5th Year Career Development Report
Baruch MFE Program

Financial Engineering MS Program
Baruch College City University of New York

January 2022
The Baruch College Financial Engineering Master’s Program produces competitive, successful, and highly skilled financial practitioners by promoting the study of mathematical and algorithmic models in finance. A distinguishing factor is the strength and unity of the alumni community, as evidenced by the 87% response rate to the career development survey that forms the basis of this report.

Report Overview

This third edition of the Baruch MFE Career Development Report presents the results of a career development survey conducted on Baruch MFE classes of 2014 to 2016, who have been working for 4 to 6 years after graduation. Of the 82 alumni surveyed, 71 responded, representing an 87% response rate. Two survey responses were excluded due to inapplicability and the remaining 69 form the basis of the report.

90% of alumni continue to work in the financial services industry and 77% work in the United States within the Greater New York City area.
Job Tenure
After completion of the Baruch MFE program, 36% of alumni continued employment at their initial post-MFE firm or changed jobs once. 38% have remained with their current firm for over 4 years.

Number of Jobs since Graduation from the Baruch MFE Program

- 1 job: 36%
- 2 jobs: 32%
- 3 jobs: 20%
- 4 or more jobs: 12%

Number of Years at Current Firm

- 1 year or less: 29%
- 2 - 4 years: 33%
- Over 4 years: 38%

Institution Type and Area of Focus

39% of the alumni are employed on the sell-side, 44% on the buy-side, and the rest work either in tech or fintech.

Market Focus

- Equities: 34%
- Fixed Income: 26%
- Macro/cross-asset: 35%
- Cryptocurrency: 3%
- Commodities/Currencies: 2%

Institution Type

- Hedge fund: 32%
- Bank: 39%
- Asset Management Firm: 12%
- Other: 7%
- Tech and Fintech: 10%

35% of the alumni focus on the macro/cross-asset¹ space, while 26% and 34% are involved with fixed income and equities, respectively.

¹ Any response containing more than 3 asset classes counts towards macro/cross-asset.
**Nature of Work and Job Satisfaction**

Over 50% of alumni perform coding, data analysis, and modelling on a daily basis.

### Daily Tasks

- **Coding**: 67%
- **Modelling**: 65%
- **Data analysis**: 64%
- **Risk monitoring**: 57%
- **Portfolio monitoring**: 51%
- **Alpha research**: 48%
- **Systems design**: 46%
- **Algo development**: 44%
- **Team management**: 39%
- **Market monitoring**: 35%
- **Strategic planning**: 33%
- **Trade execution**: 30%
- **Client interaction**: 23%

### Use of MFE Knowledge

88% of alumni are using knowledge acquired in the Baruch MFE program in majority of their daily work, and 62% are using the Program's teachings in over 70% of their work.

### Number of People Managed

- **None**: 67%
- **1-4**: 27%
- **5-9**: 6%

33% of the alumni are in managerial positions with 6% leading medium-sized groups.

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2 Usage of Baruch MFE knowledge is reported on a scale of 0 to 10, with 10 representing that 100% of their work relates to or uses knowledge obtained from the Baruch MFE Program and 0 representing that none is relevant.
Over half of alumni report that computer programming exceeds 50% of their daily work.

Python, SQL, C++, and R are the most commonly used programming languages, each used by over a quarter of alumni surveyed. Python is by far the most popular, with 86% adoption rate and SQL coming second at 42%.

<table>
<thead>
<tr>
<th>Language</th>
<th>Usage Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Python</td>
<td>86%</td>
</tr>
<tr>
<td>SQL</td>
<td>42%</td>
</tr>
<tr>
<td>C++</td>
<td>29%</td>
</tr>
<tr>
<td>R</td>
<td>28%</td>
</tr>
<tr>
<td>VBA</td>
<td>19%</td>
</tr>
<tr>
<td>Java</td>
<td>7%</td>
</tr>
</tbody>
</table>

All surveyed alumni report job satisfaction\(^3\) of 4 or above, with 55% reporting a score higher than or equal to 8 (which is the median).

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\(^3\) Job satisfaction is reported on a scale of 0 to 10, with 10 being the most satisfied and 0 being the least satisfied.
COVID-19 Pandemic
This year’s survey continued 2020’s special section dedicated to understanding the pandemic’s impact on Baruch MFE alumni.

Were You Furloughed or Laid Off due to Covid-19?

Only 6% of all surveyed alumni were furloughed or laid off due to COVID-19.

Change in Career Goals due to COVID-19

Just 9% of the alumni have considered or decided to change career fields; an additional 23% started or began searching for another job.

Amount of Time Spent Working from Home since March 2020

74% of the alumni surveyed reported that 75-100% of their work schedule was spent working from home. Only 9% of alumni spent 25% or less of their time working from home.
Distractions and communication with team members were reported to be the biggest challenges of working from home, with 39% of Baruch MFE alumni indicating both as a challenge. This was followed by overworking at 36% and feeling isolated at 28%.

84% of alumni reported their work from home productivity to be about the same or better relative to their productivity working from the office.

Allocation of Time Saved by Not Commuting

- Working on your primary job
- Exercise/outdoor leisure
- Education/training
- Indoor leisure (TV etc.)
- Childcare
- Working on a second job or my own business
Compensation

The following compensation results are based on the responses of 62 alumni. An additional 7 alumni were excluded as they do not work in finance. This section pertains to total yearly compensation, which includes both base salary and yearly bonus. The reported base salaries concentrate in a compressed range between 100-225k, and the great majority fall below 250k. The charts below show compensation distributions by institution type, role, as well as work experience and education obtained prior to starting the Baruch MFE program.

- Compensation by Institution Type

  ![Baruch College Logo](Baruch College Logo.png)

  ![Bank Total Compensation](Bank Total Compensation.png)

  ![Hedge Fund Total Compensation](Hedge Fund Total Compensation.png)

  ![Asset Management Total Compensation](Asset Management Total Compensation.png)

  ![Fintech Total Compensation](Fintech Total Compensation.png)
- **Compensation by Role**

  **Buy-Side Quant Research**
  - 19 Datapoints
  - 25% at $0k/year, 50% at $400k, 75% at $1mil +

  **High Frequency Trading**
  - 3 Datapoints
  - 25% at $0k/year, 50% at $400k, 75% at $1mil +

  **Desk Quant**
  - 14 Datapoints
  - 25% at $0k/year, 50% at $400k, 75% at $1mil +

  **Risk Management**
  - 10 Datapoints
  - 25% at $0k/year, 75% at $400k, $600k, $800k

  **Portfolio Management**
  - 3 Datapoints
  - 25% at $0k/year, 75% at $400k, $600k, $800k

  **Quant Consulting**
  - 2 Datapoints
  - 50% at $0k/year, 50% at $200k

  **Machine Learning / Data Science**
  - 6 Datapoints
  - 50% at $0k/year, 50% at $200k
**Compensation Ranking**

In this section, median compensation data from the prior three years of Baruch MFE survey responses was compared for the top three highest paying groups.

### Institution Type

<table>
<thead>
<tr>
<th>Institution Type</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank</td>
<td>24</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td>Hedge fund</td>
<td>14</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>Asset Management</td>
<td>5</td>
<td>6</td>
<td>8</td>
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</table>

### Role

<table>
<thead>
<tr>
<th>Role</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Frequency Trading</td>
<td>4</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Desk Quant</td>
<td>8</td>
<td>11</td>
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</tr>
<tr>
<td>Buy-Side Quant Research</td>
<td>9</td>
<td>15</td>
<td>19</td>
</tr>
</tbody>
</table>
• **Compensation by Prior Experience**

Here, prior experience refers to the amount of work experience before joining the Baruch MFE Program. The meritocratic nature of the finance industry and the fact that prior work experience is often not finance-related make it possible for alumni with one year or fewer prior work experience to reach the highest level of compensation.

**One Year and Under Prior Experience**
- 25%: $200k
- 50%: $400k
- 75%: $600k
- 100%: $1mil +

**1 to 4 Years Prior Experience**
- 25%: $200k
- 50%: $400k
- 75%: $600k

**4 to 6 Years Prior Experience**
- 50%: $400k

**Over 6 Years Prior Experience**
- 50%: $600k

• **Compensation by Prior Education**

Here, prior education refers to the highest level of education attained before joining the Baruch MFE program. Previous graduate degrees did not seem to influence total pay significantly. The broadest range of compensation is seen among alumni who only held a bachelor's degree before joining, albeit the compensation medians are relatively close for all levels of prior education.

![Baruch College Compensation by Prior Education Chart]

- **Bachelors Total Compensation**
  - 38 Datapoints
  - 25% 50% 75%
  - $0k/year $200k $400k $600k $800k $1mil +

- **Masters Total Compensation**
  - 18 Datapoints
  - 25% 50% 75%
  - $0k/year $200k $400k $600k $800k $1mil +

- **Ph.D. Total Compensation**
  - 6 Datapoints
  - 50%
  - $0k/year $200k $400k $600k $800k $1mil +
• **Compensation by Job Satisfaction**

In this section, Baruch MFE survey respondents were separated into three roughly equal groups based on their job satisfaction rating. The following shows the total compensation distribution for these three groups.

### Job Satisfaction Rating: 0-6
- **25%**
- **50%**
- **75%**

<table>
<thead>
<tr>
<th>$0k/year</th>
<th>$200k</th>
<th>$400k</th>
<th>$600k</th>
<th>$800k</th>
<th>$1mil +</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Datapoints</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Job Satisfaction Rating: 7-8
- **25%**
- **50%**
- **75%**

<table>
<thead>
<tr>
<th>$0k/year</th>
<th>$200k</th>
<th>$400k</th>
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<th>$800k</th>
<th>$1mil +</th>
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<tbody>
<tr>
<td>36 Datapoints</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Job Satisfaction Rating: 9-10
- **25%**
- **50%**
- **75%**

<table>
<thead>
<tr>
<th>$0k/year</th>
<th>$200k</th>
<th>$400k</th>
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• Compensation Expectations

In this section, Baruch MFE survey respondents were asked how their current compensation met expectations and their prediction for how their compensation will evolve in the near future.

Compensation versus Expectations

40% of alumni reported that their current compensation is lower than expected. This figure was roughly consistent across all financial institutions.

Future Compensation Expectations

81% of alumni expect their compensation to increase in the near future. No alumni expect a decrease in their compensation.

For questions regarding this survey, please contact Dan Stefanica at Dan.Stefanica@baruch.cuny.edu
Layout and graphics generation: Jessica Vittoriano (Baruch College’23) and Paul Menestrier (Baruch College’20)