Dr. Michael Rappa, Founding Director

## MASTER OF SCIENCE IN ANALYTICS

## 2018 EMPLOYMENT REPORT

| Number of graduates: | 111 |
| :---: | :---: |
| Number of graduates seeking new employment: | 108 |
| Candidates employed at graduation: | 95\% |
| Average base salary: | \$98,200 |
| Number of employers interviewing (number on site): | 156 (55) |
| Median number of initial job interviews per candidate: | 12 |
| Median number of offers of employment per candidate: | 3 |
| Job placements facilitated by the Institute: | 91\% |
| Estimated ROI payback period in months: | 20 |
| Total number of reported job offers: | 310 |
| Job placements based in North Carolina: | 45\% |
| Job placements based in U.S.: | 100\% |
| Candidates reporting job offer data: | 100\% |
| Placement results for Class of 2018 reported as of May |  |

## POSITIONS FILLED

Analytical Consultant (3)
Artificial Intelligence Engineer
Assistant VP, Senior Decision Scientist
Associate
Associate Consultant (2)
Associate Data Scientist
Assistant VP, Data Scientist (2)
Assistant VP, Senior Decision Scientist
Assistant VP, Senior Geographic Scientist
Business Analyst - Product Management and Analytics Associate
Business Data Analyst
Business Data Scientist (2)
Consultant (6)
Consulting Specialist - Data Scientist Track
Consumer and Marketing Insights
Customer Insights Senior Analyst (2)
Data Analyst (4)
Data Science (21)
Engineer
Informatics/Analytics Senior Specialist (2)
Marketing Data Analyst
Marketing Optimization Senior Analyst (3)

Predictive Analytics Product Manager
Product Analyst
Quantitative Analyst (3)
Research Analyst
Risk Analyst (3)
Senior Analyst, Decision Analytics
Senior Analytics Consultant
Senior Associate (4)
Senior Associate Analytical Consultant (4)
Senior Associate Analytics Tester (4)
Senior Associate Data Scientist
Senior Associate Hosting Technical Account Manager
Senior Associate Solutions Consultant
Senior Consultant (2)
Senior Quantitative Analyst
Senior Statistician - Business Analytics (2)
Specialist, Global Advanced Analytics (2)
Staff Consultant (7)
Statistician/Data Scientist
Supply Chain Quantitative Analyst
Vice President, Business Control Manager

## MAJOR TYPES OF POSITIONS AND AVERAGE BASE SALARIES



## COMPENSATION

|  | ANNUAL BASE SALARY |  |  |  | SIGNING BONUS |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Prior Work Experience |  |  |  |
|  |  | None | 1-2 Years | 3+ Years |  |
| Mean | \$98,200 | \$92,000 | \$100,300 | \$106,700 | \$11,750 |
| Maximum | \$145,000 | \$125,000 | \$121,500 | \$145,000 | \$42,500 |
| $\begin{array}{r} \text { 75th } \\ \text { Percentile } \end{array}$ | \$106,250 | \$100,000 | \$105,000 | \$115,000 | \$15,000 |
| Median | \$95,000 | \$88,000 | \$99,000 | \$105,000 | \$10,000 |
| $\begin{array}{r} \text { 25th } \\ \text { Percentile } \end{array}$ | \$87,500 | \$84,000 | \$90,000 | \$96,000 | \$5,300 |
| Minimum | \$72,500 | \$72,500 | \$87,500 | \$87,500 | \$2,500 |
| N | 100 | 51 | 16 | 33 | 79 |
| \% Reporting | 100\% | 51\% | 16\% | 33\% | 79\% |

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). Three graduates were international Fulbright Scholars and required to return to their home countries; one will remain temporarily in the U.S. to work before returning home. 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. Contracts, conditional job offers (i.e., those requiring security clearance prior to employment) or other public sector employment are not included in salary data ( $n=3$ ). 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 EXTENDING OFFERS

Accenture
Advance Auto Parts
Altria Client Services
Ankura Consulting Group*
Asurion*
Bain \& Company*
Bank of America
Beghou Consulting
BerkelyNet
Blue Cross Blue Shield
Capital One
Cardinal Solutions
Chewy.com
Cigna*
Clarity Insights
Cognizant
Deloitte*
Digital Roots
DraftKings
Elder Research*
Elevate*
Eli Lilly*
Elicit
Epic Games
EY*
FedEx
Fidelity Investments*
Fifth Third Bank*
IBM
InterWorks
John Deere
JPMorgan Chase*
KPMG
LeoForce

Lincoln Financial Group

Live Oak Bank
Lowe's Home Improvement*
M\&T Bank
Merkle
MetaMetrics
National Air and Space Intelligence Center
NetApp
Nielsen
PenFed Credit Union
PointSource / Globant
Putnam Investments
PwC*
Red Hat*
Red Ventures*
Royal Bank of Canada*
RTI International
Sageworks
SAP.iO*
SAS*
Siemens Digital Factory
Slalom Consulting*
Space and Naval Warfare Systems Command
Syneos Health
Syntelli Solutions
The Home Depot
The Rams Club - Carolina Athletics
TIAA
UNC Healthcare
Visionist
Walmart
Wells Fargo
Whole Foods
Zencos

Bold = employers that succeeded in hiring one or more candidates.

* = employers that hired more than one candidate.

List does not include conditional offers made by agencies of the federal government.

## COMPENSATION BY GEOGRAPHIC REGION

|  | ANNUAL BASE SALARY |  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | North <br> Carolina | South | Northeast | Midwest | West |  |
|  |  | $\$ 98,150$ | $\$ 108,750$ | $\$ 99,450$ | $*$ |  |
| Mean |  | U.S. Census Regions Outside North Carolina |  |  |  |  |
| Maximum | $\$ 125,000$ | $\$ 115,000$ | $\$ 125,000$ | $\$ 125,000$ | $*$ |  |
| 75th Percentile | $\$ 100,000$ | $\$ 105,000$ | $\$ 120,000$ | $\$ 112,500$ | $*$ |  |
| Median | $\$ 90,000$ | $\$ 100,000$ | $\$ 112,500$ | $\$ 95,000$ | $*$ |  |
| 25th Percentile | $\$ 85,000$ | $\$ 91,000$ | $\$ 100,000$ | $\$ 90,000$ | $*$ |  |
| Minimum | $\$ 72,500$ | $\$ 80,000$ | $\$ 80,000$ | $\$ 77,000$ | $*$ |  |
| N | 44 | 27 | 12 | 14 | 2 |  |

## COMPENSATION BY INDUSTRY SECTOR

|  | ANNUAL BASE SALARY |  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All Sectors | Consulting | Financial | Technology | Other |  |
| Mean | $\$ 98,200$ | $\$ 94,000$ | $\$ 105,350$ | $\$ 96,100$ | $\$ 93,400$ |  |
| Maximum | $\$ 145,000$ | $\$ 125,000$ | $\$ 125,000$ | $\$ 145,000$ | $\$ 115,000$ |  |
| 75th Percentile | $\$ 106,250$ | $\$ 105,000$ | $\$ 120,000$ | $\$ 97,000$ | $\$ 98,000$ |  |
| Median | $\$ 95,000$ | $\$ 93,750$ | $\$ 105,000$ | $\$ 90,000$ | $\$ 90,000$ |  |
| 25th Percentile | $\$ 87,500$ | $\$ 81,250$ | $\$ 90,000$ | $\$ 87,500$ | $\$ 85,000$ |  |
| Minimum | $\$ 72,500$ | $\$ 72,500$ | $\$ 76,000$ | $\$ 80,000$ | $\$ 80,000$ |  |
| N | 100 | 30 | 33 | 24 | 13 |  |
|  |  |  |  |  |  |  |

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


DISTRIBUTION OF EMPLOYMENT BY INDUSTRY SECTOR


COMPENSATION BY AGE AND GENDER

|  | ANNUAL BASE SALARY |  |  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All | Age Brackets |  |  | Gender |  |  |
|  |  | $25-29$ | $30+$ | Men | Women |  |  |
| Mean | $\$ 98,200$ | $\$ 91,900$ | $\$ 100,500$ | $\$ 105,600$ | $\$ 98,000$ | $\$ 98,400$ |  |
| Maximum | $\$ 145,000$ | $\$ 121,500$ | $\$ 125,000$ | $\$ 145,000$ | $\$ 145,000$ | $\$ 125,000$ |  |
| 75th Percentile | $\$ 106,250$ | $\$ 97,500$ | $\$ 110,000$ | $\$ 116,500$ | $\$ 105,000$ | $\$ 110,000$ |  |
| Median | $\$ 95,000$ | $\$ 90,000$ | $\$ 100,000$ | $\$ 100,000$ | $\$ 95,000$ | $\$ 97,000$ |  |
| 25th Percentile | $\$ 87,500$ | $\$ 85,000$ | $\$ 90,000$ | $\$ 94,400$ | $\$ 88,000$ | $\$ 87,500$ |  |
| Minimum | $\$ 72,500$ | $\$ 72,500$ | $\$ 76,000$ | $\$ 85,000$ | $\$ 80,000$ | $\$ 72,500$ |  |
| N | 100 | 39 | 41 | 20 | 54 | 46 |  |

## COMPENSATION BY MAJOR POSITION CATEGORIES

|  | ANNUAL BASE SALARY |  |  |  |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All | Data Scientist | Analyst | Consultant | Manager |  |
| Mean | $\$ 98,200$ | $\$ 108,400$ | $\$ 92,300$ | $\$ 92,300$ | $*$ |  |
| Maximum | $\$ 145,000$ | $\$ 145,000$ | $\$ 115,000$ | $\$ 125,000$ | $*$ |  |
| 75th Percentile | $\$ 106,250$ | $\$ 120,000$ | $\$ 96,250$ | $\$ 103,500$ | $*$ |  |
| Median | $\$ 95,000$ | $\$ 112,000$ | $\$ 90,000$ | $\$ 87,500$ | $*$ |  |
| 25th Percentile | $\$ 87,500$ | $\$ 98,000$ | $\$ 88,000$ | $\$ 80,000$ | $*$ |  |
| Minimum | $\$ 72,500$ | $\$ 85,000$ | $\$ 76,000$ | $\$ 72,500$ | $*$ |  |
| N | 100 | 33 | 32 | 31 | 3 |  |
|  |  |  |  |  |  |  |

## Employment at Graduation




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



## Inflation-Adjusted Average Starting Salary by Cohort Year



EMPLOYMENT BY RESIDENCY STATUS PRIOR TO ADMISSION

|  | Number of Candidates Employed |  |  |
| ---: | :---: | :---: | :---: |
|  | Inside <br> North Carolina | Outside <br> North Carolina | Subtotal |
| Non-Resident | 9 | 27 | 36 |
| NC Resident | 36 | 31 | 67 |
| Subtotal | 45 | 58 | 103 |

STUDENT RETURN ON INVESTMENT

|  | NC Resident | Non-Resident |
| :---: | :---: | :---: |
| Number of Respondents | 67 | 36 |
| Pre-MSA Salary Median* | $\$ 60,000$ | $\$ 60,000$ |
| $(+)$ Tuition \& Fees | $\$ 26,500$ | $\$ 46,500$ |
| $(-)$ Signing Bonus | $\$ 10,000$ | $\$ 10,000$ |
| Total Investment | $\$ 76,500$ | $\$ 96,500$ |
| Post MSA Salary Median | $\$ 105,000$ | $\$ 105,000$ |
| $(-)$ Pre-MSA Salary | $\$ 60,000$ | $\$ 60,000$ |
| Net Salary Increase | $\$ 45,000$ | $\$ 45,000$ |
| Payback Period (months) | 20 | 26 |
| Net 3-Year ROI | $\$ 145,000$ | $\$ 145,000$ |
| *Based on graduates with full-time employment prior to program entry. |  |  |

## PAYBACK PERIOD CALCULATION

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

Notes: The response rate was 100-percent. Respondents provided information about their preand post-MSA annual base salaries, signing bonuses, and residency status (which determines tuition payments). Sixty-five percent of respondents were NC residents, and 46-percent were employed full-time prior to entry. The median salary increase was $\$ 45,000$; all but one respondent reported an increase in salary. The ROI payback period calculated for each of 103 candidates employed by graduation, based on their individual circumstances (residency, tuition, pre- and post-salaries, and signing bonuses), yielded a median payback period of 24 months.

Students are assumed to forgo one-year of earning, even though the MSA program is only 10months in duration. The average pre-MSA salary is estimated based on those candidates working full-time prior to entry in the program. Pre-MSA salaries ranged from $\$ 25,000$ to $\$ 100,000$. Candidates without prior work experience are estimated to have foregone an annual salary of $\$ 55,000$, which is an estimated based on reported salary data for candidates with 1-2 years of prior work experience.

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



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


## RECRUITING TIMETABLE - MSA CLASS OF 2019

| New cohort of 115 students arrives in: | June |
| :---: | :---: |
| Basic demographic profile of new cohort published by: | July 1 |
| New student roster available on Institute web site by: | July 15 |
| Employer information sessions hosted beginning first week of: | September |
| Student Profile Book available on web site by: | October 1 |
| Student Resume Book sent to employers by: | December 1 |
| On-site interviews begin second week of: | January |
| Student placement decision date before second week of: | March |
| Graduation date normally in the first week of: | May |
| Employment Report published on web site by: | June 1 |
| 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 <br> 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 completion of the MSA degree.

## 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, 2018 in conformity with principles generally accepted among universities in the United States of America.


