Institute for ADVANCED ANALYTICS

Dr. Michael Rappa, Founding Director

MASTER OF SCIENCE IN ANALYTICS

2019 EMPLOYMENT REPORT

Number of graduates:	111
Number of graduates seeking new employment:	110
Candidates employed at graduation:	95%
Average base salary:	$98,500
Number of employers interviewing (number on site):	146 (54)
Median number of initial job interviews per candidate:	12
Median number of offers of employment per candidate:	2
Job placements facilitated by the Institute:	94%
Estimated ROI payback period in months:	23
Total number of reported job offers:	262
Job placements based in North Carolina:	48%
Job placements based in U.S.:	100%
Candidates reporting salary data:	100%

Placement results for Class of 2019 reported as of May 15, 2019.

For further information about recruiting contact: analytics@ncsu.edu

POSITIONS FILLED

Analytical Consultant (3)
Advanced Analytics Specialist (4)
Analytics Analyst (2)
Analytics Associate
Analytics Consultant
Analytics Senior Analyst (2)
Assistant VP, Senior Decision Scientist (3)
Assistant VP, AML Data Scientist
Associate
Associate Consultant (2)
Associate Data Scientist
Audit Analytics Specialist
Business Analytics Advisor (2)
Business Manager
Business Strategy Analyst (2)
Clinical Data Programmer
Consultant
Data Analyst (2)
Data and Analytics Analyst
Data Scientist (28)
Director of Computer Vision
Director of Digital Architecture
Experienced Associate
Genetic Project Lead
Internal Auditor - BSA/AML

Lead Analyst, BI and Analytics
Loan Analyst
Marketing Analytics Lead
Marketing Analytics Specialist
Model Validation Analyst
Quantitative Model Developer (2)
Risk Analysis Specialist
Risk Analyst (4)
Senior Analyst, Asset Protection
Senior Analyst, BI and Analytics (2)
Senior Analyst, Customer Analytics
Senior Analyst, Merchandising
Senior Associate (2)
Senior Associate Analytical Consultant (4)
Senior Associate Test Engineer
Senior Associate, Business Insights &
    Analytics
Senior Business Analyst, Data Process
    Engineering
Senior Consultant (8)
Senior Credit Risk Analyst
Senior Manager, Card Association
    Management
Senior Quantitative Analyst
Staff Consultant II (6)

MAJOR TYPES OF POSITIONS AND AVERAGE BASE SALARIES

Manager
2%

Consultant
$97,600
31%

Data Scientist
$104,500
34%

Analyst
$92,300
34%
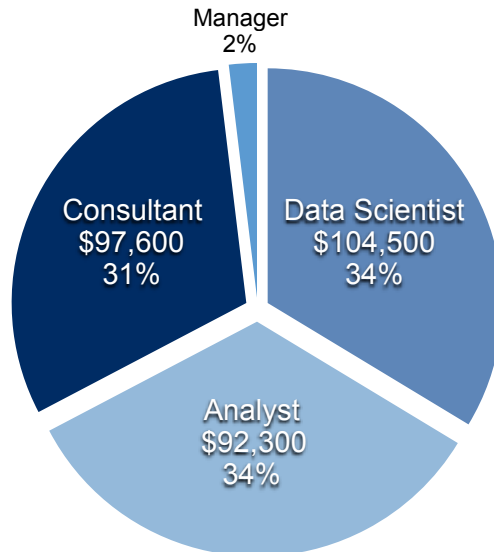
COMPENSATION BY EXPERIENCE LEVEL

	ANNUAL BASE SALARY				SIGNING BONUS
	Total	Prior Work Experience			
		None	1-2 Years	3+ Years	
Mean	$98,500	$92,400	$92,400	$109,500	$10,000
Maximum	$147,500	$115,000	$115,000	$147,500	$25,000
75th Percentile	$105,500	$100,000	$102,500	$123,000	$11,000
Median	$95,500	$90,500	$92,000	$110,000	$10,000
25th Percentile	$87,500	$85,000	$85,000	$100,000	$6,000
Minimum	$75,000	$77,500	$75,000	$82,000	$1,500
N	104	49	18	37	87
% Reporting	100%	47%	17%	36%	84%

Notes: Data with respect to salaries and bonuses are self-reported by graduates (without anonymity) and whenever possible verified by employers in cases where placement is arranged by the Institute (i.e., most candidates). One graduate was on leave from the military and returned to service. All other job placements are full-time paid positions. Data are made public here to guide prospective students and employers. Annual base salary figures do not include signing bonuses, relocation allowances or other forms of one-time compensation guaranteed upon signing. Conditional job offers (i.e., those requiring security clearance prior to employment) or other public sector employment are not included in salary data. As a STEM-qualified degree, international MSA graduates are eligible for Optional Practical Training (OPT). Commencement is typically held on the first Saturday in May. DISCLAIMER: The Institute has a proven track record for placing graduates in the analytics profession, but it does not under any circumstance offer a guarantee of employment upon completion of the MSA degree.

EMPLOYERS

(n = 61; with 45 employers succeeding in hiring one or more candidates)

Accenture Federal Services*	iCiDIGITAL
Ally Financial*	Intact Insurance
Ankura*	**JPMorgan Chase***
Asurion	KPMG
Atrium Health	Leoforce
Bain & Company*	**LexisNexis**
Bank of America*	LMI
BB&T*	**Lowe's Companies***
Beghou Consulting*	**Lumeris**
Capital One	**North Carolina Joint Underwriting Association**
Cigna*	**PenFed Credit Union***
Cisco Systems	**PPD**
Cognizant	**Primrose Schools***
Core Compete	Progressive Leasing
Daimler Trucks	**Putnam Investments***
Deloitte*	**PwC**
DISH Network*	**RBC Bank**
Elder Research*	**Red Ventures**
Elevate*	**SAS***
Elicit	**Siemens**
Euler Hermes	**Slalom Consulting**
EY*	**Synechron***
Fidelity Investments*	**Syneos Health**
Fifth Third Bank*	**Syngenta**
Glen Raven	**The Advis Group**
GoDaddy	**The Home Depot**
GroundTruth Ag*	U.S. Space & Naval Warfare Systems Command
Guidehouse	U.S. Department of Agriculture
Hanesbrands	University of Florida–Jacksonville Medical Center
Health Care Service Corporation (BCBS)*	Wake Forest University Center for Biomedical Informatics
Health Credit Services	

Bold = employers that succeeded in hiring one or more candidates.
* = employers that hired more than one candidate.
List does not include conditional offers (i.e., those requiring security clearance) made by agencies of the federal government.

COMPENSATION BY GEOGRAPHIC REGION

	ANNUAL BASE SALARY				
		U.S. Census Regions Outside North Carolina			
	North Carolina	South	Northeast	Midwest	West
Mean	$96,600	$97,000	$107,900	$103,350	*
Maximum	$147,500	$125,000	$125,000	$120,000	*
75th Percentile	$106,500	$101,000	$123,000	$115,000	*
Median	$91,250	$95,000	$115,000	$105,000	*
25th Percentile	$85,000	$90,000	$90,000	$94,625	*
Minimum	$75,000	$77,500	$85,000	$80,000	*
N	50	31	9	10	4

COMPENSATION BY INDUSTRY SECTOR

	ANNUAL BASE SALARY				
	All Sectors	Consulting	Financial	Technology	Other
Mean	$98,500	$96,500	$105,500	$93,250	$91,250
Maximum	$147,500	$147,500	$125,000	$130,000	$115,000
75th Percentile	$105,500	$105,000	$115,000	$96,875	$94,250
Median	$95,500	$92,000	$105,000	$87,500	$90,250
25th Percentile	$87,500	$85,000	$95,000	$87,500	$85,000
Minimum	$75,000	$77,500	$75,000	$80,000	$80,000
N	104	39	37	10	13

DISTRIBUTION OF EMPLOYMENT OUTSIDE NORTH CAROLINA BY U.S. CENSUS REGION

Number of Placements
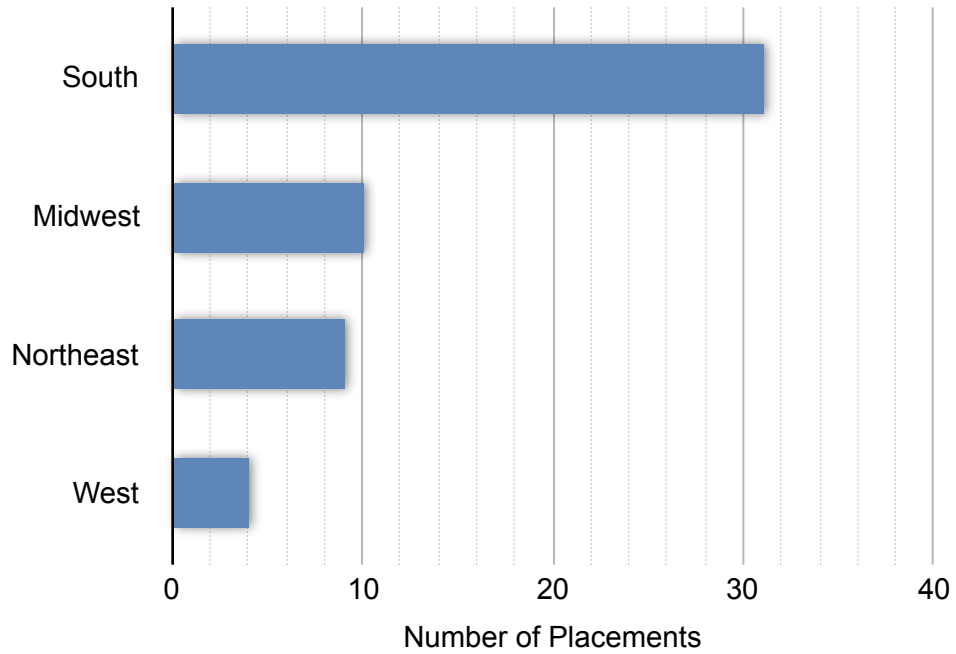
DISTRIBUTION OF EMPLOYMENT BY INDUSTRY SECTOR

Number of Placements
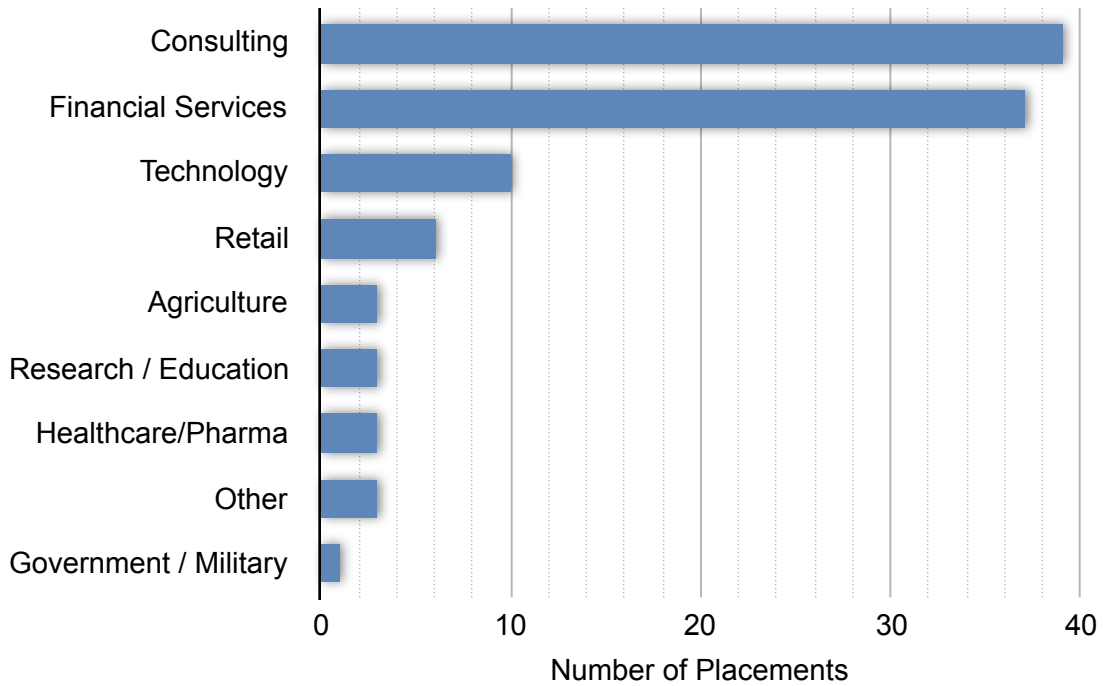
COMPENSATION BY AGE AND GENDER

	ANNUAL BASE SALARY					
		Age Brackets			Gender	
	All	20–24	25–29	30+	Men	Women
Mean	$98,500	$92,200	$99,300	$110,100	$98,500	$98,450
Maximum	$147,500	$115,000	$130,000	$147,500	$147,500	$130,000
75th Percentile	$105,500	$98,000	$108,125	$121,500	$106,250	$105,500
Median	$95,500	$90,000	$100,000	$107,000	$95,500	$96,500
25th Percentile	$87,500	$85,000	$86,800	$102,500	$86,500	$87,500
Minimum	$75,000	$77,500	$75,000	$82,000	$75,000	$77,500
N	104	41	44	19	64	40

COMPENSATION BY MAJOR POSITION CATEGORIES

	ANNUAL BASE SALARY				
	All	Data Scientist	Analyst	Consultant	Manager
Mean	$98,500	$104,500	$92,300	$97,600	*
Maximum	$147,500	$123,000	$130,000	$147,500	*
75th Percentile	$105,500	$115,000	$98,000	$105,000	*
Median	$95,500	$104,000	$90,500	$91,000	*
25th Percentile	$87,500	$98,000	$85,000	$85,000	*
Minimum	$75,000	$80,000	$75,000	$80,000	*
N	104	35	35	32	2

Employment at Graduation

% of Candidates Searching vs. Cohort Year

Legend: 40 students, 80 students, 120 students

HISTORICAL TREND IN MEDIAN BASE STARTING SALARY BY LEVEL OF PRIOR WORK EXPERIENCE

Legend: < 3 years, 3+ years

MSA Class of…
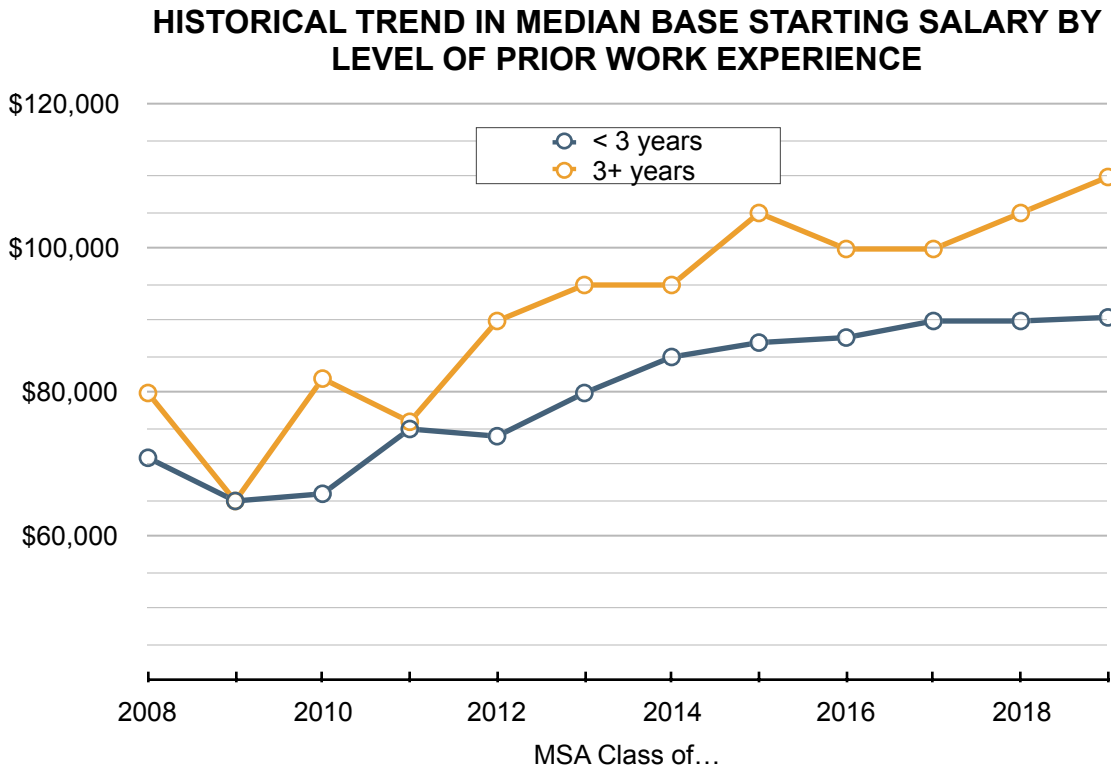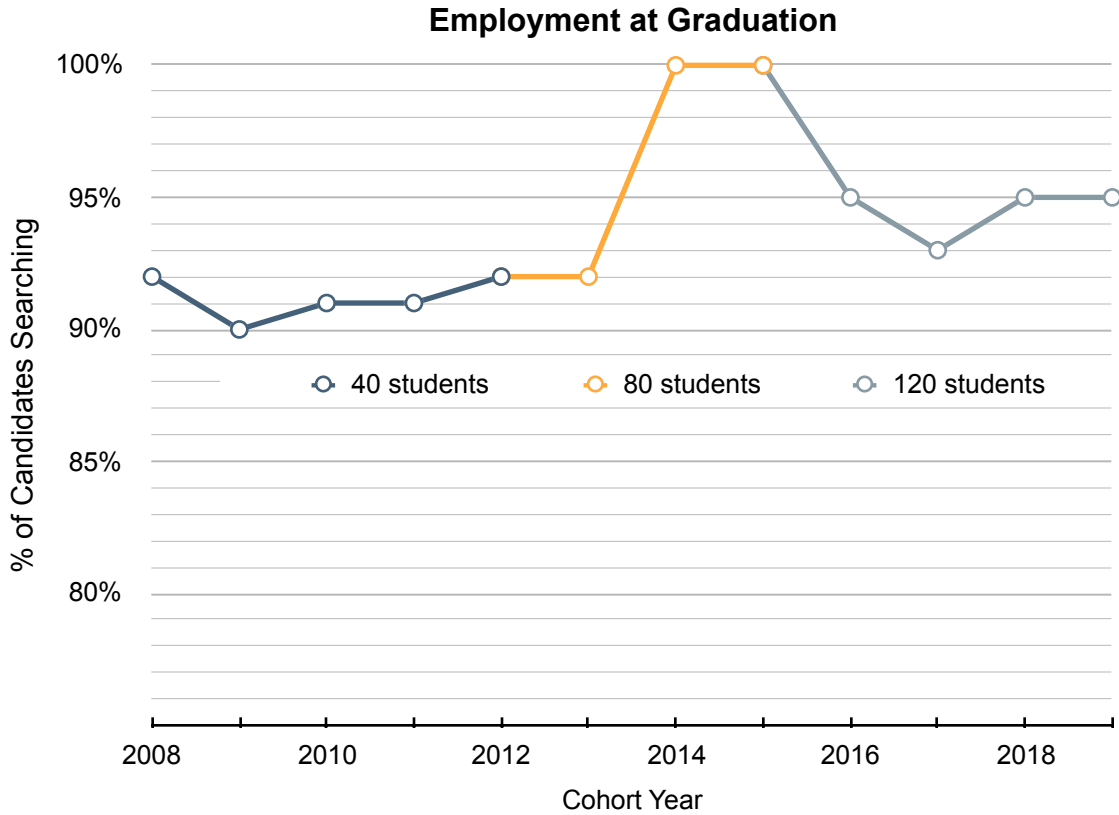
Inflation-Adjusted Average Starting Salary by Cohort Year
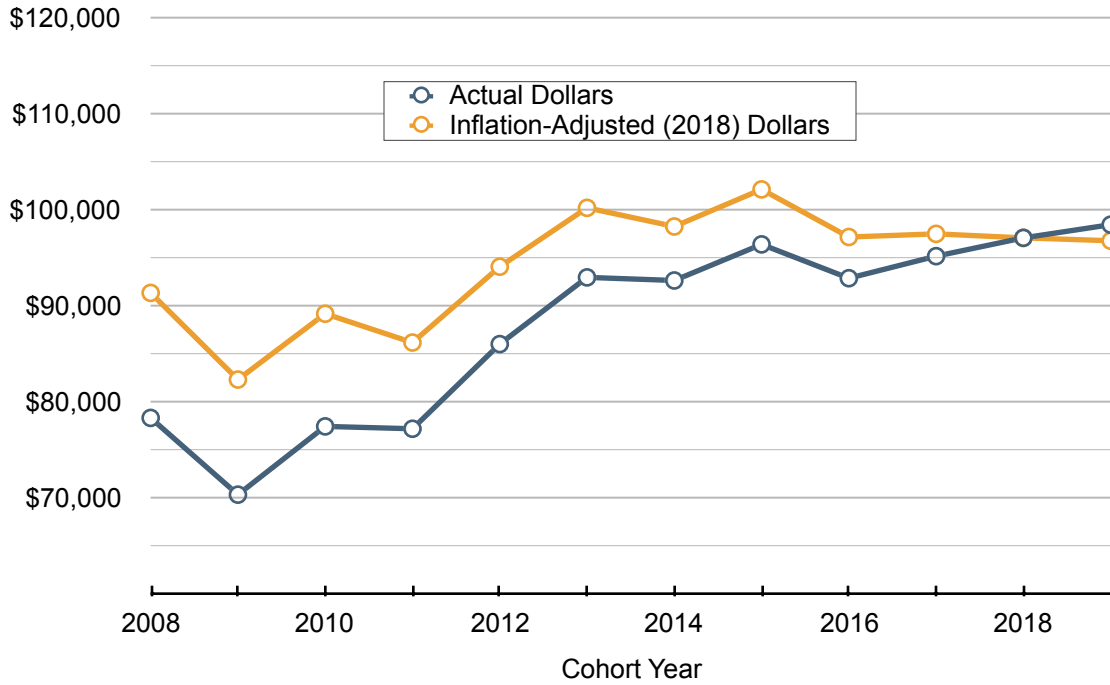
Trend in Average Base Salary – Cost of Living Index (COLI)-Adjusted by Location of Employment
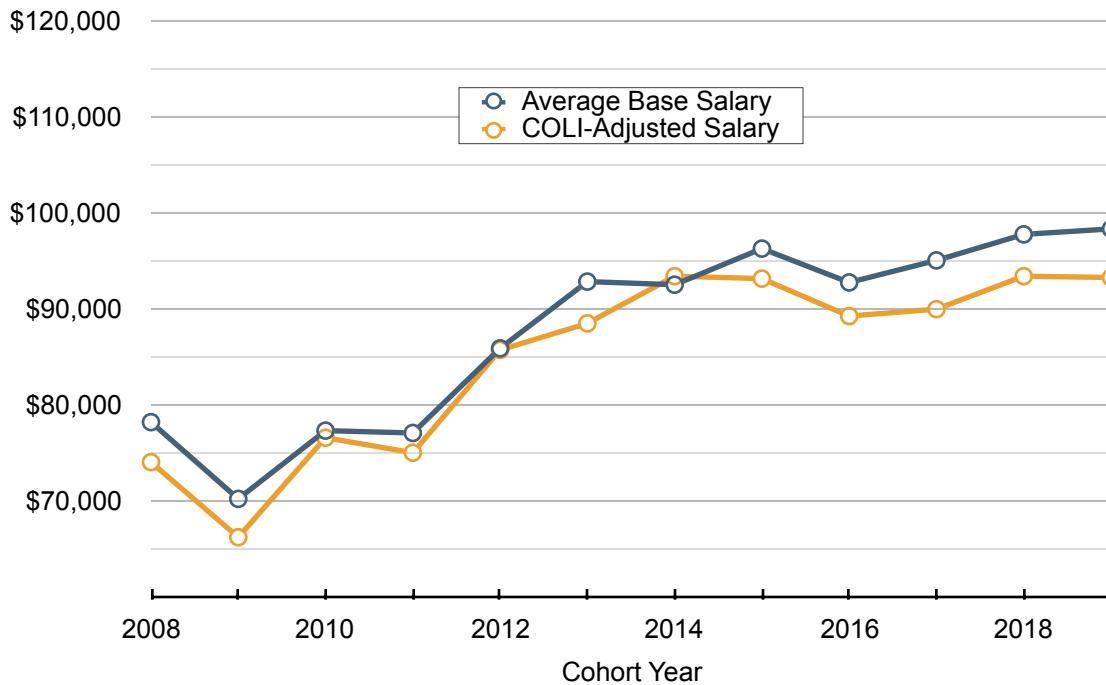
STUDENT RETURN ON INVESTMENT

|	NC Resident	Non-Resident
Number of Respondents	75	29
Pre-MSA Salary Median*	$63,000	$56,000
(+) Tuition & Fees	$26,500	$46,500
(–) Signing Bonus	$10,000	$10,000
Total Investment	$79,500	$92,500
Post MSA Salary Median	$104,000	$105,000
(–) Pre-MSA Salary	$63,000	$56,000
Net Salary Increase	$41,000	$49,000
Payback Period (months)	23	23
Net 3-Year ROI	$133,000	$157,000
*Based on graduates with full-time employment prior to program entry.		

PAYBACK PERIOD CALCULATION

$$\text{Payback Period (in months)} = \frac{(\text{Pre-MSA Salary} + \text{Tuition}) - \text{Signing Bonus}}{\text{Post-MSA Salary} - \text{Pre-MSA Salary}} \times 12$$

Notes: The response rate was 100-percent. Respondents provided information about their pre- and post-MSA annual base salaries, signing bonuses, and residency status (which determines tuition payments). Seventy-two percent of respondents were NC residents, and 55-percent were employed full-time prior to entry. The median salary increase was $43,000; all but two respondents reported an increase in salary. The ROI payback period calculated for each candidate employed by graduation, based on their individual circumstances (residency, tuition, pre- and post-salaries, and signing bonuses), yielded a median payback period of 23 months.

Students are assumed to forgo one-year of earning, even though the MSA program is only 10-months in duration. Pre-MSA salaries ranged from $40,000 to $154,000. The payback calculation does not take into consideration interest incurred by students who borrow to finance their education.

NUMBER OF JOB OFFERS RECEIVED
BY GRADUATION

	Percent
1 or More Offers	96%
2 or More Offers	72%
3 or More Offers	38%
4 or More Offers	21%
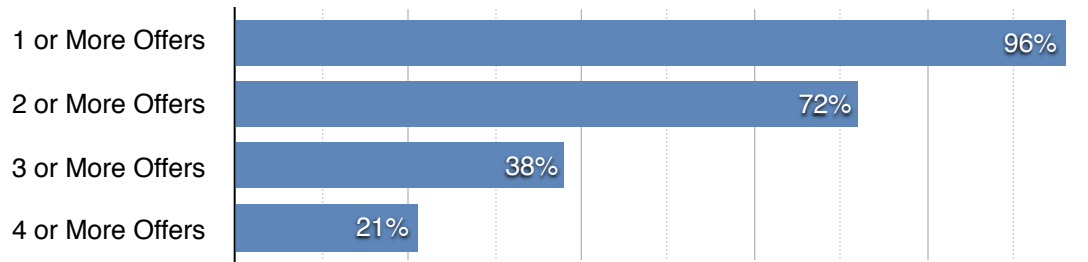
Percent of Candidates

HISTORICAL TREND IN PLACEMENT CONCENTRATION
AMONG THE TOP-5 AND TOP-10 EMPLOYERS

Top-5 Employers   Top-10 Employers
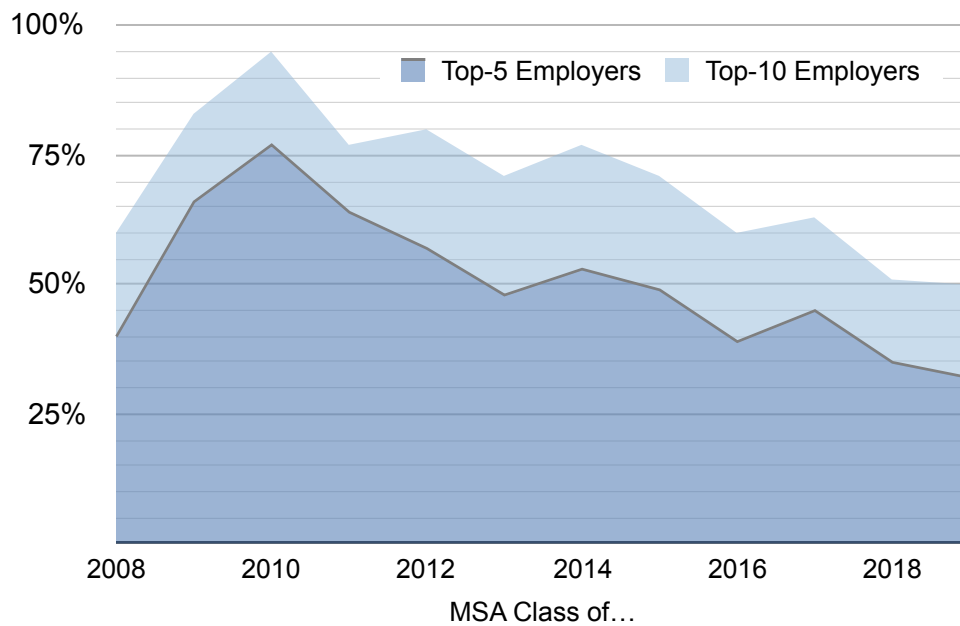
MSA Class of…

EMPLOYMENT BY RESIDENCY STATUS PRIOR TO ADMISSION

	Number of Candidates Employed		
	Inside North Carolina	Outside North Carolina	Subtotal
Non-Resident	10	19	29
NC Resident	40	35	75
Subtotal	50	54	104

RECRUITING TIMETABLE – MSA CLASS OF 2020	
New cohort of 120 students arrives:	June
Basic demographic profile of new cohort published:	July 1
New student roster available on Institute web site:	July 15
Employer information sessions hosted beginning first week of:	September
Student Profile Book available on web site:	October 1
Student Resume Book sent to employers:	December 1
On-site interviews begin second week of:	January
Student placement decision date:	March 15
Graduation date normally in the first week of:	May
Employment Report published:	May 15
Candidates typically begin employment by the first week of:	June
Open job positions can be circulated to MSA alumni:	Upon receipt
MSA recruitment is managed entirely by the Institute as a service provided free of charge as a courtesy to employers.	

DISCLAIMER

The Institute has a proven track record for placing graduates in the analytics profession, but it does not under any circumstance offer a guarantee of employment upon degree completion.

DIRECTOR'S CERTIFICATION

The report of employment outcomes referred to above present fairly, in all material respects, the employment of the Institute's students at graduation as of May 15, 2019 in conformity with principles generally accepted among universities in the United States of America.

CERTIFIED

Dr. Michael Rappa
Institute Director

Source URL: http://analytics.ncsu.edu/reports/employment/MSA2019.pdf

NC STATE UNIVERSITY