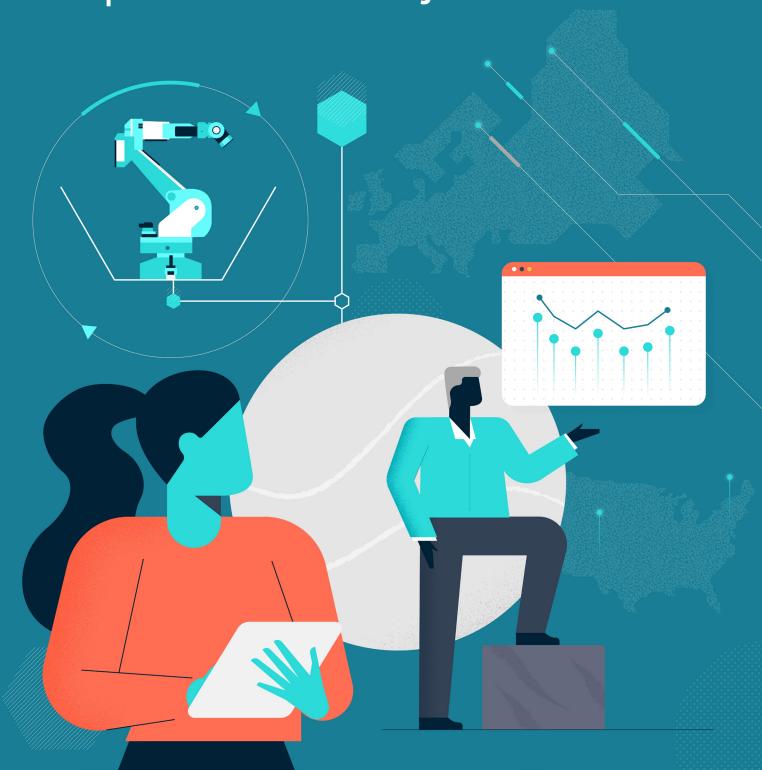
# 2021 Europe and US Data, Analytics, and Artificial Intelligence Executive Organization and Compensation Survey



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## A message from the authors

Welcome to our 2021 Europe and US Data, Analytics, and Artificial Intelligence Executive Organization and Compensation Survey, which examines both organizational structure and compensation for executive roles with artificial intelligence and/or data analytics responsibilities.

For this report, Heidrick & Struggles compiled compensation data from a survey fielded in Fall 2021 of 179 executives in predominantly Europe and the United States.

We hope you enjoy reading the survey. As always, suggestions are welcome, so please feel free to contact us—or your Heidrick & Struggles representative—with questions and comments.

With warmest regards,



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#### On confidentiality

The Europe and US artificial intelligence and data analytics executive organization and compensation survey, 2021, was conducted on an anonymous basis for individuals and their employers, and Heidrick & Struggles has removed the data relating to identity from reported compensation figures.

#### Methodology

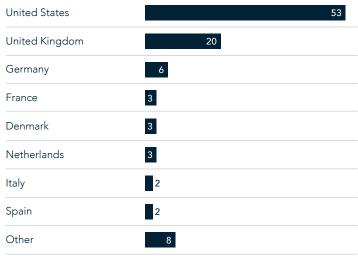
This report is the result of an online survey conducted in Fall 2021.
Responses from 179 participants are included in the survey results.

## Respondent locations and company information

The executives who responded to the survey came predominantly from the United States. Several Western European countries were also well

represented, particularly the United Kingdom. More than half of the roles represented were at companies with an annual revenue of \$5 billion or more.

#### Country (%)



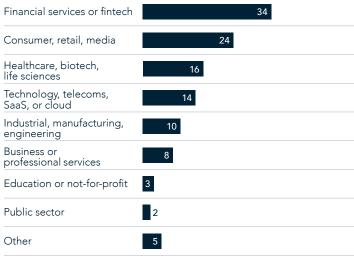
organization and compensation survey, 2021, n = 179

#### **United States region (%)**



Source: Europe and US artificial intelligence and data analytics executive

#### Industry (%)



Source: Europe and US artificial intelligence and data analytics executive organization and compensation survey, 2021, n=179

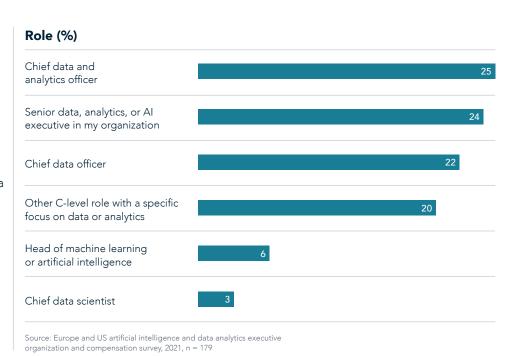
#### Company annual revenue (%)

Pre-revenue	1
\$0-\$50m	9
\$51m-\$100m	5
\$101m-\$250m	4
\$251m-\$500m	3
\$501m-\$1bn	4
\$1bn-\$5bn	15
\$5bn-\$20bn	28
\$20bn-\$50bn	11
More than \$50bn	15
Don't know/ prefer not to answer	6

## What titles do data, analytics, and artificial intelligence leaders have, and what are their backgrounds?

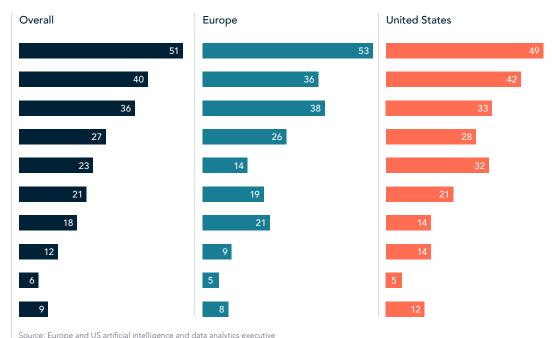
Data, analytics, and artificial intelligence responsibilities are led by people in roles that include chief data and analytics officer, chief data scientist, and head of machine learning or artificial intelligence.

In terms of experience, data, analytics, and artificial intelligence leaders most often had experience in financial services and consumer, retail, and media (the same industries they most often work in today). Across Europe and the United States, financial services was the most common source of experience. However, consumer, retail, and media came second in the United States, at 42%. Technology and telecoms was second in Europe, at 38%, compared to 33% in the United States.



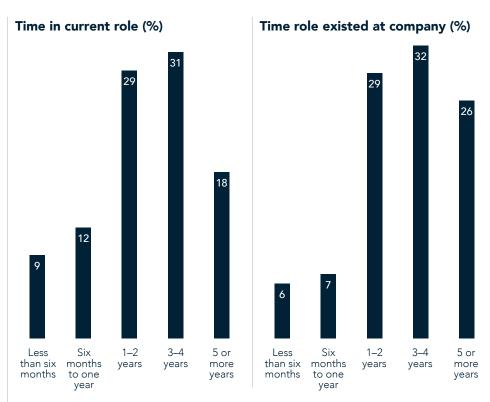
#### Sector experience (%)

Financial services or fintech Consumer, retail, media Technology, telecoms, Saas, cloud Consulting Healthcare, biotech, life sciences Business or professional services Industrial, manufacturing, energy Academia Public sector Other



organization and compensation survey, 2021, n = 179

Notably, more than half of the executives we surveyed, 52%, have been in their role for less than three years, and nearly three-quarters, 74%, are in a role that has existed at their company less than five years. Longevity in role could suggest a few different things, a high level of turnover, perhaps, or a change in strategic priorities resulting in demand for a first-time executive leader responsible for the function, moving the responsibility from a manager or director.



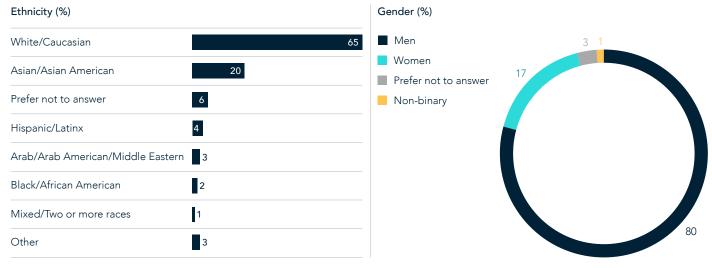
#### **Demographics**

The data, analytics, and artificial intelligence function is historically one that has been lacking in diversity, though we have observed a number of initiatives to introduce greater diversity in terms of gender, race and ethnicity, and sexual orientation. The majority (65%) of data scientists in the United States are men.<sup>1</sup> The ethnicity

statistics are even less promising: in the United States, Black professionals represent just 5% of the tech workforce, and 3% of tech executives.<sup>2</sup>

Most respondents to this survey were male and white, although the executives who responded in the United States are markedly more diverse than those in Europe. While the share of non-white executives was 45% in the United States (with Asian and Asian Americans the most well represented, at 33%), the share of nonwhite executives was only 19% in Europe. The share of women in these roles, while low everywhere, was in the United States double that of those in Europe.

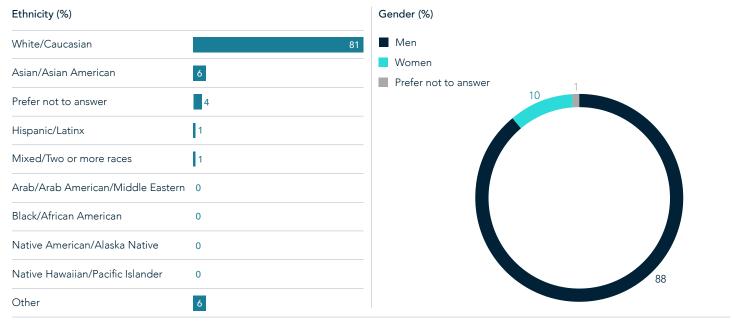
#### Ethnicity and gender



<sup>1 &</sup>quot;Data scientist statistics by gender," Zippia, September 9, 2021, zippia.com.

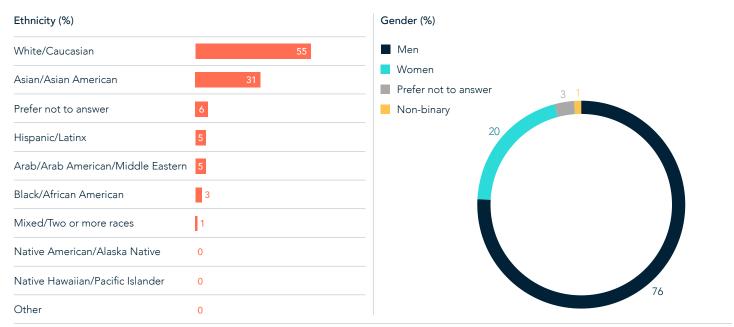
<sup>2 &</sup>quot;The Black technology workforce: Designing a more inclusive future," The Kapor Center, February 2021, kaporcenter.org.

#### Ethnicity and gender: Europe



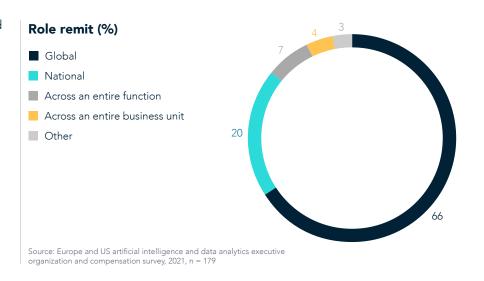
Source: Europe and US artificial intelligence and data analytics executive organization and compensation survey, 2021, n=78

#### **Ethnicity and gender: United States**



# What data, analytics, and artificial intelligence executives do all day

Most of the executives who responded to our survey, 66%, were in global leadership roles (77% in Europe and 56% in the United States). The regional difference may be because the US economy is larger than European economies; it may be that far more countries headquartered in Europe have more global operations than those in the United States.

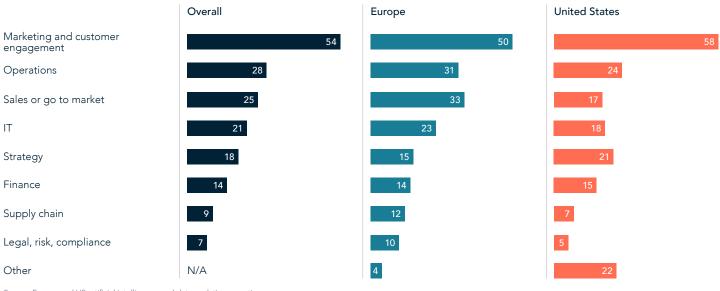


Executives in data, analytics, and artificial intelligence roles said that they work most often with the marketing and customer engagement functions, followed by operations and sales/go-to-market. This held true across

Europe and the United States. Most executives reported teams of 25 people or fewer, though in the United States there was a wider variety of team size, ranging from 1 to more than 200.

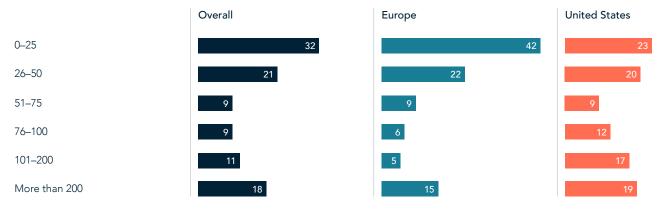
#### Team background

Functions these executives spend most time working with (%)



#### Team background

Number of people on team (%)



While the large majority of data analytics and Al leaders are responsible for data science, artificial intelligence and machine learning, business intelligence, and analytics functions, reporting structures often dictate additional functional responsibilities.

We can speculate that data architecture, platform, and warehousing roles more likely sit in the core IT organization. If the data analytics leader sits in the business, those functions sit elsewhere. If, instead, they report to technology, it's more likely they have ownership for these technical functions.

No matter who the data, analytics, and artificial intelligence executive report to, the large majority of them are responsible for data science, artificial intelligence and machine learning, and business intelligence and analytics. We begin to see some variation in reporting lines when it comes to data governance and data privacy—more of the executives who report to the chief operating officer or chief administrative officer are responsible for those functional areas, while the executives responsible for data warehousing are more evenly split between the CFO,

COO or chief administrative officer, and the chief information officer in terms of who they more often report to. The executives responsible for data platform far more often report to the chief information officer, while those responsible for data architecture more often respond to the CFO, followed by the COO, or chief administrative officer.

In both regions, the United States and Europe, companies recognize a competitive advantage by building up top-notch AI organizations that enable them to have the right access and use of data.

#### Which functional areas report to you (%)



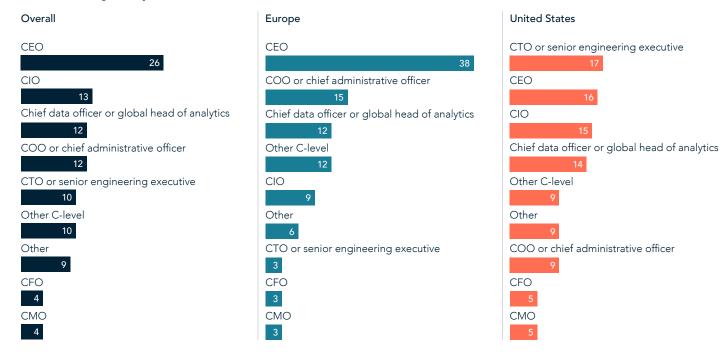
Globally, data, analytics, and artificial intelligence executives most often report to the CEO.

However, there is notable regional variance. In the United States, they most often report to the CTO or senior engineering executive, followed by the CEO and then the CIO. In Europe, the CEO was followed by the COO

or chief administrative officer. This difference in reporting lines could be related to the function being relatively new in Europe, whereas it is more established in the United States.

That means that in the United States, data ownership has historically sat in the technology function, and it is still slowly moving out of IT and into the business, as CEOs and boards increase their focus on the importance of data and analytics. In Europe, with stronger regulations about the use of data, as well as less historic time with the role, it appears that data leadership roles have been integrated into the business faster than those in the United States.

#### To whom do you report? (%)



#### Functions that report to them by who they report to (%)

	CEO	CIO	COO or chief administrative officer	CTO or senior engineering executive	CFO	СМО
Data science	87	74	81	88	100	100
Artificial intelligence/machine learning	76	65	71	71	100	86
Business intelligence/analytics	67	70	76	71	88	86
Data governance	61	78	90	47	75	29
Data engineering	65	74	76	71	75	43
A function responsible for engaging the rest of the business with data use	61	52	52	47	50	71
Data architecture	50	65	71	41	75	29
Data platform	50	83	52	41	50	14
Data warehousing	52	65	62	29	63	14
Data privacy	43	48	52	35	25	14
Average number of reporting areas	6.3	6.8	7.1	5.2	7.1	5.0
Column sample size	46	23	21	17	8	7

# Data, analytics, and artificial intelligence compensation: A brief global comparison

Reported median cash compensation for data, analytics, and artificial intelligence roles in Europe was \$409,000. In the United States, it was \$546,000. Median total compensation, including any annualized equity grants, was \$616,000 in Europe and \$914,000 in the United States.

The data leadership role seems to be valued more in the United States, both from a cash perspective and an equity perspective—only 17% of respondents reported receiving some form of sign-on equity in Europe. As European companies continue to seek global talent, especially from the United States, greater consideration needs to be given to granting equity as part of the overall compensation package.

In terms of equity, 34% of executives received annual equity in the form of restricted stock units (RSUs)—30% did so in Europe and 38% did in the United States.

In the United States, 58% of executives received sign-on equity in the form of RSUs, performance share units (PSUs), or a combination of both, while the figure was only 17% in Europe. (See pages 18 and 21 for full sign-on equity data.)

#### Format of sign-on equity

By industry, there was a significant difference in compensation between Europe and the United States.

Across Europe, the industries with the highest total compensation were financial services, consumer, and industrial, respectively, with those in financial services receiving a median total compensation of \$721,000. In the United States, the industries with the highest total compensation were technology, healthcare and life sciences, and consumer, respectively, with those in technology receiving a median total compensation of \$1,201,000.

#### **Equity form overall (%)**



Source: Europe and US artificial intelligence and data analytics executive organization and compensation survey, 2021, n=169



#### **Equity form: Europe (%)**



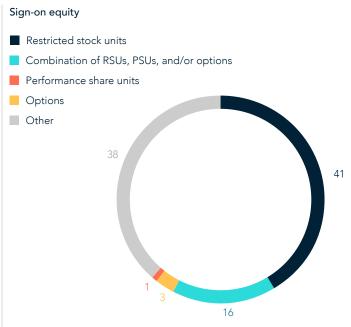
# Sign-on equity Restricted stock units Combination of RSUs, PSUs, and/or options Performance share units Options Other

Source: Europe and US artificial intelligence and data analytics executive organization and compensation survey, 2021, n=169

#### Source: Europe and US artificial intelligence and data analytics executive organization and compensation survey, 2021, n = 116

#### **Equity form: United States (%)**





# Data, analytics, and artificial intelligence compensation: Europe

#### **Europe compensation: Table sample sizes**

		Base	Bonus	Total cash compensation	Equity	Total compensation
	Europe overall	75	68	75	71	71
	Financial services	23	22	23	22	22
	Industrial	8	8	8	7	7
Industry	Technology	8	7	8	8	8
luqn	HCLS	8	7	8	8	8
	Consumer	13	11	13	13	13
	Other	15	13	15	13	13
Φ	Less than \$5bn	37	32	37	35	35
Revenue	\$5bn-\$20bn	25	23	25	23	23
₩.	More than \$20bn	10	10	10	35 35	10
Φ	0–50	49	43	49	46	46
Team size	51–100	11	11	11	11	11
_ <u>₩</u>	More than 100	15	14	15	14	14
>	Caucasian	62	57	62	58	58
Ethnicity	Asian	4	3	4	4	4
ш	POC	6	5	6	6	6
Gender	Men	66	60	62     58     58       4     4     4	63	
Ger	Women	8	7	8	7	7
Country	United Kingdom	33	29	33	30	30
Cou	Other Europe	42	39	42	41	41

#### **Europe compensation**

		Base (USD, thousands)		[14% r	Bonus eport 0 l (%)	bonus]	Bonus (USD, thousands)		Total Cash Compensation (USD, thousands)		Equity [2% report 0 equity] (USD, thousands)		Total compensation (USD, thousands)						
		25th percentile	Median	75th percentile	25th percentile	Median	75th percentile	25th percentile	Median	75th percentile	25th percentile	Median	75th percentile	25th percentile	Median	75th percentile	25th percentile	Median	75th percentile
	Europe overall	226	276	451	26	36	56	59	117	168	283	409	584	175	175	226	458	616	787
	Financial services	176	276	451	36	46	88	80	148	242	295	474	847	175	175	326	481	721	1157
	Industrial	226	301	432	26	36	46	58	124	192	283	435	619	175	175	226	458	616	881
stry	Technology	188	226	376	16	26	56	27	96	208	208	306	556	175	175	250	392	513	1175
Industry	HCLS	176	226	263	26	26	36	58	70	133	236	294	342	175	175	175	449	469	517
	Consumer	276	326	451	6	36	68	15	103	187	328	451	610	175	175	276	584	646	826
	Other	226	326	451	26	36	46	70	115	160	283	409	584	175	175	226	501	721	784
0	Less than \$5bn	226	226	326	26	36	46	58	80	146	260	306	451	175	175	276	441	501	759
Revenue	\$5bn-\$20bn	226	326	451	26	36	68	80	148	160	318	471	610	175	175	226	493	646	787
ď	More than \$20bn	326	451	626	36	41	88	132	157	396	441	729	982	175	175	226	616	929	1286
Φ	0–50	226	226	376	26	36	56	58	116	160	283	330	509	175	175	226	458	523	759
Team size	51–100	176	276	626	16	26	88	27	96	285	260	346	910	175	175	376	435	646	1286
<u>P</u>	More than	326	451	451	26	36	46	83	141	160	409	565	626	175	175	276	616	836	1072
	Caucasian	226	276	376	26	36	56	58	115	160	283	377	584	175	175	226	463	610	785
Ethnicity	Asian	394	538	626	26	88	88	96	396	550	510	736	1094	188	251	407	710	987	1488
ш	POC	176	276	376	26	46	56	132	141	148	226	370	584	175	175	876	401	799	1459
der	Men	226	301	451	26	36	56	59	126	201	283	418	610	175	175	276	463	646	881
Gender	Women	138	276	326	16	36	36	27	83	148	159	357	465	175	175	175	319	481	699
ıtry	United Kingdom	226	326	451	26	36	68	70	132	208	306	463	610	175	175	326	501	741	936
Country	Other Europe	176	276	376	26	36	56	58	116	160	238	348	509	175	175	226	446	526	759

Note: Total Compensation only calculated for those who report equity. Note: Median bonus excludes those who report 0 bonus.

#### **Europe compensation: Sign-on bonus**

			In cash (USD, thousands)			Equity (USD, thousands)	
		25th percentile	Median	75th percentile	25th percentile	Median	75th percentile
	Europe overall	30	50	100	31	88	225
	Financial services	35	85	143	250	250	250
	Industrial	20	185	350	N/A	N/A	N/A
Industry	Technology	50	50	50	25	50	350
Indu	HCLS	N/A	N/A	N/A	25	25	25
	Consumer	100	100	100	125	138	150
	Other	15	30	83	50	50	50
Φ	Less than \$5bn	23	30	120	25	138	325
Revenue	\$5bn-\$20bn	30	75	100	50	125	150
	More than \$20bn	50	75	288	50	50	50
9 2	0–50	23	30	30	25	88	300
Team size	51–100	50	100	150	50	88	125
Ĕ	More than 100	50	100	100	50	150	250
<u></u>	Caucasian	30	50	100	50	50	125
Ethnicity	Asian	100	110	120	N/A	N/A	N/A
Ш	POC	N/A	N/A	N/A	250	300	350
Gender	Men	30	50	115	125	150	250
Ger	Women	50	75	100	50	50	50
Country	United Kingdom	20	100	150	50	138	225
Cou	Other Europe	30	50	88	31	50	275

Note: Total Compensation only calculated for those who report equity. Note: Median bonus excludes those who report 0 bonus. Note: For cash sign-on bonus for the United Kingdom, n=14; for equity sign-on, n=8.

# Data, analytics, and artificial intelligence compensation: United States

#### United States compensation: Table sample sizes

		Base	Bonus	Total cash compensation	Equity	Total compensation
	United States overall	94	81	94	92	92
	Financial services	27	27	27	27	27
	Industrial	5	4	5	4	4
Industry	Technology	11	9	11	11	11
Indu	HCLS	14	13	14	14	14
	Consumer	20	16	20	20	20
	Other	17	12	17	16	16
Φ	Less than \$5bn	32	25	32	30	30
Revenue	\$5bn-\$20bn	22	19	22	22	22
	More than \$20bn	33	32	33	33	33
ez Se	0–50	41	34	41	40	40
Team size	51–100	20	18	20	19	19
Ĕ	More than 100	33	29	33	33	33
>:	Caucasian	49	40	49	49	49
Ethnicity	Asian	27	24	27	25	25
ш	POC	12	12	12	12	12
Gender	Men	71	63	71	70	70
Ger	Women	20	16	20	19	19
	Northeast	40	36	40	40	40
n	West Coast	18	15	18	18	18
US region	Midwest	10	8	10	10	10
ס	Mid-Atlantic	9	8	9	9	9
	Southeast	9	8	9	8	8

#### **United States compensation**

		(USE	Base ), thousa	ınds)	[14% r	Bonus eport 0 (%)	bonus]	(USE	Bonus ), thousa	ands)	Co	otal Cas mpensa O, thousa	tion		Equity eport 0 e ), thousa			compen ), thousa	
		25th percentile	Median	75th percentile	25th percentile	Median	75th percentile	25th percentile	Median	75th percentile	25th percentile	Median	75th percentile	25th percentile	Median	75th percentile	25th percentile	Median	75th percentile
	United States overall	276	376	626	26	46	68	96	153	347	376	546	852	175	276	626	632	941	1396
	Financial services	276	376	451	36	56	113	125	187	622	441	584	1072	175	226	626	684	835	1523
	Industrial	276	326	400	13	52	102	33	253	445	306	343	852	175	200	713	458	779	1714
try	Technology	326	376	626	46	68	113	171	425	550	373	584	1176	276	451	1400	759	1201	4176
Industry	HCLS	326	451	626	26	36	56	115	116	285	441	618	910	175	251	626	616	958	1191
	Consumer	238	376	451	18	31	53	41	107	239	283	408	689	226	351	626	518	941	1149
	Other	276	326	451	26	31	46	73	120	165	346	441	565	188	301	582	594	784	1621
	Less than	276	351	432	26	36	56	96	125	187	373	452	584	175	200	451	616	772	1097
Revenue	\$5bn \$5bn-\$20bn	326	413	626	26	36	68	115	148	355	441	556	785	175	351	626	721	900	1251
Rev	More than	276	376	451	36	62	132	116	270	622	441	631	1072	226	276	626	717	1081	1523
	\$20bn 0–50	276	326	376	26	36	46	80	115	148	306	441	565	175	175	363	524	686	974
Team size																			
Теаш	51–100 More than	338	388	626	26	46	56	125	171	285	408	584	835	226	376	876	772	1011	1631
	100	326	451	626	36	68	138	127	311	622	471	655	1072	276	451	876	931	1235	1837
city	Caucasian	276	376	451	26	46	68	96	148	312	373	474	631	175	326	451	616	826	1097
Ethnicity	Asian	326	400	626	26	36	113	63	160	445	343	587	973	175	226	626	734	1148	1298
	POC	276	388	626	28	46	83	118	196	344	411	621	1078	226	276	769	642	971	1588
Gender	Men	276	376	451	26	46	88	96	153	355	379	565	757	175	276	626	649	929	1426
Ğ	Women	288	351	626	28	36	53	102	154	332	330	457	879	175	226	626	548	986	1186
	Northeast	288	376	626	36	46	68	116	160	347	441	575	973	175	226	451	653	923	1396
	West Coast	276	351	626	26	36	68	70	98	306	346	472	626	326	451	876	726	974	1958
US region	Midwest	276	413	451	38	51	151	134	210	713	401	576	701	175	226	626	740	956	1462
US re	Mid-Atlantic	226	326	451	26	46	107	63	146	1009	283	409	960	175	226	376	486	584	1235
	Southeast	326	376	451	11	36	96	50	116	390	441	471	660	188	363	626	828	999	1092
	Southwest	238	351	626	16	26	68	70	105	153	353	394	867	175	376	876	584	721	1823

Note: Total Compensation only calculated for those who report equity. Note: Median bonus excludes those who report 0 bonus.

#### United States compensation: Sign-on equity

			In cash (USD, thousands)		E	;)	
		25th percentile	Median	75th percentile	25th percentile	Median	75th percentile
	United States overall	50	100	200	100	400	600
	Financial services	80	100	200	150	250	450
	Industrial	35	50	100	35	50	250
Industry	Technology	50	60	125	188	1225	2375
Indu	HCLS	100	118	300	175	575	788
	Consumer	40	50	300	50	600	1500
	Other	50	120	200	238	550	1650
Φ	Less than \$5bn	40	80	100	150	240	2000
Revenue	\$5bn-\$20bn	50	110	300	250	450	800
₩.	More than \$20bn	75	150	225	100	400	600
Ф	0–50	40	50	100	53	195	1650
Team size	51–100	60	100	200	150	400	600
μ	More than 100	76	163	338	250	450	750
>	Caucasian	50	100	125	150	500	600
Ethnicity	Asian	56	100	275	100	250	750
ш	POC	70	175	281	120	375	4988
Gender	Men	50	100	200	150	300	600
Gen	Women	50	90	181	100	600	600
	Northeast	80	115	300	100	450	800
	West Coast	40	50	120	450	550	2500
US region	Midwest	100	175	350	400	600	600
US re	Mid-Atlantic	45	88	625	35	100	150
	Southeast	40	100	200	50	150	250
	Southwest	50	50	50	50	150	250

Note: For cash sign-on bonus for the United States, n=47; for equity sign-on, n=41.

## Specialty Practices

Heidrick & Struggles' Specialty Practices advise our clients on emerging technologies and disruptive innovation. Our search capabilities help the most innovative companies reach their ambitions for growth, scale and brand impact, accelerating their paths to industry disruption.

These practices include:

- Data, Analytics & Artificial Intelligence
- Crypto & Digital Assets
- Cybersecurity
- Robotics & Internet of Things

#### Leaders of Heidrick & Struggles' Specialty Practices

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