

Where are the women in major projects leadership?

EXAMINING THE EVIDENCE FOR A NEW APPROACH IN THE DRIVE TOWARDS GENDER BALANCE IN MAJOR PROJECTS





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GENDER IN PROJECT LEADERSHIP SERIES

This report is part of a series of investigations commissioned by APM into the status of women leaders in project management. To feed into this research, please contact emily.miles.17@ucl.ac.uk.

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1. Executive summary

This report aims to address the representation of women in the leadership of major projects. It features as part of a broader action research programme on the leadership and delivery of major projects that is being led by The Bartlett Faculty of the Built Environment, University College London (UCL). As well as initiating a 'deep dive' into the lack of women in the leadership of major projects, the research programme explores wider issues of gender equality, social responsibility and organisational culture. With researcher–practitioner collaborations such as Project X and that between APM, Arup and UCL on the *Future of Project Management* under way, there is a timely opportunity to ask what gender balance could mean for the growth of the wider project management profession. This report outlines an evidence and literature review that contributes to this agenda.

Women continue to be largely absent from leadership roles in major projects, disproportionately so for this sector. Traditional explanations such as the effects of a 'leaky pipeline' have been used for decades, but despite investment and focus on this, the number of women coming through in science, technology, engineering and mathematics (STEM) careers is increasing at a very slow rate. There is therefore a burning platform for major projects to expand beyond traditional recruitment pools and include diverse talent at every level of the project system. We know there is a wealth of immensely qualified and dedicated women available across different sectors that can bring different skillsets, so why is there such a pervasive gender imbalance in major project leadership?

This report seeks to answer this question by analysing the available evidence and highlighting a series of recommendations for both practitioners and researchers to take forward. In an examination of current equality, diversity and inclusion (EDI) programmes that tackle gender imbalance, we view there to be a stark absence of the theoretical concepts that have been so widely accepted in research. This report examines the realities of gender balance from a theoretical lens in order to bridge the gap between practice and research.

"Existing equality, diversity and inclusion solutions typically focus on 'fixing women to fit' and are failing to challenge a 'masculinist' culture that is prevalent across major projects"

Our research indicates that there is a long-established evidence base for diversity in complex organisations to counteract the issue of 'group think', yet major projects in the UK don't sufficiently capitalise on this opportunity. We argue that existing EDI solutions typically focus on 'fixing women to fit' and are failing to challenge a 'masculinist' culture that is prevalent across major projects. We find a reluctance to situate EDI within a wider context of structural social inequality; and gender balance drives that reinforce gender stereotypes ('men are like X' and 'women are like Y') and fail to question institutional norms and power structures. Constructionist research tells us that the world is created through social interaction and that gender is not just a biological identity marker but is also constructed through behavioural norms and reinforced by institutions. But such an understanding of gender rarely features in HR policies or recruitment toolkits.

Major projects are high-cost and high-profile vehicles for delivery across infrastructure, defence, healthcare and more. They are notoriously difficult to deliver on time and on budget, and problems can create a devastating ripple effect across the economy. At the same time they are also sites of significant innovation, with the UK often leading on the global stage on this kind of large-scale project delivery.

Leading in complexity is assuredly part of the brief for major project leaders, but the sector still falls short when it comes to approaching EDI with a similar level of innovation and complexity. We want to see EDI programmes go beyond 'fixing women' and focus more on cultural change. In order to see this see this transformation ripple across the major project system, we call upon project leaders at every level to think differently about gender inequality and to prioritise this issue as part of their commitment to creating social value. It has been observed that "insanity is doing the same thing over and over and expecting a different result". Current approaches to gender balance are not working quickly enough and we must start to shift the approach in order to shift the needle.

“Recent attempts to value the contribution of women in the workplace risk replacing old stereotypes for new”

2. Background

In 2011, the Davies report¹ aimed to increase the number of women on FTSE 100 boards – in executive and non-executive positions – to 25 per cent of members by 2015. Although this target has now been reached², it has been achieved largely through appointing women to non-executive roles, and the numbers of women in executive board positions continue to hover largely unchanged around the 8–10 per cent mark³. Since its publication, this report has galvanised many across different industries to prioritise gender balance and recruit more women into leadership roles.

Major projects or ‘megaprojects’ (and project management more generally) have become the chief mechanism through which government and project enterprises deliver some of the most critical and politically sensitive policies for the country. Yet in the words of the Major Projects Association (MPA, 2017): “The proportion of women in major projects has not changed much in the past decade. Whilst companies may be recruiting significant numbers of women at apprentice and graduate level they are not staying in great numbers; they are not getting involved in major projects; and are not achieving leadership positions. This is a problem.” A number of forums and professional bodies have attempted to address this shortfall and implement a range of gender balance initiatives across the major projects sector. For example, the creation of the APM Women in Project Management Specific Interest Group (WiPM SIG) and its annual WiPM conference⁴; the Major Project Association’s Gender Balance Initiative⁵; the Women in Transport Group⁶; and WISE (Women in Science and Engineering), who have created a Ten Steps campaign to improve women’s retention and progression in the industry⁷. However, analysis of these types of gender balance initiatives suggests that they aren’t working, or progress is slow. According to a 2016 McKinsey report⁸, 52 per cent of companies sampled had implemented more than 25 gender balance measures, but only 24 per cent of them have more than 20 per cent of women in top management positions. Out of 133 major projects currently listed on the UK Government Major Projects Portfolio⁹, only around 22 per cent of the appointed senior responsible officers are women.

There are many factors that contribute to the under-representation of women¹⁰ in the leadership of projects. Firstly, most of the pipeline comes from STEM subjects that are still predominately male in uptake, from school right through to graduate career choice. Secondly, the realities of taking up a leadership mantle are seen to put off many women (and men) from pursuing top positions. Women still predominate in caregiving roles for children or dependent relatives, and the challenges of balancing an all-encompassing leadership role with other responsibilities often acts as a barrier to their progression. Lastly, there is the outcome of certain ‘thinking processes’ around social judgement and ideals of leadership, which shape stereotypes and perceptions of the roles men and women play at work and in society. In the past, these judgements have placed women in domestic roles or in caring professions; and more recent attempts to value the contribution of women in the workplace risk replacing old stereotypes for new¹¹. For instance, commonly held beliefs that categorise women as ‘collaborative’ and men as ‘driven’ can enhance the argument in favour of promoting more women into leadership roles that now require ‘softer’ skills. This gendered categorisation of women’s capabilities has very little truth in it (indeed, in a *Harvard Business Review* survey into 7,280 leaders, women scored higher than men across almost all 16 leadership competencies, including those that were considered typically masculine traits¹²). Like the ‘think manager, think male’ attitude, the ‘value femininity’ perspective still ignores gender as a social process.

¹ Davies, E (2011)

² Source: BoardEx (April, 2018)

³ Vinnicombe et al. (2017)

⁴ www.apm.org.uk/apm-wipm-conference

⁵ www.majorprojects.org/gender/whatitis

⁶ www.womenintransport.com

⁷ www.wisecampaign.org.uk/what-we-do/expertise/industry-led-ten-steps

⁸ McKinsey & Company (2016)

⁹ www.gov.uk/government/publications/infrastructure-and-projects-authority-annual-report-2018

¹⁰ Note: This report refers throughout to ‘women’, ‘men’ and ‘gendered identities’ to be inclusive to all those who define themselves as these respective genders. We do this for clarity and reliability, whilst hoping to establish both that gender is a social process and that there is a spectrum of gendered identities that are often marginalised from these discussions.

¹¹ Linstead, A & Brewis, J (2004)

¹² Zenger, J & Folkman, J (2012)

Research on gendering organisations has explored how norms and assumptions linked to how gender norms and stereotypes are encouraged in the workplace¹³. These approaches show that “gender is not a property of the person but a process that people enact in everyday situations”¹⁴. Subsequent research has extended this logic to the institutionalised behaviours and practices of the organisation itself – thus gender is not only something that is ‘done’ by people, but also by organisations themselves in prescribing and reinforcing the ‘ideal worker’ through gender practices¹⁵. For instance, gender can be reinforced culturally through a highly masculine or feminine working culture, or practically through policies, incentives or procedures that reinforce a gender hierarchy (such as the gender pay gap or the fast promotion of men over women). A wealth of feminist academic literature over the past 40 years has pointed to how ‘masculinist’ workplace cultures can be falsely perceived as neutral¹⁶, and we view that the organisational practices and cultures of major projects are certainly no exception.

“Despite the many initiatives that have been driven across STEM, the gains made are moderate at best and the pace of change is glacially slow”

Instead of inquiring into persistent gender inequality more deeply, it is taken for granted that the organisation and the profession are gender neutral, and the norms that dictate ‘good and bad leadership’ are ‘value free’. Many HR and EDI programmes act within a paradigm where ‘gender balance’ is attempted in an environment that is perceived to be gender neutral. It becomes down to women to engage in more training, or education, or mentoring, to learn how to be different; it is women who have to be ‘fixed to fit in’. Common examples of this are women’s leadership programmes, CV or job application skills development, mentoring schemes and workplace equalities networks. These programmes exist across higher education, health, government, banking, transport and more. Women’s leadership programmes are generally perceived to be effective and important training for those who participate, but they have never made a significant dent in the rectifying of gender imbalance at the top of any of these sectors. Despite the many initiatives that have been driven across STEM, the gains made are moderate at best and the pace of change is glacially slow. From 2015 to 2016, WISE reported a one per cent *decrease* in the proportion of the STEM workforce made up by women, as the industry is growing faster than the number of women entering it¹⁷. Since the creation of WISE 34 years ago, despite the number of organisations that have signed up to it, the industry has only seen an increase from seven per cent to 24 per cent. While the number of girls taking STEM GCSE subjects is almost balanced at 48 per cent, the drop off throughout the pipeline reveals the scale of the issue. While the WISE approach is showing some results, the slow pace demands a higher level of dedication from industry partners if we are to influence any change.

The traditional split between academic research and organisational practice hasn’t helped. Serious robust research on gender ends up being somewhat impenetrable and inaccessible; while on the flip side, data from practice is often informed by pseudo-psychology¹⁸, is just hype or is anecdotal. This report makes the case for a different approach to gender balance initiatives that can bridge this gap.

¹³ Calás et al. (2014)

¹⁴ Kelan, E (2010, p.177)

¹⁵ Gherardi, S (1994), Hall, PA (1993), Leidner, R (1991)

¹⁶ Marshall, J (1984)

¹⁷ www.wisecampaign.org.uk/statistics

¹⁸ Galli, L (2015)

3. Gender in organisations

Over the past 30 years, the case has been made and remade that gender diversity improves stakeholder engagement, leadership and decision making, approaches to risk and governance, and ultimately bottom-line business performance¹⁹. Over the same period, research and equalities initiatives have attempted to improve the recruitment, retention and promotion of women, and to understand and explain the current situation²⁰. Although such work is often called 'gender in organisations', it has largely focused on the position of women and the problems they face. From the start, the underpinning question has been: why don't women do as well as men? This research assumed that women 'are as good as men and therefore deserving of the same rewards as men'. The status or social role of women was the problem that needed to be fixed, whilst the realities of men were the norm against which women's experiences should be judged.

Women are often held to different standards in interviews, performance conversations and pay negotiations²¹. The double bind²² for women is that to be seen as a proper leader they must act in ways to disconfirm gender stereotypes (e.g. by adopting a more masculine leadership style), but in doing so they risk coming across as 'not a proper woman'. Women therefore risk facing a backlash when they act counter-stereotypically – labelled as pushy, too emotional, too assertive or too angry²³. It falls to women themselves to find the 'workarounds' – making extra efforts at self-monitoring to fit into the status quo, or adopting more feminine (often low-status) behaviours (such as use of indirect language, self-deprecation, and talking less and more quietly). Moreover, the initiatives designed to improve women's participation do not remain gender blind; seemingly neutral policies such as flexible working quickly become gendered²⁴ and have little impact on advancing equality. To expand this point further, flexible working tends to be more acceptable for employed mothers but policies don't deal with the wider implications of working flexibly. These might include resentment and judgement from colleagues, or the 'superwoman' complex where women feel pressured to 'do it all'. There are also financial implications for flexible workers who earn less income (and in turn reduce their pension contributions), thus exacerbating the gender pay gap. This is all done against a reality where flexible or part-time workers often contribute the same level of hours or performance as full-time colleagues. As such, a policy that is designed to benefit everyone – and specifically women – can end up hurting them more.

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Common barriers to women's advancement

The leaky pipeline – the metaphor of a leaky pipeline is often used to describe the problem of retaining women at every level of the organisation. In STEM industries, this begins at school age – where stereotypical gender assumptions shape learning preferences and subject choices, meaning that significantly fewer girls than boys take up STEM subjects. However, following the pipeline up through to leadership roles in major projects, it seems that women leave at every transition point (graduation, middle management, post-maternity, board level and so on) and the nearer they get towards the top, the less women stay. There are many reasons why women are harder to retain in the pipeline; and any attempts to improve retention should be nuanced. The phrase 'leaky pipeline' has gained criticism because it implies that there is one rigid career path, it disregards the responsibility of the institution in failing to recruit diverse graduates, and it doesn't question the societal pressures on women to choose more flexible careers in order to be care givers.

Maternity and caring – research carried out by PwC highlighted that a significant 'funnelling' of women before reaching senior leadership roles occurs around the ages of 28–40²⁵, and is particularly challenging for those returning from maternity leave. Despite the introduction of shared parental leave, few fathers have opted to take up equal paternity options (arguably because it can have such a large impact on their career progression). The challenges of returning to work after childbirth are felt across sectors, both for women and for their employers. There is less research into the impact that caring for elderly parents or being in the 'sandwich generation' might have on women's later careers – but it is known that women disproportionately take responsibility for caring in addition to pursuing their careers.

¹⁹ Credit Suisse (2016)

²⁰ 30% Club (2018)

²¹ Heilman et al. (1989), Schein et al. (1996), Ryan et al. (2011)

²² Ong et al. (2011)

²³ Catalyst (2007)

²⁴ Ali, M (2015), Jonsen et al. (2010)

²⁵ PwC (2014)

<p>Recruitment – there are gendered barriers facing women seeking new employment opportunities. Women are less likely to apply for roles that they are not fully qualified for, whereas men tend to 'just go for it'. The language of job adverts has also been shown to put women off from applying²⁶. Discrimination and bias during interviews is a common issue, particularly for black, Asian and minority ethnic (BAME) women who are more likely to be stereotyped and rejected for being 'the wrong fit'. Diverse panels or blind testing are known to counteract unconscious bias – but they are rarely adopted.</p>	<p>Leadership – the pressures of leadership roles mean that women aren't always seen as a desirable option. In seeking explanations as to why women aren't pursuing top positions, a common rejoinder is 'why would they want to?' The professional 'lifespan' for CEOs in sensitive environments – such as healthcare or major projects – is notoriously short, as when something goes wrong it can be career damaging for those at the top. Research suggests that women who do fail are vilified more than men; and with the political sensitivity of major projects, combined with the full-on requirements of the role, this can create a 'hero complex' – where you have to be willing to give up other things in order to pursue senior roles. The realities of leadership are thus undesirable but also highly gendered, begging the question, how can a shift in leadership culture benefit both men and women?</p>
<p>Gender pay gap – women typically earn less than men²⁷. This affects incentives for progression as well as work/family choices. For instance, when it comes to decisions around post-maternity career progression, many women move to part-time hours or take up lower-paid positions. This can be self-reinforcing in partnerships, where it makes 'economic sense' for the breadwinner to continue their career and for the lower earner to take up caring responsibilities; yet in a gender pay gap context, the lower earner will typically be female.</p>	<p>Sexist stereotypes – sexist behaviours and attitudes persist in organisations, with a number of women reporting bullying or harassment on the basis of gender. Women in senior roles are often targeted with sexist challenges to their authority and are placed in unhelpful categories that their male counterparts are not similarly subject to: 'bossy' rather than 'assertive', and so on. Stereotypes that aren't overtly sexist or derogatory can also hinder women's careers, such as encouraging women to choose more 'feminine' career options that might 'suit them better'.</p>
<p>Pulling up the ladder – in any discussion of women and leadership, it should not be assumed that male managers are responsible for creating obstacles; indeed, male managers are often linchpins for the advancement of women²⁸. Phrases such as the 'Queen Bee phenomenon'²⁹ or 'pulling up the ladder as they climb' have been coined to describe the issue of women in senior roles failing to support other women. These terms are themselves another example of sexist terminology that holds women leaders to higher standards than male counterparts. However, they do describe a phenomenon that must be acknowledged and faced by women leaders. Women are not de facto more generous or empathetic leaders; but all good leaders know how to empower their direct reports and succession plan for the future.</p>	<p>Representation and role models – evidence suggests that perceptions of representation and available role models are a big incentive for women, particularly those from BAME backgrounds, when seeking to progress in organisations³⁰. The lack of 'people who look like me' can be a big disincentive to many who would otherwise seek leadership roles. This is a self-perpetuating cycle as the less women 'break the glass ceiling', the less others will follow.</p>
<p>Organisational culture – the ambitions and belief systems of an organisation can often set the standards for behaviour, norms and culture for employees. This is particularly the case around leadership, as people who most adhere to the organisation's belief system will inevitably rise to the top. These values create an organisational culture that typically benefits majority groups who are used to the cultural rules that are being set. The requirement for minorities is to negotiate majority in/out group dynamics, cultural norms and power hierarchies. This can be challenging and mean that diversity can create tension rather than enhance organisational effectiveness. It is crucial to address negative organisational cultures – such as a masculinist working environment – and this is why many advocate for 'balance' across gender, ethnicity, age and even leadership style in order to avoid a culture that reflects just one type of leader.</p>	<p>Apathy towards diversity – it would be erroneous to assume that just because there is a rich and compelling evidence base for diverse leadership teams, that this agenda is one that is prioritised. 30% Club anonymously interviewed chairs and non-executive directors to establish the reasons given as to why they can't/won't/shouldn't appoint female directors to their boards³¹. Many of the reasons given are similar to the others listed here, but behind all of them is a general sense of apathy; recruiting diverse boards is simply not a key priority. Even in organisations where leaders publicly endorse the need for EDI, the lack of funding and resource committed to this issue suggests otherwise.</p>
<p>Board recruitment – there are many explanations given by boards to account for their low numbers of women. 30% Club found that there are prevailing judgements that women aren't 'board ready', or that they are 'too risk averse' in spite of a wealth of female candidates and wide disputation of gendered stereotypes. Research has found that the board appointment process itself is inherently biased: nepotism is rife to men's advantage, while women don't want to be seen as the 'token' appointment and so uphold the myth of meritocratic recruitment³².</p>	<p>Gendered career choices – the push for gender balance masks the differences in representation between typically female-dominated and male-dominated professions. Women are more likely to be encouraged into leadership roles in already female-dominated professions, such as HR or marketing. In an examination of NHS Trusts, many boards have attained close to gender balance due to the high number of women in director of nursing or HR director roles (85 per cent and 63 per cent of boards, respectively, have women represented in those positions), but medicine and finance remain woefully under-balanced³³. Gendered stereotypes on what careers 'suit' women, combined with a desire to 'fit in', mean that many barriers remain for women wanting to enter different fields, let alone reach leadership positions.</p>



²⁶ Gaucher, D & Friesen, J (2011)

²⁷ gender-pay-gap.service.gov.uk

²⁸ www.som.cranfield.ac.uk/som/dynamic-content/research/Linchpin.pdf

²⁹ Derks et al. (2011)

³⁰ Carbado, DW & Gulati, M (2004)

³¹ 30% Club (2016)

³² Brown, SE (2017)

³³ NHS Employers (2017)

“Researchers have identified the ‘glass cliff’, where women who do break through into top positions are then appointed to the ‘poison chalice’ roles: leading projects that have an increased risk of failure”

There are a number of research studies that focus on men, masculinities and management³⁴; but these are yet to see much traction in shaping the design of leadership development programmes and of the ‘gender agenda’. Male leaders may be invited to participate in unconscious bias training or general performance improvement training – but their perspectives and experiences are rarely understood as being shaped by their gender. The ‘gender in organisations’ research still mostly focuses on the roles that women play in society and at work and can risk homogenising gender identities.

In other research strands, researchers have observed how women were disadvantaged because they didn’t ‘fit the mould’³⁵. This explains the persistence of the ‘glass ceiling’, where women struggle to break through to the places where men predominate (largely but not solely in senior leadership, but also in those STEM professions from which project leaders are often drawn)³⁶. More recently, researchers have identified the ‘glass cliff’³⁷, where women who do break through into top positions are then appointed to the ‘poison chalice’ roles: leading projects that have an increased risk of failure. This has been apparent in major projects leadership, where in the few cases that women have led major projects their portfolios tend to be smaller or related to the typically female-dominated professions such as healthcare or the environment. When women do take up leadership of high-profile, high-stakes projects, they are more likely to be blamed and have their careers ruined if anything fails³⁸.

Across the sector, there are many strategies and initiatives that are designed to target the barriers outlined in the table above. But if these approaches are having so little success, how can we utilise academic research more to explain the phenomena of gendered inequality and better tackle it in major projects? In 2000, Harvard academics Ely and Meyerson³⁹ conducted a large-scale action research project investigating gender in organisations. Their analysis showed that EDI or gender initiatives tend to fit in at least one of four possible ‘frames’:

Frame 1: Fix the women (develop women’s skills through training, mentoring, etc.)

Frame 2: Value the feminine (reward and celebrate ‘women’s ways’, hold diversity training)

Frame 3: Different treatment for different sexes (policies to compensate for structural barriers, e.g. quotas or affirmative action)

Frame 4: Assess and revise work culture (process of identifying, challenging and revising oppressive social practices that are upheld through hierarchies etc. in the organisation).

For instance, out of the 33 interventions listed in the Major Projects Association’s gender balance report⁴⁰ it is our quick assessment that the bulk of interventions are situated within the first three frames – with only a couple of directives targeted at transforming workplace culture. Ely and Meyerson admit that the fourth frame is much harder to sustain than the others – but there is a growing consensus across the EDI profession that cultural change is necessary for any diversity initiatives to gain traction.

³⁴ Martin, PY (1996, Collinson, DL & Hearn, J, eds), Whitehead, S (2014)

³⁵ Marshall, J (1984)

³⁶ www.wisecampaign.org.uk

³⁷ Ryan, MK & Haslam, SA (2007)

³⁸ Elliott, C & Stead, V (2017)

³⁹ Ely, R & Meyerson, D (2000)

⁴⁰ Major Projects Association (2017)

"It is the current view of many experts that inclusive leadership that is collaborative, compassionate and open-minded enables better results, even in a typically command/control environment like major projects"

4. Leading major projects

Many of the world's most complex challenges are being addressed through multi-national, multi-million-pound, development-critical, politically sensitive projects. The World Bank estimates more than 20 per cent of global economic activity takes place as projects: with 22 per cent of the world's \$48 trillion GDP spent on capital projects. Since 2011, there have been around 200 projects in the Government Major Projects Portfolio with a value of approximately £550bn. Included on this list are infrastructure projects such as HS2, Crossrail, Tideway and Hinkley Point C, and defence projects such as the Trident successor and Queen Elizabeth aircraft carriers. Also included are things you might not expect – cyber security, NHS Choices, Universal Credit, prisoner rehabilitation and immigration.

Major projects are some of the most highly contested, highly sensitive policies of our times, characterised by, among other things, highly diverse stakeholder perspectives. They are notoriously difficult to deliver 'on time and on budget' and they rarely go to plan⁴¹. The recent and extremely public collapse of Carillion demonstrates that poor leadership and decision making can have drastic implications in major projects and across the supply chain⁴². But despite considerable investment and attention, the National Audit Office (NAO) identifies that 30 per cent of current UK major projects still report red or amber/red prospects for delivery and warns of a growing 'capability gap' in leadership and delivery across the project system. Infrastructure UK⁴³ calculates that the profession is short of 100,000 project managers in the UK alone for the projects pipeline forecast. Elsewhere, the Project Management Institute (PMI) *Project Management Job Growth and Talent Gap 2017–2027* report states that globally by 2027, employers will need 87.7m individuals working in project management-oriented roles, including an estimate of more than 945,000 additional project management roles in the UK alone. Projectification studies have also been conducted in other parts of the world, including Germany – led by the German Project Management Association (GPM) – Norway and Iceland, which suggest that the average national projectification level is around 33 per cent of the country's GDP. To meet this challenge, APM is working with PwC to design a methodology to measure the contribution and impact of projects and project management to the UK economy in terms of Gross Value Added (GVA) and numbers employed (FTEs).

It is an oft-repeated refrain that such extraordinary challenges require extraordinary leadership. What this looks like is, however, more contested. Ideas of what constitutes 'good leadership' have shifted over the past 40 years, in line with changing needs and cultural trends. It is the current view of many leadership experts that inclusive leadership that is collaborative, compassionate and open-minded enables better results, even in a typically command/control environment like major projects. Yet there is still resistance to these principles – both in practice and in more traditional project management traditions. What is clear is that, in answer to the challenge of how to improve project delivery, the answer is almost always 'better leadership', whatever that might look like.

Professionalising leadership in projects

Project management is a relatively new discipline. It is generally agreed that it emerged from the US defence and aerospace sectors in the 1950s⁴⁴, and has become characterised by a carefully prescribed set of tools, techniques and procedures, arbitrated and controlled by professional bodies. Whilst the profession is still developing, Bredillet⁴⁵ points out that it is based on a paradigm that is largely a positivist one. In a positivist view of the world, science is seen as the way to get at truth, to understand the world well enough so that we might predict and control it. It has also become heavily characterised by "the hype and advocacy of [particular models] and practice" and "a lack of critical thinking". In fact, he goes on to say, "it [has become] more lucrative to reinforce" the ways things are already done, than apply the critical rigour needed to change them.

⁴¹ Flyvbjerg, B et al. (2003)

⁴² Scottish Construction Now (2018)

⁴³ Source: National Infrastructure Plan for Skills (2015)

⁴⁴ Morris, P et al. (2012)

⁴⁵ Bredillet, CN (2010, p. 14)

"The threat of 'group think' is real and can have massive consequences; truly embracing the benefits of diversity is therefore more important than ever"

In 2011 Francis Maude, then Minister for the Cabinet Office, said 90 per cent of government policy is now delivered through projects⁴⁶, meaning the policy delivery mechanisms across all areas of public life are managed through projects and programmes. Scrutiny has therefore rightly turned to those in charge of delivering projects and what has followed is an attempt to professionalise project management through bodies such as APM, PMI and the Chartered Institute of Personnel and Development (CIPD). There are several front-running leadership programmes that are specific to major project leadership such as the MP Leadership Academy of Saïd Business School and Cranfield University's Project Leadership Programme. Although these programmes have not been specifically aimed at diversifying the system, they have had a small dent on the promotion of women and minorities into senior project roles. These leadership programmes appear to evaluate like many others that exist across different sectors – they are high quality and high impact for their elite group of participants, but they have so far had little success in transforming the leadership and cultural landscape.

The hypothesis is that 'better leadership makes better delivery' and much of the evidence base supports this notion. But there is ongoing debate about what 'better leadership' looks like. Books and courses proliferate – it is a lucrative market. What is increasingly agreed is that diversity is essential in leadership teams, but support for diversity tends to be heard rather than felt. Research on this area tends to focus on the perils of 'group think', which is seen as a particular threat to the delivery of projects where innovation is prized. The 'diversity dividend' or business case tends to get more traction than the 'ethical case' that requires better representation of women and minorities on principle of fairness. The argument goes that 'diversity of thought' encourages constructive challenge and dissent, expands networks and viewpoints, and breaks down hierarchies. The assumption then follows that diverse demographics will bring that diversity of thought, which will enhance better decision making, with a need for at least a 30 per cent representation in teams or on boards⁴⁷ for minority groups to have sufficient influence over decision making.

As the professionalisation of project management grows, it is important to question what paradigm is being advanced. There are attempts to re-innovate the sector through methodologies such as agile or lean, and *Future of Project Management*⁴⁸ – a recent publication from Arup, APM and UCL – outlines emerging trends and drivers that include diversity and inclusive leadership. But to what extent have these flexible, diverse and 'whole system' leadership practices been truly embedded across the sector? In times of pressure and high stakes, it is common for organisations to default to 'tried and tested' methods, resorting to command/control leadership and appointing the 'safe pair of hands'. That much seems apparent across the major project leadership teams, many of whom are familiar faces in the industry. An argument can be made for recruiting the most experienced candidate in a small talent pool; yet this logic goes against the attempt to avoid 'group think'. The failure of Carillion's shareholders, board and auditors to hold each other sufficiently to account has been highlighted as an underlying cause of its collapse. The threat of 'group think' is real and can have massive consequences; truly embracing the benefits of diversity is therefore more important than ever. The world of work is being shaped and reshaped by a particular project paradigm. But just at the point when we need more diversity, more criticality, more inquiry, the dominant paradigm is becoming more positivist, more masculine and more gendered.

Women leaders in major projects

The above statement could be seen as a controversial assertion. But it is important to bear in mind the numbers involved. In major projects leadership, project managers tend to come through particular disciplines and via particular 'project-dense' sectors – engineering, construction, technology, defence, transport – which, in turn, draw their intake from the STEM subjects. Fewer girls choose STEM subjects⁴⁹; fewer women choose these professions; fewer women are in the pipeline for leadership roles. So the project management field presents a double whammy for women seeking leadership roles.

⁴⁶ www.gov.uk/government/news/government-launches-major-projects-authority

⁴⁷ Knouse, SB & Dansby, M (1999)

⁴⁸ Arup (2017)

“In government there is a gendered discrepancy between who leads in which department, with more men in bigger-budget departments and women more prevalent in ‘typically female’ sectors such as culture, health and communities”

The UK government organises its most important projects through the Infrastructure and Projects Authority (IPA), which was formally the Major Projects Authority (MPA). The MPA was established after the 2010 election specifically to turn around the Civil Service’s performance, in a much-needed attempt to understand, organise and improve the performance of the big complex projects that consume so much of government spend.

As of the 2017/18 Annual Report, there are 133 projects on the Government Major Projects Portfolio (GMPP), with an approximate combined total of 240 senior responsible owners (SROs) and project/programme directors (PDs). In 2016,

- of the 243 SROs and PDs leading GMPP projects, 60 were women and 183 were men.
- 30 SROs out of the 143 listed projects were women.
- the ratio of men to women at director-general level was approximately 6:1.
- the ratio of men to women at director level and the grades below was 3:1.

The gender pay gap – the difference between men and women’s earnings in comparable work – is also revealing. But we are, for this research, interested in the growth of the project management cadre, and the impact it’s having on the representation and experience of women in leadership. So how do these statistics reflect across the project system? In government – who play a key role in appointing the SROs of major projects – there is a gendered discrepancy between who leads in which department, with more men in bigger-budget departments and women more prevalent in ‘typically female’ sectors such as culture, health and communities.

Table 1. UK women senior civil servants (SCS) index by government department⁵⁰

Department	2015
Culture, Media & Sport	50
Communities & Local Government	50
Health	49
Welsh Government	47
Business, Innovation & Skills	44
HM Treasury	44
International Development	44
Education	43
Agriculture & Food*	43
Cabinet Office	42
Defra*	40
HMRC	39
Work & Pensions	37
Ministry of Justice	37
Energy & Climate Change	36
Scottish Government	35
Transport	33
Home Office	32
Ministry of Defence	27
Foreign & Commonwealth Office	26
Average	39.8

Table 2. Pay gap of women SCS compared to men (largest to smallest)⁵⁰

Department	2015 gap (%)
Energy & Climate Change	16.7
Cabinet Office	13.9
Ministry of Defence	10.1
HM Treasury	9.6
Education	9.3
Transport	8.8
Work & Pensions	8.5
Foreign & Commonwealth Office	7.9
International Development	5.8
Home Office	5.1
Ministry of Justice	5.0
Business, Innovation & Skills	4.6
Health	4.1
Welsh Government	4.0
Culture, Media & Sport	3.7
HMRC	2.5
Scottish Government	0.6
Communities & Local Government	0.2
Environment, Food & Rural Affairs	-1.5
Average	6.3

**Due to the small size of this department, pay comparison has been excluded.*

⁴⁹ www.wisecampaign.org.uk/statistics

⁵⁰ Source: Institute for Government, ‘Gender Balance in the Civil Service’

"Some organisations are taking radical steps to put inclusivity at the heart of their organisational practice and culture ... It is within these conditions of cultural transformation that the pursuit for gender balance will be most effectively reached"

The overall gender balance of senior civil service (SCS) members of the profession is now at 43 per cent female and 57 per cent male, which has balanced by eight per cent in the past eight years⁵¹. According to the Institute for Government, "women at all grades are also more likely than men to be working part time. This is particularly true at the two lowest grades, where there are almost five times as many women working part time as men."

■ The departments with the largest percentage of male senior project leaders within their populations are Home Office (61 per cent male), the FCO (67 per cent male) and the MoD (71 per cent male).

■ The departments with more female senior project leaders than male are the DfE, DHSC, MHCLG and Defra.

The gender imbalance is stark at the very top of the decision-making tree, emphasising that it is not just the STEM 'leaky pipeline' that is at fault here. The growing representation of women in SCS roles indicates a positive change in the public sector – although there continues to be a gendered difference between the types of department that women lead. The authors would like to see further research on how this increasing gender balance is helping to transform leadership cultures in government departments. There is also limited indication that the gains in the public sector are influencing change in private partnerships across major projects.

So why is this happening?

There have been many attempts to explain the absence of women in the management and leadership of major projects. The barriers outlined on pages 8–9 give insight into the shared perspectives of women and their individual experiences of seeking leadership roles. The explanations (or excuses...) given by recruiters and leadership teams tend to include:

■ The pipeline explanation: "There aren't enough women in the pipeline – we need to go back to schools and universities to improve this."

■ The culture explanation: "Major projects tend to be in quite tough cultures and women don't fit in so well there."

■ The work-life explanation: "These jobs are really demanding; women don't want to make the sacrifices for work."

■ The readiness explanation: "There aren't enough women ready for these leadership roles – they just don't come forward; we offer training and mentoring to help, though."

■ The experience explanation: "Women tend not to have the right background and experience for these complex roles."

■ The women are just different explanation: "Women don't choose these lines of work because they prefer to do other things." / "Women's essential skills lie in different types of work."

When it comes to 'solving' the above challenges, tired and repetitive thinking is very much to the fore. Not enough girls coming through the pipeline? Run a digital media campaign to change perceptions. Not enough women who are ready for leadership roles? Run a mentoring scheme. Demanding workload? Offer flexible working as they will end up giving more hours at less cost to the organisation. There is nothing inherently wrong with this type of response, but they largely come from the 'fix the women' frame and don't seem to be having much impact. There are some organisations who are taking radical steps to put inclusivity at the heart of their organisational practice and culture. The success of companies like Zappos in embracing principles of holacracy (a method of decentralised management and governance that distributes authority over self-managing teams) is an interesting approach that many in the tech industry are following. Elsewhere, companies like Symantec are exploring the use of agile in creating more inclusive teams. The key commonality here is around prioritisation; in those organisations there is a genuine dedication to reaping the benefits of a diverse workforce, so they are willing to challenge behaviours and interactions in the pursuit of more reflective practice in the workplace. It is within these conditions of cultural transformation that the pursuit for gender balance will be most effectively reached.



Gender balance in major projects

'Gender balance' is the umbrella term for improved representation and experiences of women in the workplace. It is also described as 'gender parity', and in essence refers to the driver behind increasing the number of women to be 50 per cent across the organisational structure – but often targets relate specifically to board level.

The MPA has recently published a comprehensive list of the many different types of initiatives that exist across the industry in an attempt to reach gender balance⁵². These include:

- programme activity in the project management environment (WISE Ten Steps, Royal Academy of Engineering workshops, Women into Construction, The Open University's online courses, etc.);
- holistic communication and pledge programmes (#ILookLikeAnEngineer, Male Champions of Change Institute);
- cross-sector initiatives (30% Club, Women on Boards);
- accreditation programmes.

The report found that there was no magic bullet, that there was a great deal of replication across the system, transparency and culture change are key, and that targets work. The WISE (Women in Science and Engineering) Ten Steps campaign has gained a lot of support on this topic and is made up of the following:



Adapted from WISE Campaign.
Source: www.wisecampaign.org.uk/what-we-do/expertise/industry-led-ten-steps/what-is-the-ten-steps/

APM's Women in Project Management Specific Interest Group (WiPM SIG) has run a conference for the past four years, which has grown in significance, participation and profile. The group has been in existence for 25 years and organises a range of training events for members on developing confidence, taking up new challenges, or finding the right coaches and mentors. Elsewhere, many firms have initiated 'family friendly' policies; addressed their recruitment activities; led unconscious bias training; offered women leadership development, mentoring and coaching and so on.

Most of these kinds of EDI initiatives are largely in the 'gender in organisations' paradigm; of treating the organisation as a neutral container; construing project management as a profession informed by a set of objective, technical tools and processes; and defaulting to the 'fix women to fit' approach. But the evidence suggests that these don't have a sustainable, widespread impact. And so we return to the challenge set out by feminist academics in the 'gendering organisations' school: how can we subvert gendered behaviours and practices that create inequality in the workplace? The case of gender balance in the civil service is an excellent example - they are well on their way to gender balance, but the statistics mask the realities of a gender pay gap, with female employees predominately in junior roles and often working part time. So how do we bridge the gap between gender theory and gender balance?

5. A different approach to gender balance

For gender balance initiatives to work and do more than they have done in the past, we need to take a critical, reflexive perspective in our planning. First, gender must be understood as a social process: not something we have, as an individual, but something we 'do' to each other. Second, gender is a historically and culturally institutionalised system, through which social power is exercised. Third, power inequality should be recognised as the norm: the point is not that women are different, but that gender difference is used as the basis for unequal distribution of power and resources. Fourth, we must start from fundamentally different ontological and epistemological assumptions – that is, with an awareness that who is doing the researching determines what they find.

This alternative framing requires us to think more critically about the broader organisational and social issues linked to women's representation in project leadership. We return to Ely and Meyerson's 'fourth frame'⁵³, which understands gender as a "system of oppressive relations reproduced in and by social practices". This understanding of gender is widely accepted in academia but still struggles to influence the way that gender is framed and perceived in everyday life.

In its report, the Major Projects Association (MPA) concludes that it's as much "how you do it as what you do" and highlights three conditions for success⁵⁴:

1. The intervention must be part of a 'coherent plan' and wider suite of activities.
2. The organisation must have an inclusive culture.
3. The intervention must be given sufficient time and resource.

Based on our analysis of the gendering organisations literature, we propose our own additional factors:

"This is not an issue just for women or about women; gender norms shape the experiences and realities of everyone participating within our society"

4. Does the intervention frame gender as something that is behavioural and structural that shapes all employees (not as a binary marker of identity between men and women)?
5. Does the intervention seek to transform or challenge who holds the balance of power in an organisation?
6. Is the approach intersectional? Does it allow for complexity and challenge the layers of privilege?
7. Does the intervention call for the reflexivity of participants? Does it ask that individuals situate their experiences within a wider context of societal inequality?

These criteria perhaps sound too much like academic jargon. It is perhaps easier to focus on the practical challenges that require practical solutions, but the findings of the MPA report show us that there is an over-tendency in the industry to repeat old ideas whilst somehow expecting different outcomes. A different perspective would up-end the conventional 'fix women to fit' model and instead inquire more critically into the organisational and societal norms and processes that have kept things unchanged for decades. Gender theory tells us that organisational language, culture and work design are all gendered since they are nested in, and reproduced by, unequal social systems, as well as emphasising and amplifying masculine norms. This is not a reason to despair. Rather, it becomes a requirement to design processes that engage 'self and system' in a plan for change; it must be relational, participatory and curious. There are clear steps that leaders and organisations can take to start to shift the framing of their initiatives within Ely and Meyerson's fourth frame, which we outline below.

First, everyone that has an interest in changing this system must play their part in addressing it. This is not an issue just for women or about women; gender norms shape the experiences and realities of everyone participating within our society. Men are just as impacted by the expectations for women to take on caring responsibilities; men are just as shaped by leadership cultures that put competition over collaboration; male leaders in senior roles should be just as preoccupied with succession planning and avoiding 'group think' as their female colleagues. Therefore, the current players in the leadership system need to take direct responsibility and action in championing this agenda without delegating downwards to the EDI lead or the most senior woman available.

Secondly, we need to engage in rigorous cycles of experimentation, action, reflection, learning and adaption underpinned by good theory and grounded in real experience. This is not about theory or

⁵³ Ely, R & Meyerson, D (2000)

⁵⁴ Major Projects Association (2017)

“For the industry to effectively start to 'shift the needle' when it comes to diversity and equality in project management, we have to focus on crafting strategies instead of solutions”

practice, but theory *and* practice in dynamic relation to each other. It is not about women *or* men, but how gender is constructed and how it has different effects on people and the institutional structures we create. We need to build a strong partnership between industry and academy, led by a coalition of courageous, authoritative leaders prepared to work together to create and sustain a critical mass for change. We need to enhance and improve the body of knowledge, with effective research; and the body of practice, with effective leadership and governance.

Thirdly, major projects need to approach EDI as part of their social responsibility and embed it at the heart of questions around impact and how they add value. Organisations are already gendered, project enterprises even more so; this research demands deeper insight into the underpinning assumptions and structures that maintain the status quo. We need more trans-disciplinary inquiry, drawing on the critical and emancipatory fields in social justice work, not relying only on the technical fields of projects management or leadership development as the underpinning paradigm to support this work. In the field of development planning, the link between equality and organisational effectiveness has long been recognised and encouraged through gender mainstreaming. A similar recognition is needed from wider project management to prioritise equality and social justice in the pursuit of social transformation. Our discussions of gender balance must be intersectional and prioritise the needs of marginalised women of colour. We need to question the (expensive) role that women's leadership development courses play in recreating the same system that we are attempting to transform. We must be clear on what our vision of success is. If the aim of gender balance is just to 'add women and stir', then we can continue to simply replace those in decision-making positions with their female equivalents. But if this is about societal transformation (which major projects have a clear remit to deliver⁵⁵), then organisations should look internally as well as externally at the role they play in shaping our built and social environment. Shining a light on this will improve the position of all genders and moves us towards a more just and sustainable world.

This is a radical challenge – and one that the industry may reject out of fear of the unknown. We can continue down the easier path – the one that spends millions on yet another leadership development or mentoring programme for the 20 lucky individuals who can be 'fixed to fit'. The path where the 'hero complex' becomes the 'heroine complex'⁵⁶. But leaders in major projects – arguably more so than in any other industry – are surely used to dealing with complexity. UK major projects are world leaders in innovation and creativity – is applying a similar level of complexity and nuance to questions of equality and gender really too much to ask?

There is perhaps a professional habit in STEM to ask for a fix-all solution or a step-by-step guide or toolkit that you can take away and put in the drawer, never to be looked at again. But for the industry to effectively start to 'shift the needle' when it comes to diversity and equality in project management, we have to focus on crafting strategies instead of solutions.

The authors of this report have organised and been involved in many positive action programmes designed to improve women's participation across healthcare, projects and beyond. We are now embarking on a new research project that will form a consortium of practitioners and researchers across the major projects industry who want to understand the evidence and the explanations detailed above; who want to explore 'promising practices'; and who want to craft strategies through collaboration with others, working together to improve the situation.

In summary, major projects are often delivered through temporary and provisional organisational forms, partnerships or bespoke enterprises. These projects are often politically sensitive, nationally or internationally significant, high cost and contested, and utilise novel technologies. Such conditions can lead to more conservative, opaque and arguably more inequitable processes for recruitment, retention and promotion. Furthermore, project leaders have historically come from the STEM fields; these are disproportionately occupied by men, which, in turn, impacts upon the leadership pipeline but also shapes the nature of inquiry around project transformation from a positivist, rather than constructivist, viewpoint. The culture and practices of projects-based industries are still infected with sexist behaviours in the workplace – harassment, bullying, marginalisation, gaslighting and worse⁵⁷. Meanwhile, the capacity (and capability) gap is growing across all sectors for the leadership and delivery of major projects. It is time to think differently and act radically to reshape this industry to become a broader and more inclusive career choice for talented people across the country.

⁵⁵ www.gov.uk/government/speeches/transforming-public-services-through-major-projects

⁵⁶ Lindgren, M & Packendorff, J (2007)

⁵⁷ Sang et al. (2007)

6. Next steps

This report establishes the evidence base and theoretical grounding for a new inquiry into the issue of gender balance in major projects. Led by The Bartlett Faculty of the Built Environment and University College London (UCL), and funded by the ESRC/UBEL (UCL, Bloomsbury and East London) Doctoral Training Partnership, we will be convening an action research consortium to delve deeper into these initiatives by exploring what really works and what impact gender balance could have on the future leadership of project management. The consortium is made up of partner organisations from infrastructure, transport, health, defence, technology, energy, logistics, higher education, policy and audit, and national and local government. Guided by an advisory council of senior and experienced academics and leaders in the field of major project management, the objectives for this research are to:

- analyse and evaluate the current theoretical frameworks that are intended to explain the gender imbalance in major projects leadership;
- understand and explore – together with leaders in major projects – how gender is performed and structured in the project environment;
- generate new understandings of how gender inequality manifests in major projects and identify and share more effective strategies to improve it;
- consolidate a 'learning community' through a participative action research consortium with major project enterprise partners; and
- identify and share the most effective strategies and practices for improving gender balance in organisations, project enterprises and the 'whole system' that will shape the leadership and delivery of future major projects worldwide.

There have been many explanations proffered – in academia and in practice – for the lack of women in this industry and how to do something about it. Social role theory advocates that women will gain parity in organisations if they adopt higher status positions or develop more masculine skills such as drive or assertiveness. But double-bind theory – and the slow pace of change on the ground – suggests that either way women are damned if they do and damned if they don't. The case for recruiting diverse leadership teams must be truly felt and embedded at every level for organisations to reap the benefits – and leaders must do more than just pay lip service to this issue. It is time to stop fixing women to fit into the status quo, and time to start refitting organisations around the needs and drivers of a different kind of workforce. Major projects are notoriously difficult to deliver and this agenda will need radical leadership before we start to see real results. However, to continue the status quo is something that major project leaders can no longer afford to do. This report has explored where the women are in major project leadership – but also asks how they can ensure they don't duplicate the same leadership behaviours, decisions and mistakes.

This publication features as part of a series of investigations commissioned by APM into the position of women leaders in project management. We want to know what are the realities that women face in their career advancement, what are the cultural barriers that still undermine equal opportunity, and how can the project profession adapt and evolve to maximise the potential of a diverse talent pool?

To get involved in this research, please contact emily.miles.17@ucl.ac.uk.

Recommendations

For practitioners:

- Read and engage in the literature on gendering organisations, such as the texts listed in the bibliography.
- Champion gender equality and diversity at every level in your team or organisation.
- Ensure that any EDI initiatives meet the conditions outlined in the MPA report.
- Join networks or sign up for training, but do so through the lens of reflective practice.
- Participate in APM's Gender in Leadership series.

For further research:

- Attain further insight into the realities and expectations of women in project management, where they are leaving the profession and why.
- Investigate inclusive cultures and leadership practices in major projects and use this to influence or shape the organisational development of the major projects as a vehicle of delivery.
- Establish a framework for adopting a social justice lens through gender mainstreaming in the strategic delivery of UK major projects and the built environment.
- Engage senior leaders on a study into the 'vision of success' when it comes to gender balance, establishing clear targets and benchmarking to measure progress across the sector.
- Explore the 'whole system' of major projects to understand points of gendered inequalities and target opportunities for cultural and structural transformation in practice.

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