

After your degree: what you can do with maths

This session will begin at 15:10 (UK time).

To join this session you will need the following:

- Strong internet access (broadband connection highly recommended if possible)
- For the best experience, use Google Chrome
- We recommend closing all programmes except for the browser you are using for your Collaborate session.
- Headphones (recommended)

This session will be recorded.





After Your Degree: What can you do with Maths?

Matt Vickers

Careers Consultant
Schools of Engineering & Maths



Before we start

Can you hear the presenter talking?

- Please select yes/no on the on-screen poll, or type your answer in the chat box
- If you can't hear, try leaving and re-joining the session
 Google Chrome is the recommended browser.
- Collaborate Troubleshooting Guide:

 https://www.ed.ac.uk/information-services/learning-technology/communication/bb-collaborate/help-support/troubleshooting





Asking Questions

Etiquette



Please mute your microphone

You can type a question or comment at any time in the text chat.



Identity



Why is my name displayed?

Your name is displayed to the facilitator and the other students and you are able to see their names. This is to help keep the learning space secure, support engagement, and run the session effectively. It will not be visible on any published recording.

Do I have to turn my video on? No.

Recording

- This session will now be recorded. Any further information that you provide during a session is optional and in doing so you give us consent to process this information.
- These sessions will be stored by the University of Edinburgh for one year and published on our website and Media Hopper during that time.
- The text chat is recorded but will not be visible on the published recording.
- By taking part in a session you give us your consent to process any information you provide during it.
- We will tell you when we stop recording.



Some wisdom to begin...

"Not knowing what you want to do isn't a problem.

Doing nothing about it is!"

Chris Phillips

(Former Careers Adviser and Information & Research Director, GTI Media)







Fact:

Most people spend **more time** planning their 2-week holiday...

than their **whole** lifetime's career!

(and how many weeks is that?)

But

You don't need to plan your whole career.

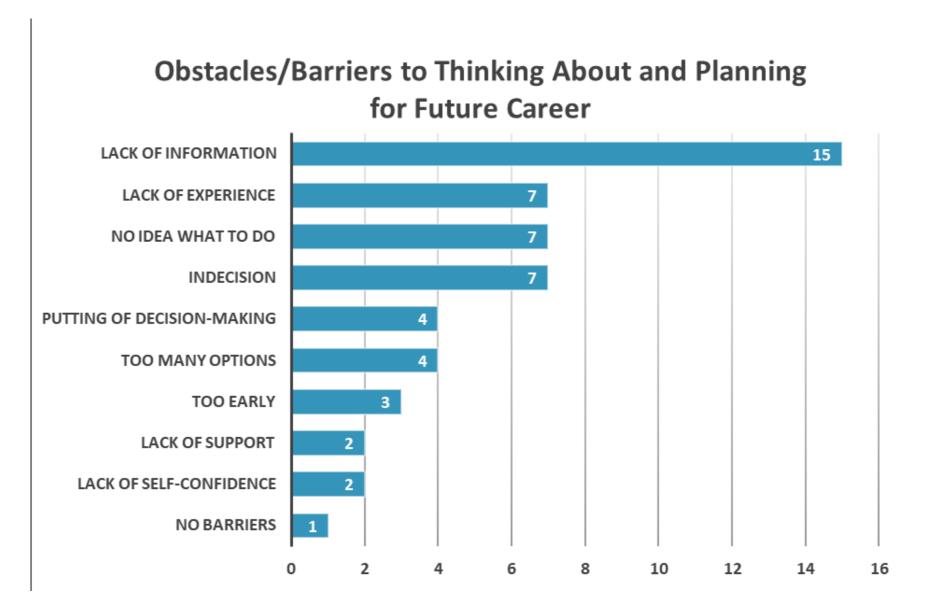
Just plan your next steps. (More on this later)







Future planning: Maths students said...



Source: Career Motivations and Outcomes of maths Students Research, Summer 2018



This session will cover:

- A model to help you structure your ideas: Career compass framework
- Information on the graduate labour market
- Career options for Maths graduates
 (incl. information on the destinations of previous Edinburgh graduates)

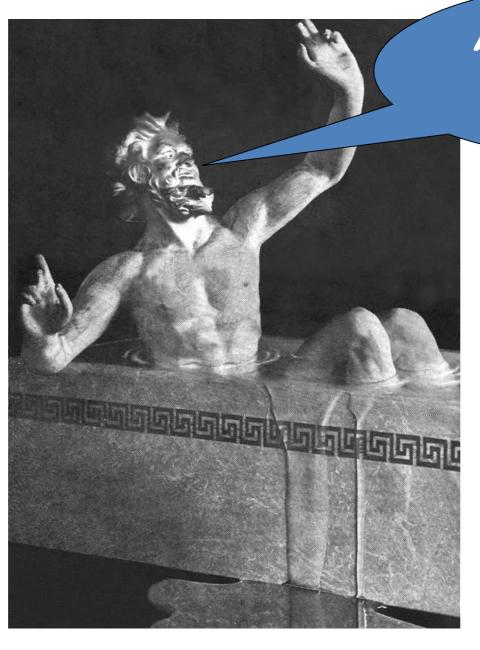
Resources for finding out more



Are you all the same?



Archimedes (c. 287 BC – c. 212 BC)

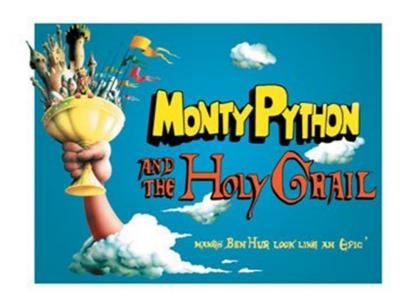


"Eureka!"



Career planning: issues for you?

- Maths problems generally have an answer / a solution, i.e. typically right/wrong.
- In careers, there may be many correct answers: many jobs, professions/occupations. Searching for the "one true answer" can be futile quest and lead to indecision and paralysis (fear).



Don't necessarily try to find your <u>one passion</u>.













What is 'career'?

e.g. J.K. Rowling

French & Classics Student (University of Exeter)

Researcher & Bilingual Secretary (Amnesty International, London)

Temp. jobs (e.g. Manchester Chamber of Commerce)

English Language (TEFL) Teacher (A language school, Portugal)

Mother / Writer

Part-time Secretary / Writer (Edinburgh)

Modern Languages Initial Teacher Education Student: (Moray House)

Writer (Edinburgh)

Mother / Writer (Perthshire)

Philanthropist (e.g. Volant Charitable Trust; Gingerbread; Lumos;

Multiple Sclerosis)



You've won the Lottery...

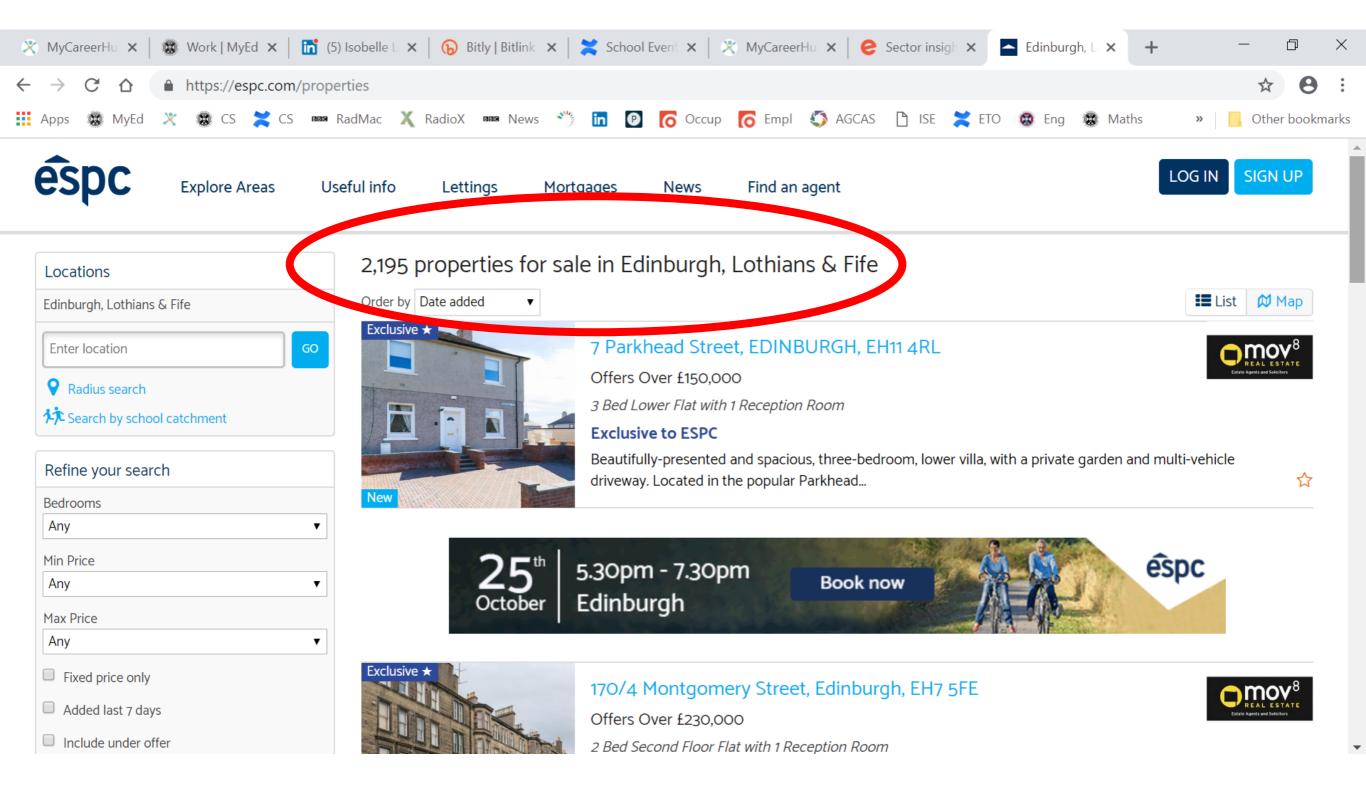


After a *fantastic* party and holiday(!), you decide to buy a house...

- What factors do you need to consider?
- What actions do you need to take?



Choices, choices, choices...



Buying a house: creating your shortlist

What do I want?

- No. bedrooms?
- Style/age?
- Location?
- Garden?
- Parking?
- Conditio
- Budget?
- Realism!
 Inspiring futures



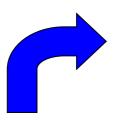
What's for sale?

- Property websites
- Being aware
- Viewings





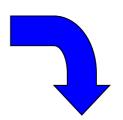
Career planning process – a model



Self

Awareness

Know yourself and what you want from a job.



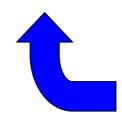
Transition Skills

Putting plans into action, incl. making applications.



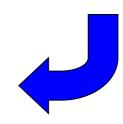
Awareness

Learn about options: careers, employers, study.



Decision Making

Weighing up options and deciding on most suitable.



"DOTS Model", Law & Watts (1977)



Careers Compass – chart your progress



- Understand yourself –
 skills, values, strengths
- Discover what's out there – jobs, courses, sectors
- Build experience participate, volunteer, intern
- Become professional confident, adaptable, independent
- Make it happen –
 plan, apply, succeed

http://www.ed.ac.uk/careers/compass

So what's out there?

Use Career Compass for quick ideas to start exploring

Discover what's out there: jobs, courses, sectors

Being curious and exploring different sectors, finding out about different roles, courses, employers and ways of working will help you work out what's a good fit for you. This will help you narrow down the options and make decisions.



What to try

Early years students

. Quick start: Explore Target Jobs or Prospects to learn more about different sectors and job types:

Target jobs career sectors

Prospects job profiles

. Looking for ideas? Watch our quick video "Don't know what you want to do"?

Video: Don't know what you want to do?

. Want to know where your degree can take you? Find out more with "What can you do with your degree?":

What can you do with your degree?

Penultimate year students

· Quick start: Want to know which employers are on campus this year? Check the events tab on MyCareerHub:

MyCareerHub events

. Looking for inspiration from Edinburgh graduates? Connect to them on Platform One:

Platform One

Feeling overwhelmed by careers information? Start with our website as we've collated the best sites:

Find out about jobs and sectors

Final year students

Quick start: What graduate jobs are being advertised now? Search MyCareerHub:

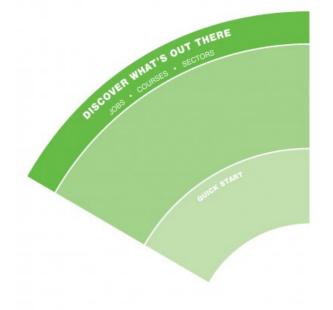
Search graduate jobs on MyCareerHub

. Where are graduates with your degree now? Search the Linkedin alumni tool to find out:

University of Edinburgh alumni on Linkedin

Thinking about postgraduate study? Start with our website where you'll find useful links and resources:

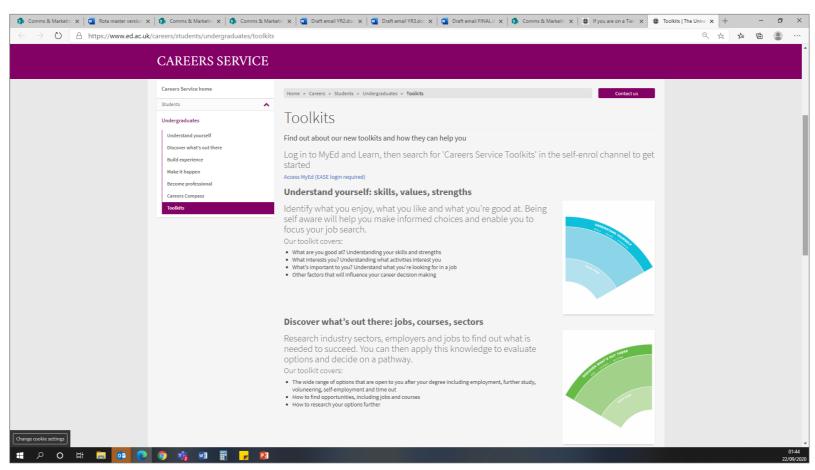
Find out about further study



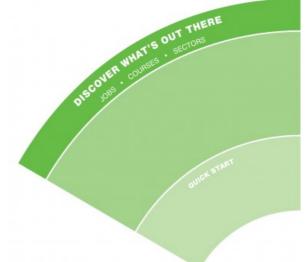


So what's out there?

Use our Career Toolkits in LEARN for more in-depth research



https://www.ed.ac.uk/careers/students/undergraduates/toolk

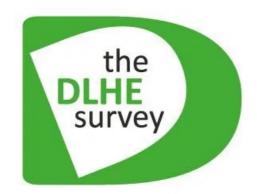


So what's out there?

DISCOVER WHAT'S OUT THERE DISCOVER WHAT'S OUT THERE DISCOVER WHAT'S OUT THERE

Maths graduate destinations

- 1. UK
- 2. Edinburgh

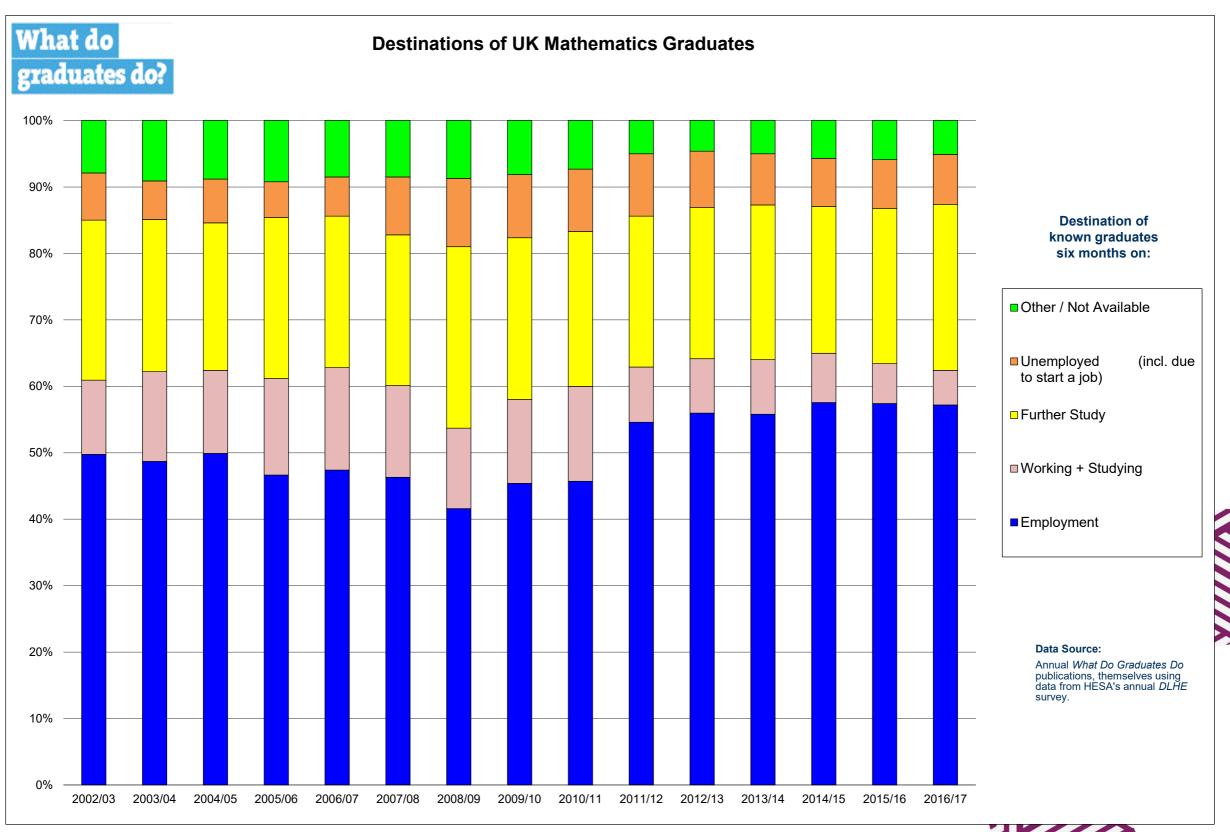




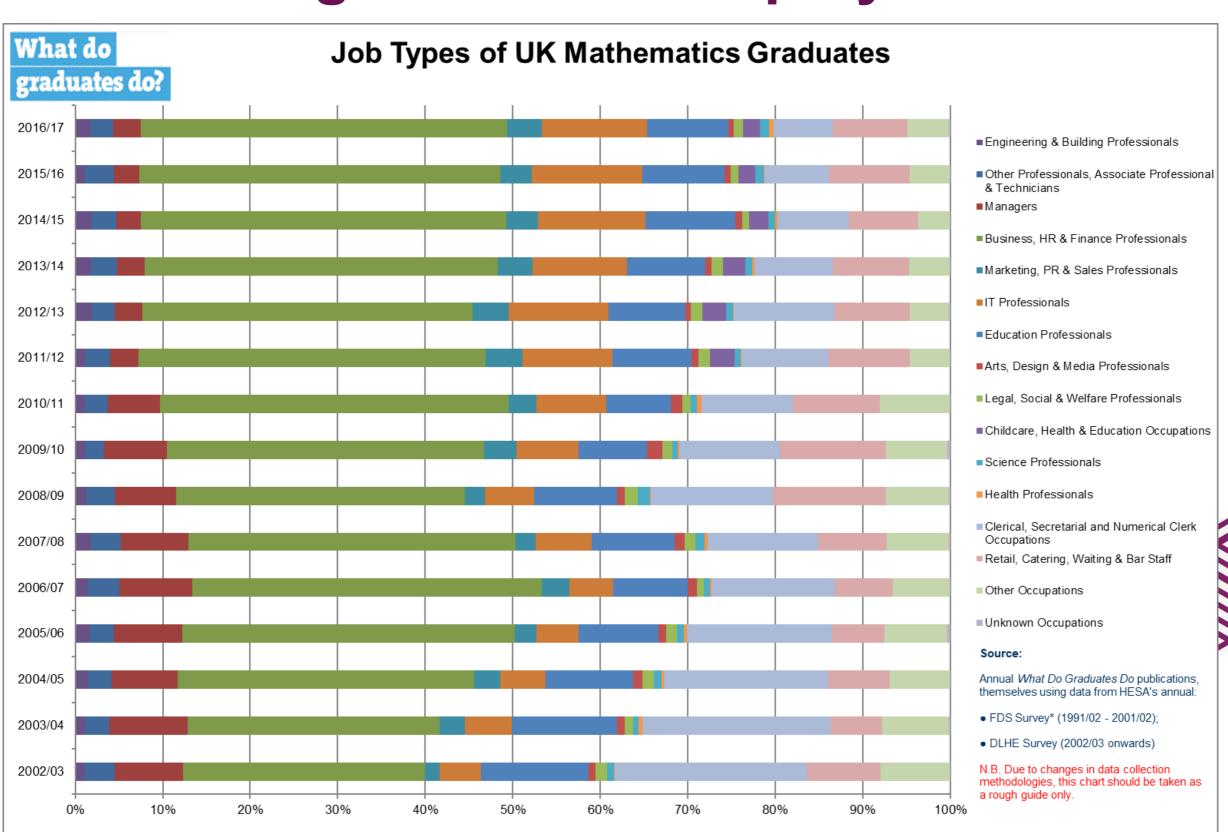


Please complete the survey after you graduate! https://www.ed.ac.uk/careers/graduates/graduate-outcomes-survey/

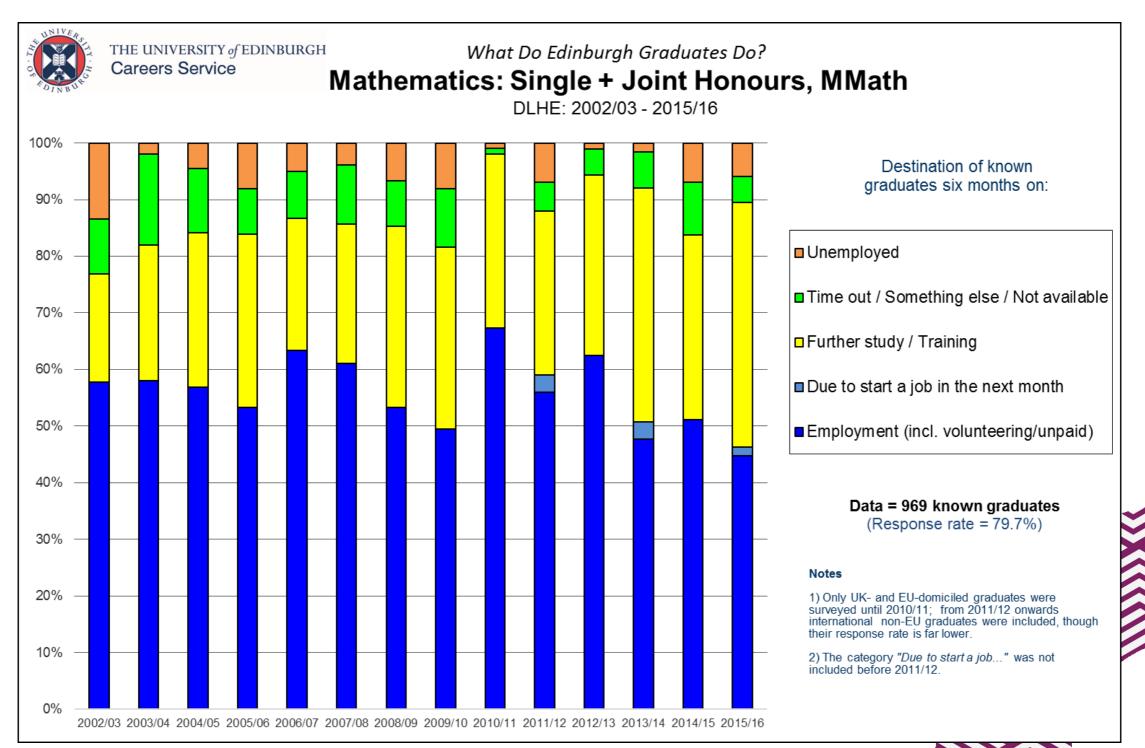
What do UK maths graduates do?



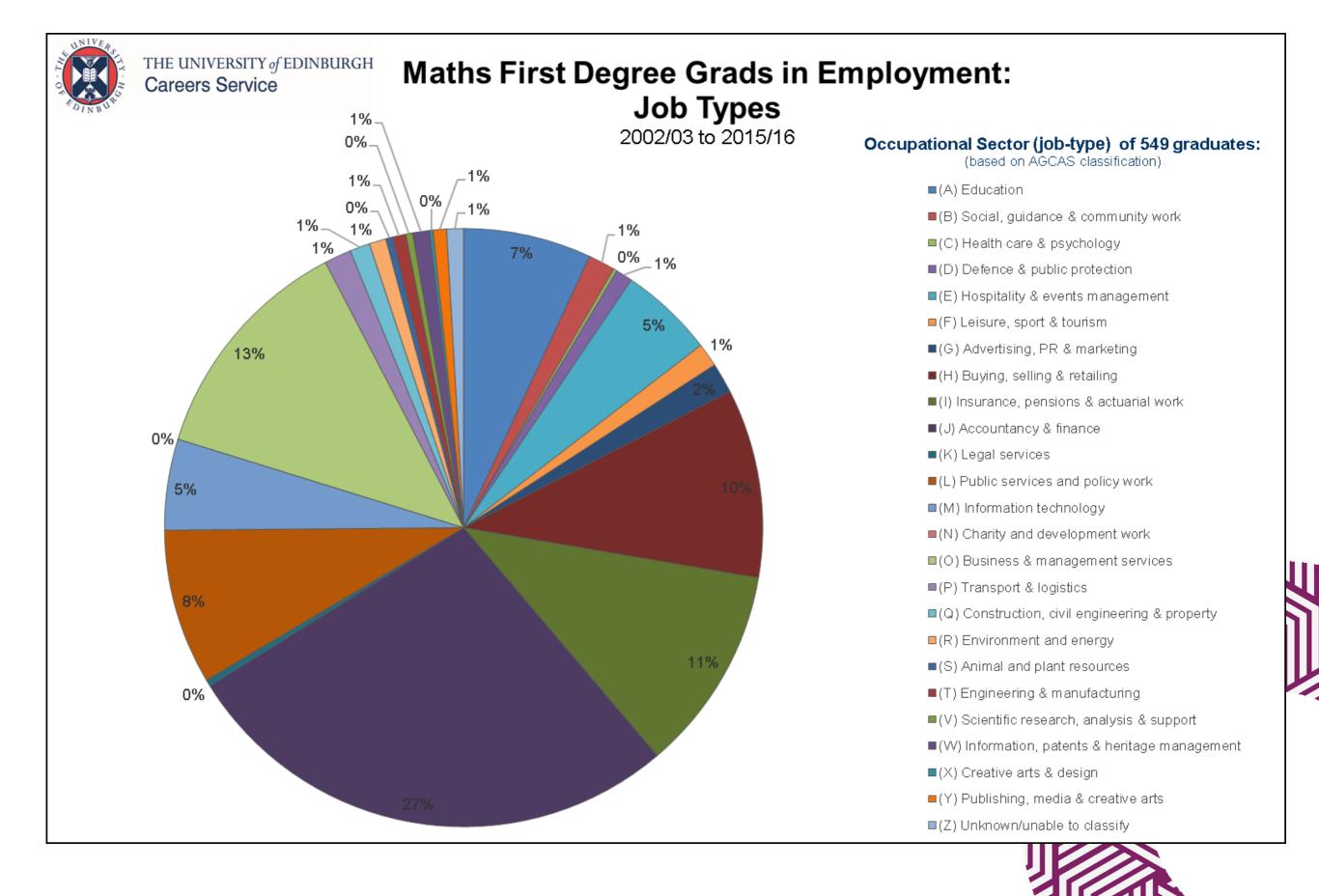
UK maths graduates – employment detail



What do Edinburgh maths graduates do?









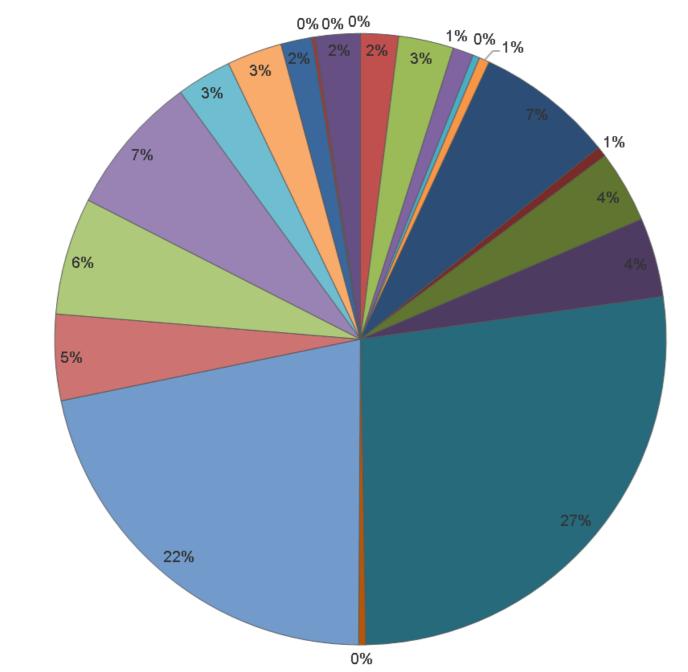
Maths First Degree Grads in Employment: Employer Types (Sectors)

2002/03 to 2015/16





- ■Mining and quarrying
- ■Manufacturing
- ■Electricity, gas, steam and air conditioning supply
- ■Water supply, sewerage, waste management and remediation
- Construction
- ■Wholesale and retail trade; repair of motor vehicles
- ■Transportation and storage
- ■Accommodation and food service
- ■Information and communication (incl. broadcasting)
- ■Financial and insurance activities
- ■Real estate activities
- Professional, scientific and technical activities
- ■Administrative and support service
- ■Public administration and defence; compulsory social security
- ■Education
- Human health and social work activities
- Arts, entertainment and recreation
- ■Other service activities
- Activities of private households as employers
- ■Activities of international organisations and bodies
- ■Unable to classify sector





Fancy moving into IT?

Careers in Technology

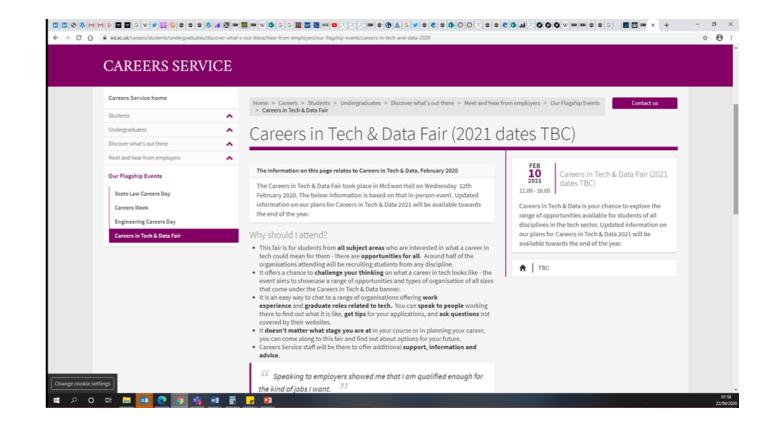
February 2022

A chance to meet representatives from organisations offering diverse roles in IT.

Open to students from **all degree disciplines**, not just the School of Informatics.

Check on

MyCareerHub





Alternatives?

Many graduate jobs just want any degree – subject not important*!

e.g. SAGE Archive: 9-10 years....

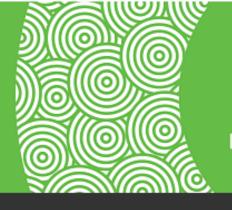
43,707 jobs advertised in total; 17,066 jobs open to any degree = **39%**

* But the degree classification (grade) might be!





MyCareerHub



Inspiring futures

Bookmarked Opportunities

MyCareerHub -

Opportunities

Organisations

Events

Appointments

Resources -

Ask a Question

News

Dashboard

114

Matthew -

Q

Search Opportunities

Keywords any degree

 ➤ More Search Options

Search

Opportunity Type

Graduate - future start

Location

e.g. Edinburgh, Scotland, United Kingdom

Found 83 opportunities with the words any degree

Travel & Teach English as a Second Language – Graduate Jobs in China

HiredinChina

Teach English as a second language with HiredinChina.org We're looking for motivated and enthusiastic individuals who have a passion for exploration. We have positions available that don't require teaching experience, just a 120-Hour TEFL certificate and a bachelor's degree in any subject.

Trainee Analyst - Graduate Programme

Water Industry Commission for Scotland (WICS)

We are looking for talented graduates from diverse backgrounds, people with curiosity and drive. We are impressed by candidates who use creative approaches to solve complex problems We are looking for graduates with an upper second-class honours degree (2:1) or higher in any discipline.

Relevance

China

Closes - 22 Dec 2020

Stirling

Closes - 4 Oct 2020

Graduate Leadership Development Programme - Prisons Salary: up to £30,000 + funded Master's degree + benefits Job Length: Two years Locations: London, South East, West Midlands and North West

Featured Opportunity

Search Employers

Search Employers

Quick Search

Graduate Leadership Scheme -**Prison Officers**

Which of the following are <u>NOT</u> possible career options for a <u>Maths</u> graduate?

- Barrister
- GP
- Accountant
- Investment Banker
- Vet
- Prison Governor
- Social Worker
- PR Account Manager



A word on Covid-19 / labour market

- Lockdown had an impact: UK was in recession
- Brexit also added to uncertainty big...
- BUT things are improving!



"The UK labour market continued to <u>recover towards pre-COVID levels of</u> <u>unemployment</u> by the end of August, according to the Office of National Statistics (ONS)...

...The number of payroll employees showed another monthly increase, up 241k to 29.1m in August 2021, returning to pre-pandemic (February 2020) levels.

...the UK economy is only expected to return to its pre-pandemic level in Q1 2022 with growth of 5.2% forecast for 2022.

...Indeed have been looking at graduate vacancies in their data. Through 31 August, the share of graduate postings per million job listings on Indeed 11 11% from 2020, but is still 23% below the same day in 2019."

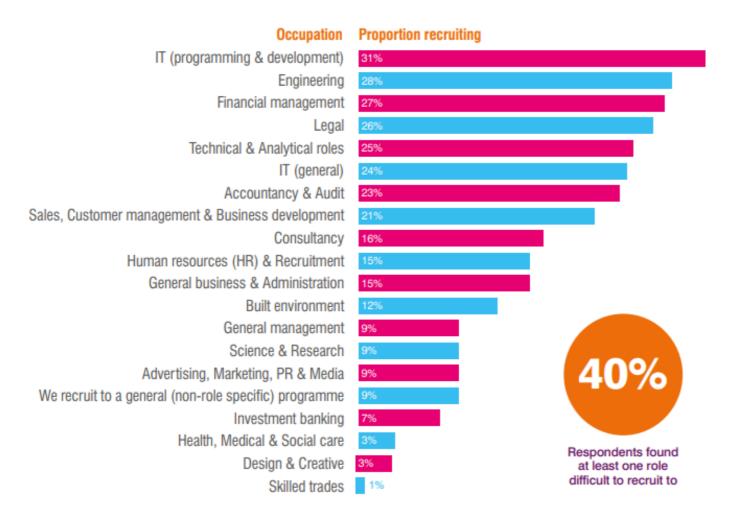
Charlie Ball, Prospects Head of HE Intelligence

Prospects Luminate, Pertender 2021

Graduate roles

Respondents reported that graduates were being recruited for a wide range of roles. Figure 3.2 sets out the most common roles that graduate employers were recruiting to.

Figure 3.2 **Proportion of graduate employers recruiting to different occupations** (171 organisations)





Of employers recruiting IT programmers found it difficult to find the right candidate Some of these roles were more difficult to recruit to than others. A substantial minority of respondents (40%) reported that they found at least one role difficult to recruit to. The respondents were more likely to report that they found it difficult to recruit if they were in the Health & Pharmaceutical sector (where 100% reported difficulty), Energy, Engineering & Industry (55%) or Finance & Professional services (53%). While only 8% of organisations in the Legal sector reported difficulty recruiting any of their roles.

In terms of roles, organisations highlighted IT (programming & development) where 42% of the employers recruiting to this role were finding recruitment difficult. Other roles that were difficult to recruit to included Engineering (35%), IT (general) (32%), Technical & Analytical roles (31%)

Demand varies by sector

Source: Student Recruitment Survey 2020, Institute of Student Employers (Nov-20)



What do Edinburgh maths grads study?

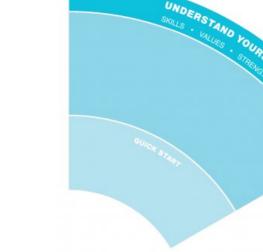
| Qual. | Total | Category | Total |
|---------------------------|-------|-------------------------|-------|
| MSc | 113 | Maths | 79 |
| PGCE | 35 | Teaching | 61 |
| PhD | 34 | Finance | 23 |
| PGDE | 25 | OR | 19 |
| MASt | 21 | Statistics | 14 |
| Unspecified qualification | 9 | Physics | 12 |
| PgDip | 4 | Actuarial | 8 |
| MA | 3 | IT | 7 |
| MPhil | 2 | Engineering | 6 |
| MSc(R)/PhD | 2 | Biological Science | 5 |
| MS | 2 | Business | 5 |
| Advanced Studies | 1 | Economics | 3 |
| BEng (Hons) | 1 | Languages | 3 |
| BHSc | 1 | Law | 3 |
| BSc (Hons) | 1 | Publishing & Journalism | 3 |
| Cert. | 1 | Arts & Literature | 2 |
| CPE/Grad Dip | 1 | Earth Science | 2 |
| Diploma | 1 | Healthcare | 2 |
| LLB | 1 | Unknown | 2 |
| MA (Hons) | 1 | Advertising | 1 |
| Mmus | 1 | Music | 1 |
| MPA | 1 | Politics | 1 |
| MRes | 1 | Psychology | 1 |
| MSc | 1 | Grand Total | 263 |
| Grand Total | 263 | | |

Inspiring futures

https://www.ed.ac.uk/careers/students/undergraduates/discover-what-s-out-there/find-out-about-further-study



What do I want from a job? e.g. money









The salary that is offered is a key component of attracting students to jobs and then ensuring that offers are accepted. The typical (median) graduate salary offered by respondents in 2019/2020 is £29,667 while the typical school or college leaver salary was £18,450 and the typical salary for an intern or a placement student was £19,000. Figure 8.2 breaks this down by sector and shows the median, mean and the range of graduate salaries in that sector.

While Figure 8.3 looks at the variations in school and college leaver salaries.



Salary varies by occupation (and sector)

And survey!

e.g. "The average salary for graduates who went straight into full-time employment in the UK was £24,217"

Charlie Ball, HECSU
What do graduates do,
December 2020



Source: Institute of Student Employers, Student Recruitment Survey 2020

Salary also varies by location

| | | Latest articles | Events Re | ports Rese |
|------------------------|-------|-----------------|-----------|------------|
| Southampton | 0.709 | | 620,518 | 628,920 |
| Manchester | 0.697 | | 621,006 | £30,136 |
| Peterborough | 0.696 | | 621,480 | £30,840 |
| Coventry | 0.695 | | 622,548 | 632,432 |
| Swindon | 0.689 | | 622,840 | 633,158 |
| Derby | 0.671 | | 622,840 | £34,020 |
| Exeter | 0.666 | | 620,534 | £30,826 |
| Glasgow City | 0.664 | | 621,776 | 632,803 |
| Sheffield | 0.659 | | 620,633 | 631,293 |
| Birmingham | 0.657 | | 621,257 | 632,377 |
| Bristol, City of | 0.634 | | 621,382 | 633,701 |
| Liverpool | 0.633 | | £19,940 | £31,484 |
| Milton Keynes | 0.624 | | 622,719 | £36,385 |
| York | 0.62 | | 620,126 | £32,476 |
| Leeds | 0.619 | | 620,585 | £33,245 |
| Norwich | 0.613 | | £18,950 | £30,934 |
| Belfast | 0.608 | | 620,700 | £34,030 |
| Oxford | 0.601 | | 621,879 | £36,430 |
| Newcastle upon Tyne | 0.571 | | 620,687 | 636,208 |
| Reading | 0.568 | | 623,221 | £40,916 |
| Aberdeen City | 0.564 | | 622,917 | 640,614 |
| Cardiff | 0.561 | | 619,908 | £35,461 |
| City of Edinburgh | 0.552 | | 622,481 | 640,741 |

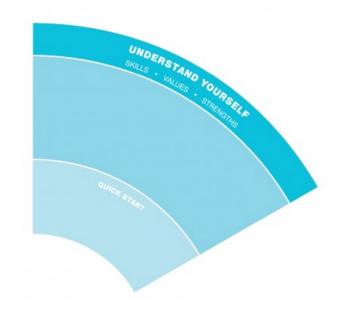
- More than just a number or even an industry!
- LHS fig. = Graduate starting salary
- RHS fig. = Avg. salary

https://luminate.prospects.ac.uk/graduatesalaries-in-context-what-do-they-reallymean

You make choices:

Your career choices are likely to be linked to

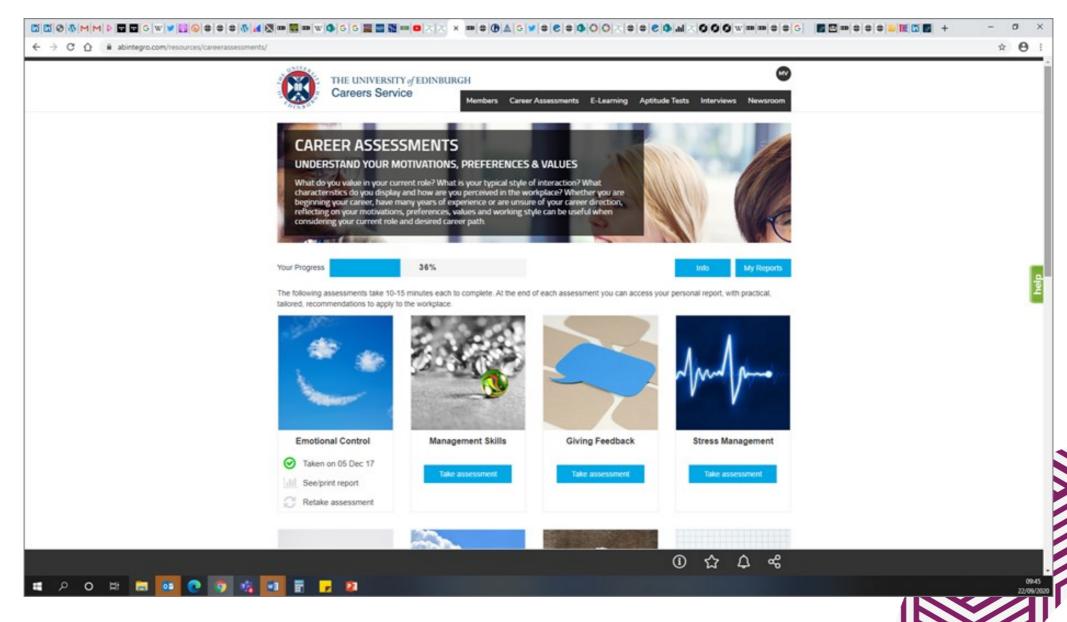
- Values
- Interests
- Abilities and achievements
- Work and life experience
- Skills
- Personal qualities and temperament
- Subject-specific knowledge
- Personal barriers and restrictions





Career assessments

Understand your motivations, preferences and values



Inspiring futures



Careers Service Plus:

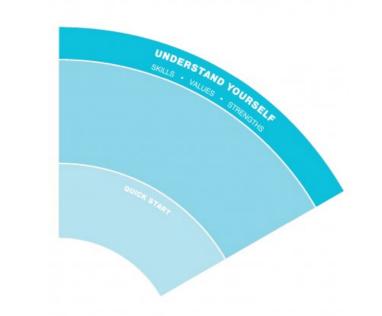
https://www.abintegro.com/u/zgl9s2wh

Some important values...

- Location
- Salary
- Working hours
- Opportunities for advancement/promotion
- Altruism
- Ethical companies
- Working environment
- Autonomy



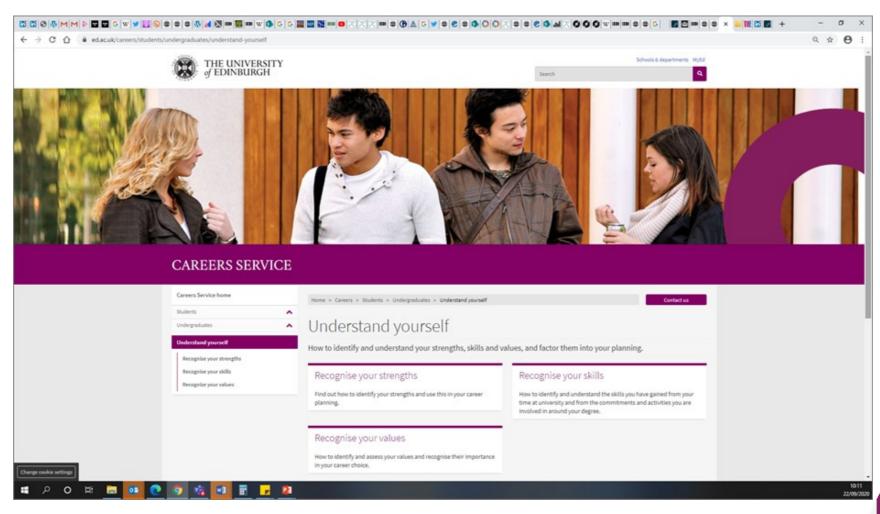




Understand yourself

Use our resources to help you...

https://www.ed.ac.uk/careers/students/undergraduates/understand-yourself

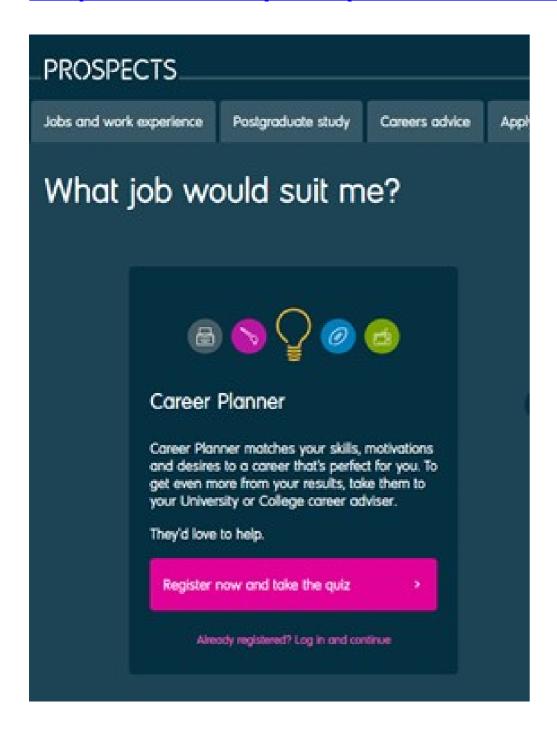


Toolkits:

https://www.ed.ac.uk/careers/students/undergraduates/toolkit

Matching you to jobs?

https://www.prospects.ac.uk/planner



Career Planner matches your skills, motivations and desires to a career that's perfect for you.

To get even more from your results, discuss them with a careers consultant

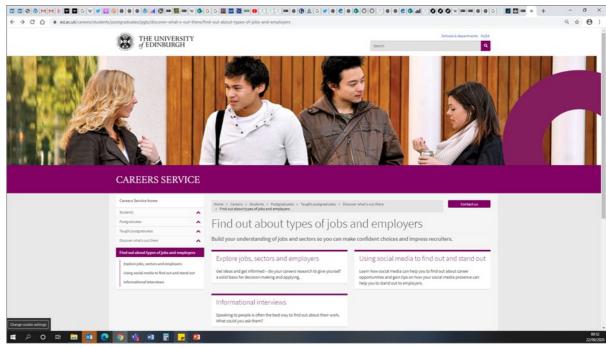


Career planning: more issues?

| Issue | Solution |
|--|---|
| Occupational (job) knowledge may be limited. | Research! |
| Existing occupational information (typically from media, family, friends) is inaccurate, out of date, or biased. | Take advice with a pinch of salt. Research! |
| We have prejudices: jobs may have stigmas, or we may have our own preconceptions. | Research – with an open mind! |

Learn about different occupations > get a focus!

 e.g. Finance: you need to choose an area of financial services that interests you – and be able to explain why – on a job application/ at interview why it interests you!



 The more you understand a job, the easier to articulate to an employer why the interests and how it matches your skills/interests/knowledge

https://www.ed.ac.uk/careers/students/postgraduates/pgts/discover-what-s-out-there/find-out-about-types-of-jobs-and-employers

Future planning: biggest issue? (For some)





A degree from Edinburgh...

Is highly regarded!

QS World Rankings (2022) #16

Times Higher Education Supplement, THES (2021) #30

Academic Ranking of World Universities, ARWU (2020) #38 a.k.a. Shanghai Rankings

N.B. 26,368 universities worldwide, as of 2017 Source: Quora.com

=> You study at a top 0.16% world university!



Degree performance: average or below?

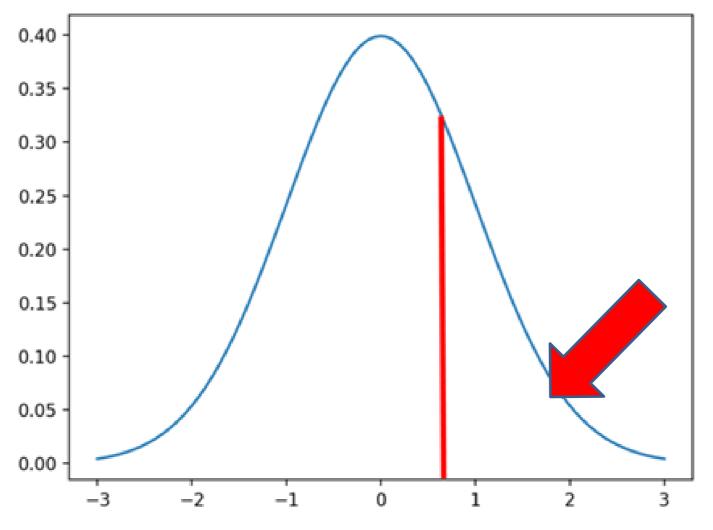
Not all recruiters expect a 2.1





A skewed perspective?

If c.40% population attend university; where are you?



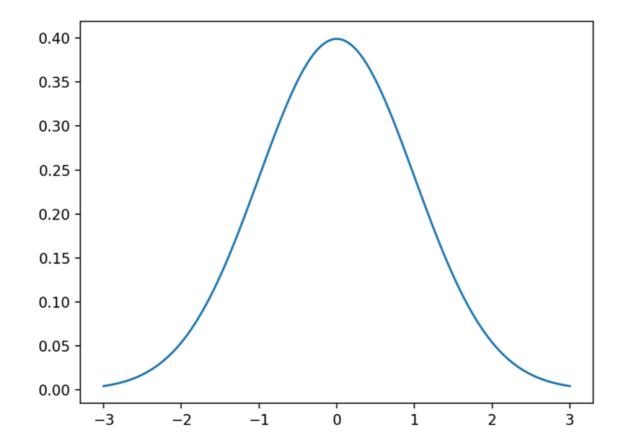
Attending uni
– incl. you!



A skewed perspective?

...but during your time at Edinburgh you lose this and only compare yourself to your immediate peers.

Some may be in the lower half (for the first time... ever?)

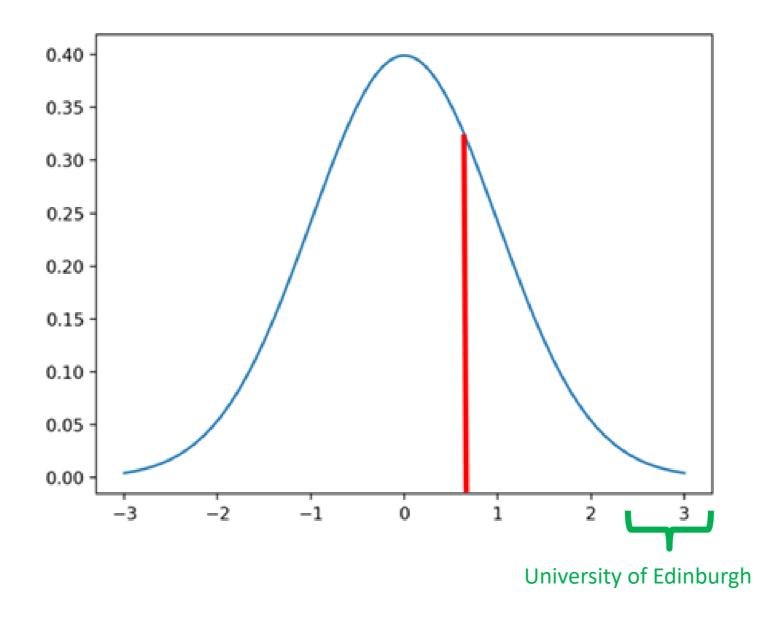


School of Mathematics, UoE



A skewed perspective?

If c.40% population attend university; where are you?





Time out?

- Great if it is part of a plan…
- ...but don't drift!

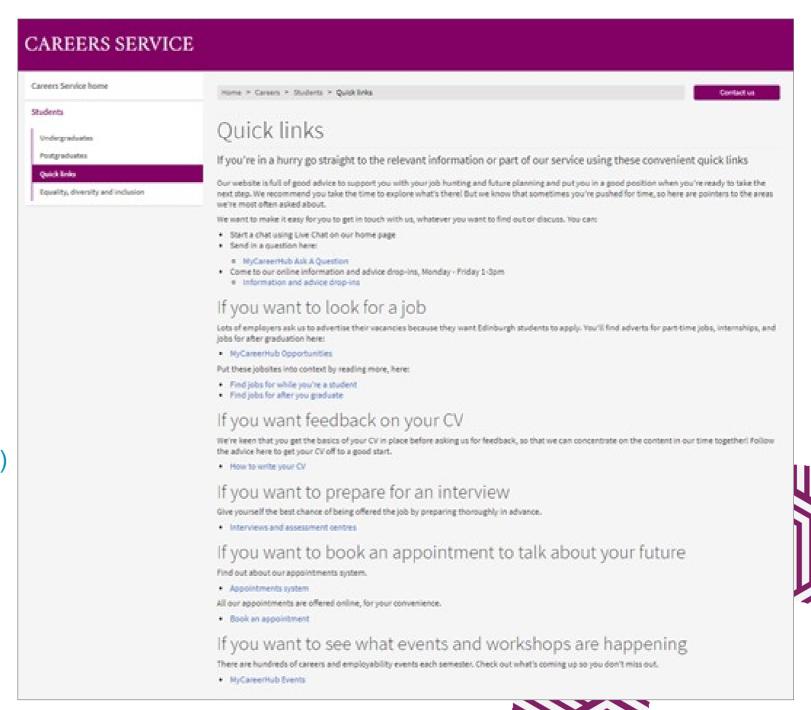




Talk to us

- Live web chat
- Submit a question
- Use the information drop-in
- Book...
 - Appointment (30 mins)
 - Practice interview (45 mins)
 - Maths drop-in (15 mins)
 Monday lunch 12:30-14:30





Inspiring futures

https://www.ed.ac.uk/careers/students/quick-link

Final piece of advice:



Keep an open mind!

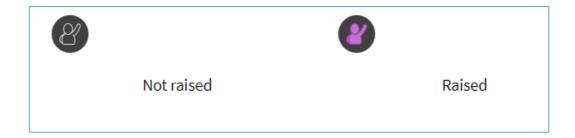


We will now end the recording.

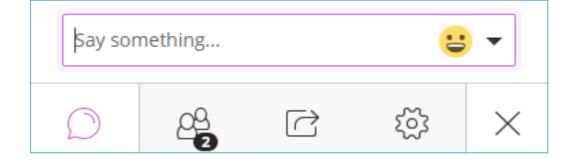


Any questions?

Please use the hand raise icon to queue up your question



 When called upon to ask your question, please type your question into the 'Text Chat Area





Before you go - how did we do today?

Prepare for Careers Week

http://bit.ly/CareersSession

All responses are anonymous





TITLE has now closed.

For details of upcoming Careers Service events visit MyCareerHub.



