

# ASA Master's Survey Results - Qualitative

ASA 2017-2018 Masters Follow-Up Survey

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## Q63 - From the perspective of your status as of March 6, 2019, what would you do differently concerning your master's education?

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I would have tried to find more guidance and advice on how to prepare to enter the biostatistics industry sooner. Although I am starting a job as a statistician for the biostatistics industry this month, June 2019, I did not know all of the terminology/basic industry skills from my program to prepare me for an interview. My program did a good job with preparing me to use SAS and perform many different statistical analysis methods. However, I do wish that I had more real world knowledge of the biostatistics industry to start a statistician job/start in biostatistics right out of graduate school.

Master was very theoretical, so not much practice with real life data/ work

practice more for the interview

write more paper

Nothing.

I would not get masters degree instead applying and going to get PhD degree. i will still pursue my goal because i do love statistics.

I would have tried to take advantage of more research/learning opportunities at the university, mostly in my first 2 semesters

Consider on-site education opportunities near where I live.

Tailor my studies more specifically the challenged faced by statisticians in my desired field.

I'm still not sure whether I prefer Statistics or Data Science.

Taken advantage of the data science certificate option. Was not informed of it until the last semester.

I would have sought a PhD degree

I would study more programming languages.

Nothing

I would take a Bayesian class and a learn more statistical techniques. Other than this, I am very satisfied.

nothing

Better planning, organization and evaluation of the real perspectives and factors for potential career switch.

Further independent study of statistical programming languages

Not sure

I would have done more programming in SAS and learned SQL and how to write macros.

i might want to learn more about SQL.

Take more machine learning/CS classes because causal inference and concepts classically related to statistics is not billable to the extent that is advertised for "data scientists" (at least, not without a phd).

That the SAS programming course prepared ne better to take the certification exam.

I don't think there is anything I would do differently. However, maybe I will consider working as a data scientist instead of software engineer.

We could have covered more topics other than the linear methods.

Should have worked harder.

I wish Bayesian methods were a core component of the curriculum, as opposed to an elective.

More curriculum using modern statistical software.

I would have tried to analyze more "real" datasets to learn how to better do that for future employment.

Combine it with a Computer Science degree to improve my programming skills

Do a better masters project

I would add consulting projects.

Learn other statistical software

I would have gotten it sooner! And added more python classes.

I would have studied additional fields of knowledge, like cloud computing

I wish I had done it sooner.

Take more programming/technical-focused courses

Nothing

Lacks of complex survey analysis.

No

Not be so concerned about grades. Enjoy non academics more.

I would rather not study biostatistics but study statistics or bioinformatics

Taking more advanced statistical and computer science courses

Would've done an MS in computational chemistry instead. My bachelor's is in chemistry. It was too hard for me to play catch-up. I've heard of a lot of chemists who take the necessary classes outside of their department.

practicing more on algorithms

I would have taken machine learning courses.

Might have tried to take a different class over Causal Inference, but overall I'm happy with it

I would have gotten more involved in research opportunities.

Not much

Harder material, more emphasis on coding, more emphasis on statistical methodology

I would take up more courses in applied statistics and data science

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Go to another school. Maybe study a different subject.

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Nothing

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Data Scientist, Quantitative Analyst

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do more coding learn more useful topics like machine learning algorithms

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I wish I had earned my MS Analytics a couple years earlier.

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I strongly believe the program needs to educate students about preparing data for use in statistics. The program offered no training in this, which comprises around 30 to 70% of project time in my experience and which can contribute to a lot of problems in statistical results.

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I would not have taken some of the electives that were not taught by experienced professors.

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Focus less on old school statistics and focus more on big data analytics

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Less theory and more applied statistics

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I wish we had more statistics electives and had the chance to learn Bayesian statistics.

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I might have looked into a data science program instead of statistics. I don't do much real statistics but I do data science everyday.

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Nothing. I think my degree program and level of effort more than adequately prepared me for my current position.

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I would emphasize coding and programming.

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Look for a job in statistics first and then with on my master's

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I would emphasize the communication of statistical concepts and results to stakeholders and clients. This has been a major hurdle for me and I feel like the only opportunity to practice this was the consulting practicum.

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Spend more time focusing on homework

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I would go to a cheaper university.

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Nothing

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I would have taken an extra course on SQL for querying large data sets and another on Amazon AWS

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Nothing. I really enjoyed the Master's program, even if it wasn't relevant in me securing my job (which I already had). It really helped reinforce concepts and round out the knowledge I had picked up independently and on-the-job over my career, and I thoroughly enjoyed the program.

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Proactively engage with career services resources outside of the department

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coding and communication skills

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Attempt to secure internships over the summer, when my job at the time, teaching, would have made that possible.

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Maybe study more financial stats

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Nothing

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Get an internship during the summer between my first and second years.

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Participate in more writing skills lessons like grant writing

Looking into contacting school alumni besides searching job boards for job opportunities.

When choosing the program, I would rely less on the rankings of the programs and more on whether the curricula fit my interest. I'm more interested in the applied problems, but my program was very theoretical.

Get more involved in leading research

I believe I did everything I could do, made use of every opportunity offered.

nothing. glad I went into it straight from undergraduate, took a job upon completion before entering MD/PhD program. I was glad to have chosen biostatistics MS, and I am happy I took the classes and completed the thesis project that I did

While I developed a solid understanding of data modeling approaches, I would have liked to have sought out more information on algorithmic modeling approaches ("machine learning" methods), specifically their statistical backing and implementation.

More speaking engagements and introduction to more coding languages.

Take more computer science courses

A little more experience dealing with missing data and data quality issues would have been very helpful.

Stay at the University of Iowa (also my undergrad school) to have my master degree in statistics

Spend more time learning higher level programming languages such as Python, possibly consider less expensive schools (though name dropping has been a benefit of my particular school).

Digging more in statistical analysis in Genomics

Spend more time on real data analysis

I would start looking for a job from Day 1. Learn Python.

I would have applied for a PhD instead of the masters.

I should take more course related to statistics.

The career development course provided by the department is not very helpful and should be improved.

going to apply PhD this year

I would have taken more stats and math classes beforehand so that I could have been better prepared.

Taken more classes and not graduate early

Nothing

Possibly would have considered a second masters in Computer Science

Taken a little more data management/ software classes

I would have began a doctorate program immediately instead of a terminal masters.

Take more applied courses lik data science course and learn more about R, SQL and python.

I will attend more competition about data challenge

I should have accepted the offer from another graduate school and a different statistics department. This was by far one of the biggest academic regrets I have . The skills that I have now are from when I was an undergrad and during my internships. Florida State University's statistics department is a complete joke, a mess and it exists for a complete profit. It is extremely discouraging when the HEAD of the department says "we specifically increased the

graduate student body from 20 (in total) to accepting 70+ INCOMING graduate students to increase our department funding.". He also said "we no longer have enough professors to advise our students, specifically our PhD students. I would highly recommend you start looking elsewhere if you want to get a PhD in statistics..." I did everything I could to make the most of my education at FSU and was constantly disappointed with the lack of guidance, learning and academic inspiration. It is also extremely evident that the professors themselves do not like being at FSU. Professors, even those who have tenure, are constantly leaving the department and seeking employment from other universities. There is even a constant violation of FERPA, and it somehow tends to be dismissed.. For example, the head of the department would "shame" students by showing them scores of other student's quals. He would specifically say "I don't know why you didn't do well... look at so and so, your friend, who did better..." Lastly, even after being brought to their attention, students who received a TA position would pay other NON TA students to do their job instead.

It was a good experience! I am starting a PhD in Statistics at UC Santa Cruz in the Fall - part of me wishes I went directly into a PhD, but one thing leads to another, and I am definitely a lot better prepared and I am excited because I know what to expect in grad school. So overall, I think this MS degree was good.

Probably choose a different advisor. Mine was very micromanaging

More practice with mock real-life scenarios of statistical consultations.

Nothing.

Nothing; the program itself was great. I wish my current position were more challenging, but this position is going to evolve the longer I am in it.

n/a

Write more and speak more. Solving the problems only is not sufficient for the working environment, what's important is to translate your results and insights to your colleagues.

Take more computer science or courses in statistical computing/data science

Learned more about how to do a research project.

I would spend more time on my study.

I would have pursued that from 2014. Instead I pursued the PhD, took a semester off to get the MS, then returned to PhD. I wish I had not ever attempted the doctorate.

Nothing

get more involved in statistical consultation meetings

so far, I haven't really used any of the programs that were used in school

Nothing.

I wouldn't have done a thesis and would have found an intern ship instead.

Encourage more applied projects

I am thinking of doing financial math

I wish I had gone to a cheaper school. Now I have high student loan payments.

I'm not sure there is anything I would do differently. The classes I took definitely prepared me for my job today. I wish there were more topic Statistics classes but besides that, my program was definitely very helpful in my career.

Be involved in more internships/gain more experience outside of academia

Become a biostatistician

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take more classes which are less theoretical but more interpersonal; involve in some student clubs to know more people

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Nothing

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I don't know

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More model building

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Probably considering double major in computer science/computer engineering in conjunction with statistics

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Focus on a more applied classes, informatics, or take more programming classes.

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Overall, I felt like my master's education was really good. Maybe it would have been helpful if there was more opportunities to learn about cloud computing or dealing with data pipelines and perhaps more opportunities to use both Python and R would have been good for my career goals.

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Worry less about grades and focus more on learning.

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More applied courses

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More focus on real life application of statistical methods and interpreting data.

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Nothing

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write a thesis

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It would have been helpful to learn about how to deal with massive datasets.

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I would focus more on the advanced computing classes and would have taken advantage of the high-performance computing resources for the experience.

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I would spend more time exploring 'additional topics' that were relevant to what the professor was talking about, but they didn't have time to cover in class; you never know what random tidbit of information will be extremely helpful later on down the road.