ROYAL ACADEMY OF ENGINEERING

DIVERSITY AND INCLUSION PROGRAMME

CREATING CULTURES WHERE ALL ENGINEERS THRIVE: FEEDBACK ON SEXUAL ORIENTATION

1 INTRODUCTION

This report presents the feedback from lesbian, gay, bisexual (LGB) and heterosexual engineers about their experiences of the culture of engineering, and of inclusion in the engineering profession. The feedback comes from a survey of 6,799 engineers conducted in 2017.

This report should be read as a supplement to the publication *Creating cultures where all engineers thrive: a unique study of inclusion across UK engineering*, launched by the Royal Academy of Engineering in 2017. The *Creating cultures* publication presents insights from the study including survey findings for engineers overall, together with more detailed findings on gender, ethnicity, age and company size.

A total of 6,609 (97% of all respondents) shared information about their sexual orientation in the survey. The majority of respondents were heterosexual (91%), 5% preferred not to say and 4% were LGB or described themselves in the survey as 'other'. This briefing includes engineers who described themselves as 'other' within the data reported for all LGB engineers. It also separates out the data reported by LGB engineers in parts of this briefing to better understand how different groups experience the culture of UK engineering. However, as numbers are small, the reliability of data should be viewed with some caution.

2 DEMOGRAPHICS

SEXUAL ORIENTATION IN ENGINEERING

- Among the 4% or 287 LGB and 'other' engineers, 38 described themselves as lesbian/gay women, 93 as gay men and 119 as bisexual. 37 respondents described themselves as 'other'. The descriptions provided by respondents under 'other' included: *asexual, bi-curious, non-binary, pansexual, queer* and *undecided.*

- LGB and 'other' engineers are represented across all age groups. They include people with and without disabilities and from different ethnic backgrounds:

  o Over half of LGB and 'other' engineers (54%) were aged 26 to 45. A higher proportion of LGB engineers (15%) compared to heterosexual engineers (9%) are graduates.

- o 22 or 7.7% of LGB and 'other' engineers were black, Asian or minority ethnic (BAME), slightly higher than the 6% of heterosexual BAME engineers.
  - o 40 or 14% of LGB and 'other' engineers also said they have a disability. This is significantly higher than the 5% of heterosexual engineers who say they have a disability.
- Women were represented across all LGB and heterosexual groups. 16% of heterosexual respondents were women; 37% of bisexual respondents were women and one transgender respondent; 92% of lesbian respondents were women and two transgender respondents. One female respondent identified as a gay man.
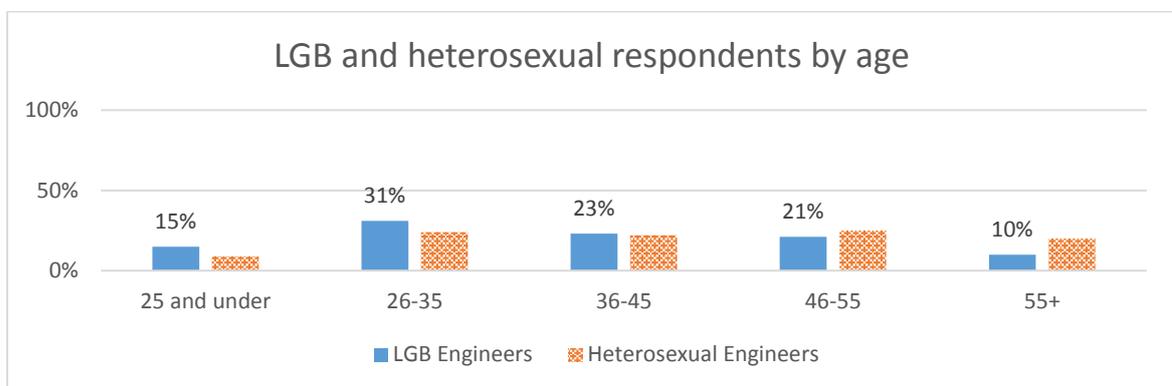
LGB and heterosexual respondents by age

Age	LGB Engineers	Heterosexual Engineers
25 and under	15%	
26-35	31%	
36-45	23%	
46-55	21%	
55+	10%	

Figure 1

WHERE LGB ENGINEERS WORK

- LGB engineers work across a range of engineering disciplines and sectors of the UK economy, and all hierarchical levels. LGB engineers are more likely to be graduates (17%) compared to heterosexual engineers (10%) and less likely to be in senior management roles (5%) compared to heterosexual engineers (9%).
- A similar proportion of LGB (65%) and heterosexual engineers (66%) are a member of a professional engineering institution (PEI).
- LGB respondents were slightly less likely (40%) than heterosexual (49%) to be registered engineers.
- 34% of LGB engineers belong to an employee network at work linked to diversity compared to 10% of heterosexual engineers.
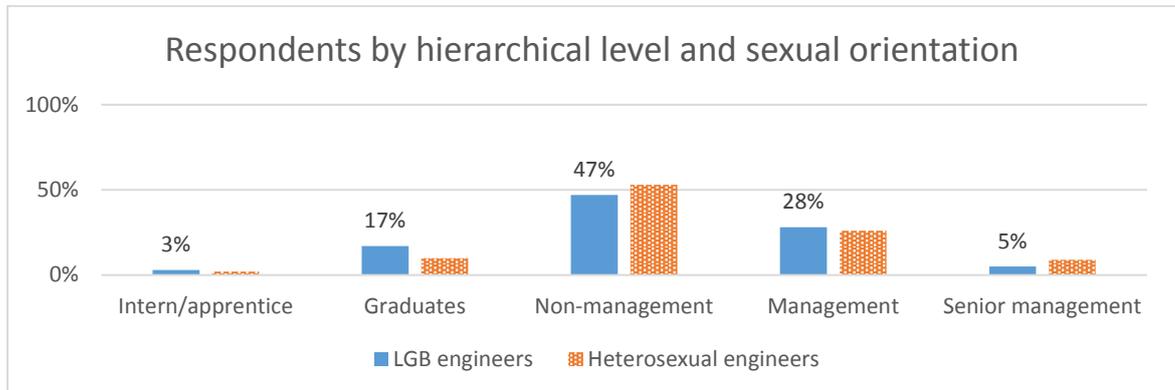
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Respondents by hierarchical level and sexual orientation

	Intern/apprentice	Graduates	Non-management	Management	Senior management
LGB engineers	3%	17%	47%	28%	5%

■ LGB engineers ▥ Heterosexual engineers

Figure 2

3 THE CULTURE OF ENGINEERING

In the report *Creating cultures where all engineers thrive: a unique study of inclusion across UK engineering*, engineers overall describe the culture of engineering as: problem-solving, safety-conscious, proud, loyal, team-oriented, and flexible in places. It is also seen: as friendly, but somewhat impersonal; as having a strong attachment to tradition; and as a culture in which people love their jobs, but are often not clear about what they need to do to progress their careers.

LGB and heterosexual engineers describe the culture of engineering in very similar ways.

Similar proportions of LGB and heterosexual engineers said that:

⇒ they like their jobs 'most or all of the time'. 78% of heterosexual respondents said this as did 76% of lesbian respondents, 70% of gay respondents and 74% of bisexual respondents.
⇒ they are 'planning to leave the profession for reasons other than retirement in the next 12 months'. 3% of heterosexual respondents said this, although no lesbian respondents said that they are planning to leave, 4% of gay and bisexual respondents said they are planning to leave.
⇒ they would recommend engineering as a great career choice to friends and family. 83% of heterosexual respondents said this as did 84% of lesbian respondents, 79% of gay respondents and 80% of bisexual respondents.
⇒ they find the culture of engineering 'informal and friendly'. 56% of heterosexual respondents described the culture in this way as did 55% of lesbian respondents, 47% of gay respondents and 50% of bisexual respondents.

3

⇒ engineers are here 'to find solutions to problems". 95% of heterosexual respondents said this as did 97% of lesbian engineers, 98% of gay engineers and 97% of bisexual engineers.

However, LGB engineers experience the culture as less innovative and slower to change:

↓ The most commonly chosen descriptor of the engineering culture by heterosexual respondents was 'collaborative' but the most commonly chosen descriptor by LGB respondents was 'slow to change'.

↓ 30% of heterosexual respondents chose 'innovative' as one of their top five descriptors of the engineering culture compared to 24% of lesbian and bisexual respondents and 27% of gay respondents.

4   INCLUSION IN ENGINEERING

INDICATORS OF INCLUSION

The report on *Creating cultures where all engineers thrive: a unique study of inclusion across UK engineering* describes seven indicators of inclusion in engineering. These are:

1   OPENNESS: The extent to which engineers feel able to be open about who they are, and about their life outside work, and confident to speak up on inappropriate behaviour to themselves or other people, mistakes or safety risks, for instance.

2   RESPECT: The extent to which engineers feel treated with respect, by managers, leaders and colleagues, and don't feel that assumptions are made about them because of their gender, ethnicity or any other difference.

3   RELATIONSHIPS: How engineers relate to each other, and the extent to which relationships are friendly, collaborative, free of offensive banter, bullying or harassment.

4   CAREER: The extent to which engineers feel supported in their careers, by their manager and by the fair implementation of talent management processes such as promotion.

5   FLEXIBILITY: The extent to which engineers have opportunities to work flexibly, without it being a barrier to career progression.

6   LEADERSHIP: The extent to which engineers are convinced by their managers' commitment and action on diversity and inclusion.

7   DIVERSITY: A diverse workforce at all levels.
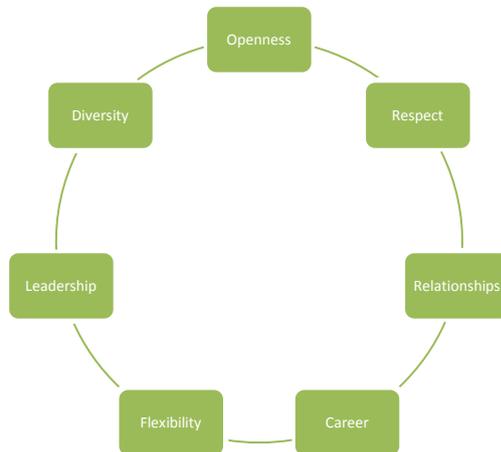

Figure 3

What do the survey findings tell us about LGB respondents' experiences of inclusion in engineering?

INCLUSION OF LGB ENGINEERS

Engineers from all sexual orientation groups reported that feeling included increases their motivation, performance, commitment and engagement. It also improves collaboration with colleagues and their health and wellbeing. It has a particularly positive impact on the health and wellbeing of LGB respondents with 49% reporting this positive impact compared to 39% of heterosexual respondents.
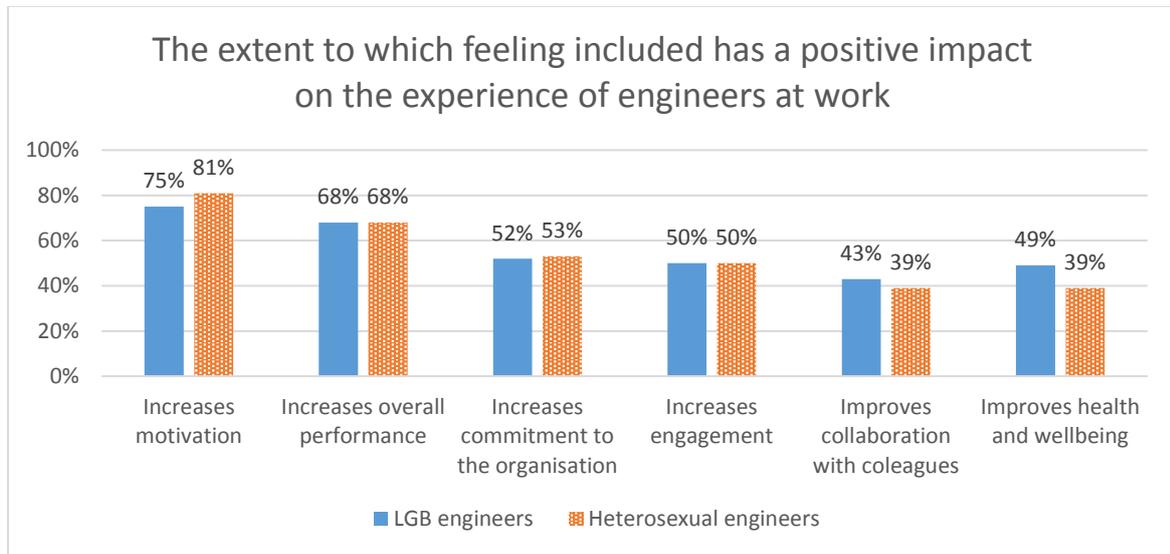
The extent to which feeling included has a positive impact on the experience of engineers at work

Category	LGB engineers	Heterosexual engineers
Increases motivation	75%	81%
Increases overall performance	68%	68%
Increases commitment to the organisation	52%	53%
Increases engagement	50%	50%
Improves collaboration with coleagues	43%	39%
Improves health and wellbeing	49%	39%

Figure 4

While LGB respondents described the culture of engineering in broadly similar ways to heterosexual respondents, they also reported overall a *less inclusive* experience of the engineering profession than their heterosexual colleagues.

↓ 53% of lesbian, 56% of gay and 67% of bisexual engineers described the culture as 'very or quite' inclusive, compared to 78% of heterosexual respondents.

↓ LGB respondents reported high levels of inclusion in engineering but less so than their heterosexual colleagues. 69% of lesbian, 71% of gay and 72% of bisexual respondents said that they feel quite or very included in the engineering profession compared to 82% of heterosexual respondents.

↓ 63% of lesbian, 50% of gay and 43% of bisexual respondents want to see greater diversity in engineering to make it a better environment to work in compared to 25% of heterosexual respondents. Similarly, making engineering more inclusive is important to 47% of lesbian, 49% of gay and 36% of bisexual respondents compared to 22% of heterosexual respondents.
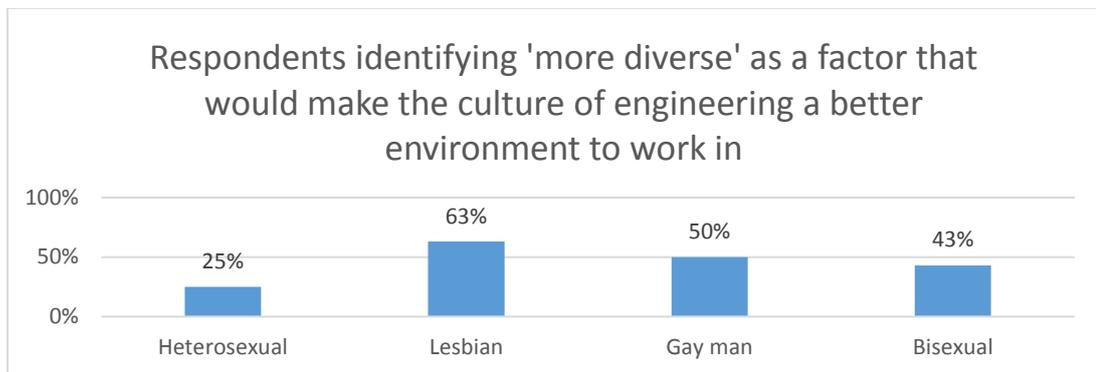
Figure 5

To understand what it is that leads to LGB engineers experiencing the culture as less inclusive – and what to do about it –the responses of heterosexual and LGB engineers to questions on each of the seven indicators of inclusion need to be looked at. These questions are listed on pages 52 and 53 of the *Creating cultures* report.

OPENNESS

The data shows that around half of all LGB engineers do not feel able to be open about their sexual orientation at work. They are *less likely* to:

❖ say 'I can be open about my sexual orientation' (55% lesbian, 48% gay, 53% bisexual compared to 90% heterosexual)
❖ say 'I feel I can be myself in my organisation' (63% lesbian, 77% gay and 77% bisexual compared to 88% of heterosexual respondents)
❖ say 'I feel I can be open about my life outside work' (53% lesbian, 62% gay and 66% bisexual compared to 85% heterosexual)

One respondent added further insight on the survey open text option referring to the challenges of being 'out' within engineering:

"Having worked in engineering for 25 years, and identifying as a gay man, my experience is that engineering environments can be hostile towards the LGBTQ community. I very rarely find others who are openly visible within the industry. Things are improving but I'd say engineering is about 20 years behind the creative industries, financial and service sectors in this. In my time I have experienced attempted blackmail and false accusations from co-workers and managers."

While heterosexual and gay respondents feel similarly able to speak up if someone is behaving inappropriately to them (84% and 81% respectively),

7

lesbian respondents are significantly less likely to say this (58%) as are fewer bisexual respondents (76%).

However, LGB engineers do feel similarly able to speak up and be open about better ways of doing things within their organisations.

⇒ 97% of heterosexual, 100% of lesbian, 97% of gay and 95% of bisexual respondents feel confident to speak up most or all of the time if they think their own safety or the safety of others is at risk.
⇒ 90% of heterosexual, 87% of lesbian, 84% of gay and 86% of bisexual respondents feel able to speak up if they see a better way of doing things.
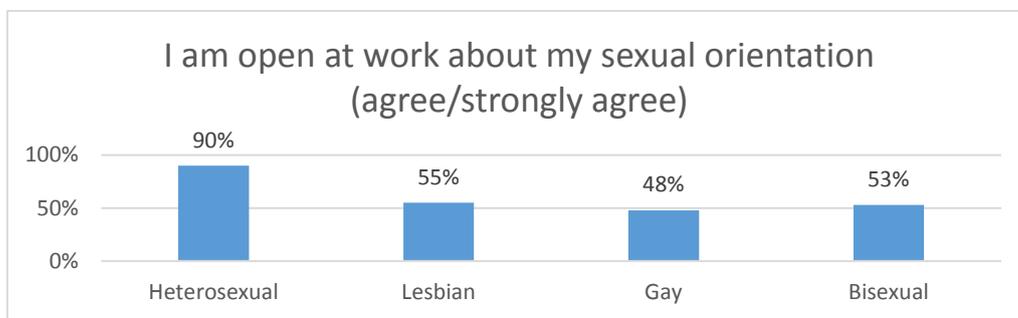

Figure 6

RESPECT

❖ LGB and heterosexual respondents reported similarly high levels of respect from their managers. But fewer lesbian (78%) compared to gay (85%), bisexual (91%) and heterosexual (89%) respondents reported that they are treated with respect by their manager most/all of the time.
❖ LGB respondents are less likely to say they are listened to by their manager most/all of the time compared to heterosexual respondents (74% of lesbian and gay and 73% of bisexual respondents said this compared to 81% of heterosexual respondents).
❖ Only 39% of lesbian respondents agreed or strongly agreed that their gender is irrelevant to how they are perceived at work compared to 61% of gay, 52% of bisexual and 77% of heterosexual respondents.

RELATIONSHIPS

Lesbian and bisexual engineers are more likely to feel isolated in their day-to-day work and experience bullying and harassment compared to gay and heterosexual respondents.

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❖ 39% of lesbian and 34% of bisexual compared to 23% of gay and 22% of heterosexual engineers said that they feel isolated in their day-to-day work.

❖ 30% of lesbian and 23% of bisexual respondents said they have experienced bullying and harassment in the past 12 months compared to 16% of gay men and 14% of heterosexual respondents.

Banter (playful conversation) may play a part in bullying and harassment.

❖ 32% of lesbian respondents said that offensive behaviour and language often get passed off as banter in UK engineering culture, as did 29% of gay and 19% of bisexual respondents compared with only 11% of heterosexual respondents.

As one respondent added:

"It still appears acceptable for people to joke/banter about people being gay, comment on women's appearance or to talk about 'pikies' without consideration that this may be offensive. Even when challenged the problem with these behaviours is not understood."
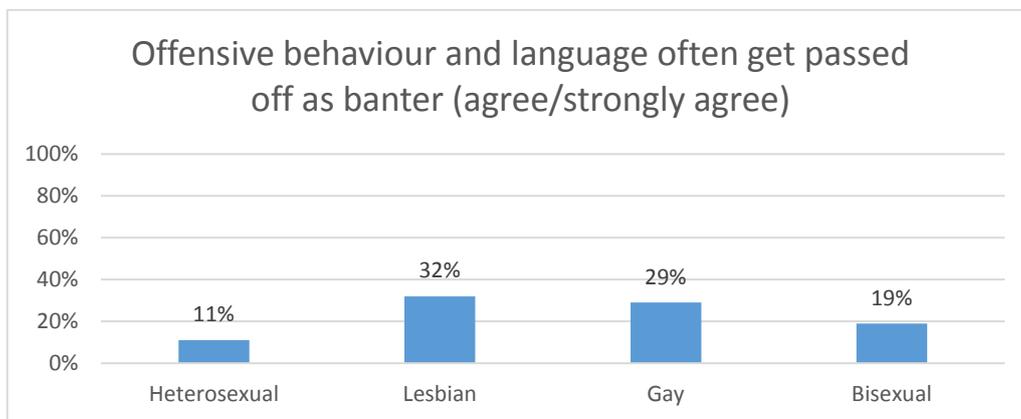

Figure 7

CAREER

Clearer and more open career paths is a priority for all engineers in helping to make the culture of engineering more inclusive. However, there is a pattern of LGB respondents reporting slightly less positively across the indicators of inclusive careers compared to their heterosexual colleagues.

❖ 56% of heterosexual respondents agreed or strongly agreed that they are clear what they need to do to progress their career compared to 42% of lesbian, 53% of gay and 50% of bisexual respondents.

9

- ❖ 72% of heterosexual respondents agreed or strongly agreed that work is fairly allocated compared to 61% of lesbian, 65% of gay and 66% of bisexual respondents.
- ❖ 55% of heterosexual respondents agreed or strongly agreed that the promotions process is fair compared to 46% of lesbian, and 49% of gay and bisexual respondents.

FLEXIBILITY

LGB and heterosexual respondents all felt that they have support from their manager to work flexibly if they want to (81% heterosexual, 79% lesbian and bisexual and 70% gay respondents agreed/strongly agreed). However, lesbian respondents in particular were less likely to say that flexible working is no barrier to career progression (67% of heterosexual respondents said this compared to 49% of lesbian, 60% of gay and 59% of bisexual respondents).

LEADERSHIP

Lesbian and gay respondents in particular reported that there is more that leaders can to do demonstrate their commitment to and promotion of an inclusive culture in engineering.

- ❖ 69% of heterosexual and 68% of bisexual respondents said that their manager is a good role model when it comes to creating an inclusive environment, compared to 57% of gay and 50% of lesbian respondents.
- ❖ 82% of heterosexual and 80% of bisexual compared to 76% of lesbian and 74% of gay respondents said that they think their manager would tackle bias if brought to their attention.
- ❖ 55% of heterosexual and 52% of bisexual respondents compared to 35% of gay and 34% of lesbian respondents said that their manager sets clear standards for the team on creating an inclusive environment.

DIVERSITY

- 68% of lesbian, 61% of gay, 54% of bisexual and 50% of heterosexual respondents look for 'a diverse workforce at all levels' as evidence of inclusion in their organisations.

5   CONCLUSIONS

While LGB engineers described the culture of engineering in similar ways to heterosexual engineers, overall, they experience it as less inclusive. But there

are also differences in the ways and extent to which LGB engineers experience the culture as inclusive. Gay engineers feel least able to be open about their sexual orientation and lesbian engineers feel least included in the profession, are most likely to have experienced bullying and harassment, and feel least able to speak up if someone is behaving inappropriately to them. All LGB engineers are looking for a more diverse and inclusive culture to make it a better environment to work in.

Three indicators of inclusion stand out as most important in helping to drive up inclusion for LGB engineers. These are:

- Openness
    - o Creating an environment where LGB engineers feel confident and safe to be open about their sexual orientation and life outside work.
- Relationships
    - o Creating zero tolerance for bullying and harassment in engineering, particularly for lesbian and bisexual engineers.
    - o Addressing offensive banter.
- Leadership
    - o Improving the strength of leadership in setting standards for teams on creating an inclusive environment.
    - o Building more good leadership role models for inclusion.