Achieving Equality in UK Universities: A Personal Perspective

Catherine O’Sullivan
cath.osullivan@imperial.ac.uk
Talk outline

• Diversity / inclusivity – UK perspective

• Athena Swan accreditation process
My background

• PhD UC Berkeley, 2002

• Lecturer in University College Dublin 2002-2004

• Appointed as a lecturer at Imperial College London, 2004, promoted to full professor 2017
My background

• One child – born March 2015

• Teaching fellow appointed to replace me in Jan 2015

• No teaching in Spring semester 2015

• Returned to work Sept 2015 – granted an Elsie Widdowson fellowship to relieve me from teaching / supervision of MSc and MEng students until Sept 2016.
My background

• September 2015 – my husband took one month parental leave

• October 2015 – September 2019 – my son was in on-campus childcare + I had the option to rent a parking place on-campus
All women are entitled to up to 52 weeks maternity leave regardless of length of service and must take a minimum of 2 weeks maternity leave.

If you have less than 41 weeks’ service by the expected week of birth, you are entitled to a Maternity Allowance which is paid directly by the Government.

If you have 41 weeks’ service or more by the expected week of birth, you are entitled to College Maternity Pay, which is 18 weeks at full pay, followed by 21 weeks at the Statutory Maternity Pay (SMP) followed by a maximum of 13 weeks unpaid leave.

https://www.imperial.ac.uk/parents-network/before-baby/maternity-leave-entitlement/
General background - Imperial

Shared Parental Leave (SPL) provides eligible parents with the opportunity to choose to share between them the care of their child during the first year following the child’s birth.

Parents have the option of converting their maternity leave and pay into Shared Parental Leave and Pay and sharing the remaining period of leave and pay between them.

https://www.imperial.ac.uk/parents-network/before-baby/maternity-leave-entitlement/
Equality, Diversity and Dept. Culture

• Committee set up within the Dept. Civil Engineering in Spring of 2018

• Reflects committees within Faculty of Engineering and Imperial College

• I chair this committee
What do Equality, Diversity and Inclusivity mean?

• Significant amount of information openly available.
Equality, Diversity and Inclusivity

Diversity is good for business

Diversity & Inclusion initiatives have gained a lot of traction throughout Ireland's corporate landscape. But do they add tangible value for organisations?

By: Ollie McNally

Although accountants might not be able to convince themselves to agree, it can seem that there are countless publications, seminars and reports promoting the benefits of diversity and inclusion. The recent emphasis on "the art of leading in diversity together" while coming close on an old definition saying that a pool of different talents and skills in all business sectors is overwhelming sector and percentage groups reached in the diversity that strengthens in difference.

What is diversity and inclusion?

The EY definition of Diversity and Inclusion is about differences, skill and experience. Inclusion is about creating an environment in which people are valued, feel valued and are able to achieve their best in an environment that leverages their differences to deliver better business results.

In both the GNI and EY, the idea of diversity is based on something called a "vitality". It's about taking a positive perspective on diversity to a point where 20% of people say they are comfortable with the idea of diversity. It's about how to be comfortable with diversity in terms of gender, sexuality, age, education and more. The term "critical mass" is a term used to describe the non-dominant group and effective diversity management.

Women in the workplace

The report was published by the EY and the findings were recorded in a report called "Women in the Workplace - 2018". The report highlighted the progress made in recent years but also identified areas for improvement. It called for greater efforts to address the challenges faced by women in the workplace.

Deloitte

Waiter, is that inclusion in my soup?

A new recipe to improve business performance

Written by Dr. Linda Byrne, Prof. Geraldine O’Hare, Dr. Conal O’Shea, Professor Emeritus, Dublin City University

Research report

Sydney Launch May 2018

CMI

Changing the landscape for women in the pipeline.
Equality, Diversity and Inclusivity

https://www.raeng.org.uk/diversity-in-engineering
Equality, Diversity and Inclusivity
2020 Royal Academy of Engineering Report
Employers with 250 or more employees must publish and report specific figures about their gender pay gap.
The gap between the median hourly pay of men and women at Imperial is 7.6 per cent.
03. The gender pay gap for engineers is largely due to under representation of women in more senior and higher paid roles.

- 40% of pay variance for engineers in the sample is accounted for by career level.
- 91% of those engineers in the top career grades were men.
- 92% of those in the upper pay quartile were men.
05. Transparency of pay structures and grades has a big impact on the gender pay gap.

The engineering gender pay gap is smaller in companies in the sample with clearly defined grades or career levels with pay ranges attached to them.

However, the gender pay gap for engineers starts at entry level:

- 18-21 year olds: 5%
- 22-29 year olds: 7.7%

Mean | Median
--- | ---

04. Engineers are more likely to receive a bonus than the average employee.

- 14% more male engineers receive a bonus than women

The mean bonus gap between male and female engineers in the sample is significantly smaller compared to the rest of the UK economy.

- 18.4% of the mean bonus gap
- 5.4% of male and female engineers
- Whole of UK economy
### 2020 Royal Academy of Engineering Report

#### Closing the engineering gender pay gap

![Cover Image](image)

#### Table 1: Women as a percentage of the total numbers working in different engineering occupations compared with mean average hourly pay and mean average gender pay gaps for those occupations.

<table>
<thead>
<tr>
<th>Engineering Occupation</th>
<th>Women as % of workforce</th>
<th>Mean average hourly pay (£)</th>
<th>Mean average gender pay gap (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical engineers</td>
<td>6%</td>
<td>£24.44</td>
<td>13.2%</td>
</tr>
<tr>
<td>Mechanical engineers</td>
<td>6.4%</td>
<td>£22.96</td>
<td>-2.6%</td>
</tr>
<tr>
<td>Electronics engineers</td>
<td>6.6%</td>
<td>£22.96</td>
<td></td>
</tr>
<tr>
<td>Civil engineers</td>
<td>6.7%</td>
<td>£21.08</td>
<td>-5.3%</td>
</tr>
<tr>
<td>Design and development engineers</td>
<td>6.7%</td>
<td>£21.68</td>
<td>-5.8%</td>
</tr>
<tr>
<td>Production and process engineers</td>
<td>6.7%</td>
<td>£20.78</td>
<td>5%</td>
</tr>
<tr>
<td>Engineering professionals not elsewhere classified (the largest group)</td>
<td>6.7%</td>
<td>£21.23</td>
<td>8.1%</td>
</tr>
</tbody>
</table>

Data not available but male mean of £21.08 implies a negative gender pay gap.
2020 Royal Academy of Engineering Report
Equality, Diversity and Inclusivity
What do Equality, Diversity and Inclusivity mean?

• Diversity is a measure of demographics; it considers similarities and difference in terms of age, gender, ethnicity, religion, sexual orientation, disability, educational background. Measures of diversity are typically numbers or proportions.

• Inclusivity relates to people’s perception and experience of the culture in which they work or study.

• Equality is about recognising that everyone should have the opportunity to full their potential.
The case for improving cultures and practices.

• Ethical – it is the right thing to do.
Business case for improvements

• Companies in the top-quartile for gender diversity on executive teams are 21% more likely to outperform on profitability than other companies.

• Companies in the top-quartile for ethnic/cultural diversity on executive teams are 33% more likely to have industry-leading profitability.

• Companies in the bottom quartile for both gender and ethnic/cultural diversity were 29% less likely to achieve above-average profitability than were all other companies in their data set.

Business case for improvements

• 2013 study by Deloitte revealed that employees who think their organisation supports diversity and who feel included perform better (83% uplift);

• Team collaboration is also improved (42% uplift).

Business case for improvements – Royal Academy of Engineering

• 80% of engineers report that feeling included in their organization increases motivation
• 68% of engineers report it increases performance
• 52% or engineers indicate it leads to an increased commitment to their organisation.
• Included engineers are more likely to understand business priorities and are more confident about speaking up (e.g. about improvements or mistakes, including health and safety violations).
Creating an inclusive culture - Seven measures of inclusivity

1. Can people be open about themselves and their life outside work?
2. Do people feel they are treated with respect?
3. Are relationships friendly, collaborative, free of offensive banter, bullying or harassment?
4. Are staff supported in their career development and do they feel the promotion process to be fair?
5. Are staff able to work flexibly while advancing their careers?
6. Do engineers believe their managers are committed to diversity and inclusion?
7. Is there a diverse range of people in the organization?
Creating an inclusive culture- Measuring inclusivity

• Different groups have different experiences of diversity.

• The work by the Royal Academy of Engineering has shown that:
  • White male engineers feel that the culture of engineering is more inclusive than female engineers
  • Female engineers in turn feel that it is more inclusive than engineers from BAME backgrounds.
UK situation

https://www.raeng.org.uk/diversity-in-engineering/business-benefits-key-facts/key-facts
UK HEA Accreditation

Imperial College is now actively engaging with
• the Athena SWAN awards
• the Race Equality Charter
• the Stonewall Workplace Equality Index

Imperial College is a Disability Confident Employer.
Imperial college strategy
Imperial college strategy
Athena Swan Charter – Advance HE

Established in 2005 to encourage and recognise commitment to advancing the careers of women in science, technology, engineering, maths and medicine (STEMM) employment in higher education and research.

Charter was expanded in 2015 to recognise work undertaken in arts, humanities, social sciences, business and law (AHSSBL), and in professional and support roles, and for trans staff and students.

Charter now recognises work undertaken to address gender equality more broadly, and not just barriers to progression that affect women.
Athena Swan Charter – Bronze Awards

Bronze institution awards recognise that the institution has a solid foundation for eliminating gender bias and developing an inclusive culture that values all staff.

This includes:

• an assessment of gender equality in the institution, including quantitative (staff data) and qualitative (policies, practices, systems and arrangements) evidence and identifying both challenges and opportunities

• a four-year plan that builds on this assessment, information on activities that are already in place and what has been learned from these

• the development of an organisational structure, including a self-assessment team, to carry proposed actions forward
Athena Swan Charter – Silver Awards

- Silver institution awards recognise a significant record of activity and achievement by the institution in promoting gender equality and in addressing challenges across different disciplines.

Applications should focus on:

- what has improved since the Bronze institutional award application
- how the institution has built on the achievements of award-winning departments
- what the institution is doing to help individual departments to apply for Athena SWAN award
Athena Swan Charter – Gold Award

• A Gold department award recognises significant and sustained progression and achievement by the department in promoting gender equality and to address challenges particular to the discipline.

• A well-established record of activity and achievement in working towards gender equality should be complemented by data demonstrating continued impact.

• Gold departments should be beacons of achievement in gender equality and should champion and promote good practice to the wider community.
Athena Swan Charter – Drivers for award

• Research environment in research excellence framework (REF)

• Some funders look for evidence of an award as prerequisite to funding

• May help with recruitment
Athena Swan – Success rate 2018

Athena SWAN Bronze success rate

654 submissions

371 Successful
293 Unsuccessful
57% Success rate

43% Unsuccessful: no award
57% Successful: bronze award

These visuals present Athena SWAN data and refer to UK awards only. Data is presented for all rounds since the introduction of the post-May 2015 criteria (November 2015 round results). Data includes both pre-May and post-May criteria awards and submissions. Information correct as of 7 May 2019.
Athena Swan – Imperial College

Institution Silver Award 2016

Faculty of Engineering
Department of Aeronautics, Bronze, November 2014
Department of Bioengineering, Silver, November 2018
Department of Chemical Engineering, Silver, renewed November 2017
Department of Civil and Environmental Engineering, Bronze, April 2018
Department of Computing, Bronze, renewed April 2017
Department of Earth Science and Engineering, application planned for 2020
Department of Electrical and Electronic Engineering, Bronze, November 2017
Department of Materials, Silver, renewed April 2017
Department of Mechanical Engineering, Bronze, April 2019
Dyson School of Design Engineering, new department
Athena Swan – Application

Data and discourse on data

Civil Engineering 2017 Application:

https://www.imperial.ac.uk/media/imperial-college/faculty-of-engineering/civil/public/ImperialCollegeCivilSubmission2017.pdf
Athena Swan – 2017 application Civil Engineering

<table>
<thead>
<tr>
<th>Student/Staff Type</th>
<th>Number of Women</th>
<th>Number of Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate – 2 courses</td>
<td>113 (33%)</td>
<td>227 (67%)</td>
</tr>
<tr>
<td>Postgraduate Taught – 14 courses</td>
<td>97 (36%)</td>
<td>176 (64%)</td>
</tr>
<tr>
<td>Postgraduate Research</td>
<td>54 (34%)</td>
<td>105 (66%)</td>
</tr>
<tr>
<td>Research Staff</td>
<td>14 (32%)</td>
<td>30 (68%)</td>
</tr>
<tr>
<td>Academic Staff</td>
<td>10 (19%)</td>
<td>42 (81%)</td>
</tr>
<tr>
<td>Learning &amp; Teaching Staff</td>
<td>1 (33%)</td>
<td>2 (67%)</td>
</tr>
<tr>
<td>Professional Services</td>
<td>23 (58%)</td>
<td>17 (42%)</td>
</tr>
<tr>
<td>Technical Services</td>
<td>0 (0%)</td>
<td>13 (100%)</td>
</tr>
</tbody>
</table>
Athena Swan – Student data

Applications – offers – acceptances

Degree attainment

Pipeline
Figure 4.1.1 Comparison of numbers of female MEng and BEng students in the Department and Nationally. National data is for JACS Principal Subject (H2) Civil engineering.
Athena Swan – 2017 application Civil Engineering

Figure 4.1.4 Comparison of female student percentages at Undergraduate, Postgraduate Taught and Postgraduate Research Level
Athena Swan – 2017 application Civil Engineering

Figure 4.1.5 Comparison of ratios of female student percentages at Undergraduate, Postgraduate Taught and Postgraduate Research Levels to National HEIDI Data. National data is for JACS Principal Subject (H2) Civil engineering
Pipeline

% Female

- 2017-2018
- 2009-2010

UG | MSc | PhD | Research | Academic non prof | Academic prof
---|-----|-----|----------|-------------------|-----------------
Athena Swan – Staff data

• Recruitment
• Induction
• Career progression
Athena Swan – Staff data

• Some data available through college staff survey
• Need to run Departmental survey every 2 years
## Athena Swan – Action plan

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>RATIONALE</th>
<th>KEY OUTPUTS &amp; MILESTONES</th>
<th>TIMEFRAME</th>
<th>RESPONSIBILITY</th>
<th>SUCCESS MEASURE</th>
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<tr>
<td>1. Undergraduate (MEng) Course</td>
<td>Data show proportion increasing from 25% to 34% over the last 5 years and no negative bias in recruitment process. Maintain this trend by introducing further initiatives</td>
<td></td>
<td>Oct 2018 and onwards</td>
<td>Outreach Coordinator &amp; Director of Admissions</td>
<td>Maintain an increasing trend in the number of applications from female students</td>
</tr>
<tr>
<td>1.1 Increase proportion of female UG applications</td>
<td></td>
<td>a) Engage more female UG year 3 &amp; 4 and research students in outreach activities, including the Open Day</td>
<td>Review annually one month after the main activity</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>b) Promote female role models in the wider context of diversity via i) the Departmental recruitment video ii) Departmental social media (twitter) iii) Department website, ensuring positive gender representation</td>
<td>Oct 2018 and onwards</td>
<td>Director of Undergraduate Studies &amp; Director of Admissions</td>
<td>Increase percentage of female Year 1 UG students to: 36% by 2019 38% by 2021</td>
</tr>
<tr>
<td>1.2 Support career development</td>
<td>Perception that UG applicants and students do not have a full appreciation of the breadth of the civil engineering profession, revealed through SAT discussions and feedback from</td>
<td>a) Introduce a section “Is Civil Engineering for me?” in the Departmental website, including biographies of, and interviews with, alumni following different career paths, giving emphasis on female role models</td>
<td>Oct 2018 and onwards</td>
<td>SAT Admin, Careers’ Advisor, UG &amp; PG Teams</td>
<td>Raised awareness of possible career paths, as monitored by the Dept. Careers’ Advisor</td>
</tr>
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Athena Swan – Action plan areas

1. Undergraduate MEng Course
2. Postgraduate MSc Course
3. Research postgraduate
4. Career support, appointments and promotion
Athena Swan – benefits

Fantastic incentive to assess and improve issues around culture and equality
Athena Swan – concerns

1. Volume of data and nature of data required – e.g. staff engagement on committees

2. Equating promotion of academic staff and progression of non-academic staff

3. Significant burden placed on female staff

4. Expectation to provide / comment on data involving small numbers – e.g. reasons why academic staff left
EDDC committee

1. Meets quarterly

2. Responsible for action plan implementation

3. Representation from staff and students

4. Engagement with key areas of the department
EDDC activities

1. Dissemination of key information
2. Training coordination
3. Focus groups to identify areas of concern
4. Departmental survey and analysis of college staff survey
5. Communication and culture within the Dept.
Dissemination of key information
Training

- Unconscious bias (All staff + UG students)
- Active bystander (All staff + UG students)

**Key benefit of training is to enable / prompt conversations**

*Training by external providers v. expensive*

- Monitoring uptake of online ED+I training
Focus groups

- 2018: Technical and Professional staff
- 2019: Post-doctoral researchers
- 2020: Female PhD students + alumni – looking at transition from PhD to post-doc
- 2020 / 2021: Staff who identify as carers
Staff surveys

- 2019: College staff survey - analysis
- 2020: Departmental survey – develop, run, analyze
Communication and culture

• 2019: First Dept. away day

• 2018 - : Departmental level coffee mornings for staff

• 2019/2020: Networking lunches targeted at female staff / postgraduate research students
Observations

• Equality, diversity and inclusivity awareness has developed over the past decade

• The Athena Swan accreditation process is onerous but is a key driver for change in UK higher education institutions

• Key tasks are to monitor data, improve communication and develop awareness via training