### SPECIAL ISSUE OF THE IBIT REPORT

The Association for Information Systems and Temple University

# INFORMATION SYSTEMS JOB INDEX

2024

LEARN ABOUT THE IS ENTRY LEVEL JOB MARKET









**EDITORIAL TEAM** 

Laurel Miller | Michael Dinger | Nicholas Bortz | Munir Mandviwalla

kyndryl.

# INFORMATION SYSTEMS JOB INDEX 2024

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### THE IBIT REPORT

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### **ABOUT THE IS JOB INDEX**





### The Information Systems Information Systems

Job Index is the only national longitudinal assessment of jobs, placement, demographics, search, acceptance, geographical patterns, and knowledge of information systems (IS), management information systems (MIS), and computer information systems (CIS) graduates. Inaugurated in 2013 and published every 2 years, each report is based on several thousand labor market entrants from more than 30 universities across the United States.

LEARN MORE AT ISJOBINDEX.COM

### SPONSOR -

Thanks to **Kyndryl** for making the 2024 report possible.

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### **ACKNOWLEDGMENTS**

Thanks to Matt Nelson,
Melissa Heeke,
and Aretha Wright
from AIS for their support.

# FOREWORD



With the emergence of new technologies like generative AI – frequently asked questions are: how will this technology impact my job? Will my job still exist next year? In five years? Today more than ever, choosing a career path in Information Systems – or more broadly the ever-evolving world of technology – is no small feat. It's a field that is constantly progressing and where one new development can drastically change our everyday lives.

However, as technology becomes more advanced and pervasive in society, it adds additional complexity to already intricate digital ecosystems. For any technology – whether AI related or something else – to be integrated and adopted at scale, deliver a return on investment and drive business impact through increased productivity and providing more customized insights, specific skills are needed. While the concern for employees, or those entering the job market, may be job security, the concern for companies is, do we have the necessary skills to successfully integrate and adopt this technology within our business?

As the previous Chief Information Officer and current Global Practice Leader for Applications, Data and AI at Kyndryl, an IT infrastructure services company, our sole focus is supporting customers on their digital transformation journeys. And as a services company, we are a people company, which means identifying, harnessing and utilizing our expertise and technical skills to support customers is the only way to achieve success.

I've always prioritized investing in relationships, like the one with Temple University's Fox School of Business, to support our next generation in developing the skills they need to be successful and support the businesses of today in the future of tomorrow. Given the demand for technical skills is higher than ever – and will likely only grow – I'm thrilled to introduce the sixth biennial iteration of the Information Systems Job Index. It is a rich, data-based resource that can inform the next generation in their job search and career, create open new doors and spur new ideas.

### Michael Bradshaw

SVP & Global Practice Leader, Kyndryl

# ABOUT THE AUTHORS



### **Laurel Miller**

Laurel Miller is Associate Professor in the Department of Management Information Systems (MIS), and Director, Institute for Business and Information Technology (IBIT) at the Fox School of Business, Temple University. As Director of IBIT, Laurel manages industry engagement including a corporate partnership program, advisory board, IT awards, executive-in-residence, symposiums, scholarships and a mentoring program. Laurel co-founded IBIT and has raised more than \$6 million in funding. Laurel is co-creator of a software platform, which recently received a patent, and is co-founder of a Temple University spinoff-PRO Community, LLC on student and employee development. In 2023, Laurel won the Musser Award for Excellence in Faculty Service. She earned her Bachelor of Science and Master of Science in Education degrees from Temple University.



### Michael Dinger

**Michael Dinger** is an Associate Professor of Information Systems and Business Analytics in the Hankamer School of Business at Baylor University. He received a Ph.D. in Management Information Systems from Clemson University. His research interests include IT workforce management, social media, and virtual communities. His work appears in Information Systems Research, Journal of the Association for Information Systems, Journal of Management Information Systems, MIS Quarterly, and other outlets. He currently serves as an Associate Editor for Communications of the AIS.



### Nicholas Bortz

**Nicholas Bortz** is a senior at the Fox School of Business, Temple University, pursuing a Bachelor of Business Administration with a major in Management Information Systems. He is highly engaged in student organizations and has taken on leadership roles within the PRO community. In addition to his role as an IS Job Index Research Assistant, Nicholas is actively involved in the MIS community, serving as an information technology assistant for several courses. Through multiple internships, he has gained valuable experience and knowledge in the IS field.



### Munir Mandviwalla

Munir Mandviwalla is Professor of Management Information Systems, Milton F. Stauffer Senior Research Fellow, and Executive Director of the Institute for Business and Information Technology at the Fox School of Business, Temple University. Mandviwalla applies design to improve business and society on topics such as digital transformation, broadband, social media, and IT workforce. His research has been published in top journals including MIS Quarterly, Information Systems Research, ACM Transactions, Public Administration Review, and others. He leads the Institute for Business and Information Technology, which engages with industry on knowledge and human capital development. Mandviwalla has received awards from AIS, IBM, Microsoft, Claremont Graduate University, and Temple University. He holds a BSc from Boston University, and an MBA and PhD both from Claremont Graduate University.

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# 2024 IS SNAPSHOT

# About the IS Industry

Information Systems (IS) professionals apply and develop Information Technology (IT) in organizations, and comprise a significant portion of the IT labor market.

### WHO ARE THESE PROFESSIONALS AND WHAT DO THEY DO?

- + Data Analysts
- + Digital Transformation & AI Consultants
- + Application Developers
- + Chief Information Officers (CIO) & Chief Technology Officers (CTO)



IS professionals are experts in **developing, applying, modifying,** and **strategizing technology** to digitally transform organizations. IS professionals work with other business professionals including computer scientists and engineers to create platforms that **integrate digital technologies** to design solutions that solve organizational problems.

### THE 2024 IS JOB MARKET IS STEADY



### JOB PLACEMENT RATE\*

At Graduation

6-Months after Graduation

BACHELOR'S: **62%** 

62%

MASTER'S: 29% 74%



# CONFIDENCE IN JOB MARKET

BACHELOR'S: 25%
MASTER'S: 23%



#### **AVERAGE SALARY**

BACHELOR'S: **\$77,758**MASTER'S: **\$96,164** 

<sup>\*</sup>At graduation placement is calculated for spring graduates, while 6-month placement is calculated for earlier graduates. 2024 placement is 62.3% at graduation and 61.8% after six months representing the two different samples

### **BACHELOR'S IN IS**

A Bachelor's in IS ranked as the **highest average salary** among all business

majors. (NACE Salary Survey, Winter, 2024)



### **MASTER'S IN IS**

Master's degrees in IS rank among the **top 10 degrees** in demand by employers. (NACE Salary Survey, Winter, 2024)

### **ABOUT THE IS JOB MARKET**

There are over an estimated 5.1 million jobs in the U.S. relevant to IS.1

There are approximately **2,000 IS programs** in the U.S., which are often offered in **Business Schools,** as well as in standalone Information Schools or integrated with Computer Science. IS programs are classified as **STEM** and are typically called:

- + Management Information Systems (MIS)
- + Information Systems (IS)
- + Computer Information Systems (CIS)



The recruitment, mindset, education, demographics, career paths, skills, and jobs of IS professionals are different and yet remain poorly understood. The IS labor market remains largely hidden because it is mixed with computer scientists and computer engineers.

 $1.\,Bureau\ of\ Labor\ Statistics,\ Occupational\ Employment\ and\ Wage\ Statistics,\ May\ 2023.$ 

### IS Students are Happy About Their Future Jobs



# SATISFACTION & ENTHUSIASM ABOUT JOB OFFER

BACHELOR'S: **76%**MASTER'S: **55%** 



## OFFER FROM APPEALING ORGANIZATION

BACHELOR'S: **81%**MASTER'S: **68%** 



### JOB IS A GOOD FIT

BACHELOR'S: **70%**MASTER'S: **66%** 

# Participating Colleges & Universities BY REGION

Thanks to the 35 universities across the nation that agreed to formally participate in the 2024 IS Job Index.































































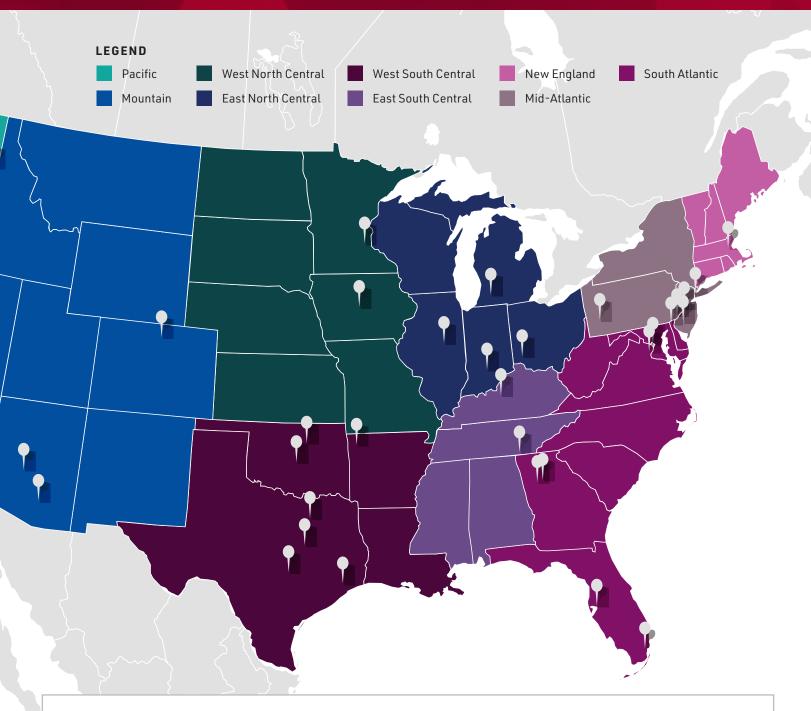








### 1371 recent graduates from 35 universities across the nation



Special thanks to the following individuals at the participating universities: Gwanhoo Lee, American University; Pei-yu Chen, Arizona State University; Jonathan Trower, Baylor University; Monica Garfield, Bentley University; Ron Delfine, Carnegie Mellon University; Leo Vijayasarathy, Colorado State University; Karlene Cousins, Florida International University; Cynthia Bush and Mark Silver, Fordham University; Pallab Sanyal, George Mason University; Bala Ramesh, Georgia State University; Joe Johnston, Illinois State University; Jingjing Zhang, Indiana University; Kevin Scheibe, Iowa State University; Khawaja Saeed, Kennesaw State University; Ramesh Sharda and Rick Wilson, Oklahoma State University; Emre Yetgin, Rider University; Michael Milovich, Rowan University; Leslie Albert, San Jose State University; Haibing Lu, Santa Clara University; Mart Doyle, Temple University; Sue Brown, University of Arizona; Shaila Miranda, University of Arkansas; Jay Prasad, University of Dayton; John D'Arcy, University of Delaware; Mark Grimes and Norman Johnson, University of Houston; Andrew Wright, University of Louisville; Gautam Ray, University of Minnesota-Twin Cities; Gregory Moody, University of Nevada, Las Vegas; Alexandra Durcikova and Radhika Santhanam, University of Oklahoma; Kaushik Dutta, University of South Florida; Hemant Jain, University of Tennessee at Chattanooga; Russ Finney, University of Texas at Austin; Syam Menon, University of Texas at Dallas; Robert Crossler, Washington State University; Carrie Song, Western Michigan University.

# Profile of IS Job Market Entrants

**FAST FACTS** 



A quick look at the 2024 IS Job Market Entrants

BACHELOR'S Age 23 MASTER'S Age 27

**75%** of Bachelor's and **50%** of Master's had one or more internships prior to graduation.



IS graduates are still primarily male.
Female representation in undergraduate
IS degrees is down from 2022, but
graduate participation is higher.

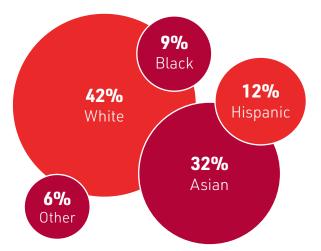


Read more about female representation **on page 15.** 



Based on 1371 recent graduates from 35 universities across the nation

IS Bachelor's graduates are mostly White and increasingly Asian. Percentage of Black graduates are up since 2022.



Read more about how IS student's ethnicities compare to other fields and about Master's students on page 16.





**BACHELOR'S** 

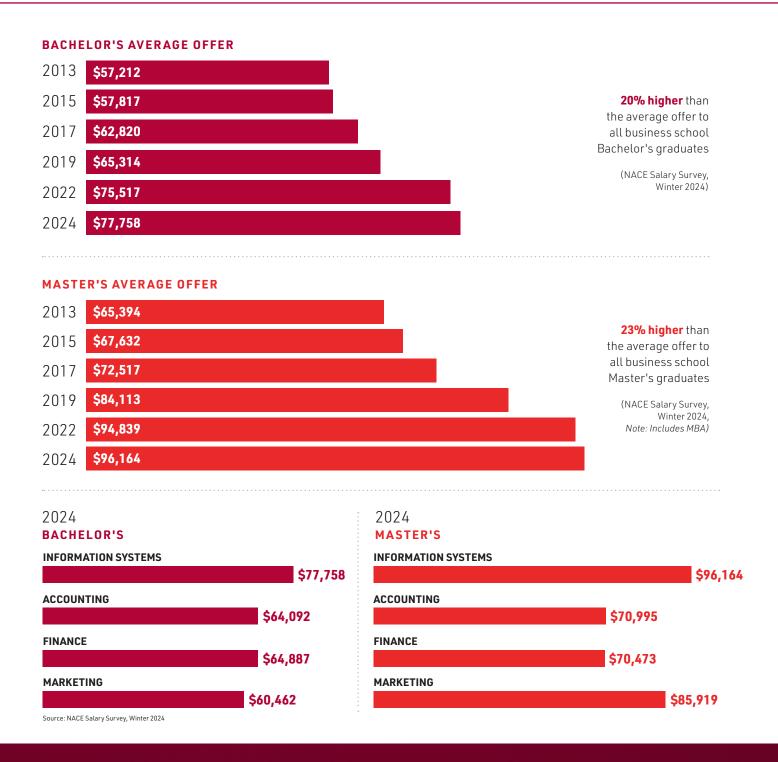
**MASTER'S** 

Read more about what impacts offers on page 20.





### Salaries & Offers overview



### KEY TAKEAWAYS

- Salaries for IS graduates are significantly higher than typical business majors for both Bachelor's and most Master's degrees.
- The average salary has marginally increased for both Bachelor's and Master's students since 2022: a 3.0% increase for Bachelor's students and a 1.4% increase for Master's students.
- Though growth has slowed since 2022, IS salaries continue to outpace business school salaries.

Average Business School Offer

BACHELOR'S \$62,777

MASTER'S \$75,691



### ABOUT KYNDRYL

Kyndryl is the world's largest IT infrastructure services provider, comprised of approximately 80,000 employees who serve thousands of enterprise customers in more than 60 countries. The company designs, builds, manages and modernizes the complex, mission-critical information systems that the world depends on every day.

Kyndryl is committed to making the complex simple-increasing the health of the vital systems at the heart of the digital economy and collaborating with its alliance ecosystem to co-create solutions and support customers on their digital transformation journeys. At the heart of progress, Kyndryl powers the systems that run the world. Thanks to the company's critical work, planes can take off and land, credit card transactions are successfully completed and healthcare workers can care for their patients.

**Michael Bradshaw** joined Kyndryl as its inaugural Chief Information Officer in 2021. After successfully leading the company's IT modernization and transformation,

he transitioned to become Kyndryl's Global Applications, Data and Al Practice Leader. In this role, Michael applies his firsthand experience and expertise to support customers on their digital transformation journeys and oversees a team of experts all around the world who can enable data and Al at scale.

Kyndryl's Global Applications, Data and Al Practice provides customers with end-to-end services to advise, modernize, migrate, secure and manage critical business applications and their data. Comprised of data and Al experts, the Practice also enables business insights at scale with the right data foundation, data modernization and data platform.

## Salaries & Offers by REGION

	MOVEMENT	DATTEDNIC	BACHELOR'S		CAL	\$ ARY CH	ANCE		MOVEMEN		MASTER'S		CAL	\$ ARY CHA	NCE	
	From 4	To 1	2024 SALARY	2022			2015	2013	From ↓		NS 2024 SALARY	2022		2017		2013
NEW ENGLAND	100%	100%	\$82,875	6%	17%	26%	32%	40%	•	100%	\$135,000	31%	41%	71%	60%	93%
MID- ATLANTIC	19%	31%	\$81,793	8%	29%	23%	29%	50%	59%	33%	\$105,412	6%	14%	43%	36%	89%
SOUTH ATLANTIC	17%	42%	\$76,947	7%	13%	22%	31%	32%	22%	25%	\$88,000	7%	18%	32%	53%	68%
EAST NORTH CENTRAL	26%	31%	\$74,097	8%	16%	13%	42%	39%	50%	0%	\$73,750	-24%	-1%	3%	22%	17%
EAST SOUTH CENTRAL		40%	\$79,351	6%	30%	52%	40%	45%	•	75%	\$84,100	-9%	27%	27%	18%	20%
WEST NORTH CENTRAL	15%	13%	\$67,500	0%	10%	17%	17%	23%	0 0 0 0 0 0	14%	\$70,000	0%	0%	8%	10%	40%
WEST SOUTH CENTRAL	29%	9%	\$76,362	2%	19%	26%	30%	34%	26%	33%	\$92,986	-2%	27%	29%	33%	43%
MOUNTAIN	57%	40%	\$72,491	2%	11%	18%	51%	32%	38%	14%	\$103,444	21%	31%	45%	45%	59%
PACIFIC	25%	38%	\$82,073	-14%	25%	17%	37%	48%	•	100%	\$118,200	2%	10%	30%	105%	

Notes: Blank cells indicate that there is insufficient data to interpret. 'Move from' is location of university, 'move to' is location of accepted job.

LEGEND

New England: ME, NH, VT, MA, RI, CT

Mid-Atlantic: NY, PA, NJ

South Atlantic: DE, MD, DC, VA, WV, NC, SC, GA, FL

East North Central: WI, MI, IL, IN, OH East South Central: KY, TN, MS, AL

West North Central: MO, ND, SD, NE, KS, MN, IA

West South Central: OK, TX, AR, LA Mountain: ID, MT, WY, NV, UT, CO, AZ, NM Pacific: AK, WA, OR, CA, HI

### KEY TAKEAWAYS

> 36% of Master's and 26% of Bachelor's IS students move to a job outside the region in which they got their degree.

### **BACHELOR'S**

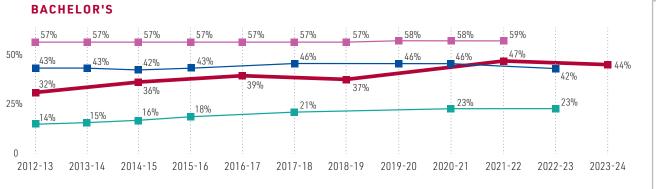
- **New England** outpaces Pacific for the highest Bachelor's salaries.
- The Mid-Atlantic and East North Central regions had the largest increase in salaries.
- Roughly 40% of the Bachelor hires in the South Atlantic, East South Central, Mountain and Pacific moved there from outside the division.
- Under 10% of Bachelor's hires in West South Central are from outside the region.
- > 2024 shows evidence of labor market turbulence, with big increases in regions outside Silicon Valley, and salaries decreasing in others.
- Only 15% of Bachelors who went to school there move out of West North Central, making them the Bachelor's graduates least likely to relocate.
- Bachelors who graduate from a school in the New England and Mountain divisions are highly mobile since most leave those divisions for jobs elsewhere in the country.

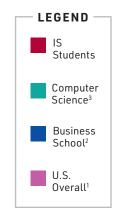
### **MASTER'S**

- > New England and the Pacific offer the highest salaries for Masters graduates.
- New England and Mountain regions showed the highest percentage growth in salaries, with both growing over 20% since 2022.
- Masters who graduate from a school in the Mid-Atlantic and East North Central are highly mobile since about half or more leave those areas for jobs elsewhere in the country.

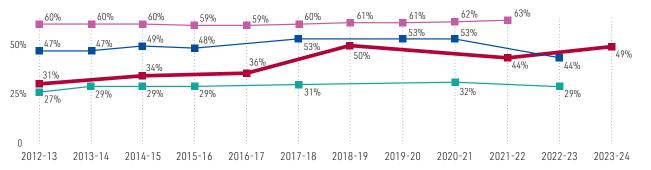
# Representation by Gender & International Students

Female representation in the IS Bachelors (43.8%) does still outpace female participation at the undergraduate level in Business Schools (42.4%).





#### MASTER'S



- National Center for Education Statistics, Degrees conferred by postsecondary institutions https://nces.ed.gov/ programs/digest/d23/tables/ dt23\_322.20.asp
- AACSB, Enrollment by Gender.
   AACSB 2022-2023 BSQ
   Programs Module, Enrollment by Gender
- 3. Taulbee Survey, Degrees Awarded, 2023 (international students are classified as a separate ethnic group). http://cra.org/wp-content/ uploads/2024/05/2023-CRA-Taulbee-Survey-Report.pdf
- 4. Independent Samples T-test, 95% confidence

INTERNATIONAL STUDENTS VS. DOMESTIC STUDENTS



90/0 BACHELOR'S DEGREE

70% MASTER'S DEGREE International Students

### KEY TAKEAWAYS

> Female and Male IS graduates **did not indicate significantly different levels of confidence** in their IS job search or in the overall IS job market.<sup>4</sup>

### **BACHELOR'S**

- IS Bachelor's female representation has fallen slightly from a peak of 47% in 2021-22, but still shows a continual upward trend since 2012-13.
- IS Bachelor's female representation continues to be almost double that of computer science, but falls short of the overall US undergraduate participation rate (58.5%).

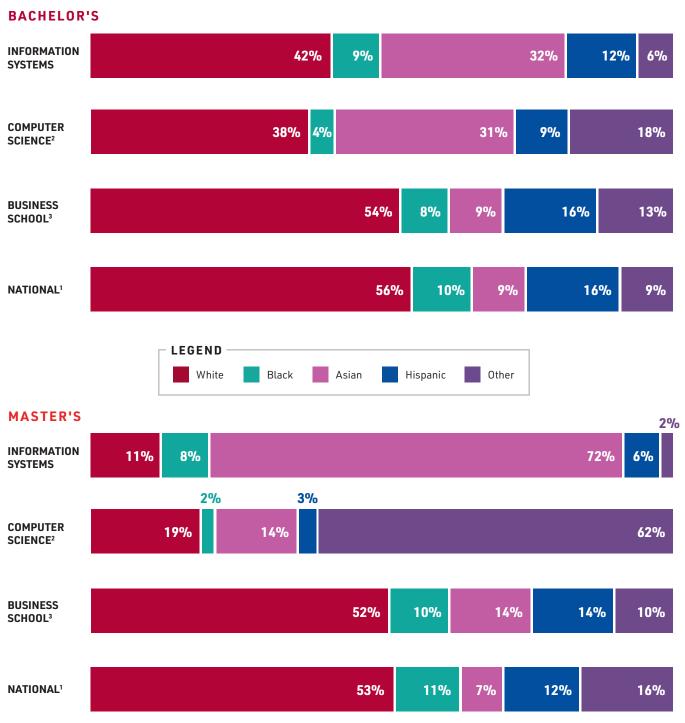
#### **MASTER'S**

- For the first time, Masters-level female participation is higher than that of graduate level participation in US Business Schools (43.8%).
- IS Master's female graduates increased over 2021-22, falling just short of the recorded peak of 50.4% in 2018-19.

### INTERNATIONAL

- International female IS graduates are represented more equally at about 57.5% of Bachelor's enrollment and 47.6% of Master's enrollment, among international students.
- International IS Bachelor's placement is 50% at graduation and 80% six months after, while Masters placement is 13% upon graduation and 75% six months after graduation.

# Representation BY ETHNICITY



 $<sup>1.\</sup> National\ Center for\ Education\ Statistics,\ Degrees\ conferred\ by\ postsecondary\ institutions.\ https://nces.ed.gov/programs/digest/d23/tables/dt23\_322.20.asp$ 

<sup>2.</sup> Taulbee Survey, Degrees Awarded, 2023 (international students as a separate ethnic group). http://cra.org/wp-content/uploads/2024/05/2023-CRA-Taulbee-Survey-Report.pdf 3. AACSB, Enrollment by Ethnicity. AACSB 2022-23 BSQ Programs Module, Enrollment by Race/Ethnicity (US Only)

At the Bachelors level, the representation of African Americans is roughly double that of computer science, and at the Masters the gap increases to around 4 times that of computer science.

There are about 6 times more Asian IS Masters graduates than the next largest ethnic group.

# Salaries & Offers by INDUSTRY

VERYLARGE	% of Graduates		
(10,001 or more Employees)	74%		
\$80,154			
<b>LARGE</b> (5,001-10,000 Employees)	00/		
\$75,753	8%		
MID CIZED			
MID-SIZED (1,001-5,000 Employees)	8%		
\$66,833	0 70		
SMALL	701		
(101-1,000 Employees)	6%		
\$65,679			
VERY SMALL			
(1-100 Employees) <b>\$78,667</b>	4%		

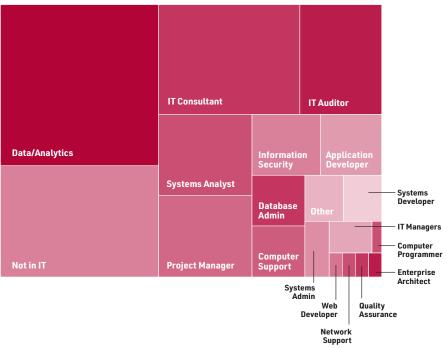
VERY LARGE (10,001 or more Employees) \$102,743	% of Graduates <b>55%</b>
LARGE (5,001-10,000 Employees) \$75,400	8%
MID-SIZED (1,001-5,000 Employees) \$76,229	10%
SMALL (101-1,000 Employees) \$93,529	20%
VERY SMALL (1-100 Employees) \$92,167	7%

BACHELOR'S   Average Salary Breakdown by Ind	ustry
INDUSTRY % of Gra	duates
INFORMATION TECHNOLOGY	
\$83,994	13%
FINANCIAL SERVICES / BANKING / ACCOUNTING	
\$79,989	21%
GOVERNMENT: FEDERAL (INCLUDING MILITARY)	
\$79,214	3%
BUSINESS SERVICES / CONSULTING	
\$78,837	29%
PETROLEUM / ENERGY	
\$77,143	3%
BIOTECHNOLOGY/PHARMACEUTICAL/HEALTHCARE/MEDICAL SERVICES	
\$77,094	7%
MANUFACTURING (INCLUDING AUTOMOBILE, APPLIANCES, GOODS, FABRICATION, DEVICES)	
\$75,414	3%
SERVICE INDUSTRIES (FOOD, SOCIAL, LEISURE)	
\$74,400	2%
CONSUMER PRODUCTS / WHOLESALER / RETAILER / DISTRIBUTOR	
\$72,625	7%
TRANSPORTATION / UTILITIES (ENERGY, WATER, ETC.)	
\$69,560	2%
CONSTRUCTION / ARCHITECTURE / ENGINEERING	00/
\$64,586	3%
EDUCATION	001
\$57,356	2%
MASTER'S   Average Salary Breakdown by Indust	
	-
	duates
GOVERNMENT: FEDERAL (INCLUDING MILITARY) \$103,100	6%
FINANCIAL SERVICES / BANKING / ACCOUNTING	
\$102,618	20%
INFORMATION TECHNOLOGY	
\$100,148	28%
BUSINESS SERVICES / CONSULTING	
\$91,900	12%
BIOTECHNOLOGY/PHARMACEUTICAL/HEALTHCARE/MEDICAL SERVICES	
\$80,417	<b>7%</b>

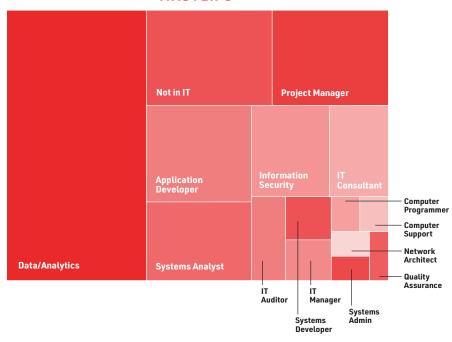
- 82% of Bachelor's and 63% of Master's IS graduates accept jobs in very large or large firms.
- 29% of IS Bachelor's and 12% of Master's graduates accepts jobs in the Business Services / Consulting field.
- The **Finance** industry ranked **#2** in salary for both Bachelors and Masters jobs, and job placements in Finance accounted for about **20%** at each level.

### BACHELOR'S | Salary Breakdown by Job Type **JOB CATEGORY SOFTWARE DEVELOPERS (SYSTEMS)** \$89,200 **SOFTWARE DEVELOPERS (APPLICATIONS)** \$85,750 INFORMATION SECURITY ANALYSTS \$84,945 **PROJECT MANAGER** \$84,379 INFORMATION TECHNOLOGY AUDITOR \$81,885 OTHER IT/IS JOBS \$81,600 INFORMATION TECHNOLOGY ADVISOR/CONSULTANT \$78,740 COMPUTER SYSTEMS ANALYSTS \$75,168 DATA/ANALYTICS \$73,711 DATABASE ADMINISTRATOR \$72,250 COMPUTER SUPPORT SPECIALISTS \$54,585 MASTER'S | Salary Breakdown by Job Type **JOB CATEGORY** SOFTWARE DEVELOPERS (APPLICATIONS) \$104,076 DATA/ANALYTICS \$98,347 PROJECT MANAGER \$95,500 INFORMATION TECHNOLOGY ADVISOR/CONSULTANT \$94,833 INFORMATION SECURITY ANALYSTS \$86,729

#### **BACHELOR'S**



### **MASTER'S**



### KEY TAKEAWAYS

- Software Development jobs are towards the top of salaries for both Bachelor's and Master's IS graduates.
- Bachelor's salaries for Software Application Developers have grown over 50% since 2013, and over 60% for Master's.

#### **BACHELOR'S**

**COMPUTER SYSTEMS ANALYSTS** 

\$82,857

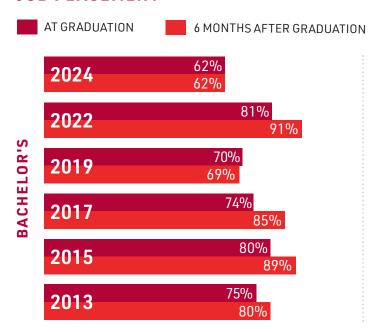
- On average, Bachelor's salaries grew about 18% since 2019.
- 14.9% of the Bachelor's are employed as IT consultants.
- **Data/Analytics** is also the top job type for **Bachelor's**, up to **24.5%** in 2024 from **19.6%** in 2022.

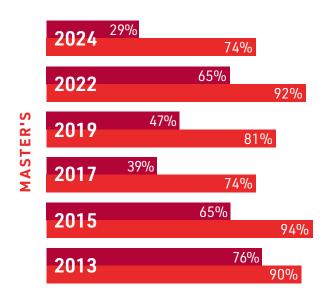
#### MASTER'S

- 36.6% of the jobs are in Data / Analytics, up from 29% of the jobs in 2022.
- 8% received Systems Analyst offers compared to 27% in 2013.

## Job Placement

### JOB PLACEMENT<sup>^</sup>





- ^ Placement is based on student's reporting their job status at the time the survey was administered. The survey was distributed to the graduating or recently graduated students of each participating university during April May 2024. Offers received after a particular student completed the survey are not reflected in the above analysis. At graduation placement is calculated for spring graduates, while 6-month placement is calculated for earlier graduates. 2024 placement is 62.3% at graduation and 61.8% after six months representing the two different samples.
- 1. AACSB, BSQ Employment Module, 2022-23. Acceptance of Job Offers for Those Seeking Employment Undergraduate.
- 2. NACE First Destinations for the College Class of 2022 (within six months of graduation). https://www.naceweb.org/docs/default-source/default-document-library/2023/publication/free-report/first-destinations-for-the-class-of-2022.pdf page 21.



- Placement in IS continues to do well relative to overall college employment outcomes, especially in a turbulent market.
- Bachelor's IS placement of 62% upon graduation is higher than the Business School rate of 54.7%¹ and the national six month rate of 59.1%².
- Master's IS placement is lower at graduation than in previous years but significantly improves by the six month mark.
- Confidence in the job market reflects tough market conditions, at only 25% for Bachelors and 23% for Masters level job seekers. However, IS students did have slightly more confidence in their ability to find work, with 42% of Bachelors and 38% of Masters job seekers reporting moderate to high confidence in their ability to find a job.

# Offers & Internships

### WHAT IMPACTS OFFERS?

	JOB OFFER RECEIVED	EXPERIENCE	APPLICATIONS	INTERVIEWS	JOB SEARCH AND PREPARATION	INTERNSHIPS
LOR'S	NO	2.6	51.1	3.1	32.9	0.9
ВАСНЕ	YES	2.2	34.0	5.0	31.1	1.8
rer's	NO	3.8	117.2	2.1	118.5	0.6
MAST	YES	4.6	91.2	5.5	110.3	1.0
	T	0 5 10 (Average Years)	0 50 100 150 (Average Number)	0 5 10 (Average Number)	0 50 100 150 (Average Hours)	0 1 2 (Average Total Number)

Internships Receive Offers				Internships	Receive Offers		
		NO	YES	S		NO	YES
	0	42%	23%	ш	0	56%	34%
	1	37%	34%	AST	1	34%	49%
	2	14%	26%	Σ	2	8%	10%
	>2	7%	17%		>2	2%	7%

<sup>1.</sup> Logistic regression including gender, race, origin, university, applications, internships, search hours, and knowledge. Internships, Applications, and University significant at < 0.05 with RSQE = .260 for Bachelors and Race, Internships, University significant at < 0.05 with RSQE = .260 for Masters.

### KEY TAKEAWAYS

- Bachelor's and Master's IS students are significantly more likely to get an offer after participating in at least one internship.<sup>1</sup>
- In a tougher labor market, it appears Bachelor's and Master's graduates are having to invest more effort in applications and job search hours in continued search for a position.

### **BACHELOR'S**

- > 77% of Bachelor's IS graduates have 1 or more internships.
- > 77% of the offers went to students with 1 or more internships.

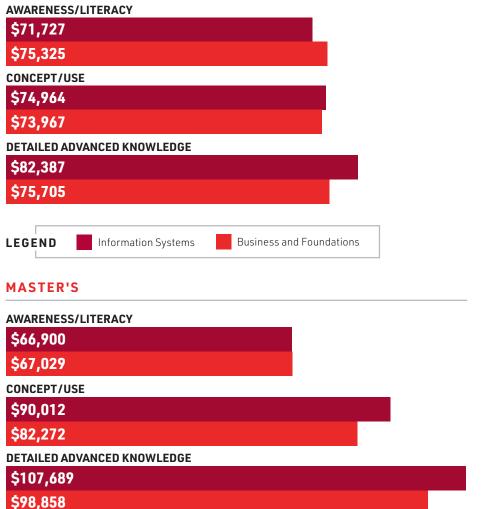
- Surprisingly, experience has virtually no impact on offers for Bachelor's or Master's.
- Given the significant role of internships in finding work, it appears internships are a critical role in setting IS graduates up for success in finding a position.

### **MASTER'S**

- > 52% of Master's IS graduates have 1 or more internships.
- > 66% of the offers went to students with 1 or more internships.

# Knowledge Level & Salary

#### **BACHELOR'S**



#### SKILL LEVEL DESCRIPTIONS-

#### **AWARENESS**

Define, list characteristics, name components, list advantage/ disadvantages

#### **LITERACY**

Can compare and contrast, explain, execute, define capabilities, describe interrelations, describe framework

### CONCEPT / USE

Can use, communicate the idea of, form abstraction, extrapolate, list concepts, comprehension and ability to use the knowledge

### DETAILED UNDERSTANDING / APPLICATION ABILITY

Detailed understanding, search for and apply correct solution, design and implement, apply the principles, can select the right thing and use

#### **ADVANCED**

Develop, originate, construct, evaluate, judge relative value

Source: Topi et al. "IS 2010 Curriculum Guidelines..." CAIS, 2010  $\,$ 

### IT DOES PAY TO STUDY

Both IS Bachelor's and Master's graduates received significantly higher salary offers as their IS knowledge increases.

#### KNOWLEDGE DEFINITIONS

### IS KNOWLEDGE

- > Improving Organizational Processes
- > Exploiting Opportunities Created by Technology Innovations
- > Understanding and Addressing Information Requirements
- > Designing and Managing Enterprise Architecture
- > Identifying and Evaluating Solution and Sourcing Alternatives
- > Software Development
- > Securing Data and Infrastructure
- > Understanding, Managing, and Controlling IT Risks

#### **BUSINESS AND FOUNDATIONAL KNOWLEDGE**

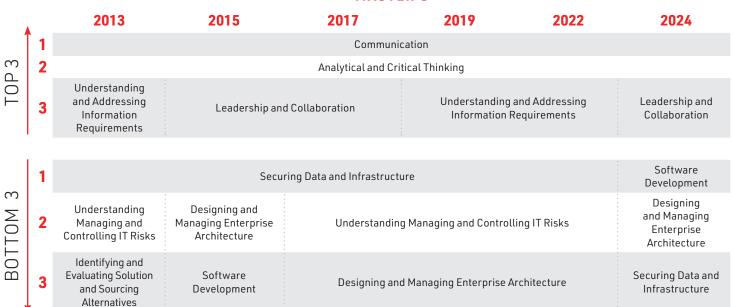
- > Leadership and Collaboration
- > Communication
- > Negotiation
- > Analytical and Critical Thinking including Creativity and Ethical Analysis
- > Mathematical Foundations
- > General Models of Business
- > Business Functions
- > Evaluation of Business Performance

Source: Adapted from Topi et al. (2010) "IS 2010: Curriculum Guidelines..." CAIS, Vol. 26, Article 18, 2010

# Knowledge Self-Ratings тор & воттом з

#### **BACHELOR'S**

		2013	2015	2017	2019	2022	2024				
1	1	Communication									
0P3	2	Analytical and Leadership and Collaboration  Critical Thinking									
	3	Leadership and Collaboration	' \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\								
'											
3	1	Securing Data and Infrastructure									
	2	Designing and Managing Enterprise Architecture	Software Development	Designing and Managing Enterprise Architecture		Software Development					
BOTTOM	3	Identifying and Evaluating Solution and Sourcing Alternatives	Designing and Managing Enterprise Architecture	Software Development	Designing a	nd Managing Enterprise A	rchitecture				
MASTER'S											



- IS Bachelor's and Master's are consistently confident about their communication, leadership, collaboration, analytical, and critical thinking skills.
- Employers rate communication, teamwork and critical as the most important competencies of career readiness.1
- IS Bachelor's are consistently unsure about their software development and cybersecurity skills.
- IS Master's graduates indicate the least confidence in their software development skills since 2015.

### WHY DO BACHELOR'S ACCEPT OFFERS?

### MOST IMPORTANT REASONS

Process Fairness

Job Fit

Organization



### **LEAST IMPORTANT REASONS**

Recruiter

Job Itself

Compensation

### WHY DO MASTER'S ACCEPT OFFERS?

### **MOST IMPORTANT REASONS**

Job Fit
Process Fairness
Values Fit



### **LEAST IMPORTANT REASONS**

Recruiter
Compensation
Job Itself

### DEFINITIONS

**JOB ATTRIBUTES:** Challenging, interesting, enjoy, freedom

JOB FIT: Looking for, match, skills, requirements

**COMPENSATION:** Salary, bonuses, benefits

**ORGANIZATION:** Size, location, coworkers, supervisor, facilities, environment

VALUES FIT: Culture, work/life, values

**REPUTATION:** Reputation, distinctive, prestigious

**RECRUITER:** Answer questions, knowledgeable, informative, valuable

**PROCESS FAIRNESS:** Timeliness, fairness, respect, helpfulness

- Both Bachelor's and Master's graduates rated **process fairness** as a top reason for job offers they accepted, indicating that treating candidates well during the hiring process can play a critical role in encouraging them to accept an offer.
- Job fit was rated as the most important reason for Master's IS graduates and second highest for Bachelor's. IS job seekers clearly value jobs that match well with their abilities and skills.
- Compensation was rated as a bottom two factor for accepting an offer for both Bachelor's and Master's graduates. This might indicate that compensation is not a main factor in determining which job a graduate accepts, or it might reflect a willingness to accept less compensation in a difficult labor market.

The Association for Information Systems and Temple University

## **INFORMATION SYSTEMS JOB INDEX 2024**

### THE IBIT REPORT

**The IBIT Report** is a publication of the Institute for Business and Information Technology at Temple University. IBIT reports provide actionable knowledge to industry based on rigorous academic research.

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