

Source of data: Data reported here are based on 476 surveys completed in 2017 by learners in a Coursera Specialization in a business-related topic, and in three edX MicroMasters, one in a computing-related topic and two in social science topics. The offering institutions were public and private 4-year research universities in the U.S.

Participant demographics:

- Average age of learners was 38 years
- Just over half were female
- Over 80% already had a BA or higher degree
- Over half the participants were employed full time and 13%-17% owned businesses
- Average annual income: \$71,125 Specialization participants; \$42,247 MicroMasters participants

Key Takeaways from Baseline Survey of Participants in Open Online Courses which Culminate in a non-Degree Credential

Reasons for taking the courses in the series

- Almost half of participants were looking to improve performance in their current job
- MicroMasters participants were clearer about their goals for participation: 30% seeking to network with other professionals in the field, 29% preparing to apply for a different job, 25% planning to start their own businesses, and 21% preparing to apply for a degree program
- 4% of participants who were asked had been encouraged to participate by their employer

Opportunity costs

- Participants expected to spend a mean of 5 - 7 hours/week on coursework
- Among those asked, only 2% indicated that their employer was paying them for the time spent on the courses
- Most participants were giving up unpaid leisure time to complete course work
- 10% of participants were giving up paid work time

Who pays the fees

- Approximately half to two-thirds of participants were paying the fees themselves
- Employers were paying the fees for up to 10% of participants
- The remainder were mostly taking the free version of the courses or receiving financial aid from edX or Coursera

Plans for earning the alternative credential and further education

- Less than a third of the Specialization participants indicated they would aim to earn the culminating credential, compared with almost 2/3 of the MicroMasters participants
- Just over a quarter of the MicroMasters participants intended to apply for the full Master's program with which the program was directly associated
- Approximately a quarter of participants planned to stop studying after earning the credential
- Over half the Specialization participants did not intend to complete all the courses in the program; another fifth planned to complete them but not earn the credential
- 10% of the MicroMasters participants planned to earn the credential and then apply to a program at a different university

Overall, at the outset of these course series, learners had fairly high expectations regarding the educational and career benefits of participating in the program, particularly in the case of MicroMasters. Among those paying fees for the courses, the vast majority were bearing the burden of costs themselves. It is, however, encouraging that employers were paying fees for 10% of the MicroMasters participants.

Next steps:

- Participants in these four programs will be invited to complete a second survey when they earn the culminating credential, and a third survey a year later to assess actual rather than expected changes in education, earnings, and career status since completing the credential.
 - A wider range of institutions - both academic and non-academic, and more and less selective - will be invited to join the study to cover a broader range of topic areas and to increase the sample size.
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Background: Massive Open Online Courses (MOOCs) have proliferated since the debut of xMOOCs in 2011 (see [Hollands & Tirthali, 2014](#)). Since 2013, several providers have begun packaging individual courses into series (see [Young, 2017](#)). Examples of these online course series, which are open to enrollment by any applicant, include [Coursera Specializations](#) which appeared in early 2014, and the [MicroMasters](#), first offered in supply chain management by MITx in 2015 via the edX online platform (see [Straumsheim, 2017](#)). Some series now culminate in a capstone project or proctored examination and all charge fees for participants who wish to earn a non-degree credential upon successful completion.

By December 2017, over 500 Specializations had been developed by a wide array of academic institutions and corporations, and 24 universities were offering a total of 41 MicroMasters. These programs primarily target working professionals who are looking to improve their job skills or career prospects. Udacity's [Nanodegrees](#), [edX XSeries](#), and [edX Professional Certificates](#) are additional examples of these open online course series which, if all requirements are satisfactorily completed, allow the learner to earn a certificate.

While these non-degree or "alternative" credentials are vastly less costly than traditional degrees, key questions are whether they will be valued by employers and bring the participants career, financial, educational, or other benefits that outweigh the direct costs and opportunity costs of participation.

Benefits to learners of completing MOOCs: In 2015, a study of the benefits accruing to learners who engage in MOOCs indicated that, among learners who completed the courses and responded to an online survey, 72% reported career benefits and 61% reported educational benefits ([Zenghao et al., 2015](#)). Among learners who were not currently students in a traditional academic program, those with lower socio-economic status (SES), less education, and from developing countries were more likely to claim educational benefits from completing MOOCs. The study also suggested that, among learners from developing countries, those with less education and lower SES were the most likely to report tangible career benefits.

What this study is about: The hypothesis of the current study is that courses offered as a series with a culminating credential could be even more beneficial than individual MOOCs. From an educational standpoint, the learner will pursue a topic in depth and participate in more rigorous assessments. From a career standpoint, the credential may serve as a signal to potential employers that the learner is capable of mastering a substantial body of knowledge and skills related to a particular topic area.

Methods: This study began in 2017 by gathering baseline information about a learner’s education, earnings, and career status through a voluntary survey administered as he or she started the first course in an open, online course series. A second survey will ask for similar information once the credential is earned. Additionally, a follow-up survey will be sent around 12 months after the learner has completed the credential in order to assess changes in education, earnings, and career status since completing the credential. For example, students earning a MicroMasters are eligible to apply to the offering institution for enrollment in a full Master’s degree. If the applicant is accepted, the MicroMasters will be accepted for credit as partial completion of the full Master’s degree. One of the outcomes to be investigated is how many students are indeed able to progress to the full Master’s degree.

The study also investigates the direct costs and the opportunity costs incurred by learners participating in these course series. For example: Who is paying for the courses? Are participants sacrificing paid work time to complete coursework? Are their employers allowing them to study during paid work time? Overall, the study will assess both the benefits and costs to learners who are engaging in a series of open, online courses that may allow them to earn a culminating, non-degree credential.

Who were the learners? Learners in these four programs appeared to be older and more likely to be female than has been typically reported for stand-alone MOOCs. The MicroMasters programs in particular appeared to attract a fairly racially diverse set of learners.

Basic demographics

Basic demographics	Specialization	MicroMasters
Average age (years)	38	38
Youngest	15	15
Oldest	68	80
Female	54%	53%
Hispanic	12%	15%
White	56%	44%
Asian	30%	22%
Black or African American	3%	15%
Multiracial	2%	11%
Number of countries represented	50	66
Top 3 countries represented	USA 34%, India 9%, Pakistan 5%	USA 28%, India 7%, Canada 6%

Education level and current knowledge/skill level

Learners were generally quite well educated already with over 80% already having a BA or higher degree. Over 80% of the learners were not currently studying in a traditional degree program. The MicroMasters attracted a higher number of learners with only a BA or less. None of the four programs attracted many students with Associates degrees, although 12% of the MicroMasters participants indicated having completed some college courses but no degree. Across all programs, 8% of the learners had no degree and were also not enrolled in a formal educational program. These students will be tracked to investigate whether, over time, these course series can serve as a pathway to a degree. Learners across both types of course series indicated similar levels of English proficiency: 56% - 60% claimed fluency, around a quarter indicated being very good, 13%-16% were intermediate, and 2%-4% indicated basic or weak English skills.

Highest level of education	Specialization	MicroMasters
Doctorate/professional degree	13%	12%
MA	43%	28%
BA	31%	42%
Associates degree (2 year degree)	2%	3%
Some college courses but no degree	4%	12%
Secondary/high school or less	7%	3%

Learners in the MicroMasters were asked about their current level of knowledge in the topic areas. 56% indicated they were beginners, 35% intermediate, 7% advanced, and 2% expert. 27% of these participants had never participated in an online course previously, 31% had participated in 1-2 online courses, 28% in 3-7 online courses, and 13% in eight or more.

Employment status

Half or more of the participants were employed full time and 13%-17% owned their own businesses.

Employment status	Specialization	MicroMasters
Working full time	55%	50%
Owns a business	13%	17%
Working part time	5%	17%
Unemployed and looking for a job	16%	13%
Student	12%	11%
Unemployed and not looking for a job	3%	2%
Retired	1%	2%
On family leave	1%	0%
Unable to work	2%	0%

Total annual income

Income levels were higher for participants in the Specialization, most likely reflecting the fact that a higher percentage were from developed countries.

Total annual income (salary + bonus)	Specialization	MicroMasters
Average	\$71,125	\$42,247
Low	\$0	\$20
High	\$1 mm	\$880,000

Reasons for taking the courses in the series: Almost all participants in the Specialization chose to engage in the course series themselves, but 4% of them had been asked to participate by their employer. Almost half of participants in the Specialization and MicroMasters were looking to improve their performance in their current job. Generally, the MicroMasters participants appeared to be clearer about their goals for participation in the course series with 30% seeking to network with other professionals in the field, 29% preparing to apply for a different job, 25% planning to start their own businesses, and 21% preparing to apply for a degree program.

Reasons for taking the courses in the series	Specialization	MicroMasters
I chose to take it myself	92%	Not asked
My employer asked me to take it	4%	Not asked
Improve my performance in my current job as a result of taking the courses	45%	46%
Network with other professionals in this field	16%	30%
Preparing to apply for a different job from the one I am currently doing and expect these courses will improve my application	17%	29%
Learn something new in this field but don't have a specific goal afterwards	43%	28%
Plan to start my own business and expect these courses will help me	19%	25%
Preparing to apply for a degree program and expect these courses will improve my application	8%	21%
Hope to improve my English language skills relevant to this field	25%	20%
Supplement what I am already learning in a formal degree program	10%	18%
Hope to get a job promotion in my current organization as a result of taking the courses	11%	14%
Hope to get a raise in pay as a result of taking the courses	8%	13%
Preparing to apply for my first job and expect these courses will improve my application	5%	11%

How much are the fees to earn a credential and who is paying them? Courses cost \$79 per month for the Specialization. Course lengths added up to 12 weeks resulting in a total of around \$240 for the credential assuming one month per course. Each MicroMasters course cost between \$49 and \$249 with the full MicroMasters credential costing around \$1,100.

While 26% of learners in the MicroMasters and 39% of those in the Specialization series were not currently paying any fees, most of those who were paying did so themselves. Employers paid for the fees for 10% of the Specialization participants and 4% of the MicroMasters participants.

Among the respondents indicating other sources of funding, one indicated a UN Refugee Agency and another referenced a professional development allowance from her/his union.

Who is paying course fees	Specialization	MicroMasters
Learner her/himself	47%	66%
Taking the course free for now	28%	20%
Financial aid	11%	6%
Employer	10%	4%
Combination of learner and employer	1%	3%
Other source	3%	1%

Opportunity cost of time

Participants expected to spend between one and 40 hours per week on the courses, with a mean of 5 hours per week for the Specialization and 7 hours per week for the MicroMasters. Courses in the four course series studied ranged from 3 to 8 weeks in length.

Among the MicroMasters participants, only 2% indicated that their employer was paying them for the time spent on the courses. Most participants in both the Specialization and the MicroMasters were giving up unpaid leisure time to complete course work, but for each type of course series, 10% indicated giving up paid work time. Less than 10% indicated they were giving up some time studying for a degree program in which they were currently enrolled. 4% of participants were paying someone else to take care of their children or other family members while they completed their coursework.

Plans for earning the alternative credential: Less than a third of the Specialization participants indicated they would aim to earn the culminating credential, compared with almost 2/3 of the MicroMasters participants. Just over a quarter of the MicroMasters participants intended to apply for the full Master's program with which the program was directly associated. Approximately a quarter of participants in the Specialization and MicroMasters planned to stop studying after earning the credential. Over half the Specialization participants did not intend to complete all the courses in the program and another fifth planned to complete them but not earn the credential, perhaps to avoid fees. 10% of the MicroMasters participants planned to earn the credential and then apply to a program at a different university.

Plans for earning the alternative credential	Specialization	MicroMasters
Earn the credential and apply for the related full Master's degree	n/a	26%
Earn the credential but not apply for the full Master's degree (or, for Specialization participants, other further degree program)	27%	24%
Complete <u>some</u> of the courses but not earn the credential	53%	21%
Complete <u>all</u> courses in the program but not earn the credential	21%	21%
Earn credential and apply to a program at a different university	2%	10%
Earn credential and apply to a program at same university	0%	3%
