### Employment Outcomes Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of graduates:</td>
<td>118</td>
</tr>
<tr>
<td>Number of graduates seeking new employment:</td>
<td>117</td>
</tr>
<tr>
<td>Candidates with one or more offers by graduation:</td>
<td>98%</td>
</tr>
<tr>
<td>Candidates placed by graduation:</td>
<td>93%</td>
</tr>
<tr>
<td>Number of employers interviewing (number on site):</td>
<td>201 (47)</td>
</tr>
<tr>
<td>Median number of initial job interviews per candidate:</td>
<td>11.5</td>
</tr>
<tr>
<td>Median number of offers of employment per candidate:</td>
<td>2</td>
</tr>
<tr>
<td>Job placements facilitated by the Institute:</td>
<td>94%</td>
</tr>
<tr>
<td>Estimated ROI payback period in months:</td>
<td>24</td>
</tr>
<tr>
<td>Total number of reported job offers:</td>
<td>291</td>
</tr>
<tr>
<td>Job placements based in North Carolina:</td>
<td>43%</td>
</tr>
<tr>
<td>Job placements based in U.S.:</td>
<td>99%</td>
</tr>
<tr>
<td>Candidates reporting job offer data:</td>
<td>100%</td>
</tr>
</tbody>
</table>

Placement results for Class of 2017 reported as of May 15, 2017.

For further information about recruiting contact: analytics@ncsu.edu
POSITIONS FILLED – MSA CLASS OF 2017

Advanced Analytics Specialist
Analytical Consultant
Analytics and Marketing Senior Analyst
Analytics and Modeling Manager
Analytics and Modeling Senior Analyst
Analytics Consultant
Applications Analyst
Associate Consultant (4)
Associate Data and Analytics Consultant
Card Services Balance Build Account Manager
Consultant (4)
Credit Card Decision and Strategy Support Product Manager
Data Management & Architecture Consultant
Data Scientist (22)
Decision Analytics Associate
Decision Platform Development Manager
GIS Analyst/Consultant
Hosting Technical Account Manager
Industrial Consultant
Informatics/Analytics Senior Specialist
Lead Analyst (2)
Lead Analyst - Wealth and Asset Management
Lead Business Intelligence Analyst
Lead Marketing Analyst (4)
Load Forecasting Analyst
Marketing Optimization Associate
Marketing Optimization Senior Associate
Product Analyst
Product Support Specialist
Quantitative Analyst – Centralized Modeling
Quantitative Analyst – Credit Risk (2)
Quantitative Risk Analyst (3)
Risk Analyst (3)
Senior Analytics Consultant
Senior Analytics/Informatics Specialist
Senior Associate
Senior Associate – Business Analytics and Insights (10)
Senior Associate Analytical Consultant (10)
Senior Associate Analytical Software Tester (2)
Senior Associate Solution Consultant
Senior Associate Solution Specialist (2)
Senior Consultant (3)
Senior Data Analyst (2)
Senior Financial Analyst (2)
Senior Insights Analyst
Senior Marketing Analyst
Senior Marketing Insights Analyst
Senior Model Validation Analyst
Staff Consultant (3)
Validation Analyst

MAJOR TYPES OF POSITIONS
MSA CLASS OF 2017

- Analyst (38%)
- Consultant (39%)
- Data Scientist (4%)
- Manager (19%)
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 returned to a sponsoring employer. Two graduates were international Fulbright Scholars and required to return to their home countries; one secured employment at home, and one will remain temporarily in the U.S. as a Fulbright employed in a paid internship 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. Conditional job offers (i.e., those requiring security clearance prior to employment) or other public sector 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. 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.

### COMPENSATION – MSA CLASS OF 2017

<table>
<thead>
<tr>
<th></th>
<th>ANNUAL BASE SALARY</th>
<th>SIGNING BONUS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Prior Work Experience</td>
</tr>
<tr>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Mean</td>
<td>$95,100</td>
<td>$90,200</td>
</tr>
<tr>
<td>Median</td>
<td>$91,000</td>
<td>$90,000</td>
</tr>
<tr>
<td>75th Percentile</td>
<td>$100,000</td>
<td>$94,000</td>
</tr>
<tr>
<td>25th Percentile</td>
<td>$87,500</td>
<td>$85,000</td>
</tr>
<tr>
<td>Maximum</td>
<td>$140,000</td>
<td>$108,000</td>
</tr>
<tr>
<td>Minimum</td>
<td>$70,000</td>
<td>$70,000</td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>51</td>
</tr>
<tr>
<td>% Reporting</td>
<td>100%</td>
<td>48%</td>
</tr>
</tbody>
</table>
EMPLOYERS EXTENDING OFFERS
MSA CLASS OF 2017

ABB (Raleigh, NC)
Accenture (Washington, DC)
Adobe (San Jose, CA)
Ally Financial (Charlotte, NC)
Ankura Consulting (Washington, DC)
ASR Analytics (Potomac, MD)
Bain & Company (Washington, DC)
Bank of America (Charlotte, NC)
BeerBoard (Syracuse, NY)
Beghou Consulting (Durham, NC)
Carolina Biological Supply (Raleigh, NC)
Certona (San Diego, CA)
Chick-fil-A (Atlanta, GA)
Cigna (Raleigh, NC)
Citadel (Chicago, IL)
Cognizant (multiple locations)
Community Care of NC (Raleigh, NC)
Conclusive Analytics (Charlotte, NC)
Cystic Fibrosis Foundation (Raleigh, NC)
Deloitte (Charlotte, NC)
Disney (Orlando, FL)
Elder Research (Charlottesville, VA)
Elevate (Ft. Worth, TX; San Diego, CA)
Eli Lilly (Indianapolis, IN)
ERCOT (Taylor, TX)
Evaluserve (Raleigh, NC)
EY (Charlotte, NC; New York, NY, Washington, DC)
Facebook (Palo Alto, CA)
Fifth Third Bank (Cincinnati, OH)
Financial Risk Group (Cary, NC)
GEICO (Washington, DC)
Gramener (South Plainfield, NJ)
Harvard Pilgrim Health (Wellesley, MA)
Humana (Chicago, IL)
ICON (Dallas, TX)
INC Research (Raleigh, NC)
Interworks (New York, NY)
Jack in the Box (San Diego, CA)
Jacksonville Jaguars (Jacksonville, FL)
JP Morgan Chase (Columbus, OH)
KeyBank (Buffalo, NY)
KPMG (Santa Clara, CA)
Lash Group–AmerisourceBergen (Ft. Mill, SC)
Leoforce (Raleigh, NC)
LPL Financial (Fort Mill, SC)
M&T Bank (Buffalo, NY)
Mercado Libre (Buenos Aires, Argentina)
Merkle (New York, NY)
NetApp (Durham, NC)
Northrop Grumman (Washington, DC)
Prime Therapeutics (Minneapolis, MN)
Red Hat (Raleigh, NC)
Red Ventures (Fort Mill, SC)
Rho (Chapel Hill, NC)
RTI International (RTP, NC)
SAP (San Francisco, CA)
SAS (Cary, NC)
Teradata (San Diego, CA)
The Home Depot (Atlanta, GA)
TIAA (Charlotte, NC)
TrueFit (Boston, MA)
Uffect (Falls Church, VA)
Veyo Logistics (San Diego, CA)
Visionist (Columbia, MD)
Volvo (Hagerstown, MD)
Wake Forest Baptist Medical Center (Winston-Salem, NC)
Zencos (Cary, NC)
ZS Associates (Philadelphia, PA)

Bold = employers that succeeded in hiring one or more candidates.
List does not include agencies of the federal government.
### COMPENSATION BY GEOGRAPHIC REGION – MSA CLASS OF 2017

<table>
<thead>
<tr>
<th>Geographic Region Outside North Carolina</th>
<th>North Carolina</th>
<th>South</th>
<th>Northeast</th>
<th>Mid-Atlantic</th>
<th>Midwest / West</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>$92,300</td>
<td>$90,400</td>
<td>$92,750</td>
<td>$98,600</td>
<td>$100,800</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>$90,000</td>
<td>$95,000</td>
<td>$92,000</td>
<td>$98,500</td>
<td>$105,000</td>
</tr>
<tr>
<td><strong>75th Percentile</strong></td>
<td>$98,000</td>
<td>$95,000</td>
<td>$94,600</td>
<td>$104,000</td>
<td>$108,000</td>
</tr>
<tr>
<td><strong>25th Percentile</strong></td>
<td>$87,500</td>
<td>$88,750</td>
<td>$90,000</td>
<td>$87,000</td>
<td>$90,000</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>$125,000</td>
<td>$98,000</td>
<td>$110,000</td>
<td>$140,000</td>
<td>$126,000</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>$75,000</td>
<td>$70,000</td>
<td>$85,000</td>
<td>$80,000</td>
<td>$84,000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>47</td>
<td>8</td>
<td>10</td>
<td>14</td>
<td>27</td>
</tr>
</tbody>
</table>

### COMPENSATION BY INDUSTRY SECTOR – MSA CLASS OF 2017

<table>
<thead>
<tr>
<th>Consulting</th>
<th>Banking / Insurance</th>
<th>Software / Internet</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>$92,900</td>
<td>$101,100</td>
<td>$93,700</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>$90,000</td>
<td>$100,000</td>
<td>$90,000</td>
</tr>
<tr>
<td><strong>75th Percentile</strong></td>
<td>$97,000</td>
<td>$105,000</td>
<td>$94,750</td>
</tr>
<tr>
<td><strong>25th Percentile</strong></td>
<td>$85,000</td>
<td>$95,000</td>
<td>$87,500</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>$140,000</td>
<td>$120,000</td>
<td>$126,000</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>$75,000</td>
<td>$90,000</td>
<td>$85,000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>33</td>
<td>29</td>
<td>28</td>
</tr>
</tbody>
</table>
**DISTRIBUTION OF EMPLOYMENT OUTSIDE NORTH CAROLINA BY REGION – CLASS OF 2017**

- Midwest: 0
- Mid-Atlantic: 5
- West: 10
- Northeast: 15
- South: 20

**DISTRIBUTION OF EMPLOYMENT BY INDUSTRY SECTOR – CLASS OF 2017**

- Consulting: 30
- Software / Internet: 40
- Banking / Insurance: 30
- Healthcare: 20
- Research: 10
- Pharmaceuticals: 5
- Food Services: 5
- Retail: 5
- Energy: 5
- Government / Military: 5

Number of Placements
HISTORICAL TREND IN JOB PLACEMENT RATE
MSA CLASSES OF 2008 – 2017

Placed by Graduation

MSA Class of...

2008  2011  2014  2017

40 students  80 students  120 students

NUMBER OF JOB OFFERS RECEIVED BY GRADUATION
MSA CLASS OF 2017

1 or More Offers
2 or More Offers
3 or More Offers
4 or More Offers

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

HISTORICAL TREND IN PLACEMENT CONCENTRATION AMONG THE TOP-5 AND TOP-10 EMPLOYERS
Note: 98% of the MSA alumni community is employed in the U.S.

EMPLOYMENT BY RESIDENCY STATUS PRIOR TO ADMISSION
MSA CLASS OF 2017

<table>
<thead>
<tr>
<th></th>
<th>Number of Candidates Placed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inside North Carolina</td>
</tr>
<tr>
<td>Non-Resident</td>
<td>12</td>
</tr>
<tr>
<td>NC Resident</td>
<td>36</td>
</tr>
<tr>
<td>Subtotal</td>
<td>48</td>
</tr>
</tbody>
</table>

Includes candidates returning to a previous employer.
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). Sixty-two percent of respondents were NC residents, and 52-percent were employed full-time prior to entry. The median salary increase was $39,480; all but one respondent reported an increase in salary. The ROI payback period calculated for each of 107 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 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 $30,000 to $147,000. Candidates without prior work experience are estimated to have foregone an annual salary of $49,250, 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. Thirty-seven percent of students took on debt to pay tuition, borrowing a median of $28,870. The average ratio of starting base salary to debt was 3:1.

<table>
<thead>
<tr>
<th>STUDENT RETURN ON INVESTMENT – MSA CLASS OF 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Number of Respondents</td>
</tr>
<tr>
<td>Pre-MSA Salary Median*</td>
</tr>
<tr>
<td>(+) Tuition &amp; Fees</td>
</tr>
<tr>
<td>(−) Signing Bonus</td>
</tr>
<tr>
<td>Total Investment</td>
</tr>
<tr>
<td>Post MSA Salary Median</td>
</tr>
<tr>
<td>(−) Pre-MSA Salary</td>
</tr>
<tr>
<td>Net Salary Increase</td>
</tr>
<tr>
<td>Payback Period (months)</td>
</tr>
<tr>
<td>Net 3-Year ROI</td>
</tr>
</tbody>
</table>

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

PAYBACK PERIOD CALCULATION

\[
\text{Payback Period (in months)} = \frac{(\text{Pre-MSA Salary + Tuition}) - \text{Signing Bonus}}{\text{Post-MSA Salary} - \text{Pre-MSA Salary}} \times 12
\]
RECRUITING TIMETABLE – MSA CLASS OF 2018

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>New cohort of 120 students arrives in:</td>
<td>June</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>Employment Report</strong> published on web site by:</td>
<td>June 1</td>
</tr>
<tr>
<td>Candidates typically begin employment by the first week of:</td>
<td>June</td>
</tr>
<tr>
<td>Open job positions can be circulated to MSA 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 graduates in the analytics profession, but it does not under any circumstance offer a guarantee of employment upon completion of the MSA degree.

Source URL: [http://analytics.ncsu.edu/reports/employment/MSA2017.pdf](http://analytics.ncsu.edu/reports/employment/MSA2017.pdf)