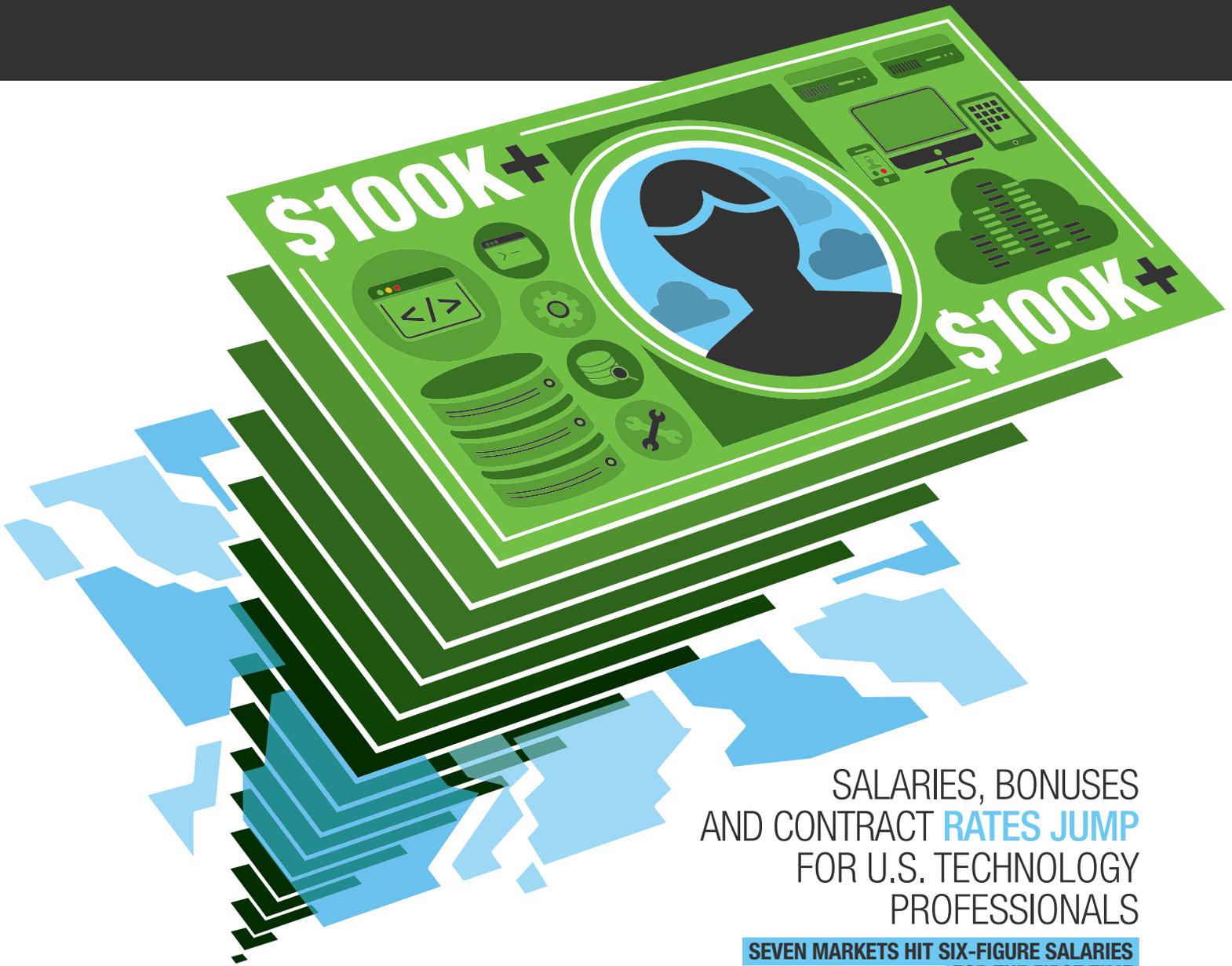


Dice Tech Salary Survey

Released January 26, 2016



SALARIES, BONUSES
AND CONTRACT **RATES JUMP**
FOR U.S. TECHNOLOGY
PROFESSIONALS

**SEVEN MARKETS HIT SIX-FIGURE SALARIES
FOR THE FIRST TIME**

Dice[®]

Contents

3

Reasons for Salary Increases
Bonus Trends
10-Year Trend in Tech Salaries

4

Salary by Experience
Hourly Rates for Contractors
Changing Employers
Salary Satisfaction

5

Salary by Metro

6

Relocating
Top 10 Highest Paying Tech Skills

7

Salary by Job Title
Salary by Employment Type

8

U.S. Tech Salaries by State

9

Rising Salaries Present Challenges
for Employers
Top 6 Motivators

11

Salary by Industry

12

Top-Paying Skills and Experience

SALARIES, BONUSES AND CONTRACT RATES JUMP FOR U.S. TECHNOLOGY PROFESSIONALS

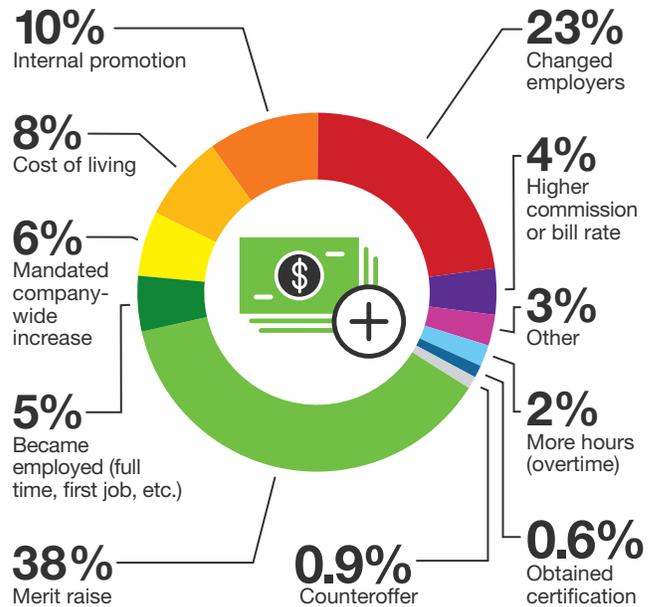
SEVEN MARKETS HIT SIX-FIGURE SALARIES FOR THE FIRST TIME

Average technology salaries in the U.S. saw the biggest year-over-year leap ever, up 7.7 percent to \$96,370 annually, according to the annual Dice Salary Survey. Bonuses and contract rates also rose from 2014, and tech salaries in seven metro areas reached six-figures for the first time since the survey began more than a decade ago.

The wage hikes paint a picture of an overall solid environment for technology professionals with 62 percent earning higher salaries in 2015. Almost half of respondents reported a salary increase as a result of upward mobility at the same company, with 38 percent receiving a merit increase and 10 percent receiving an internal promotion. The second most common reason for a rise in salary was a result of the professional changing employers (23%).

Over time, bonuses have become more commonplace in the tech industry. The average bonus was \$10,194, a seven percent increase from 2014. In 2015, 37 percent of technology professionals received a bonus, unchanged

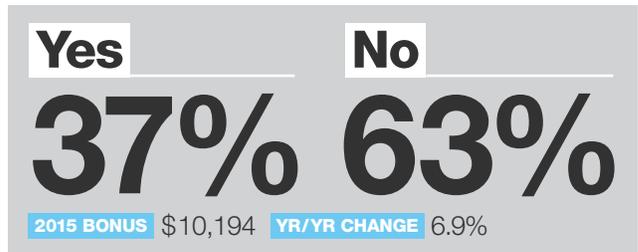
REASONS FOR SALARY INCREASE*



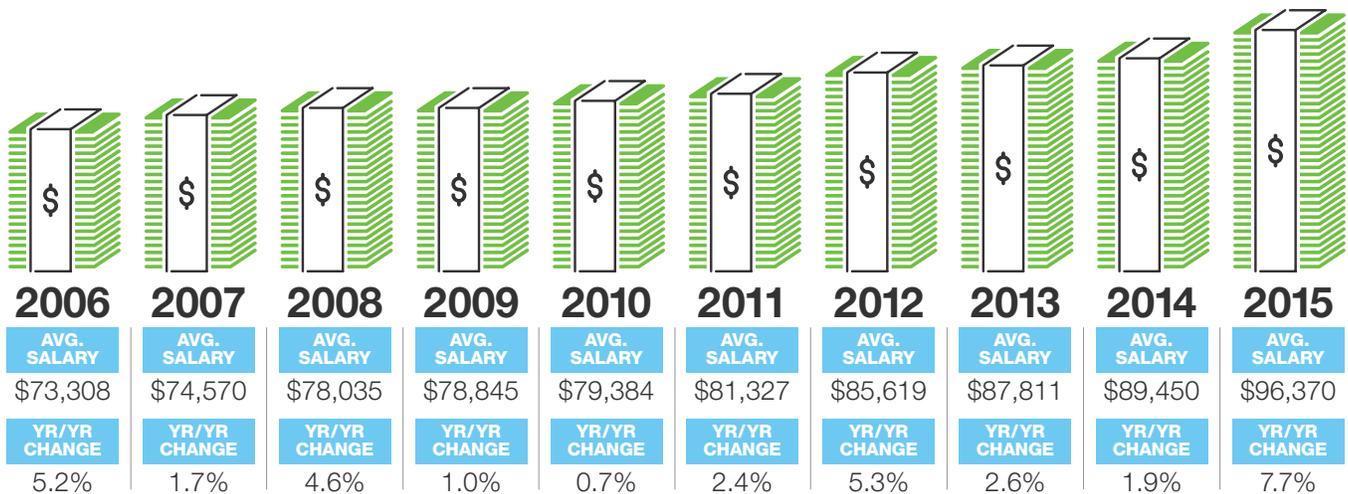
* Percentages add up to more than 100% due to rounding.

BONUSES

Did you receive a bonus?



AVERAGE U.S. TECH SALARY 10-YEAR TREND



from last year, however up from 2009 when 24 percent earned the extra payout. More experienced tech professionals were more likely to receive a bonus as well as those in the banking/financial, telecom, hardware, entertainment/media and utilities industries.

Bonuses were not as prevalent with technology professionals who had less than two years of experience. However, newer tech pros saw rises in their paychecks. Average salary increases were greatest among new technology workers (1 to 2 years' experience), suggesting there is wage pressure for entry-level technology jobs, and employers are willing to pay for fresh talent.

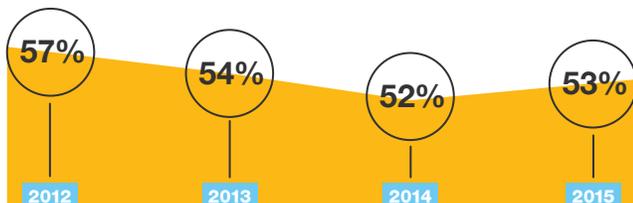
"The competition for tech talent today is undeniable. Demand for skilled talent and low unemployment rates for tech professionals aren't making the hiring landscape any easier. Employers realize offering competitive pay is a necessity," said Bob Melk, President of Dice. "What's promising is the tech industry recognizes the need to fill open seats as well as to reward tech talent for their hard work."

Contract workers saw a rise (5%) in hourly compensation, with contractors earning \$70.26 per hour. Tech contractors working in industrial/chemical, professional services, healthcare and utilities/energy segments were paid higher than overall tech contract rates.

Technology professionals are becoming more satisfied with their pay with 53 percent noting satisfaction compared to 52 percent last year. Plus tech professionals' confidence in job prospects remained high with 67 percent claiming that they could find a favorable new position. More than a third (39%) intend to change employers in the upcoming year.

SALARY SATISFACTION

Salary satisfaction begins to rebound after two years of decline.



67% Confidence in finding a new position in 2016

AVERAGE SALARY BY EXPERIENCE

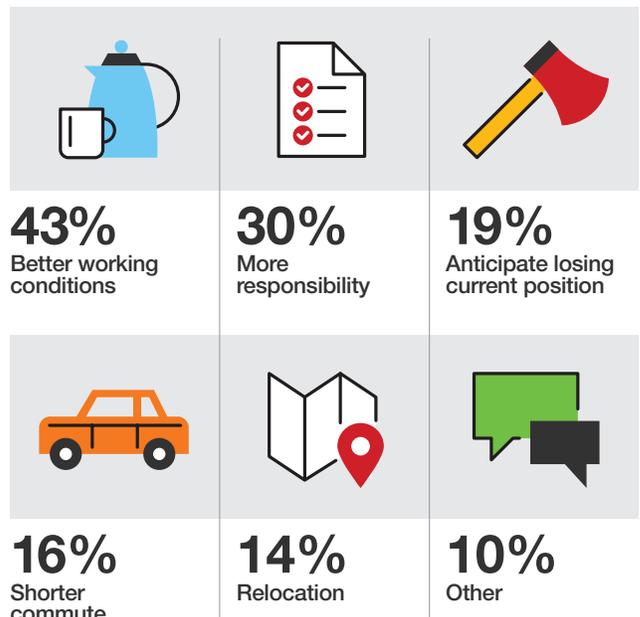
YEARS	AVG. SALARY	YR/YR CHANGE
Under 1	\$ 50,321	9.8%
1-2	\$ 62,517	24.3%
3-5	\$ 68,040	6.3%
6-10	\$ 83,143	6.8%
11-15	\$ 96,792	3.8%
Over 15	\$ 115,399	6.0%

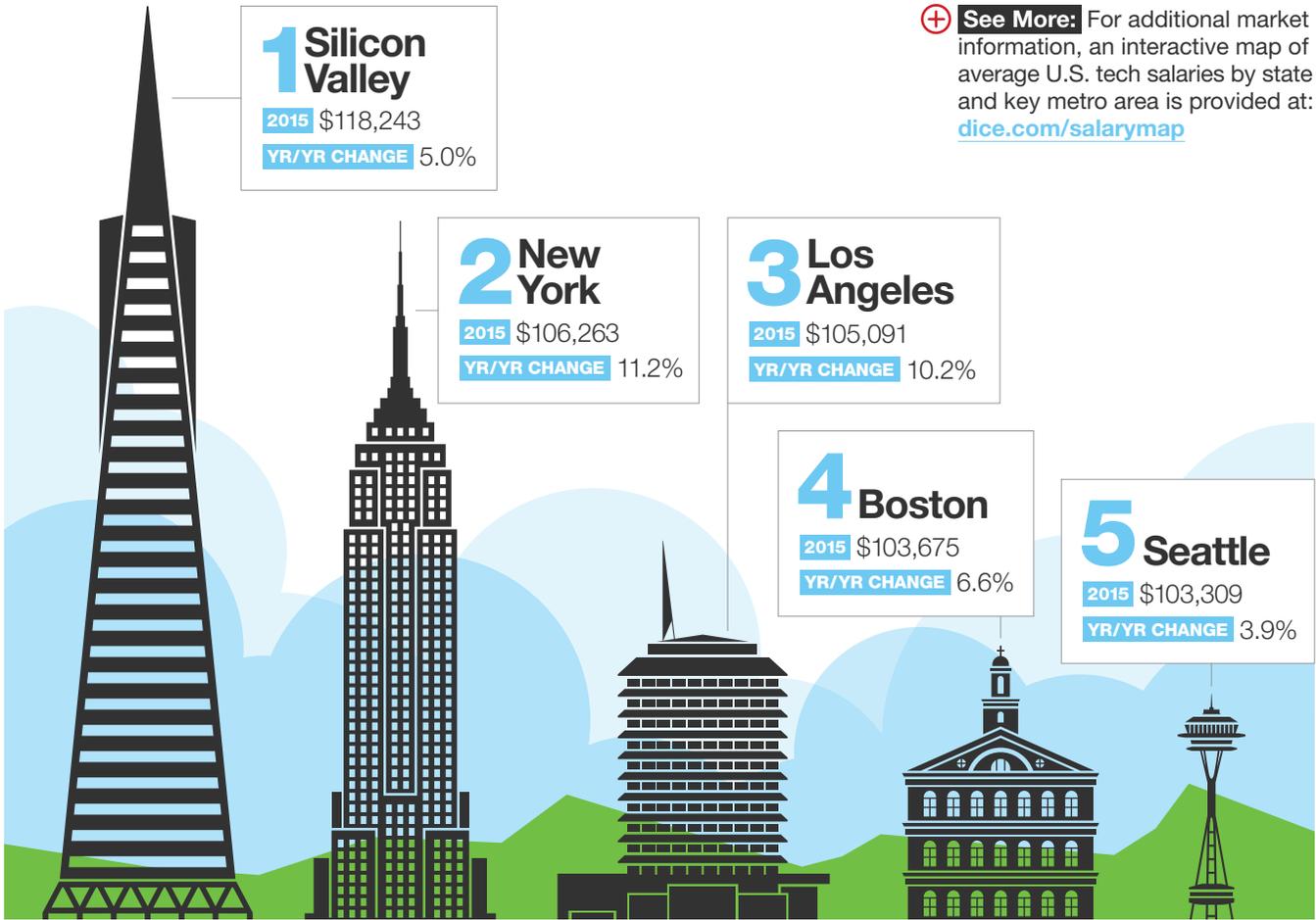
HOURLY RATES FOR CONTRACTORS

YEAR	BASE RATE PER HOUR	YR/YR CHANGE
2011	\$ 62.61	2.5%
2012	\$ 63.61	1.6%
2013	\$ 65.87	3.6%
2014	\$ 66.70	1.3%
2015	\$ 70.26	5.3%

CHANGING EMPLOYERS

Of the 39% of tech pros that anticipate changing employers in 2016, here's why.





See More: For additional market information, an interactive map of average U.S. tech salaries by state and key metro area is provided at: dice.com/salarymap

METRO	2015	YR/YR CHANGE
6 Baltimore/Washington D.C.	\$102,873	4.6%
7 Minneapolis	\$100,379	9.3%
8 Portland	\$100,309	9.6%
9 San Diego	\$ 98,934	5.1%
10 Austin	\$ 98,672	5.9%
11 Denver	\$ 97,882	3.1%
12 Atlanta	\$ 97,238	12.2%
13 Sacramento	\$ 97,237	0.5%
14 Chicago	\$ 95,656	7.6%

METRO	2015	YR/YR CHANGE
15 Philadelphia	\$ 95,579	5.5%
16 Houston	\$ 95,575	6.4%
17 Milwaukee	\$ 95,177	10.1%
18 Dallas/Fort Worth	\$ 93,206	1.7%
19 Raleigh	\$ 92,315	5.5%
20 Detroit	\$ 91,996	5.8%
21 Columbus	\$ 91,699	14.3%
22 Charlotte	\$ 90,349	0.1%
23 Phoenix	\$ 89,800	6.4%

METRO	2015	YR/YR CHANGE
24 Kansas City	\$ 89,448	21.7%
25 Miami	\$ 88,395	7.7%
26 Tampa	\$ 87,992	6.1%
27 Orlando	\$ 86,621	6.8%
28 Cincinnati	\$ 85,278	9.6%
29 St. Louis	\$ 83,582	-10.9%
30 Pittsburgh	\$ 82,788	4.0%
31 Cleveland	\$ 82,303	11.8%
32 San Antonio	\$ 79,668	-3.9%

“Our survey shows many tech pros seem to be satisfied with their salaries,” said Mr. Melk. “But that still leaves a portion of tech pros who are less satisfied with their compensation. Now it’s time for highly skilled tech professionals to ask for more or find new jobs. Opportunities await.”

Six-Figure Salaries in Top Metros

Average salaries for tech professionals reached the six-figure mark in seven markets for the first time in the annual study. Already posting average salaries over \$100,000, tech pros in Silicon Valley were again the highest paid in the country. Other top-earning markets spread from coast-to-coast and included a not traditionally-recognized tech city, Minneapolis.

Top Paying Skills

As has been the case for several years, big data and cloud represent the majority of this year's highest earners. Newcomers such as HANA, OpenStack, CloudStack and Puppet showed for the first time in the top 10 highest paid skills.

"As more businesses look to build out their tech infrastructures, employers need solutions to securely store, manage and process large sets of data," said Mr. Melk. "Professionals with big data or cloud expertise continue to serve as high priority candidates. Profitable companies today understand employing tech professionals who understand business goals and strategic priorities are more than employees, they're partners in achieving success."

RELOCATING

Are you more or less willing to relocate to a new city or state for a job than one year ago?

43%

Same now as a year ago

27%

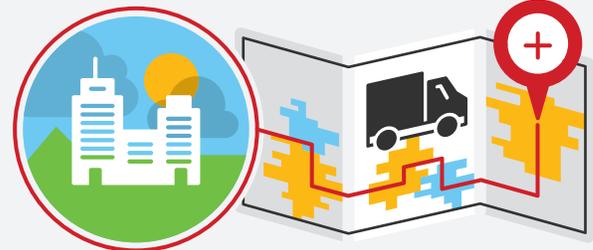
Less willing to relocate now

25%

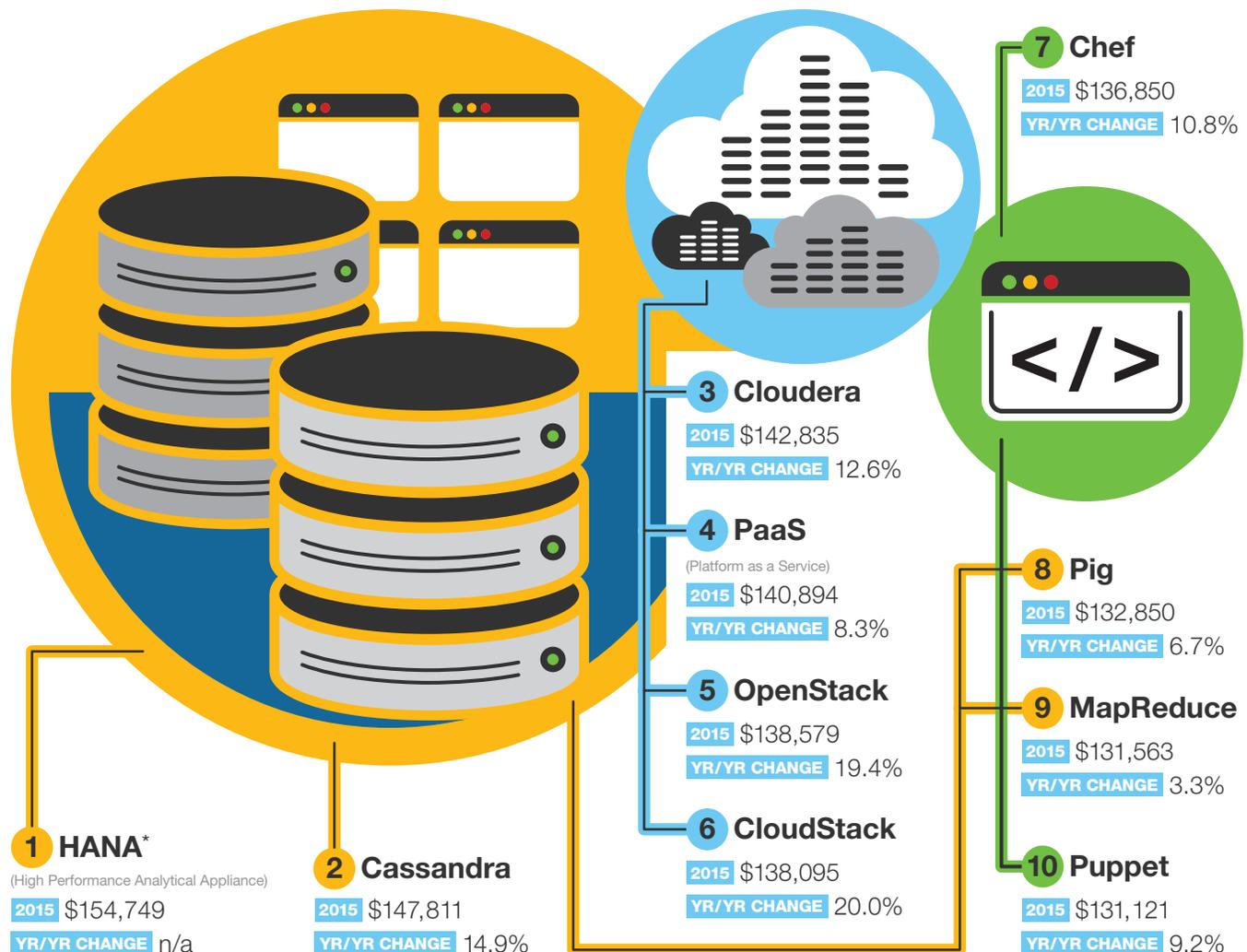
More willing to relocate now

5%

Not sure

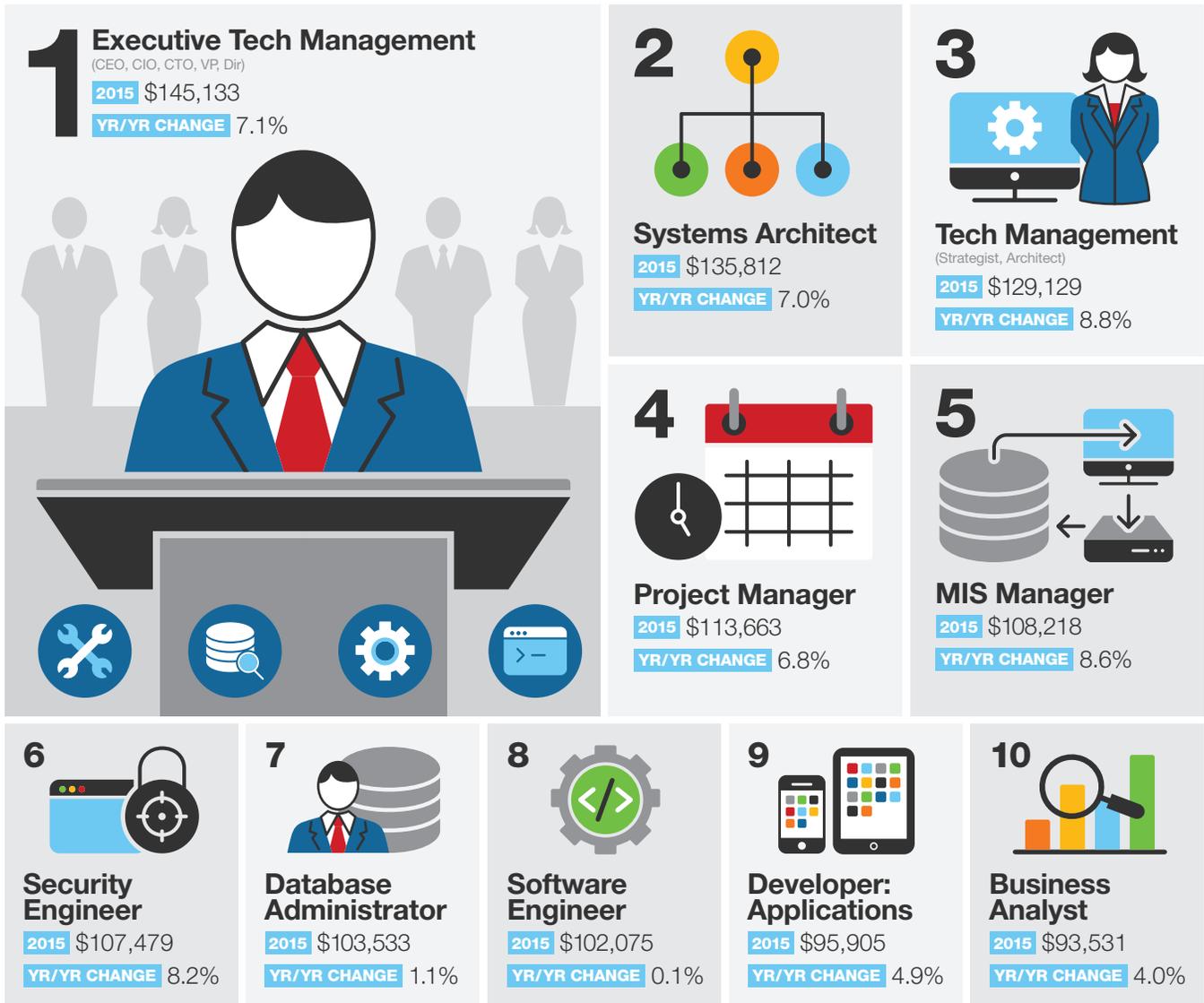


TOP 10 HIGHEST PAYING TECH SKILLS



* New tech skills added to the 2015 survey and therefore yr/yr change is not available.

TOP SALARIES BY JOB TITLE



	JOB TITLE	2015	YR/YR CHANGE
11	Developer: Database	\$ 91,248	-0.2%
12	Network Engineer	\$ 87,897	7.1%
13	Programmer/Analyst	\$ 87,388	6.3%
14	Quality Assurance Tester (QA)	\$ 86,058	12.0%
15	Systems Administrator	\$ 83,565	13.4%
16	Web Developer/Programmer	\$ 82,653	7.7%

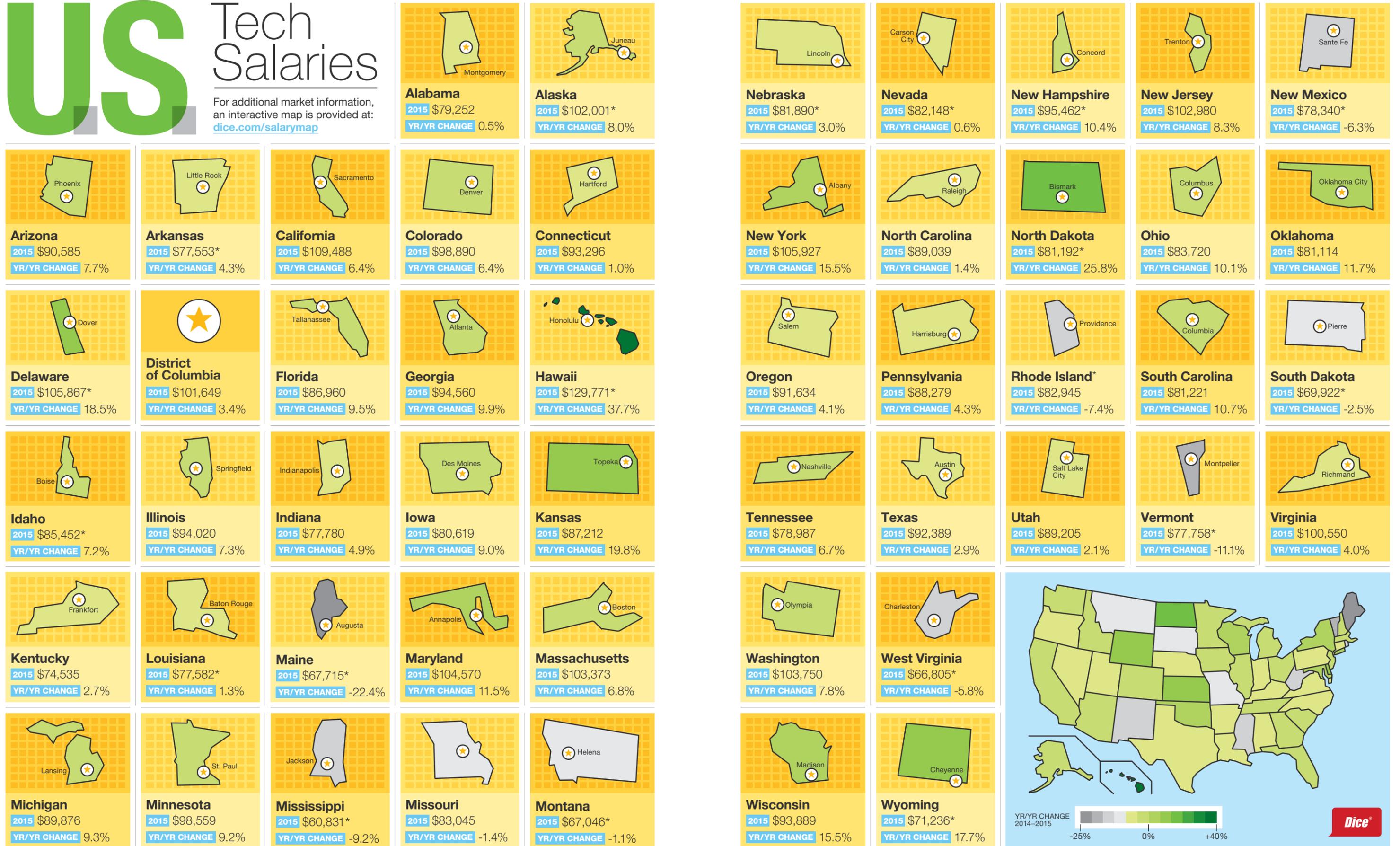
	JOB TITLE	2015	YR/YR CHANGE
17	Security Analyst	\$ 81,819	-2.4%
18	Technical Support	\$ 59,236	9.8%
19	Desktop Support Specialist	\$ 52,616	7.5%
20	Help Desk	\$ 43,599	0.9%
21	PC Technician	\$ 42,614	3.3%

AVERAGE SALARY BY EMPLOYMENT TYPE



US Tech Salaries

For additional market information, an interactive map is provided at: dice.com/salarymap



* Sample size is less than 100 respondents, therefore, not statistically valid, but presented for continuity purposes only.

RISING SALARIES PRESENT CHALLENGES FOR EMPLOYERS

Rising salaries for tech professionals are putting the squeeze on employer budgets when it comes to new hiring, making it more important than ever for recruiters and HR professionals to find tech candidates with the right mix of skills and experience.

Tech salaries rose 7.7 percent between 2014 and 2015, the biggest year-over-year increase in the history of Dice's Salary Survey. As ranked by salary, the most popular tech skills included enterprise applications, programming, databases, operating systems, and cloud/virtualization. Specialists in the following skills could expect especially generous payouts:

	JOB TITLE	2015		JOB TITLE	2015
1	HANA	\$154,749	6	CloudStack	\$138,095
2	Cassandra	\$147,811	7	Chef	\$136,850
3	Cloudera	\$142,835	8	Pig	\$132,850
4	PAAS	\$140,894	9	MapReduce	\$131,563
5	OpenStack	\$138,579	10	Puppet	\$131,121

Despite rising salaries and bonuses, however, a full third of tech professionals (32 percent) told Dice they

weren't happy with their current pay, up slightly from 31.6 percent in 2014. That's despite 62 percent of professionals reporting a salary increase from the previous year, and 37 percent receiving a bonus.

Based on responses to the survey, it seems that many employers aren't offering flexibility, interesting assignments, or training as a primary means of retaining their best and brightest. Around 33 percent of respondents said their workplace had given them no "primary motivator" in 2015. Although 17 percent of employers provided increased compensation as a way of keeping their employees happy, far fewer resorted to flexible work hours (9 percent), the option to telecommute or head to a flexible work location (13 percent), interesting or challenging assignments (12 percent) or training and certification courses (3 percent). A breakdown of the top six motivators is shown below.

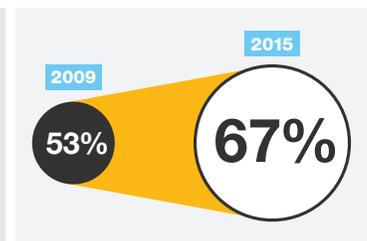
Despite the lack of motivators, previous Dice surveys and reports have demonstrated that an emphasis on work-life balance (and perks) is just as effective as salary when it comes to keeping tech professionals engaged.

TOP 6 MOTIVATORS

What was the primary motivator your employer provided you in 2015?



Percentage of employers providing motivators to retain talent.





While salaries in some regions and industries experienced minor decreases between 2014-15, there was a strong upward trend in salaries across the country as a whole. Expect that trend to continue into 2016.

For employers, there are several takeaways from this year's salary data. First, experienced tech professionals with specialized skill-sets can demand even higher salaries, which can make things more complex when it comes to attempting to hire the very best talent. While salaries in some regions and industries experienced minor decreases between 2014-15, there was a strong upward trend in salaries across the country as a whole. Expect that trend to continue into 2016.

Shape the Narrative

So how does an employer actually pull in the best talent? Let's picture for a moment that you're the head of a medium-sized tech company, one that produces apps for Apple's iOS and Google Android. Your competitive landscape is aggressive, with rival firms constantly threatening to release more feature-rich products. The difference between success and failure rests on your recruiting staff's ability to draw in mobile developers, data analysts, and other technology professionals who can not only iterate on your existing products, but also discover new market opportunities.

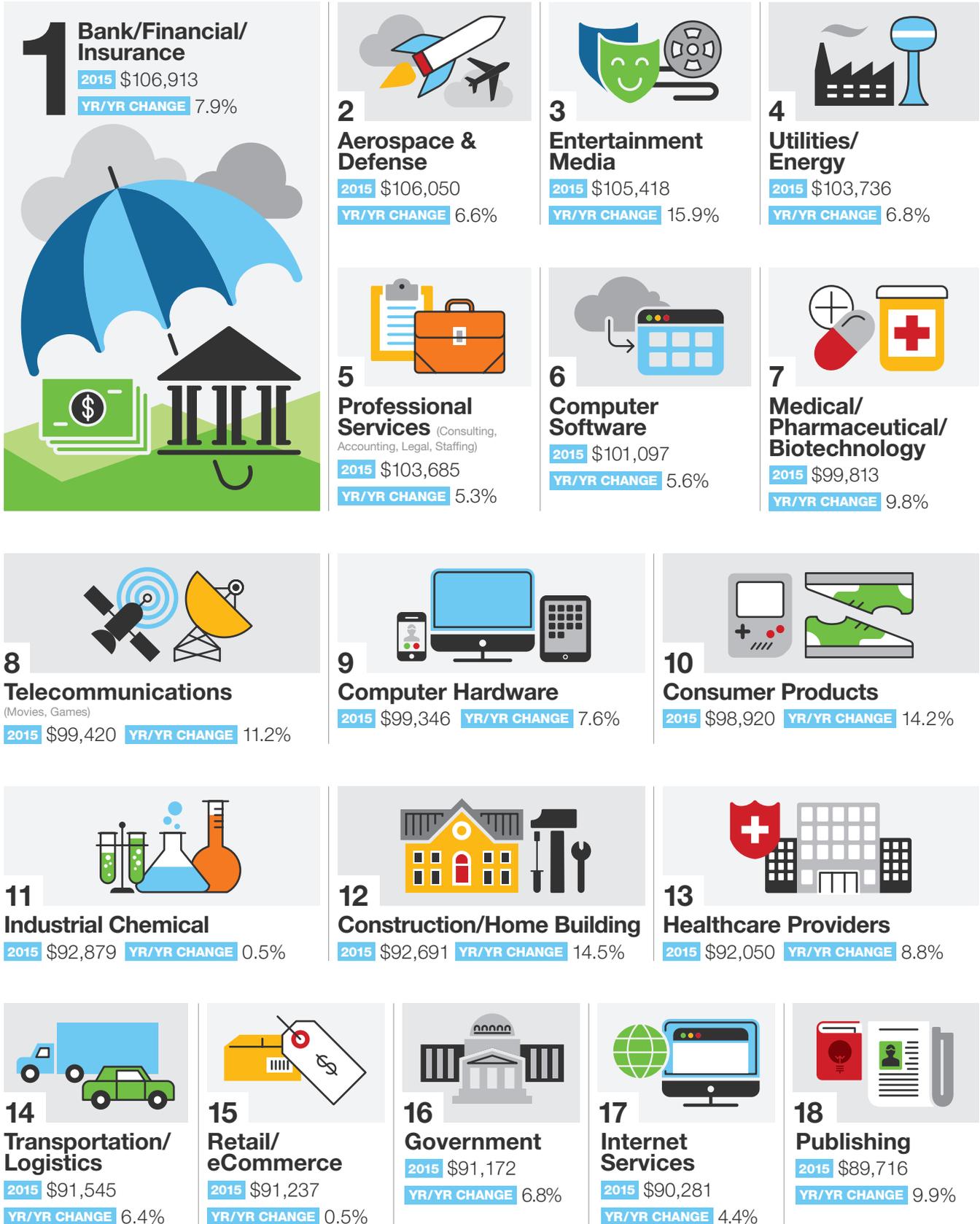
In a major tech hub such as San Francisco or New York City, or even an up-and-coming city such as Raleigh, there's a lot of talent present, although high costs of

salaries and low unemployment might make them hard to secure. Rising salaries mean that even tech professionals with a smaller portfolio of skills have more good opportunities to choose from. As a recruiter, the best way to differentiate yourself is to emphasize your firm's willingness to let employees telecommute or work "non-traditional" hours, or help with education costs related to new skills and certifications—basically, any benefits that don't necessarily fall under the rubric of "salary."

As major firms such as Google have demonstrated over the years, onsite perks such as cafeterias, gyms, dry cleaning, and "pet friendly" offices can also play a significant role in attracting the talent you need. There's just one challenge when offering up such quality-of-life benefits: other companies, from the giants down to the startups, have similar benefits already on-tap.

Because of that competition, successfully hiring the best tech talent means spinning a cohesive tale of why working for your company will improve their lives and careers, as opposed to simply offering them a list of potential benefits. No matter what the job or geographic area, tech candidates will respond to a narrative that positions your company as the best thing for their careers at this moment.

TOP SALARIES BY INDUSTRY



TOP-PAYING TECH SKILLS AND EXPERIENCE

SKILL	2015	YR/YR CHANGE	SKILL	2015	YR/YR CHANGE
HANA (High Performance Analytical Appliance)	\$ 154,749	n/a	JDBC (Java Database Connectivity)	\$ 119,013	4.2%
Cassandra	\$ 147,811	14.9%	Peoplecode	\$ 118,860	4.5%
Cloudera	\$ 142,835	12.6%	Informatica	\$ 118,114	4.3%
PaaS (Platform as a Service)	\$ 140,894	8.3%	Perl	\$ 117,605	9.1%
OpenStack	\$ 138,579	19.4%	Knockout	\$ 117,493	14.9%
CloudStack	\$ 138,095	20.0%	Wan Opt	\$ 116,821	17.0%
Chef	\$ 136,850	10.8%	Essbase	\$ 116,688	n/a
Pig	\$ 132,850	6.7%	AIX	\$ 116,599	7.7%
MapReduce	\$ 131,563	3.3%	JBoss	\$ 116,457	6.0%
Puppet	\$ 131,121	9.2%	Sybase	\$ 116,183	11.0%
TcL (Tool Command Language)	\$ 130,906	17.5%	Visual C++	\$ 115,894	13.1%
Sqoop	\$ 130,865	14.5%	JSP (JavaServer Pages)	\$ 115,888	2.4%
NoSQL	\$ 130,290	9.9%	Glassfish	\$ 115,849	12.6%
Hive	\$ 129,400	7.1%	Jenkins	\$ 115,674	4.8%
Hadoop	\$ 128,888	6.2%	XSLT (Extensible Stylesheet Language Transformations)	\$ 115,554	7.0%
UML (Unified Modeling Language)	\$ 128,198	12.1%	Ruby	\$ 115,484	9.2%
SDN (Software Defined Network)	\$ 127,464	12.0%	ERP (Enterprise Resource Planning)	\$ 115,192	7.8%
Omnigraffle	\$ 127,392	11.1%	Load Balancers	\$ 115,087	9.2%
Fortran	\$ 127,359	24.1%	Qlik Tech	\$ 115,013	5.8%
SOA (Service Oriented Architecture)	\$ 127,268	7.4%	ETL (Extract Transformation and Load)	\$ 114,931	1.9%
R	\$ 126,249	9.7%	Fibre Channel	\$ 114,587	9.7%
Docker	\$ 126,131	n/a	Weblogic	\$ 114,567	1.7%
Netezza	\$ 126,035	13.0%	EMC	\$ 114,449	8.9%
ABAP (Advanced Business Application Programming)	\$ 125,589	1.1%	Splunk	\$ 114,423	5.9%
webMethods	\$ 125,292	14.2%	RDBMS (Relational Database Management System)	\$ 114,284	0.2%
ISO 27000	\$ 124,646	n/a	3Par	\$ 114,043	5.6%
CMMI (Capability Maturity Model Integration)	\$ 124,265	7.6%	VX Works	\$ 113,977	5.0%
EMC Documentum	\$ 124,138	8.4%	C	\$ 113,843	6.2%
Solr	\$ 124,036	5.7%	Postgres	\$ 113,780	6.5%
Hibernate	\$ 123,948	10.7%	Nginx	\$ 113,771	8.3%
Korn Shell	\$ 123,738	10.4%	PCI (Peripheral Component Interconnect)	\$ 113,769	13.3%
Informix	\$ 123,023	19.6%	BABOK (Business Analytics Body of Knowledge)	\$ 113,566	n/a
Hbase	\$ 122,386	-3.2%	SDLC (System Development Life Cycle)	\$ 113,554	5.9%
Data Scientist	\$ 122,383	4.7%	SUN	\$ 113,509	16.5%
Redis	\$ 122,023	10.1%	Oracle eBusiness	\$ 113,350	11.6%
PMBok	\$ 121,731	8.5%	Amazon AWS	\$ 113,336	8.6%
Jetty	\$ 121,525	7.5%	PowerBuilder	\$ 113,329	14.0%
Symbian	\$ 121,358	38.8%	XAML (Extensible Application Markup Language)	\$ 113,269	n/a
Big Data	\$ 121,328	4.2%	Kanban	\$ 113,220	6.7%
HP-UX	\$ 120,930	12.9%	Spark	\$ 113,214	6.8%
Groovy	\$ 120,484	12.4%	Waterfall	\$ 113,092	4.8%
MicroStrategy	\$ 120,184	10.2%	TOAD (Tool for Application Development)	\$ 113,007	10.1%
Matlab	\$ 120,182	17.8%	Cloud Computing	\$ 112,972	8.2%
SOX (Sarbanes Oxley)	\$ 120,171	11.4%	Lean	\$ 112,770	7.2%
DOORS (Dynamic Object-Oriented Requirements System)	\$ 119,936	11.6%	FreeBSD	\$ 112,645	13.7%
Zookeeper	\$ 119,763	1.0%	NetApp	\$ 112,627	7.0%
HP Eva	\$ 119,516	15.1%	Change Management	\$ 112,606	6.8%
Objective C	\$ 119,507	9.4%	Hitachi	\$ 112,388	8.9%
Mongo DB	\$ 119,207	7.8%	Teradata	\$ 112,327	5.4%
Solaris	\$ 119,151	11.9%	Business Intelligence	\$ 112,118	7.9%

NOTE: Several new tech skills were added to the 2015 survey and therefore yr/yr change is not available.

Continued on pg. 13

SKILL	2015	YR/YR CHANGE
Oracle DB	\$ 112,097	10.8%
Swift	\$ 112,077	n/a
Vagrant	\$ 111,963	n/a
Cognos	\$ 111,927	8.1%
EDI (Electronic Data Interchange)	\$ 111,896	7.8%
Rally	\$ 111,803	n/a
Websphere	\$ 111,615	3.3%
SOAP (Simple Object Access Protocol)	\$ 111,549	6.0%
JDE (JD Edwards)	\$ 111,320	6.4%
SaaS (Software as a Service)	\$ 111,208	6.9%
JIRA	\$ 111,103	8.3%
Alfresco	\$ 111,087	-1.5%
Scrum	\$ 111,006	5.5%
ITIL (Information Technology Infrastructure Library)	\$ 110,911	7.6%
Infosphere Data Stage	\$ 110,876	6.9%
Tomcat	\$ 110,863	7.3%
Agile	\$ 110,833	6.1%
DHTML	\$ 110,729	13.4%
Azure	\$ 110,707	5.0%
C++	\$ 110,643	8.9%
Confluence	\$ 110,427	3.7%
Balsamiq	\$ 110,393	8.5%
Rackspace	\$ 110,306	12.7%
Node.js	\$ 109,926	n/a
Python	\$ 109,782	8.4%
FCoE (Fibre Channel Over Ethernet)	\$ 109,757	-3.1%
Microsoft Project	\$ 109,751	7.7%
Angular	\$ 109,542	6.3%
Telepresence	\$ 109,326	11.2%
Six Sigma	\$ 109,296	7.9%
JSON (JavaScript Object Notation)	\$ 109,248	n/a
Java/J2EE	\$ 109,245	6.2%
Optical	\$ 109,221	17.8%
Django	\$ 109,017	2.8%
Apex	\$ 108,972	13.4%
Disaster Recovery	\$ 108,947	7.6%
BASH (Bourne Again SHell)	\$ 108,861	7.9%
Shell	\$ 108,737	6.3%
Data Warehouse	\$ 108,675	5.5%
Axure RP	\$ 108,606	6.6%
Siebel	\$ 108,319	6.2%
Pure Storage	\$ 108,261	n/a
ISO 9000	\$ 108,074	9.9%
Workday	\$ 108,026	n/a
SAP	\$ 108,014	6.6%
FoxPro	\$ 108,014	14.7%
Apache Web Server	\$ 107,915	11.1%
Salesforce.com	\$ 107,810	8.4%
Adobe Lightroom	\$ 107,615	n/a
MPLS (Multi Protocol Label Switching)	\$ 107,592	8.4%

SKILL	2015	YR/YR CHANGE
Unix	\$ 107,394	8.3%
Web App Firewall	\$ 107,356	8.1%
Metro Ethernet	\$ 106,987	11.6%
Easytrieve	\$ 106,978	11.3%
Backbone	\$ 106,936	12.7%
Unified Communication	\$ 106,857	9.2%
MVS (Multiple Virtual Storage)	\$ 106,769	1.8%
ASP	\$ 106,498	12.8%
DB2	\$ 106,476	3.3%
Xen	\$ 106,456	11.6%
Compellent	\$ 106,336	4.9%
SAN (Storage Area Network)	\$ 106,173	9.5%
iSCSI (Internet Small Computer System Interface)	\$ 105,918	14.2%
Final Cut	\$ 105,880	36.0%
RPG (Report Program Generator)	\$ 105,807	7.4%
Visio	\$ 105,797	7.5%
Cyber Security	\$ 105,781	10.4%
PL/SQL	\$ 105,658	6.3%
XML (Extensible Markup language)	\$ 105,641	8.2%
Ajax	\$ 105,538	6.2%
Heroku	\$ 105,408	n/a
QoS (Quality of Service)	\$ 105,186	14.3%
OS 390	\$ 105,079	5.1%
ColdFusion	\$ 105,048	9.1%
HL7	\$ 104,972	5.4%
IDS/IPS (Intrusion Detection/Protection Systems)	\$ 104,923	11.7%
SAS (Statistical Analysis System)	\$ 104,912	6.0%
Virtualization	\$ 104,887	7.9%
COBOL (Common Business-Oriented Language)	\$ 104,878	7.9%
CRM (Customer Relationship Management)	\$ 104,657	5.3%
Linux	\$ 104,606	7.8%
vCloud	\$ 104,501	2.5%
QA (Quality Assurance)	\$ 103,924	7.4%
ASP.net	\$ 103,801	6.9%
C#	\$ 103,738	6.8%
Tivoli	\$ 103,727	6.3%
Application Delivery	\$ 103,658	9.0%
Lawson	\$ 103,626	9.4%
Alcatel Lucent	\$ 103,557	13.8%
SNMP (Simple Network Management Protocol)	\$ 103,395	n/a
Microsoft SQL	\$ 103,027	9.6%
CICS (Customer Information Control System)	\$ 103,013	5.0%
KVM (Kernel-based Virtual Machine)	\$ 102,884	10.3%
IBM XIV	\$ 102,859	n/a
.NET	\$ 102,683	7.1%
HIPAA (Health Insurance Portability and Accountability Act)	\$ 102,523	9.9%
NAS (Network Attached Storage)	\$ 102,403	11.6%
Oracle Application Server	\$ 102,371	6.5%
CPOE (Computerized Provider Order Entry)	\$ 102,329	5.6%
JCL (Job Control Language)	\$ 102,257	3.4%

NOTE: Several new tech skills were added to the 2015 survey and therefore yr/yr change is not available.



Dice Salary Survey Methodology

The 2015 Dice Salary Survey was administered online by Dice.com, with 16,301 employed technology professionals responding between October 6, 2015 and November 25, 2015. Respondents were invited to participate in the survey in one of two ways: 1) via an email invitation to Dice.com's registered ("searchable") database members; 2) through a notification on the Dice.com home page and/or via "pop-up" invitations. The latter method was used only to improve response rates for a very small number of respondent types. A cookie methodology was used to ensure that there was no duplication of responses between or within the various sample groups, and duplicate responses from a single email address were removed. The Dice Salary Survey was adjusted for inflation in 2014: technology professionals earning salaries of \$250,000 and above were not automatically eliminated from the survey if they met other criteria.

About Dice

Technology powers companies. Professionals power technology. Dice quickly delivers the opportunities, insights and connections technology professionals and employers need to move forward. Learn how to effectively move forward at dice.com. Dice is a DHI Group, Inc. service.

