for COBRA premiums, and (iv) such COBRA reimbursement payments shall be paid on an after tax basis as additional taxable compensation to the Employee."

(f) Section 3(d) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"The severance pay and severance benefits described in the foregoing provisions of this Section 3 are expressly conditioned upon the Employee's execution and delivery of the Company's customary general waiver and release of claims in favor of the Company and its affiliates, that has become effective and irrevocable in accordance with its terms within 60 days following the date of termination of employment. All payments (including any payments that would have been made between the date of termination of employment and the effective date of such release but excluding any payments in respect of equity awards) shall be made as soon as practicable but in any event within 10 days following the effective date of such release; provided that if such 60-day period spans two calendar years, in no event will any payments or benefits that constitute "deferred compensation" within the meaning of Section 409A ("Section 409A") of the Internal Revenue Code of 1986, as amended from time to time (the "Code"), be paid prior to the first day of such second calendar year. Any payments in respect of the settlement of equity awards (including equity awards that vested in accordance with this Section 3) shall be made in accordance with the agreements governing such grants."

(g) The following subsection (e) has been added to Section 3 of the Addendum to the Employee's Employment Agreement:

"Upon termination of the Employee's employment for any reason, this Agreement shall terminate (and the Company shall not have any obligation to provide any compensation or benefits to the Employee except as specifically contemplated herein). Upon termination of the Employee's employment for any reason, whether voluntarily or involuntarily, the Employee shall be deemed to have resigned from all positions, directorships, and memberships held with the Company or any of its affiliates, whether as an employee, officer, director, trustee, consultant, or otherwise, and such resignations shall be effective upon such termination of employment without any other action required by the Employee. The Employee hereby agrees to execute all documentation reasonably requested by the Company to effectuate the foregoing, or otherwise authorizes the officers of the Company to execute all such documentation on his/her behalf."

(h) The following subsection (f) has been added to Section 3 of the Addendum to the Employee's Employment Agreement:

"Post-Employment Cooperation. The Employee agrees that upon reasonable notice and without any requirement that the Company obtain a subpoena or court order, the Employee shall provide reasonable cooperation in connection with any suit, action, or proceeding and any investigation or defense of any claims asserted against the Company or any of its affiliates, in either case that relates to events occurring during the Employee's employment with the Company as to which the Employee may have relevant information (including but not limited to furnishing relevant information and materials to the Company or its designee or providing testimony at depositions and at trial)."

(i) Subsection 4 of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"(a) For purposes of this Agreement only, "Cause" shall mean (i) embezzlement by the Employee, (ii) misappropriation by the Employee of funds of the Company, (iii) conviction of a felony, (iv) commission of any other act of dishonesty which causes material economic harm to the Company, (v) acts of fraud or deceit by the Employee which causes material economic harm to the Company, (vi) material breach of any provision of the Employment Agreement by the Employee, (vii) willful failure by the Employee to substantially perform such Employee's duties hereunder, (viii) willful breach of fiduciary duty by the Employee to the Company involving personal profit or (ix) significant violation of Company policy of which the Employee is made aware (or such Employee should reasonably be expected to be aware) or other contractual, statutory or common law duties to the Company. No act, or failure to act on the part of the Employee, shall be deemed willful unless it is done, or omitted to be done, by the Employee in bad faith or without reasonable belief that the Employee's action or omission was in the best interests of the Company."

(j) The following subsection (b) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, a "Change of Control" of the Company shall be deemed to have occurred if at any time on or after the date of the Employment Agreement one or more of the following events shall have occurred:

(i) the direct or indirect acquisition by any person or related group of persons (other than an acquisition from or by the Company or by a Company-sponsored employee benefit plan or by a person that directly or indirectly controls, is controlled by, or is under common control with, the Company) of beneficial ownership (within the meaning of Rule 13d-3 of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) of securities possessing more than fifty percent (50%) of the total combined voting power of the Company's outstanding securities; or

(ii) any stockholder-approved transfer or other disposition of all or substantially all of the Company's assets; or

(iii) the Company adopts any plan of liquidation providing for the distribution of all or substantially all of its assets; or

(iv) the consummation by the Company of a reorganization, merger or consolidation or sale or other disposition of all or substantially all of the assets of the Company or the acquisition of assets or stock of another corporation (a "Business Combination"), in each case, unless, following such Business Combination, (a) all or substantially all of the individuals and entities who were the beneficial owners, respectively, of the outstanding common stock and outstanding company voting securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 60% of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including, without limitation, a corporation which as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination of the outstanding Company common stock and outstanding Company voting securities, as the case may be, (b) no person (excluding any corporation resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, 20% or more of, respectively, the then outstanding shares of common stock of the corporation resulting from such Business Combination or the combined voting power of the then outstanding voting securities of such corporation except to the extent that such ownership existed prior to the Business Combination and (c) at least a majority of the members of the board of directors of the corporation resulting from such Business Combination were members of the incumbent board at the time of the execution of the initial agreement, or of the action of the board of directors, providing for such Business Combination; or

(v) a change in the composition of the Board over a period of thirty-six (36) months or less such that a majority of the Board members (rounded up to the next whole number) ceases, by reason of one or more contested elections for Board membership, to be comprised of individuals who are continuing directors."

(k) The following subsection (c) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, "Change of Control Period" shall mean the period commencing immediately prior to a Change of Control and ending 12 months after the consummation of such Change of Control."

(l) The following subsection (d) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, termination for "Good Reason" shall mean termination by the Employee if (A) one of the following events occurs: (i) a material diminution in the responsibilities, title, or authority of the Employee, (ii) a material reduction in salary of the Employee, or (iii) relocation of the Employee to Company office more than 50 miles from the Company's office in Centennial, Colorado; (B) the Employee notifies the Company in writing detailing and explaining the occurrence of a Good Reason event under subsection (A), the Employee's desired cure and cure period, the Employee's intention to terminate her employment due to Good Reason within 90 days of its occurrence and the date on which the Employee intends to terminate her employment (which must be no later than 180 days after the occurrence of the Good Reason event); and (C) the Company fails to remove or cure the Good Reason condition within 90 days of such written notification."

(m) The following subsection (e) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, "Termination" shall mean a termination of the Employee's employment by the Company without Cause (and other than due to death or disability) or by the Employee for Good Reason."

(n) Section 5 of the Addendum to the Employee's Employment Agreement has been intentionally omitted.

[Signature page follows]

IN WITNESS WHEREOF, the parties have executed and delivered this Amendment on the date first written above.

DICE, INC.

By: /s/ Brian Campbell
Name: Brian Campbell
Title: Chief Legal Officer

EMPLOYEE

/s/ Pam Bilash
Pamela Bilash

[Signature page to amendment to Employment Agreement between the Company and Pamela Bilash]

AMENDMENT TO
EMPLOYMENT AGREEMENT

This **FIRST AMENDMENT** (this "Amendment") to the Employment Agreement (the "Employment Agreement"), dated as of October 17, 2019, between Dice, Inc., a Delaware corporation (the "Company"), and Arie Kanofsky ("Employee"), effective as of February 08, 2022.

WHEREAS, the Company and the Employee wish to amend the Employment Agreement as provided herein.

NOW, THEREFORE, in consideration of the mutual agreements and understandings set forth herein, the parties hereby agree as follows:

1. Except as defined herein, capitalized terms used herein shall have the meanings ascribed to such terms in the Employment Agreement.

2. Section 5(a) of the Employee's Employment Agreement is amended and replaced with the following:

"While employed by the Company and for a period of twelve (12) months after the termination of the Employee's employment with the Company, the Employee shall not, directly or indirectly, as an employee, employer, consultant, agent, principal, partner, manager, stockholder, officer, director, or in any other individual or representative capacity, engage, participate or in any way render services or assistance to any business that is competitive with the business of the Company. Notwithstanding the foregoing, the Employee may own less than two percent (2%) of any class of stock or security of any corporation which competes with the Company listed on a national securities exchange."

3. Section 5(b) of the Employee's Employment Agreement is amended and replaced with the following:

"While employed by the Company and for a period of twelve (12) months after the termination of the Employee's employment with the Company, the Employee shall not, directly or indirectly, solicit for employment or employ any person who was employed by the Company at the time of the Employee's termination from the Company."

4. Section 5(d) of the Employee's Employment Agreement is amended and replaced with the following:

"The Employee hereby agrees from the date hereof and at all times following his termination of employment (i) not to participate or engage in any trade or commercial disparagement of the business or operations of the Company or any of its affiliates; and (ii) not to make any disparaging remarks or communications of any type concerning the Company or any of its affiliates or any of the officers, directors, employees, partners, members, managers, shareholders or agents of the Company or any of its affiliates. The Company hereby agrees from the date hereof and at all

times following the Employee's termination of employment to instruct its directors and officers not to make any disparaging remarks or communications of any type concerning the Employee. Nothing in this Section 5 shall prohibit disclosure (x) as may be ordered by any regulatory agency or court or as required by other lawful process, or (y) as may be necessary for the prosecution of claims relating to the performance or enforcement of this Agreement."

5. Amendment of Addendum to Employment Agreement.

(a) Section 3(a) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(e), if there is a Termination (as herein defined) (but excluding by the Employee for Good Reason) other than during the Change of Control Period (as herein defined), the Employee shall be entitled to receive (i) a lump-sum severance payment equal to nine-months of his then-current annual base salary, (ii) his Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year, and (iii) accelerated vesting with respect to any equity grant to the Employee that the Employee has already vested in a majority of such grant at the date of termination."

(b) Section 3(b) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(e), if there is a Termination of the Employee's employment with the Company during the Change of Control Period, the Employee shall be entitled to receive (i) a lump-sum severance payment equal to (A) one hundred percent (100%) of his then current annual salary plus (B) the amount of his then-current bonus target (or, if higher, the amount of any Annual Bonus paid in respect of the calendar year prior to the calendar year of termination of employment), (ii) his Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year and (iii) accelerated vesting, effective upon such Termination, with respect to 100% of his outstanding equity-based awards (if any): provided, that vesting of any performance-based awards shall be governed by and determined in accordance with the applicable governing documents."

(c) Section 3(c) of the Addendum to the Employee's Employment Agreement is intentionally omitted.

[Signature page follows]

IN WITNESS WHEREOF, the parties have executed and delivered this Amendment on the date first written above.

DICE, INC.

By: /s/ Brian Campbell
Name: Brian Campbell
Title: Chief Legal Officer

EMPLOYEE

/S/ Arie Kanofsky
Arie Kanofsky

[Signature page to amendment to Employment Agreement between the Company and Arie Kanofsky]

AMENDMENT TO
EMPLOYMENT AGREEMENT

This **FIRST AMENDMENT** (this "Amendment") to the Employment Agreement (the "Employment Agreement"), dated as of September 25, 2018, between Dice, Inc., a Delaware corporation (the "Company"), and Michelle Marian ("Employee"), effective as of February 08, 2022.

WHEREAS, the Company and the Employee wish to amend the Employment Agreement as provided herein.

NOW, THEREFORE, in consideration of the mutual agreements and understandings set forth herein, the parties hereby agree as follows:

1. Except as defined herein, capitalized terms used herein shall have the meanings ascribed to such terms in the Employment Agreement.

2. Section 5(d) of the Employee's Employment Agreement is amended and replaced with the following:

"The Employee hereby agrees from the date hereof and at all times following her termination of employment (i) not to participate or engage in any trade or commercial disparagement of the business or operations of the Company or any of its affiliates; and (ii) not to make any disparaging remarks or communications of any type concerning the Company or any of its affiliates or any of the officers, directors, employees, partners, members, managers, shareholders or agents of the Company or any of its affiliates. The Company hereby agrees from the date hereof and at all times following the Employee's termination of employment to instruct its directors and officers not to make any disparaging remarks or communications of any type concerning the Employee. Nothing in this Section 5 shall prohibit disclosure (x) as may be ordered by any regulatory agency or court or as required by other lawful process, or (y) as may be necessary for the prosecution of claims relating to the performance or enforcement of this Agreement."

3. Amendment of Addendum to Employment Agreement.

(a) Section 1 of the Addendum to the Employee's Employment Agreement is amended and replaced with the following

"Title and Job Description. The Employee shall be employed on a full-time basis, as the Chief Marketing Officer of the Company. In such capacity, the Employee shall be responsible for such duties and any other responsibilities as are customary for such position and such duties as may reasonably assigned by the Board of Directors of Parent (the "Board") from time to time. The Employee shall report to the Chief Operating Officer of the Company. The Employee shall perform her duties and responsibilities in, and the principal office at which the Employee is employed shall be, the Company's offices in Centennial, Colorado and at such other location(s) to which the Company may reasonably require the Employee to travel for Company business purposes."

(b) The heading of Section 3 of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Severance. In lieu of any severance pay or severance benefits otherwise payable to the Employee under any plan, policy, program or arrangement of the Company or its subsidiaries, the following shall apply:"

(c) Section 3(a) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(d), if there is a Termination (as herein defined) (but excluding by the Employee for Good Reason) other than during the Change of Control Period (as herein defined), the Employee shall be entitled to receive (i) a lump-sum severance payment equal to nine-months of her then-current annual base salary and (ii) her Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year."

(d) Section 3(b) of the Addendum to the Employee's Employment Agreement is amended and replaced with the following:

"Subject to Section 3(d), if there is a Termination of the Employee's employment with the Company during the Change of Control Period, the Employee shall be entitled to receive (i) a lump-sum severance payment equal to (A) one hundred percent (100%) of her then current annual salary plus (B) the amount of her then-current bonus target (or, if higher, the amount of any Annual Bonus paid in respect of the calendar year prior to the calendar year of termination of employment), (ii) her Annual Bonus with respect to any completed year for which the Employee has not yet been paid, based on actual performance, paid at the time that executives are generally paid their annual bonuses for the applicable bonus year but in any event no later than March 15 of the calendar year following the last day of such completed year and (iii) accelerated vesting, effective upon such Termination, with respect to 100% of her outstanding equity-based awards (if any): provided, that vesting of any performance-based awards shall be governed by and determined in accordance with the applicable governing documents."

(e) The following subsection (c) has been added to Section 3 of the Addendum to the Employee's Employment Agreement:

"Subject to Section 3(d), following a Termination, the Employee shall be reimbursed for the cost of health insurance continuation coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA"), in excess of the cost of such benefits that active employees of the Company are required to pay, for a period of twelve (12) months (or until the Employee obtains individual or family coverage through another employer, if earlier) (the "COBRA Period"), provided that the Employee elects COBRA coverage and subject to the conditions that: (i) the Employee is responsible for promptly notifying the Company if the Employee obtains alternative insurance coverage, (ii) the Employee will be responsible for the entire COBRA premium amount after the end of the COBRA Period; (iii) if the Employee declines COBRA coverage, then the Company shall not make any alternative payment to the Employee in lieu of paying for COBRA premiums, and (iv) such COBRA reimbursement payments shall be paid on an after tax basis as additional taxable compensation to the Employee."

(f) The following subsection (d) has been added to Section 3 of the Addendum to the Employee's Employment Agreement:

"The severance pay and severance benefits described in the foregoing provisions of this Section 3 are expressly conditioned upon the Employee's execution and delivery of the Company's customary general waiver and release of claims in favor of the Company and its affiliates, that has become effective and irrevocable in accordance with its terms within 60 days following the date of termination of employment. All payments (including any payments that would have been made between the date of termination of employment and the effective date of such release but excluding any payments in respect of equity awards) shall be made as soon as practicable but in any event within 10 days following the effective date of such release; provided that if such 60-day period spans two calendar years, in no event will any payments or benefits that constitute "deferred compensation" within the meaning of Section 409A ("Section 409A") of the Internal Revenue Code of 1986, as amended from time to time (the "Code"), be paid prior to the first day of such second calendar year. Any payments in respect of the settlement of equity awards (including equity awards that vested in accordance with this Section 3) shall be made in accordance with the agreements governing such grants."

(g) The following subsection (e) has been added to Section 3 of the Addendum to the Employee's Employment Agreement:

"Upon termination of the Employee's employment for any reason, this Agreement shall terminate (and the Company shall not have any obligation to provide any compensation or benefits to the Employee except as specifically contemplated herein). Upon termination of the Employee's employment for any reason, whether voluntarily or involuntarily, the Employee shall be deemed to have resigned from all positions, directorships, and memberships held with the Company or any of its affiliates, whether as an employee, officer, director, trustee, consultant, or otherwise, and such resignations shall be effective upon such termination of employment without any other action required by the Employee. The Employee hereby agrees to execute all documentation reasonably requested by the Company to effectuate the foregoing, or otherwise authorizes the officers of the Company to execute all such documentation on his/her behalf."

(h) The following subsection (f) has been added to Section 3 of the Addendum to the Employee's Employment Agreement:

"Post-Employment Cooperation. The Employee agrees that upon reasonable notice and without any requirement that the Company obtain a subpoena or court order, the Employee shall provide reasonable cooperation in connection with any suit, action, or proceeding and any investigation or defense of any claims asserted against the Company or any of its affiliates, in either case that relates to events occurring during the Employee's employment with the Company as to which the Employee may have relevant information (including but not limited to furnishing relevant information and materials to the Company or its designee or providing testimony at depositions and at trial)."

(i) The following Section 7 has been added to the Addendum to the Employee's Employment Agreement:

"Definitions."

(j) The following subsection (a) has been added to Section 7 of the Addendum to the Employee's Employment Agreement:

"(a) For purposes of this Agreement only, "Cause" shall mean (i) embezzlement by the Employee, (ii) misappropriation by the Employee of funds of the Company, (iii) conviction of a felony, (iv) commission of any other act of dishonesty which causes material economic harm to the Company, (v) acts of fraud or deceit by the Employee which causes material economic harm to the Company, (vi) material breach of any provision of the Employment Agreement by the Employee, (vii) willful failure by the Employee to substantially perform such Employee's duties hereunder, (viii) willful breach of fiduciary duty by the Employee to the Company involving personal profit or (ix) significant violation of Company policy of which the Employee is made aware (or such Employee should reasonably be expected to be aware) or other contractual, statutory or common law duties to the Company. No act, or failure to act on the part of the Employee, shall be deemed willful unless it is done, or omitted to be done, by the Employee in bad faith or without reasonable belief that the Employee's action or omission was in the best interests of the Company."

(k) The following subsection (b) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, a "Change of Control" of the Company shall be deemed to have occurred if at any time on or after the date of the Employment Agreement one or more of the following events shall have occurred:

(i) the direct or indirect acquisition by any person or related group of persons (other than an acquisition from or by the Company or by a Company-sponsored employee benefit plan or by a person that directly or indirectly controls, is controlled by, or is under common control with, the Company) of beneficial ownership (within the meaning of Rule 13d-3 of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) of securities possessing more than fifty percent (50%) of the total combined voting power of the Company's outstanding securities; or

(ii) any stockholder-approved transfer or other disposition of all or substantially all of the Company's assets; or

(iii) the Company adopts any plan of liquidation providing for the distribution of all or substantially all of its assets; or

(iv) the consummation by the Company of a reorganization, merger or consolidation or sale or other disposition of all or substantially all of the assets of the Company or the acquisition of assets or stock of another corporation (a "Business Combination"), in each case, unless, following such Business Combination, (a) all or substantially all of the individuals and entities who were the beneficial owners, respectively, of the outstanding common stock and outstanding company voting securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 60% of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including, without limitation, a corporation which as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination of the outstanding Company common stock and outstanding Company voting securities, as the case may be, (b) no person (excluding any corporation resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, 20% or more of, respectively, the then outstanding shares of common stock of the corporation resulting from such Business Combination or the combined voting power of the then outstanding voting securities of such corporation except to the extent that such ownership existed prior to the Business Combination and (c) at least a majority of the members of the board of directors of the corporation resulting from such Business Combination were members of the incumbent board at the time of the execution of the initial agreement, or of the action of the board of directors, providing for such Business Combination; or

(v) a change in the composition of the Board over a period of thirty-six (36) months or less such that a majority of the Board members (rounded up to the next whole number) ceases, by reason of one or more contested elections for Board membership, to be comprised of individuals who are continuing directors."

(l) The following subsection (c) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, "Change of Control Period" shall mean the period commencing immediately prior to a Change of

Control and ending 12 months after the consummation of such Change of Control."

(m) The following subsection (d) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, termination for "Good Reason" shall mean termination by the Employee if (A) one of the following events occurs: (i) a material diminution in the responsibilities, title, or authority of the Employee, (ii) a material reduction in salary of the Employee, or (iii) relocation of the Employee to Company office more than 50 miles from the Company's office in Centennial, Colorado; (B) the Employee notifies the Company in writing detailing and explaining the occurrence of a Good Reason event under subsection (A), the Employee's desired cure and cure period, the Employee's intention to terminate her employment due to Good Reason within 90 days of its occurrence and the date on which the Employee intends to terminate her employment (which must be no later than 180 days after the occurrence of the Good Reason event); and (C) the Company fails to remove or cure the Good Reason condition within 90 days of such written notification."

(n) The following subsection (e) has been added to Section 4 of the Addendum to the Employee's Employment Agreement:

"For purposes of this Agreement only, "Termination" shall mean a termination of the Employee's employment by the Company without Cause (and other than due to death or disability) or by the Employee for Good Reason."

[Signature page follows]

IN WITNESS WHEREOF, the parties have executed and delivered this Amendment on the date first written above.

DICE, INC.

By: /s/ Brian Campbell
Name: Brian Campbell
Title: Chief Legal Officer

EMPLOYEE

/s/ Michelle Marian
Michelle Marian

[Signature page to amendment to Employment Agreement between the Company and Michelle Marian]

EXHIBIT 21.1

SUBSIDIARIES

Subsidiary	**Jurisdiction of Incorporation**
Dice Inc.	Delaware
Dice Career Solutions, Inc.	Delaware
Targeted Job Fairs, Inc.	Delaware

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-249405 and 333-231398 on Form S-8 of our reports dated February 11, 2022, relating to the financial statements of DHI Group, Inc. and the effectiveness of DHI Group, Inc.'s internal control over financial reporting appearing in this Annual Report on Form 10-K for the year ended December 31, 2021.

/s/ Deloitte & Touche LLP

Des Moines, Iowa
February 11, 2022

EXHIBIT 31.1

**CEO CERTIFICATION
PURSUANT TO SECTION 302 OF THE
SARBANES – OXLEY ACT OF 2002**

I, Art Zeile, certify that:

1. I have reviewed the annual report on Form 10-K of DHI Group, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for the external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 11, 2022

By: /s/ Art Zeile
Art Zeile
Chief Executive Officer
DHI Group, Inc.

EXHIBIT 31.2

CFO CERTIFICATION
PURSUANT TO SECTION 302 OF THE
SARBANES – OXLEY ACT OF 2002

I, Kevin Bostick, certify that:

1. I have reviewed the annual report on Form 10-K of DHI Group, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for the external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 11, 2022

By: /s/ Kevin Bostick
Kevin Bostick
Chief Financial Officer
DHI Group, Inc.

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of DHI Group, Inc. (the “Company”) on Form 10-K for the period ending December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Art Zeile, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 11, 2022

/s/ Art Zeile
Art Zeile
Chief Executive Officer
DHI Group, Inc.

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of DHI Group, Inc. (the “Company”) on Form 10-K for the period ending December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Kevin Bostick, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 11, 2022	/s/ Kevin Bostick
	Kevin Bostick
	Chief Financial Officer
	DHI Group, Inc.