

# Benefits and Costs of Participation in MOOC-based Alternative Credentials

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# Background & Motivation for Study

Fiona Hollands, Ph.D.,  
Founder & Managing Director, EdResearcher

- How we define “alternative credentials:”
  - *Non-traditional forms of recognition or certification that individuals can obtain to demonstrate their skills, knowledge, or achievements in a particular field*
  - Typically offered by organizations, platforms (e.g., edX, Coursera), or industry associations outside of formal education systems

- Why are we interested in this area?
  - Intersection of research interests
    - EdTech
    - ROI for educational programs
  - Heralded as cost-effective education at scale

- 2011-12
  - Explosion of MOOCs in U.S.
- 2014
  - Hollands & Tirthali: interviews to assess costs and benefits to institutions offering MOOCs (mostly unis)
- 2015
  - Zhengao et al. studied benefits to learners of taking individual MOOCs
- 2014 -
  - Packaging of MOOCs into series such as Nanodegrees, Specializations, MicroMasters
- 2017
  - We hypothesized that the benefits of series of courses with a credential would be greater

- Longitudinal descriptive study
- 3 voluntary surveys approx. 10 mins each to complete
- Links to Qualtrics surveys
  - Embedded in courses that were part of Coursera Specializations or edX MicroMasters programs, OR
  - Emailed to participants who provided email address and consent for follow-up from researchers

- **Survey 1 (2017-2022)**
  - For learners starting their first course in the series
  - Expectations for benefits, plans for earning credential and applying for a formal degree
  - N= ~26,000 across 8 programs, each 4-9 courses
  - Business, data science, computer analytics

- **Survey 2: (2017-2022)**
  - For learners who completed all courses in the series and earned the certificate/MicroMasters
  - Benefits to date, applications to formal degree, support from employers
  - N= $\sim$ 2,300 across 8 programs



- Survey 3 (2023)
  - Emailed to:
    - 1,140 learners who completed program at least 1 yr ago
    - 15,000+ learners who started program at least 18 mo ago
  - Additional questions about benefits, further education, and impact on career since completing
  - N= ~70 across 5 programs

- Voluntary
  - not representative of overall population of learners
  - or of participants in these series
- Descriptive and self-report
  - no causality



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# Who are the Learners?

Aasiya Kazi, M.Phil.,  
Ph.D. Candidate, University of Oxford

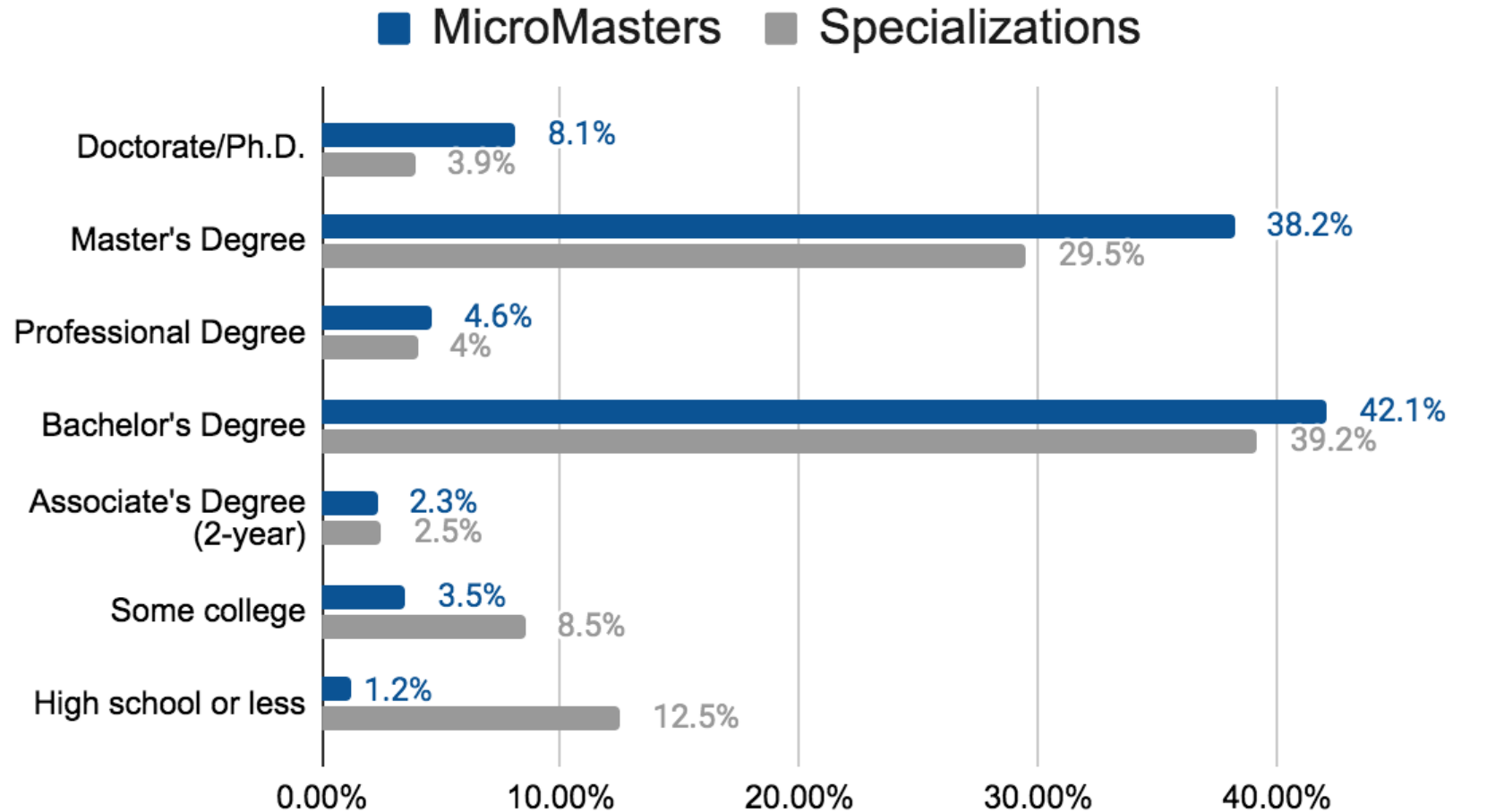
- Learners began series at an avg age of 33 yrs (n=22,872) and completed at an avg age of 34 years (n=1,777)
- 46% completers identified as female, 53% as male, and 0.53% as other (n=1,882)
- Around 38% completers were White, 36% were Asian, 6% were Black/African American and 5% were multiracial
  - 14% identified as Hispanic (n=1,860)

- Completers who earned a credential lived in 122 different countries
  - 24% in the U.S.; 10% in India (n=1,822)
- Only 18% of completers were full-time or part-time students in a formal degree program (n=1,883)
- Learners who completed a MicroMasters or Specialization program were similar in demographics to those who began one except they were:
  - More likely to be female (46% vs. 38%) & fluent/v. good in English (83% vs. 76%)
  - Less likely to be a student (18% vs. 24%)

# 79% completers had at least a Bachelor's degree and 39% a higher degree

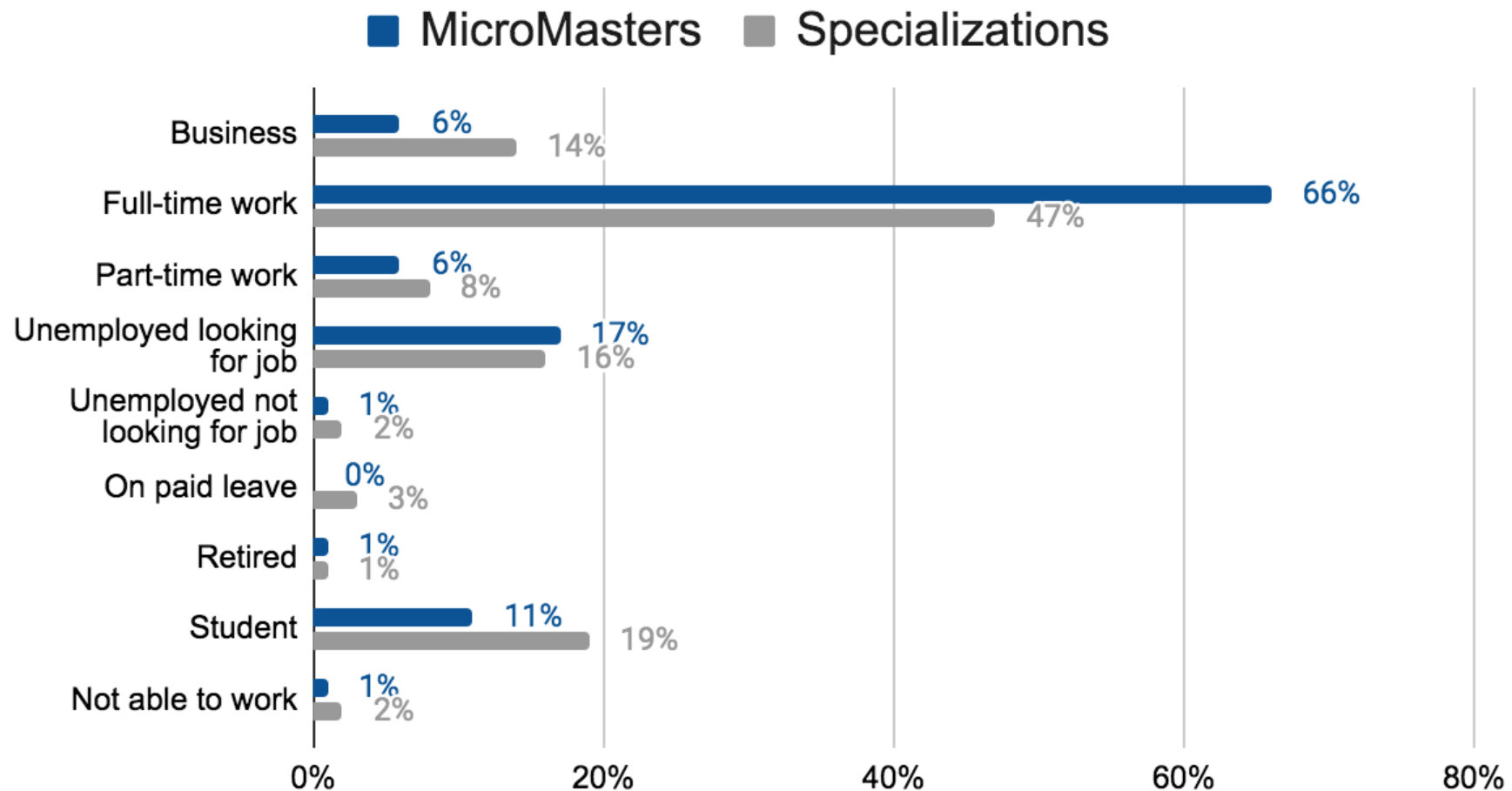


MicroMasters n=259 Specializations n=1,614



# 78% MicroMasters completers and 69% Specialization completers work full-time, part-time, or run own business

MicroMasters n=269 Specializations n=1,716





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# Expected vs. Reported Benefits from Earning Alternative Credentials

Aasiya Kazi, M.Phil.,  
Ph.D. Candidate, University of Oxford



# Learned Something New



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Anticipated (n=23,767)

Reported (n=2,256)

27%

94%

# Improved Job Performance

Anticipated (n=23,767)

Reported (n=2,256)

41%

38%

# Helped Start Own Business



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Anticipated (n=23,767)

Reported (n=2,256)

22%

12%

# Improved Application to Degree Program

Anticipated (n=23,767)

Reported (n=2,256)

15%

9%

# Job Promotion



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Anticipated (n=23,767)

Reported (n=2,256)

12%

5%

# Pay Raise



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Anticipated (n=23,767)

Reported (n=2,256)

10%

5%



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# Costs, Opportunity Costs & Follow-up Study Plans

Katherine Javier, M.Sc., M.A.  
Consulting Partner, Grupo Linea Base

# Opportunity Costs of Engaging in AC



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## Opportunity cost:

Foregone opportunities  
of choosing one  
alternative over another

## Main opportunity costs associated with AC

Foregone  
money

Foregone  
time

Course  
fees paid

Paid-work  
not done

Leisure  
time  
invested to  
study

Work time  
invested to  
study

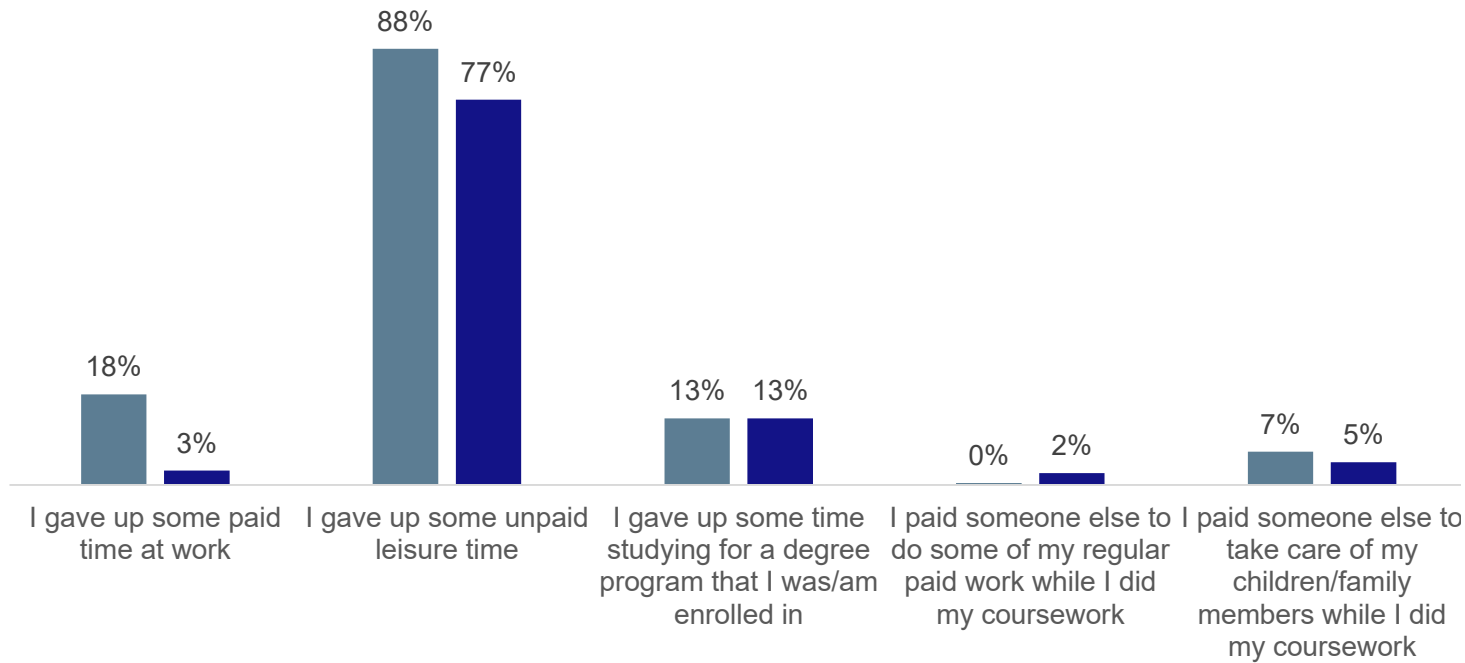


# The vast majority of completers gave up unpaid leisure time to complete the coursework



## Giving up to complete the coursework

■ MicroMasters ■ Specialization

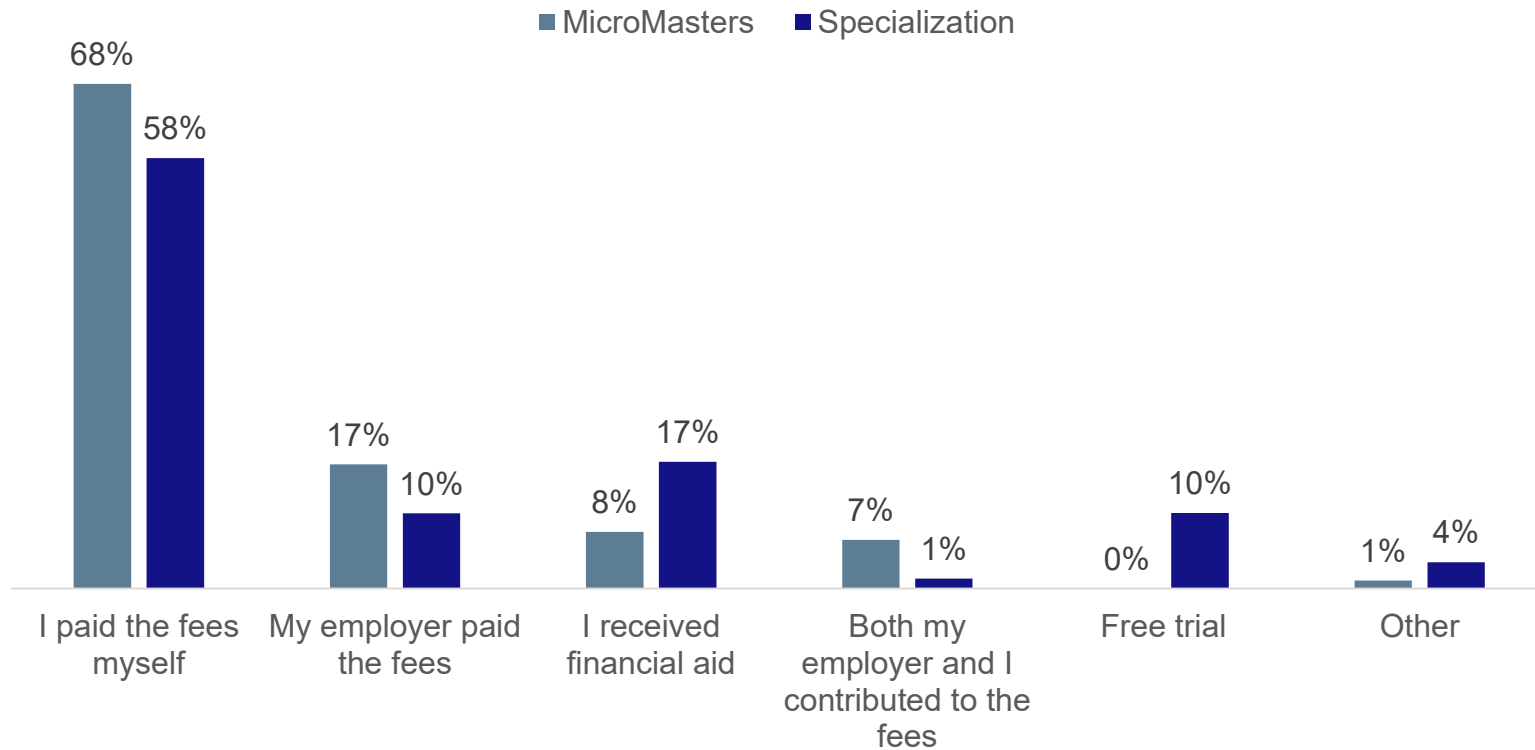


Completers that gave up unpaid leisure time to complete coursework:

- **88% of MM**
- **77% of Specialization**

# The majority of participants invested their own resources to pay course fees

Who paid for the course fees




Approximately 2/3 of completers paid course fees themselves

Program	Expected program cost	Median fee paid by completer
MicroMasters	US\$900-1,300	US\$1,200
Specialization	US\$325	US\$79

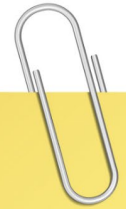
# A small fraction of employers promoted continuous training, by paying for time invested or contributing towards AC fees

Program type	Percentage whose employer paid for time spent on course	Percentage whose employer paid or assisted with fees	Median contribution	Expected program cost
MicroMasters	10%	11%	US\$1,200	US\$900-1,300
Specialization	11%	24%	US\$100	US\$325



Contributions for Specializations were approximately 1/3 of course fees

# The estimated opportunity cost was proportionally higher for MicroMasters completers



MM completers foregone earnings are equivalent to US\$ 11,700, roughly **20% of their annual income vs. 2% of Specialization completers.**

Program type	Recommended time to invest in program	Average time spent	Median reported annual salary	Estimated opportunity cost
MicroMasters	100-400 hours	412 hours	US\$59,000	US\$11,700
Specialization	38-78 hours	42 hours	US\$38,000	US\$800

# The number of students enrolling in a degree program after completing an AC program is low



Approximately one in 10 completers indicated that completing the MicroMasters or Specialization program had improved an application to a degree program

4% of all completers indicated that completing their program improved their application to a degree program at a different university

7% of the MicroMasters completers indicated that completing the program improved their application to the related full Master's degree program

# Results suggest that ACs are not democratizing education or translating into increased earnings



The expectation was to complete MicroMasters and move on to formal graduate programs, but this is happening infrequently



It is not clear completers are recovering their investment (time and money)



Completers are improving their job performance and networking but this does not necessarily translate into increased earnings



We still don't know if the investment is worth it



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# Employer Support for Employee Participation in Alternative Credentials

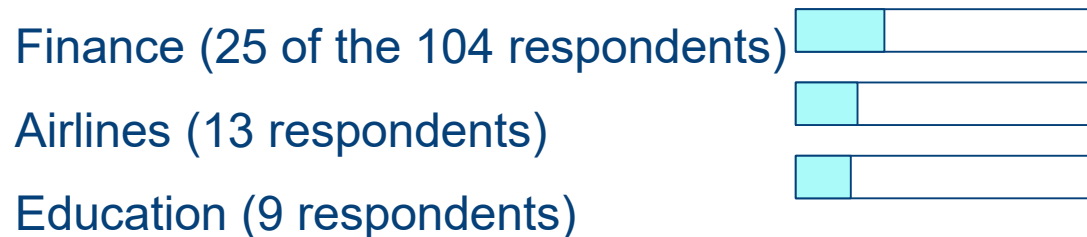
<https://www.edresearcher.net/2023-2>

Yuan Chang Ginsberg, M.Ed.  
Program Evaluation Analyst

# Employers who asked their employees to take the courses



- 316 of the 2,288 (14%) program completers reported that their employer asked them to take the MicroMasters or Specializations courses
- **104** of these 316 respondents named their employer
- We conducted online searches to categorize employers by sector
  - Most frequently appearing sectors:





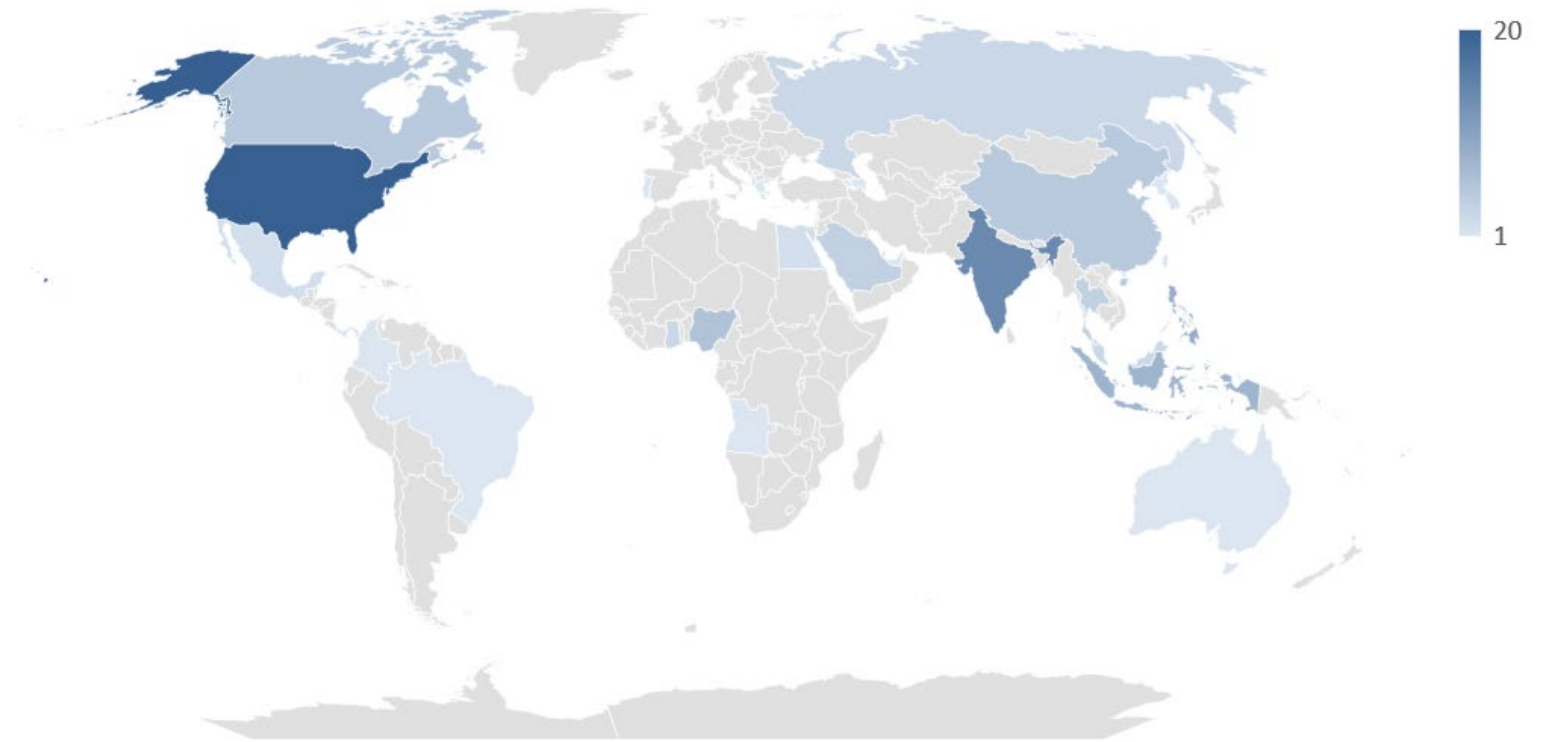
# Employers who asked their employees to take the courses by country



## Countries appearing most frequently

United States of America	20
India	14
Philippines	9
Indonesia	8
Nigeria	6
Canada	5
China	5
Thailand	4
Saudi Arabia	4
Russia	3
Ghana	3
Malaysia	3
[Others	40]

Countries and regions of employers who ask their employees to take the courses  
(n=104)



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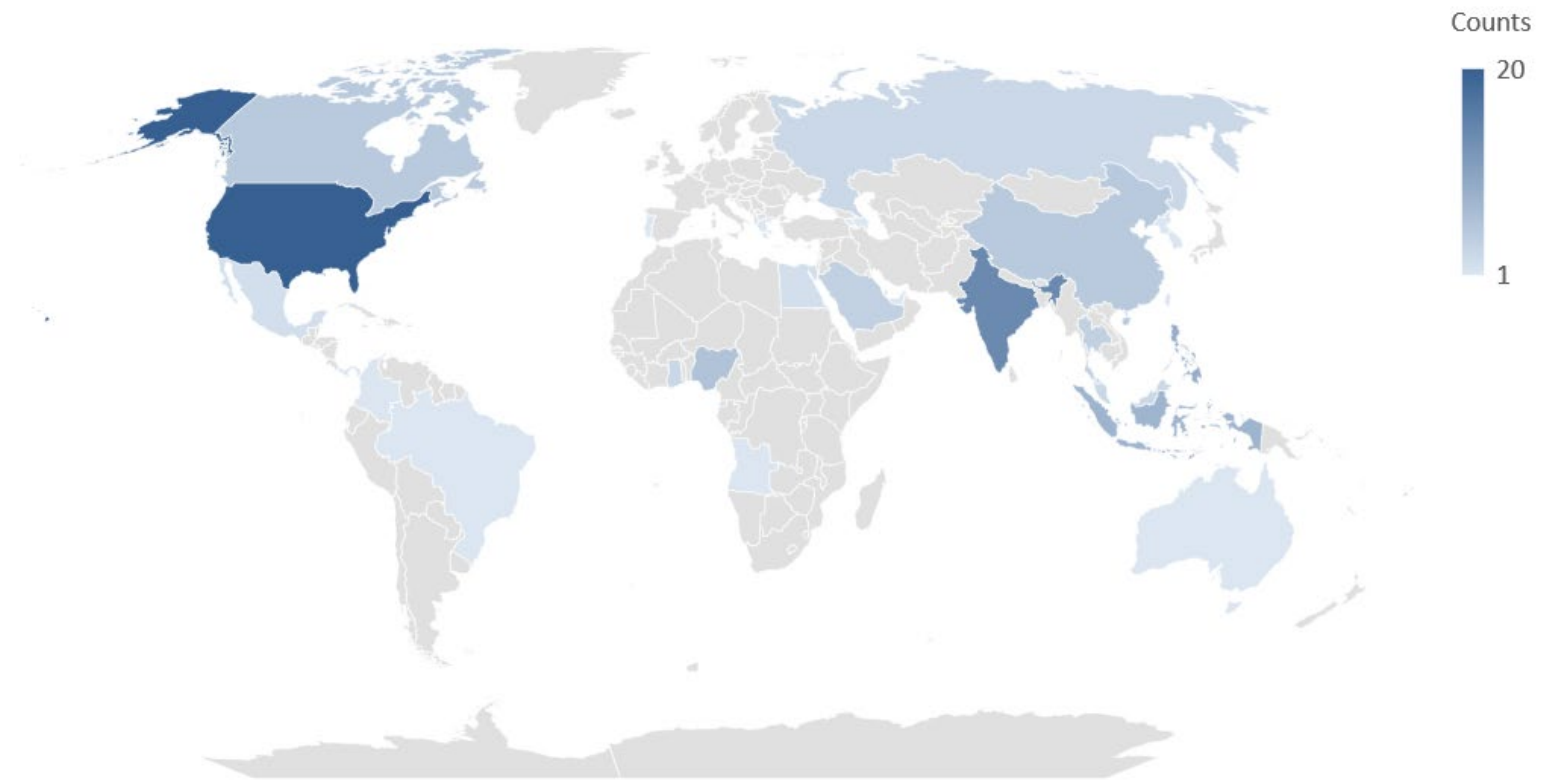
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Saudi Arabia	4
Russia	3
Ghana	3
Malaysia	3
[Others (Asia)]	40 (15)]

Countries and regions of employers who ask their employees to take the courses (n=104)

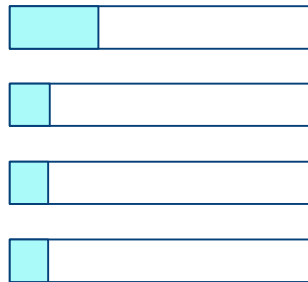


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# Employers who contributed to the course fees






- 277 completers indicated that their employer covered part or all of the course fees
  - For 234 (84%), the employer paid all the fees
  - For 43 (16%), the employer paid part of the fees
- 126 of these 277 respondents named the employer
  - Most frequently appearing sectors:
    - Finance (33 mentions out of 126)
    - IT (10 mentions)
    - Manufacturing (8 mentions)
    - Education (8 mentions)



# Employers who paid learners for study time

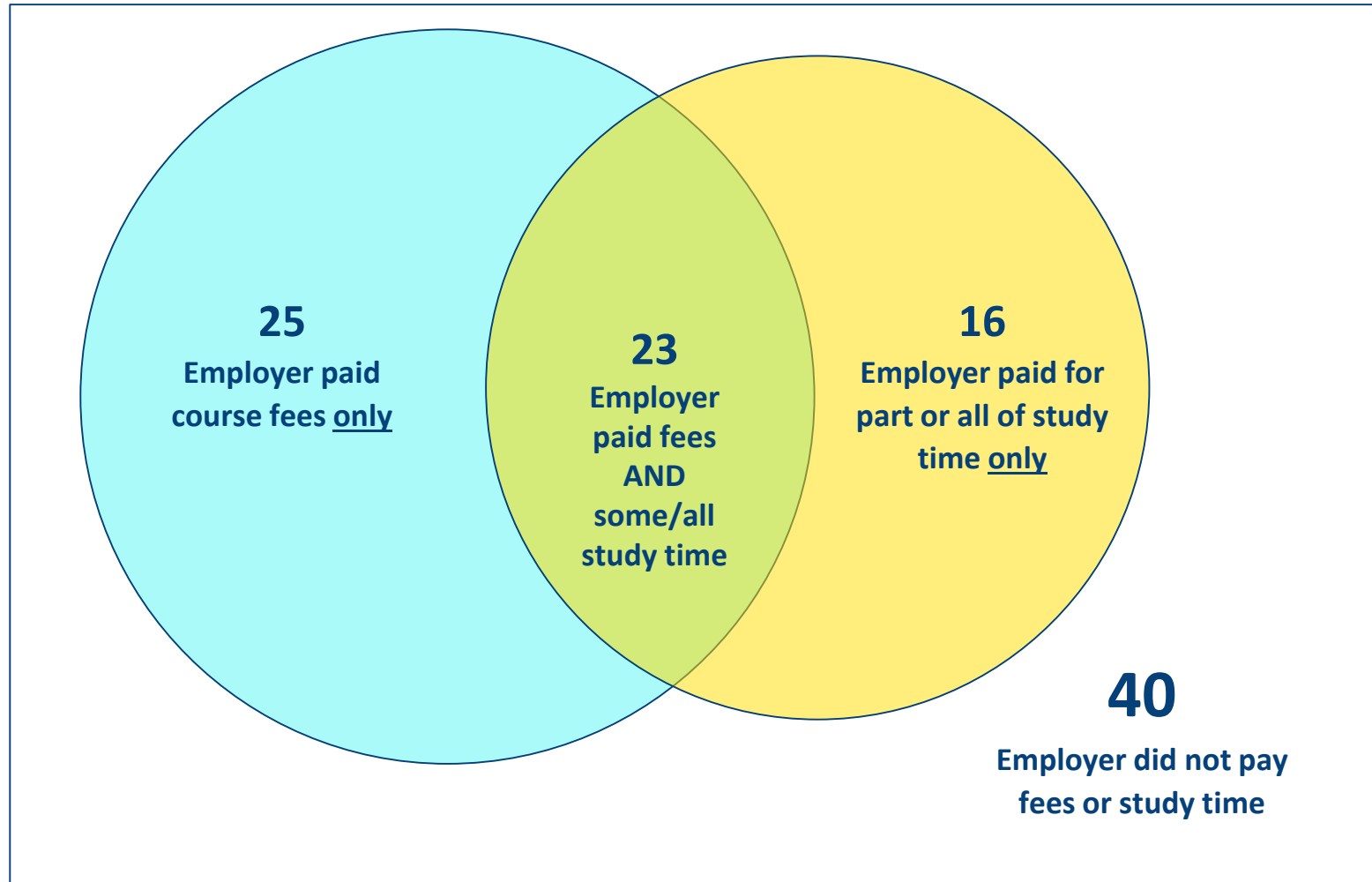


- 211 completers were paid for part or all of the time spent on the courses
  - For 130 (62%), the employer paid for all the time invested
  - For 81 (38%), the employer paid for part of the time invested
    - **93** provided the name or field of their employer
      - Most frequently appearing sectors:
        - Financial Institutions (21 of 93 respondents) 
        - Education (10 respondents) 
        - Government (7 respondents) 

# Under a quarter of those asked to take the courses by named employers were fully supported financially by the employer

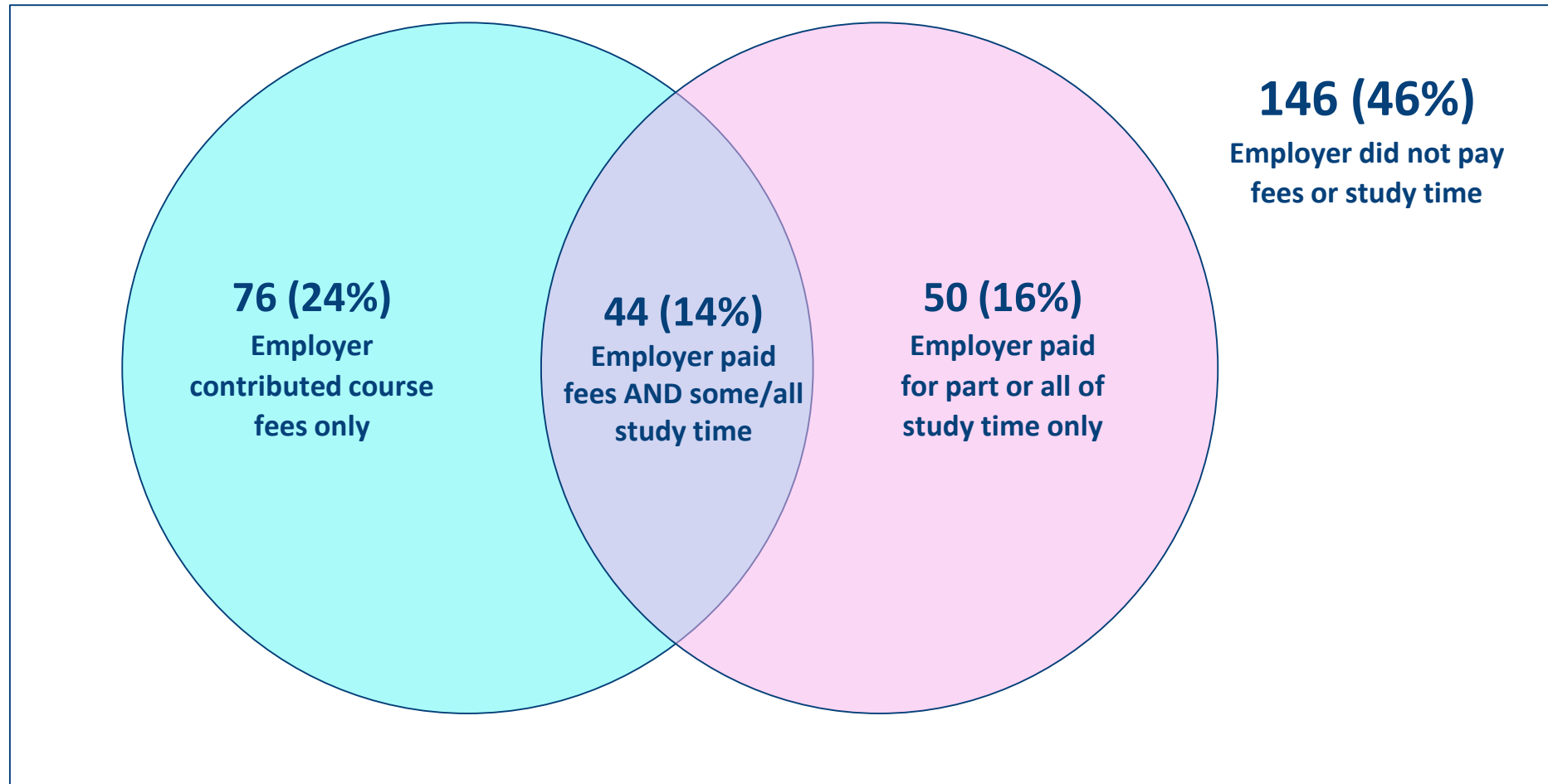


**104** completers were asked by named employers to take the courses



# Just over half of those asked to take the courses by any employer received some financial support from the employer

**316** completers were asked by their employers to take the courses





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# Key Takeaways

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Founder & Managing Director, EdResearcher

- Almost all learners who earned MicroMasters and Specializations credentials gained new knowledge, despite already being well-educated
- Few completers of these credentials are pursuing further education
- Learners are investing time and money in these programs but financial returns are less apparent, at least immediately
- **Discussion questions:**
  - Should more employers consider supporting employees in participating in these programs as a low-cost alternative to traditional talent development?
  - How can we quantify benefits to employers?







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