MASTER OF SCIENCE IN ANALYTICS
2015 EMPLOYMENT REPORT

<table>
<thead>
<tr>
<th>MSA EMPLOYMENT OUTCOMES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of graduates:</td>
<td>86</td>
</tr>
<tr>
<td>Number of graduates seeking new employment:</td>
<td>84</td>
</tr>
<tr>
<td>Candidates with one or more offers by graduation:</td>
<td>100%</td>
</tr>
<tr>
<td>Candidates placed by graduation:</td>
<td>100%</td>
</tr>
<tr>
<td>Number of employers interviewing:</td>
<td>158</td>
</tr>
<tr>
<td>Median number of initial job interviews per candidate:</td>
<td>12</td>
</tr>
<tr>
<td>Median number of offers of employment per candidate:</td>
<td>3</td>
</tr>
<tr>
<td>Job placements facilitated by the Institute:</td>
<td>92%</td>
</tr>
<tr>
<td>Average ROI payback period (in months):</td>
<td>20</td>
</tr>
<tr>
<td>Number of reported job offers:</td>
<td>248</td>
</tr>
<tr>
<td>Job placements based in North Carolina:</td>
<td>51%</td>
</tr>
<tr>
<td>Job placements based in U.S.:</td>
<td>100%</td>
</tr>
<tr>
<td>Candidates reporting job offer data:</td>
<td>99%</td>
</tr>
</tbody>
</table>

Placement results for Class of 2015 reported as of May 1 (graduation date).

For further information about recruiting contact: analytics@ncsu.edu
### COMPENSATION – MSA CLASS OF 2015

<table>
<thead>
<tr>
<th></th>
<th>ANNUAL BASE SALARY</th>
<th>SIGNING BONUS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>No Experience</td>
</tr>
<tr>
<td>Mean</td>
<td>$96,400</td>
<td>$89,700</td>
</tr>
<tr>
<td></td>
<td>$13,300</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>$95,000</td>
<td>$86,850</td>
</tr>
<tr>
<td></td>
<td>$10,500</td>
<td></td>
</tr>
<tr>
<td>75th Percentile</td>
<td>$105,000</td>
<td>$95,000</td>
</tr>
<tr>
<td></td>
<td>$20,000</td>
<td></td>
</tr>
<tr>
<td>25th Percentile</td>
<td>$85,000</td>
<td>$82,000</td>
</tr>
<tr>
<td></td>
<td>$5,000</td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>$125,000</td>
<td>$120,000</td>
</tr>
<tr>
<td></td>
<td>$30,000</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>$75,000</td>
<td>$75,000</td>
</tr>
<tr>
<td></td>
<td>$1,500</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>83</td>
<td>30</td>
</tr>
<tr>
<td>% Reporting</td>
<td>99%</td>
<td>36%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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). Two graduates in 2015 did not seek new employment: both returned to a sponsoring employer. Student job placements are full-time paid positions without exception; the Institute does not place students in part-time, internships, or pro bono work. 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) are not included in the 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. The Institute has a proven track record for placing its graduates in the analytics profession, but it does not under any circumstance offer a guarantee of employment upon completion of the MSA degree.
POSITIONS FILLED – MSA CLASS OF 2015

Analytical Software Tester
Analytics and Optimization Advisor
Analytics Technologist
Associate Consultant
Associate Data Scientist (2)
Business Analyst
Business Intelligence Analyst
Consultant (14)
Data Analyst
Data Scientist (8)
Delivery Manager, Advanced Analytics
Guest Experience Insights Analyst
Informatics Analyst
Informatics/Analytics Senior Specialist (2)
Integration Consultant (2)
Marketing Analysis Manager
Model Validation Analyst
Operations Analytics Modeler
Predictive Modeler
Quantitative Financial Analyst
Quantitative Risk Analyst (4)

Senior Analyst (3)
Senior Analytic Scientist (3)
Senior Analytics Manager
Senior Associate
Senior Associate Analytical Consultant (2)
Senior Associate Analytical Software Tester (3)
Senior Associate Technical Consultant (2)
Senior Business Analyst
Senior Consultant (6)
Senior Data Scientist Engineer (2)
Senior Integration Consultant
Senior Model Validation Analyst
Senior Scientist
Senior Statistical Analyst (2)
Senior Value Modeling Analyst
Solutions Architect
Statistical Consultant
Technical Account Manager (3)
Technical Consultant (2)
Technology Consultant

MAJOR TYPES OF POSITIONS OFFERED TO CLASS OF 2015

- Consultant 37%
- Analyst 31%
- Data Scientist 19%
- Developer 7%
- Manager 6%
- Senior Analyst 3%
- Senior Analytic Scientist 3%
- Senior Analytics Manager 7%
- Senior Associate 19%
EMPLOYERS EXTENDING OFFERS – MSA CLASS OF 2015

Advanced Auto Parts (Raleigh, NC)  
Alevo (Cupertino, CA)  
**Ally Financial** (Charlotte, NC)  
American Express (New York, NY)  
**Amruta** (Washington, DC)  
**ARPC** (Washington, DC)  
**Bank of America** (Charlotte, NC)  
Boeing (Charleston, SC)  
Booz Allen Hamilton (Washington, DC)  
Boston Consulting Group (Boston, MA)  
Cargill (Minneapolis, MN)  
**Carlisle & Gallagher** (Charlotte, NC)  
Caterpillar (Peoria, IL)  
**Cigna** (Raleigh, NC)  
Cisco Systems (RTP, NC)  
Citrix (Raleigh, NC)  
**Crete Carrier** (Lincoln, NE)  
Dell Software (Aliso Viejo, CA)  
**Deloitte** (Boston, Charlotte, Chicago, New York, and San Francisco)  
Discover Financial (Chicago, IL)  
Disney (Orlando, FL)  
Eastman Chemical (Kingsport, TN)  
**Elder Research** (Washington, DC)  
Elicit, LLC (Austin, TX)  
EY (Charlotte, NC)  
**Fidelity Investments** (Durham, NC)  
Financial Risk Group (Charlotte, NC)  
**Florida Blue** (Jacksonville, FL)  
Fulcrum (New York, NY)  
**Genworth Financial** (Raleigh, NC)  
**Great Western Casualty** (Sioux City, IA)  
GlaxoSmithKline (RTP, NC)  
HanesBrands (Winston-Salem, NC)  
IBM (Herndon, VA)  
**InterWorks** (New York, NY)  
**JP Morgan Chase** (Columbus, OH)  
Kohl’s (Milwaukee, WI)  
Kum & Go (Des Moines, IA)  
**Liberty Mutual** (Boston, MA)  
Lockheed Martin (Fort Worth, TX)  
**Lowe’s Companies** (Mooresville, NC)  
**M&T Bank** (Buffalo, NY)  
MaxPoint Interactive (Cary, NC)  
Novozymes (Franklinton, NC)  
Oracle (Denver, CO)  
Pew Research (Washington, DC)  
Red Ventures (Charlotte, NC)  
**RTI International** (RTP, NC)  
SAS (Cary, NC)  
**Sports South** (Shreveport, LA)  
The Variable (Winston-Salem, NC)  
**Verisk Health** (South Jordan, UT)  
Verizon (Dallas, TX)  
Volvo Trucks (Greensboro, NC)  
**Walmart.com** (San Bruno, CA)  
**Wellmark** (Des Moines, IA)  
Zencos (Cary, NC)

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

*List does not include federal government agencies making conditional offers of employment contingent on security clearance.*
GEOGRAPHIC DISTRIBUTION OF EMPLOYMENT OF U.S.-BASED MSA ALUMNI (N=407)

DISTRIBUTION OF EMPLOYMENT BY STATE OUTSIDE NORTH CAROLINA – CLASS OF 2015

- Massachusetts: 4
- Florida: 2
- New York: 6
- District of Columbia: 8
- California: 34
- Illinois: 15
- Virginia: 18
- Iowa: 10
- Texas: 10
- Louisiana: 9
- Maryland: 9
- Nebraska: 3
- Ohio: 3
- Oklahoma: 9
- Utah: 0

Number of Placements
About the ROI Survey:

An anonymous and voluntary survey was conducted over a 5-day period just prior to graduation in May. The response rate was 95-percent. Respondents provided information about their pre- and post-MSA annual base salaries, signing bonuses, and residency status (which determines tuition payments). Since the cost of attending differs by residency, the analysis is performed for both residents and non-residents separately. Fifty-five percent of respondents were NC residents, and 44-percent were employed full-time in the year prior to entry. All respondents were employed full-time at graduation. All respondents reported an increase in salary after completing the MSA degree.

Students are assumed to forgo one-year of earning, even though the MSA program is only 10-months 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 $20,000 to $90,000.

The payback calculation does not take into consideration interest incurred by students who borrow to finance their education. Fifty-four percent of students in the MSA Class of 2015 took on debt to pay tuition, borrowing an average of $39,000 at a median interest rate of 6.2-percent. The average ratio of starting base salary to debt was 2.9.

### STUDENT RETURN ON INVESTMENT – CLASS OF 2015

<table>
<thead>
<tr>
<th></th>
<th>NC Resident</th>
<th>Non-Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-MSA Salary Median*</td>
<td>$51,500</td>
<td>$51,500</td>
</tr>
<tr>
<td>(+) Tuition &amp; Fees</td>
<td>$23,500</td>
<td>$40,800</td>
</tr>
<tr>
<td>(−) Signing Bonus</td>
<td>$10,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>Total Investment</td>
<td>$65,000</td>
<td>$82,300</td>
</tr>
<tr>
<td>Post MSA Salary Median</td>
<td>$91,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>(−) Pre-MSA Salary</td>
<td>$51,500</td>
<td>$51,500</td>
</tr>
<tr>
<td>Net Salary Increase</td>
<td>$39,500</td>
<td>$48,500</td>
</tr>
<tr>
<td>Payback Period (months)</td>
<td>19.7</td>
<td>20.4</td>
</tr>
<tr>
<td>Net 3-Year ROI</td>
<td>$128,500</td>
<td>$155,500</td>
</tr>
</tbody>
</table>

*Based on graduates with full-time employment prior to program entry.

### PAYBACK PERIOD CALCULATION

\[
\text{Payback Period (in months)} = \frac{(\text{Pre-MSA Salary + Tuition}) - \text{Signing Bonus}}{\text{Post-MSA Salary} - \text{Pre-MSA Salary}} \times 12
\]
<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>New cohort of students arrives by:</td>
<td>July 1</td>
</tr>
<tr>
<td>Basic demographic profile of new cohort published by:</td>
<td>July 1</td>
</tr>
<tr>
<td>New student roster available on Institute web site by:</td>
<td>July 15</td>
</tr>
<tr>
<td>Employer information sessions hosted beginning first week of:</td>
<td>September</td>
</tr>
<tr>
<td><strong>Student Profile Book</strong> available on web site by:</td>
<td>October 1</td>
</tr>
<tr>
<td><strong>Student Resume Book</strong> sent to employers by:</td>
<td>December 1</td>
</tr>
<tr>
<td>On-site interviews begin second week of:</td>
<td>January</td>
</tr>
<tr>
<td>Student placement decision date before second week of:</td>
<td>March</td>
</tr>
<tr>
<td>Graduation date normally in the first week of:</td>
<td>May</td>
</tr>
<tr>
<td><strong>Annual Employment Report</strong> published on web site by:</td>
<td>May 15</td>
</tr>
<tr>
<td>Candidates typically begin employment by first week of:</td>
<td>June</td>
</tr>
<tr>
<td>Open positions circulated to alumni:</td>
<td>Upon receipt</td>
</tr>
</tbody>
</table>

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 its 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 1, 2015 in conformity with principles generally accepted among universities in the United States of America.

[Signature]

Dr. Michael Rappa
Institute Director

Source URL: http://analytics.ncsu.edu/reports/employment/MSA2015.pdf