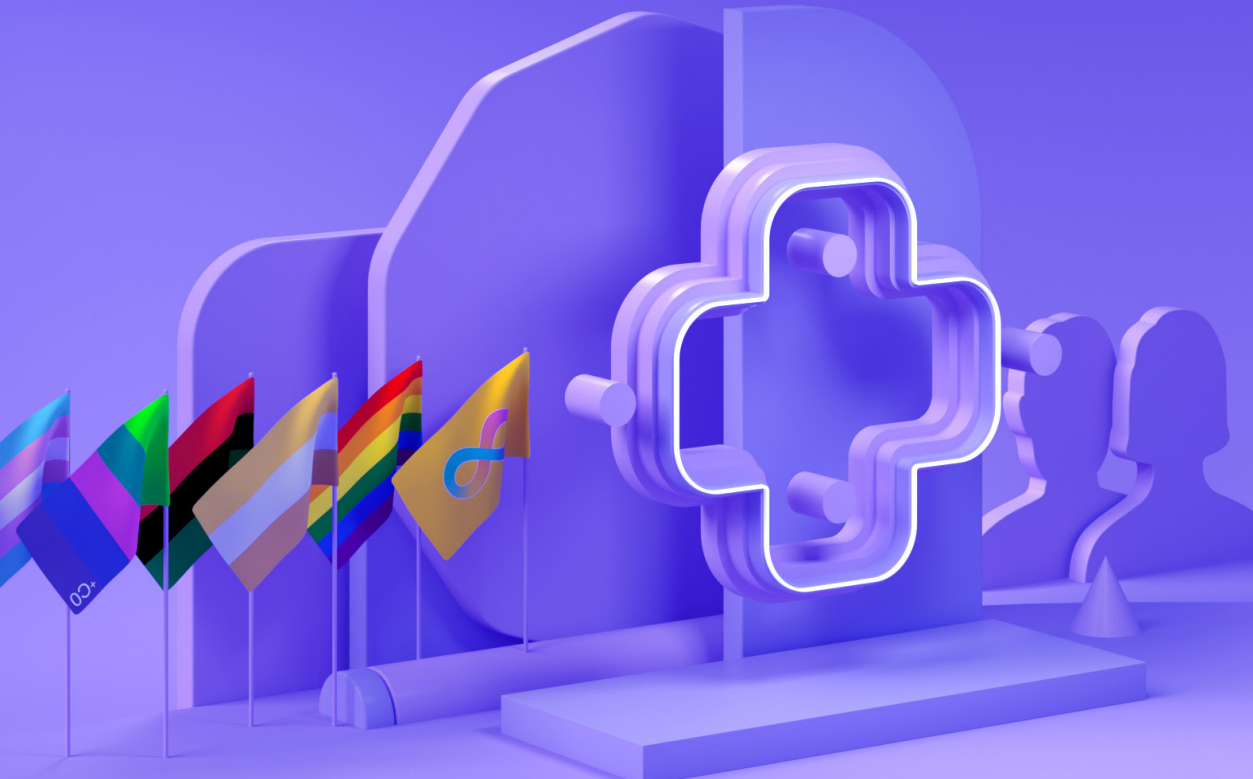USA

DIVERSITY IN
DATA REPORT

2022-2023

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**A review of diversity
within the Data
& Analytics industry**

DIVERSITY GUIDE
CONTENTS 2022-2023

A WORD FROM **OUR CEO**

DIVERSITY GUIDE
INTRODUCTION

Welcome to the latest edition of our Diversity in Data report, powered by Harnham's survey of nearly 9,500 professionals across the Data & Analytics industry globally.

This year's report is our most comprehensive yet, delving deep into what the industry looks like, how fairly pay is distributed, and what professional benefits are most appealing to different demographics.

I am particularly proud that this year's guide features a foreword from Sadie St Lawrence, founder of one of Harnham's diversity partners, Women in Data. Sadie has a wealth of experience in the data industry and her insights as a leader of an organization looking to drive positive change in the industry are invaluable.

On to the findings themselves, and there are several different takeaways from this year's report. Most significant, perhaps, is the fact that there has been little change in the diversity of the industry in the last 12 months. This particularly stands out as the majority of employers that Harnham work with frequently name diversifying their teams as one of their most important objectives.

However, it is important to note that change takes time and there are more promising signs, more women and Black, Indigenous and People of Color joining the industry at entry-level. I firmly believe that if businesses and, crucially, educational institutions keep pushing for better diversity, we will see significant change over the next five to ten years.

One such organization that is driving for greater diversity in data through its unique data education and training programme is our sister company, and data consultancy, Rockborne. You can learn more about Rockborne and how this analysis was completed in the "About This Guide" section.

One final thing to note is that we are conscious of this report being as representative as possible. For this reason, it is important for us to make clear that, on occasion, we compare White and Caucasian professionals with all of their Black, Indigenous, and People of Color (BIPOC) colleagues. This allows us to discuss specific insights, such as the ethnicity pay gap, and how they may impact inclusivity moving forward.

I hope you find this guide informative and encouraging. If you have any questions about our findings or would like to share your thoughts on how to improve diversity in the Data & Analytics industry, we would love to hear from you. You can get in touch at research@harnham.com.

_____ **DAVE FARMER** / CEO

ABOUT
DAVE FARMER

As one of the founding partners of Harnham, Dave has become a recognized figure in Data & Analytics recruitment over the past 16 years.

Having helped hundreds of Analytics professionals develop their careers, Dave is now leading and growing Harnham's presence throughout the UK, Europe and US.

ABOUT
THIS GUIDE

The analysis for this report was conducted by Harnham's sister company, Rockborne. Below, Rockborne's CEO, Waseem Ali, discusses the process for this:

———— With Harnham's most recent industry survey garnering over 9,000 responses from professionals across the UK, US, and mainland Europe, the procedure established to yield insight from this data required data cleaning and exploration, both of which primarily occurred within Excel, PowerBI, and Python.

As part of the data cleaning process, Rockborne used distribution analysis to identify outliers, which were removed as a result of some exploratory data analysis we conducted.

To compare different sectors within the data industry core disciplines were grouped into their respective specialisms, in order to provide a more tailored diagnosis whilst maintaining validity with the number of responses.

In order to provide the most meaningful insights, the data was analyzed across various diversity criteria, including race, age, gender, and disability for the U.S. and U.K. However, our analysis of mainland Europe only factored in disability and gender due to regulatory laws. Despite this, the use of numerous criteria resulted in the ability to have a more in-depth analysis with multiple dimensions to assess.

Rockborne are an expert provider of specialist Data & Analytics consultants. Recruiting regular cohorts of diverse, highly skilled and exceptionally promising STEM graduates, our expert trainers take these talented individuals through an intensive 16-week program of technical, business and consulting skills training, before placing them with leading data teams across all industry sectors.

Learn more at rockborne.com.

———— **WASEEM ALI** / ROCKBORNE'S CEO

THE GENDER
DIVIDE

The Data & Analytics industry, like many within STEM, has traditionally been a male-dominated field. This year's findings suggest that is still largely the case.

While the last two years has seen the number of women in the industry sit at 27%, this year saw this drop slightly to 26%, despite the efforts being made by many businesses to improve gender diversity.

In particular, Advanced Analytics, Digital Analytics, and Life Science Analytics saw their numbers drop from last year's findings to 26%, 26%, and 32% respectively. Interestingly, these three specialisms have previously always reported as the most gender diverse and it is the drop in their numbers that has pushed down the industry average.

Conversely, those areas of the industry that have traditionally struggled with gender diversity have seen some fairly significant improvements this year. In particular, women now account for 21% of Computer Vision professionals, an increase of 62% from last year's findings. Similarly, Data & Technology and Data Science have seen the number of female professionals in their specialism rise to 28% and 27%, respectively.
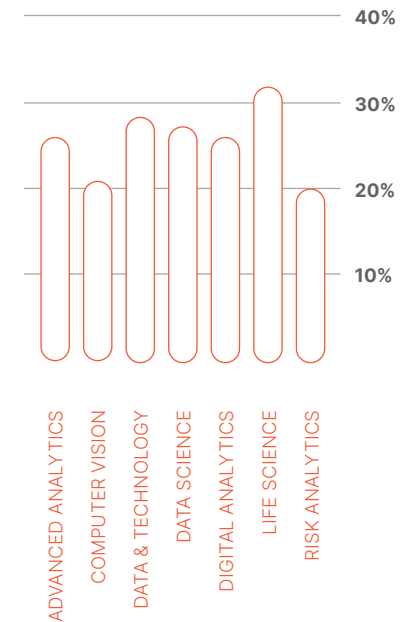
There is, however, good news for proponents of diversity when looking at professionals who are in their first role in data. The gender balance here moves significantly closer to parity, increasing to 37% across the entire industry, growing 42% compared to where things currently stand.

It's also important to note that, outside of the gender binary, 0.4% of respondents identified as non-binary or an alternative gender variant. While this remains a small portion of the overall industry, the number of people identifying outside of male and female is growing and may play a larger role in years to come.

26%
OF DATA &
ANALYTICS
**PROFESSIONALS
ARE WOMEN**

GENDER SPLIT
BY SECTOR

All %s of female professionals working within a particular specialism. Data gathered from Harnham's 2022 US Salary Survey.

40%

30%

20%

10%

ADVANCED ANALYTICS
COMPUTER VISION
DATA & TECHNOLOGY
DATA SCIENCE
DIGITAL ANALYTICS
LIFE SCIENCE
RISK ANALYTICS

THE GENDER
PAY GAP

While the representation of women offers some insight into the diversity of the Data & Analytics industry, it is also essential to examine pay equality.

In 2022, male professionals in Data & Analytics took home an average annual salary of $168,040, while their female counterparts took home an average salary of $150,960; a pay gap of 10%. While still high, this is somewhat a positive sign for the industry, with this pay gap not only dropping from 14% last year but also falling below the US average of 18%*.

Interestingly, there was no correlation between the number of women working in a specific specialism and the gender pay gap in that area. While Risk Analytics had the fewest women, it was also the only specialism to feature a pay gap in favor of female professionals (+2%). Conversely, Computer Vision, which had the second-fewest amount of women, had the largest gender pay gap in the industry at 24%.

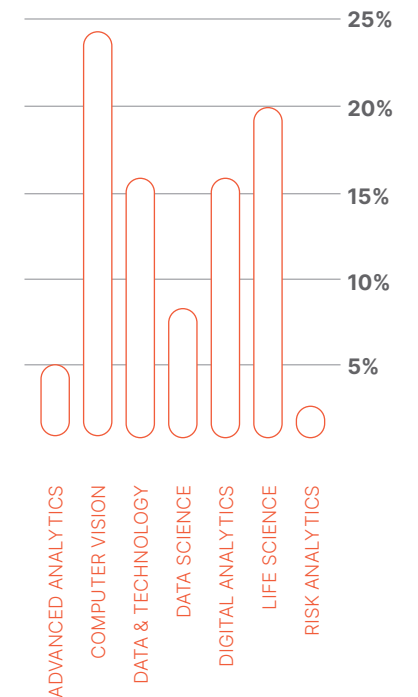Additionally, the specialism with the most women, Life Science Analytics, has the second highest gender pay gap at 20%. While this doesn't seem particularly positive, it may also be a reflection of increasing numbers of women joining the industry in this particular area, pushing up overall numbers but bringing down average salaries in entry-level roles.

It is also worth noting that the above numbers, including the US average, only cover basic pay. When bonuses and other financial incentives are also recognized, the gender pay gap in Data & Analytics in the US rises to 16%.

10%
AVERAGE GENDER PAY
**GAP IN THE DATA &
ANALYTICS INDUSTRY**

GENDER PAY GAP
BY SECTOR

All %s of female professionals working within a particular specialism. Data gathered from Harnham's 2022 US Salary Survey.

25%

20%

15%

10%

5%

ADVANCED ANALYTICS
COMPUTER VISION
DATA & TECHNOLOGY
DATA SCIENCE
DIGITAL ANALYTICS
LIFE SCIENCE
RISK ANALYTICS

*Source: https://www.payscale.com/research-and-insights/gender-pay-gap/#module-2

THE RACIAL
MINORITY DIVIDE

While there is a clear goal of 50/50 when it comes to gender parity in Data & Analytics, it is worth examining how the industry reflects the ethnic diversity of the wider country.

The first thing to note is that White/Caucasian professionals make up less of the Data & Analytics industry than they do of the country as a whole* (53% vs 58%), making it one of the more ethnically diverse prominent industries.

There are, of course, variations by specialisms, although it is worth noting that all specialisms, with the exception of Computer Vision, are less White/Caucasian than the nation as a whole. However, it was noting that the two states that are home to the most Data & Analytics professionals (New York and California) are more diverse than the country as a whole. In particular, California's demographic is only 35% White/Caucasian, indicating that the industry is perhaps not as diverse as it first appears.
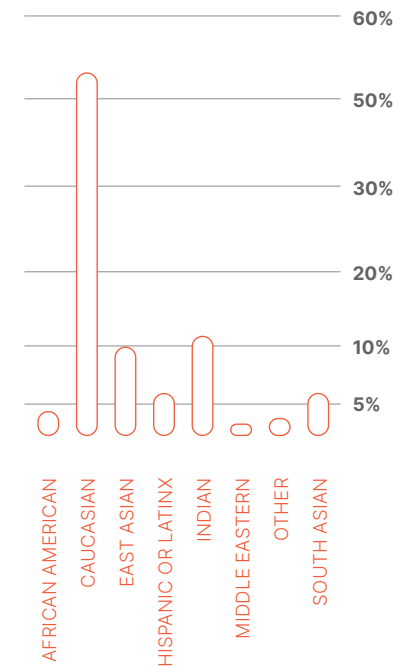
Additionally, it should be caveated that just because there are fewer white professionals than the national average, it does not mean that all other ethnicities are seeing increased representation. While South and East Asian professionals account for 16% of the industry (vs 6% of the population), African American professionals only account for 4% of the industry (vs 12). Furthermore, Hispanic and Latinx professionals make up 19% of the US population, but only 6% of the Data & Analytics industry.

However, the industry does diversify further when reviewing professionals who are in their first role in Data & Analytics. Here, White/Caucasian professionals comprise 34% of the industry, while African American professionals account for 8%. The biggest increase at this level, however, is among Indian professionals, who move from 11% to 21% of the industry.

53%
OF DATA & ANALYTICS ARE WHITE/CAUCASIAN, **COMPARED WITH 58% NATIONALLY***

DIVERSITY IN THE DATA & ANALYTICS INDUSTRY

Data gathered from Harnham's 2022 US Salary Survey

60%	
50%	
30%	
20%	
10%	
5%	

AFRICAN AMERICAN
CAUCASIAN
EAST ASIAN
HISPANIC OR LATINX
INDIAN
MIDDLE EASTERN
OTHER
SOUTH ASIAN

*Source: https://www.census.gov/library/visualizations/interactive/racial-and-ethnic-diversity-in-the-united-states-2010-and-2020-census.html

THE LEADERSHIP
DIVIDE

Awareness around the importance of equality in leadership has been increasing in the past few years, with organizations pushing for increased diversity in the industry often listing this as a key priority.
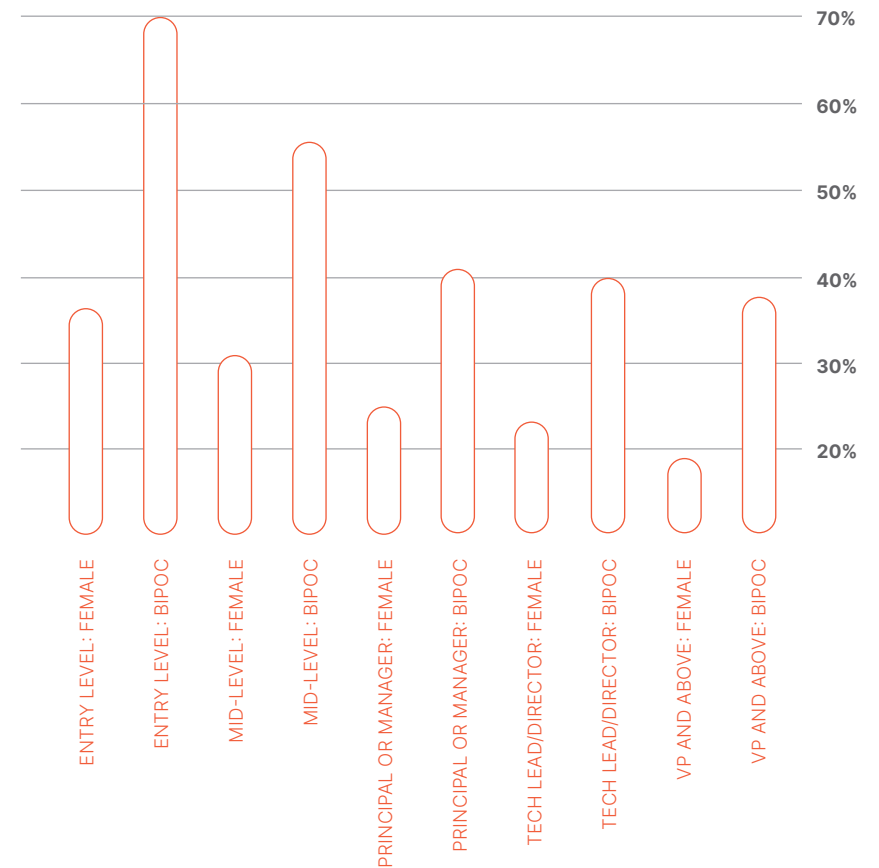
Despite this, there is a trend of diversity decreasing as seniority rises. This is clearest in terms of ethnicity, where representation of Black, Indigineous, and People of Color falls from 70% at Entry-level to just 38% at VP & above, albeit this up from 30% last year. Furthermore, this number falls to just 9% in both Data & Technology and Life Science Analytics.

The fall is equally as drastic in terms of gender, with women accounting for 36% of Entry-level professionals and 18% of VP roles across the industry, a drop of 50%. However, with 31% of Fortune 500 board positions being held by women*, the Data & Analytics industry appears to be falling behind. Advanced Analytics & Insight comes closest to this number at 26%, while female professionals hold only 9% of leadership positions in Computer Vision.

There are a number of possible reasons for this but taking an extended career break (of over three months) for childcare may have an impact. Our survey found that while 22% of women working in Data & Analytics had taken an extended break for this reason, the same was true for only 5% of male professionals.

*Source: https://www.bizjournals.com/bizwomen/news/latest-news/2022/08/mogul-women-boards.html?page=all

DIVERSITY SPLIT
BY LEVEL

Data gathered from Harnham's 2022 US Salary Survey

Chart categories (x-axis):
- ENTRY LEVEL: FEMALE
- ENTRY LEVEL: BIPOC
- MID-LEVEL: FEMALE
- MID-LEVEL: BIPOC
- PRINCIPAL OR MANAGER: FEMALE
- PRINCIPAL OR MANAGER: BIPOC
- TECH LEAD/DIRECTOR: FEMALE
- TECH LEAD/DIRECTOR: BIPOC
- VP AND ABOVE: FEMALE
- VP AND ABOVE: BIPOC

Y-axis: 20%, 30%, 40%, 50%, 60%, 70%

THE DISABILITY
DIVIDE

While ethnic and gender diversity remain the most talked about areas in terms of Diversity in Data & Analytics, representation of individuals with disabilities is becoming an increasingly discussed topic.
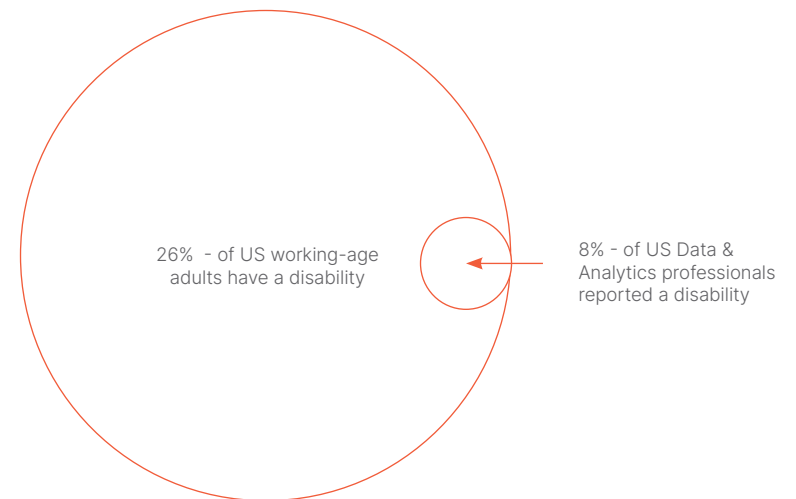
While over one in five US working-age adults identifies as having a disability*, in Data & Analytics this number sits at 8%. This number does, however, rise to 12% when looking at those in their first role in the industry. Of those who do identify as having a disability, 35% are women (a 38% increase compared to the industry as a whole) and 59% are White/Caucasian (an 11% increase).

When looking at the types of disability identified, more prominent are those with an Invisible or "unseen" disability, comprising 3% of the overall industry, while a further 2% identify as Neurodiverse. Those with mobility and/or physical disabilities account for just 1% of the overall industry.

While representation across the industry is two-thirds less than what is seen nationally, it is fairly consistent across all seniority levels, with Disabled individuals accounting for 7% of professionals that are VP & above.

*Source: https://www.cdc.gov/ncbddd/
disabilityandhealth/infographic-disability-
impacts-all.html

DISABILITY IN THE DATA
& ANALYTICS INDUSTRY

26% - of US working-age
adults have a disability

8% - of US Data &
Analytics professionals
reported a disability

THE AGE
DIVIDE

It is perhaps unsurprising that newer industries, such as Data & Analytics, often skew toward a younger demographic. However, as these specialisms become more established, one would expect to see the average age of the industry begin to increase.

Our findings certainly point in that direction. Last year saw the number of Data & Analytics professionals under the age of 35 drop from 54% to 45%. At the time, we speculated that this was down to the fact that younger professionals were more likely to have lost their jobs during the COVID-19 pandemic. While there may be some truth to this, the drop may also have been indicative of a wider trend, with that number dropping to 43% this year.

Similarly, the median age of data professionals has risen from 35 to 36, crossing into a separate banding for the first time since we have been publishing our diversity reports.

One final thing to note is the gender divide when it comes to age. 40% of men in the industry are aged under 35, with that number rising to 51% for women. This correlates with the rising number of women at more junior levels in the industry and may account for some, though not all, of the reasons why there is a shortfall of women in leadership positions.

AGE GAP IN THE DATA & ANALYTICS INDUSTRY

Data gathered from Harnham's 2022 US Salary Survey

43%

OF DATA &
ANALYTICS
**PROFESSIONALS
ARE BELOW THE
AGE OF 35**
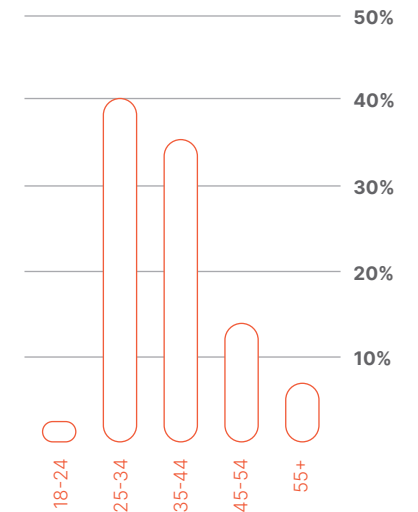
THE BENEFITS
DIVIDE

The purpose of this guide is to provide an overview of Diversity in the Data & Analytics industry and not to make recommendations on how to improve that diversity. That being said, variations between the most sought-after benefits can offer some insights into how businesses can attract more diverse talent.

When it comes to gender, while the top two benefits remain the same, the remaining three offer an interesting insight. Male professionals have placed a Bonus third, above a 401k, while women in the industry have done the opposite. Men also listed Equity as a top-five most desirable benefit, which women did not. This may reflect a wider industry trend of men putting a greater emphasis on immediate financial gain than women; they were also more likely to choose a new role based on salary.

On the other hand, women listing Flexible Working Hours as one of their most desirable benefits reflects a wider industry trend of embracing a greater work/life balance. This too is reflected in their reasons for choosing a new role, with women 64% more likely to move for a more flexible working environment.

There is, however, no divide when it comes to ethnicity, with Black, Indigenous, and People of Color professionals reporting the same set of preferred benefits to their White/Caucasian colleagues.

TOP 5 SOUGHT-AFTER
BENEFITS

WOMEN

1. Health Insurance
2. Remote working options
3. 401k
4. Bonus
5. Flexible working hours

MEN

1. Health Insurance
2. Remote working options
3. Bonus
4. 401k
5. Equity

WHITE

1. Health Insurance
2. Remote working options
3. 401k
4. Bonus
5. Flexible working hours

BIPOC

1. Health Insurance
2. Remote working options
3. 401k
4. Bonus
5. Flexible working hours

OTHER
FACTORS

ETHNICITY PAY GAP:

While there is evidence throughout Data & Analytics of a pay gap between Caucasian professionals and their Black, Indigenous and People of Color colleagues, our findings indicate that, throughout the industry, this averages out at 0%. That is not to say that no such gap exists, as there is some fluctuation among specialisms, with a 5% pay gap in Data Science, and a 2% gap in favour of BIPOC professionals in Risk Analytics.

There is also evidence to suggest that intersectionality must be considered. While there is no general pay gap based on ethnicity, the gap between white male professionals and BIPOC female professionals is 12%; 20% higher than the overall gender pay gap.

MENTORSHIP:

Those who enter the Data & Analytics industry often look for mentorship figures to guide them on their career journey. However, the reality appears to be that fewer professionals received mentorship than one would expect, with only 24% of respondents saying that they have a professional mentor.

There is also a gender divide here, with women more likely to adopt a mentorship figure (38%) than their male colleagues (32%). Furthermore, while both men and women were more likely to have a mentor of the same gender, men were more likely to seek mentorship from another man (77%) than women were to have a female mentor (49%).

SEXUALITY:

While many areas of diversity in Data & Analytics seem to suggest that the industry is less diverse than the US as a whole, this is not the case when it comes to sexuality. The 2020 census[‡] found that 88% of the US population identify as Heterosexual, 3% identify as Gay/Lesbian, and 4% identify as Bisexual, with a further 2% identifying as an alternative sexuality.

In Data & Analytics, the percentage of Heterosexual professionals drops to 83%. This results in an increase of Gay/Lesbian professionals to 5%, those who identify as Bi/Pansexual to 5%, and 0.7% identifying as Asexual. The number of those who identify as an alternative sexuality drops to 0.5%.

*https://www.isc.co.uk/research/

[†] https://www.census.gov/library/stories/2021/11/census-bureau-survey-explores-sexual-orientation-and-gender-identity.html

CONTACT
HARNHAM ^{EU}

We hope you've found our commentary on the state of diversity in the Data & Analytics market interesting.

Should you wish to ask for further information about any of the figures or markets referenced in this guide, please feel free to give us a call.

Beyond finding your next hire or next role, please feel free to get in touch if you need any support from Harnham.

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