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THE POWER OF PARITY: ADVANCING WOMEN'S EQUALITY IN THE UNITED KINGDOM

SEPTEMBER 2016

HIGHLIGHTS

Economic opportunity

Gender parity indicators

Actions to capture opportunity

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MCKINSEY & COMPANY: GENDER AND DIVERSITY

Over the past decade, McKinsey has made a sustained commitment to researching and writing about gender and diversity. Since 2007, McKinsey's Women Matter research has explored the role women play in workplaces around the world. In 2015 and 2016, McKinsey released research reports on Women in the Workplace with LeanIn.Org, as part of a five year partnership on a comprehensive study of the state of women in corporate America. In the fall of 2015, McKinsey Global Institute published a global research on the economic benefits of advancing women's equality in 95 countries, *The power of parity: How advancing women's equality can add $12 trillion to global growth.* It is on MGI's global research on the power of parity that this UK deep dive is based.

THE POWER OF PARITY:
ADVANCING WOMEN'S EQUALITY IN THE UNITED KINGDOM

SEPTEMBER 2016

Vivian Hunt | London
Richard Dobbs | London
Emma Gibbs | London
Anu Madgavkar | Mumbai
Jonathan Woetzel | Shanghai
Smriti Arora | London
Wan Hong | London
Mekala Krishnan | Stamford

PREFACE

Over the past decade, McKinsey has made a sustained commitment to researching and writing about gender and diversity. Since 2007, McKinsey's Women Matter research has explored the role women play in workplaces around the world. The challenge of inclusive growth is a theme that MGI has explored in many reports, and gender inequality is an important part of that picture. We have committed publicly, through the United Nations' HeforShe initiative and the 30% Club, to ambitious gender goals for our own firm over the next five years. McKinsey's global managing director, Dominic Barton, is one of 47 US chairpersons and CEOs who have publicly committed to greater gender equality at all levels. McKinsey works with UN Women and LeanIn.Org in several ways and has a range of internal programs to drive this agenda. In 2015 and 2016, McKinsey released research reports on Women in the Workplace with LeanIn.Org, as part of a five year partnership on a comprehensive study of the state of women in corporate America.

Gender inequality is a pressing human issue that also has huge ramifications for jobs, productivity, GDP growth, and inequality. In September 2015, MGI published *The power of parity: How advancing gender equality can add $12 trillion to global growth.* Over the course of 2015 and 2016, MGI has published deep dives into gender inequality in India—the country with the largest economic potential if it tackles the issue—and the United States, the country with the largest economic prize for equality among developed economies. This paper builds on that body of work, putting efforts to improve gender equality in the context of the changing UK economy and future needs for productivity and growth. While the United Kingdom has come a long way towards improving social and economic opportunities for women, challenges remain in a number of areas of inequality across both work and society. In analysing this issue globally and in different regions of the world, we hope to help policy makers, business leaders, and other stakeholders chart the way towards effective interventions that promote equitable growth and broad-based prosperity.

This research was led by Vivian Hunt, Managing Partner, UK & Ireland; Richard Dobbs, a Director in London; Emma Gibbs, a Partner in London; Anu Madgavkar, an MGI Partner in Mumbai; Jonathan Woetzel, an MGI Director in Shanghai; and Smriti Arora, an Associate Principal in London. Mekala Krishnan, a consultant based in Stamford, advised on the work. Wan Hong, a consultant based in London, led the project team, which comprised Rishi Arora, Claire Barnett, and Cameron Brookhouse.

Guiding this work were a number of McKinsey Partners and Associate Principals we would like to thank: Laura Blumenfeld, Jonathan Dimson, Kweilin Ellingrud, Dennis Layton, Paul Morgan, and Jay Scanlan.

We are also grateful for the valuable input of Tera Allas, visiting fellow at MGI, Helen Mullings, Director of Professional Development in the United Kingdom and Ireland Office, and the help of consultants Purvi Gupta, Julia Paykin, Dhara Shah, James Solyom, and Jordan Ward. Many thanks to MGI's academic advisers Richard N. Cooper, Maurits C. Boas Professor of International Economics at Harvard University, and Laura Tyson, Professor of Business Administration and Economics, and Director of the Institute for Business and Social Impact, Haas Business and Public Policy Group, University of California at Berkeley. This work benefited from the expertise of a number of academics, including Peter Allen, Kate Glazebrook, Anne Laure Humbert, Elisabeth Kelan, Diane Perrons, Ania Plomien, and Ruth Sealy. We would like to thank several experts on the topic of diversity and women's economic empowerment who shared their perspectives with us: Fiona Cannon, Caroline Criado-Perez, Philip Greenish, Halla Gunnarsdóttir, Lady Barbara Judge, Sir Charlie Mayfield, Rhys Morgan, Helena Morrissey, Jemima Olchawski, Melanie Richards, Moira Robertson, Angela Sun, Brenda Trenowden, and Helen Wollaston.

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Vivian Hunt
Managing Partner, McKinsey & Company
United Kingdom and Ireland

Jacques Bughin
Director, McKinsey Global Institute
Brussels

James Manyika
Director, McKinsey Global Institute
San Francisco

Jonathan Woetzel
Director, McKinsey Global Institute
Shanghai

September 2016

IN BRIEF

THE POWER OF PARITY: ADVANCING WOMEN'S EQUALITY IN THE UNITED KINGDOM

- Bridging the UK gender gap in work has the potential to create an extra £150 billion on top of business-as-usual GDP forecasts in 2025, and could translate into 840,000 additional female employees.[1] In this scenario, every one of the United Kingdom's 12 regions has the potential to gain 5 to 8 percent incremental GDP, with the largest opportunities in London, the South East, and the North West.[2]

- 38 percent of this extra GDP could come from increased female participation in the labour force, with participation rising from 76 percent under the business-as-usual forecast in 2025 to 79 percent. 35 percent would come from more women working in the more productive sectors, and 27 percent from a rise in women's working hours by an average of 25 to 30 minutes a day.

- Today, women work in less productive sectors and are concentrated in lower-paid occupations, which affects their financial stability. They are least represented in high-productivity sectors—including science, technology, engineering, and mathematics (STEM)—and higher-salaried occupations, including skilled trades and managerial and leadership positions, which report the highest densities of skill shortages. Paving the way for women to occupy these roles could support productivity gains and act as one of the levers for the United Kingdom to narrow the productivity gap with its peers.

- Data from the past decade indicate little improvement in work indicators on the national level; at current rates, the United Kingdom will not achieve parity within the next three decades. MGI's global report also showed that, worldwide, enhancing women's economic potential has gone hand in hand with achieving greater gender equality in society.

- Analysis of UK indicators of gender parity in work and society shows that inequality most affects women as they enter the workforce or take on a parenting role. Areas of extreme inequality include STEM careers, single parenthood, and political representation.[3] Inequality is high in leadership and managerial positions, unpaid care work, entrepreneurship, breadwinning ratio, teenage pregnancy, and access to credit.[4] This picture varies only slightly between UK regions.

- To capture the economic opportunity, government, private-sector organisations, and other groups should undertake a package of actions to remove direct barriers to women working; create better opportunities to enable them to work in the most productive sectors, occupations, and roles; and reshape the underlying social norms and attitudes that define the choices women make, and the way society receives and supports those choices. We have grouped these actions in seven "impact zones": women in leadership, women in STEM, childcare and unpaid care work, women in entrepreneurship, woman in politics, violence against women, and social attitudes and mindset. They are focused on understanding why inequality in outcomes persists; addressing inequality by prioritising proven remedial actions; and tracking and publishing progress.

Download the full report at www.mckinsey.com/mgi

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1 This can be achieved if every UK region matches the pace of the fastest-improving region in terms of gender parity over the past decade.

2 GVA is used for regional projections because the United Kingdom reports only GVA, not GDP, at the regional level. These regional-level GVA results are rolled up proportionately to derive GDP impact.

3 STEM careers include associate health professionals, health professionals, science professionals, research and development managers, draughtspersons and building inspectors, science and engineering technicians, IT service delivery occupations, ICT professionals, building professionals, SET managers, engineering professionals, skilled construction and building trades.

4 Breadwinning is defined as the percentage of mothers who are the primary earners in their household (earning at least 50 percent of household income), including single mothers.

THE ECONOMIC CASE FOR UK GENDER PARITY

£150 Billion

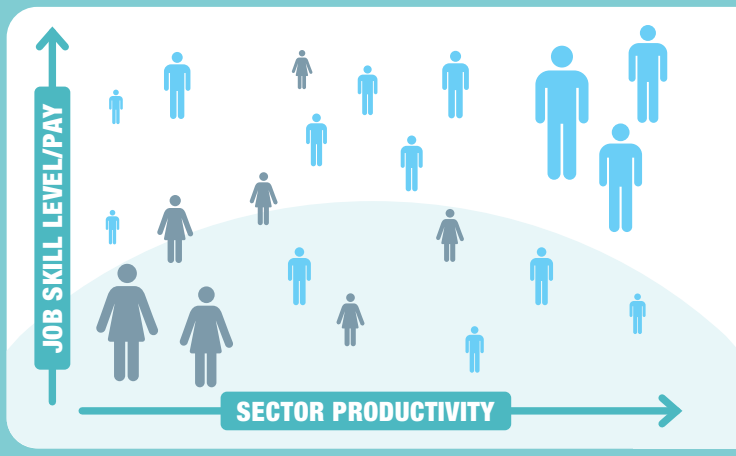
in GDP could be added to the UK economy in 2025 if every UK region matches the pace of the fastest-improving region over the past decade.

THIS IS EQUIVALENT TO

≥5%

incremental GDP compared to 2025 forecasts in every UK region.

The UK is ahead of peers on gender parity in legal protection and entrepreneurship. However, women are working in less productive sectors and occupations, and being paid less.



TO CAPTURE THE £150 BILLION, THE UNITED KINGDOM WILL NEED...

- 840,000 more women in the workforce
- Women able to do paid work for about 30 minutes more per day
- More women employed in most productive sectors

TO ADDRESS THIS,

we identified a portfolio of stakeholder actions across WORK and SOCIETY

- Women in leadership
- Childcare and unpaid care work
- Women in politics
- Violence against women
- Women in STEM
- Women in entrepreneurship
- Social attitudes and mindsets

EXECUTIVE SUMMARY

Moving towards gender equality is not only a moral and social issue; it is important to future economic growth in the United Kingdom. This research explores the economic potential of narrowing gender gaps at the national level as well as across UK regions; it also examines the opportunity to address gender disparities within various occupations and sectors of the economy. Gender equality in work necessitates gender equality in society, so this research adopts a holistic view, assessing how gender inequality impacts a woman through her life, and identifying a comprehensive set of interventions to help UK stakeholders take action on gender inequality in the short and longer term.

NARROWING THE GENDER GAP IN WORK HAS THE POTENTIAL TO ADD £150 BILLION TO UK GDP FORECASTS FOR 2025 AND TO ADDRESS THE SKILLS GAP IN HIGH-PRODUCTIVITY SECTORS

Achieving full gender parity—whereby women are involved in the economy identically to men in terms of labour-force participation, hours worked, and sector mix of employment—could add £600 billion of additional GDP to business-as-usual forecasts in 2025.[1] This may seem an unattainable goal in the next ten years, but the prize of even partial progress towards parity is well worth striving for. If every UK region matches the pace of the fastest-improving region over the past decade (our "best-in-UK" scenario), this could still add £150 billion in GDP in 2025—a 6.8 percent increase over 2025 GDP business-as-usual forecasts.[2] This would be the equivalent of raising GDP growth by 0.7 percent per year for the next ten years. The uplift roughly equates to the size of the entire UK financial and insurance sector's annual GDP today, or total annual government expenditure on education, defence, and transport combined.

The economic opportunity is driven by three factors. In the best-in-UK scenario, 38 percent of incremental GDP could come from increased female participation in the labour force, 35 percent from women moving into more productive sectors, and 27 percent from extending female hours worked. It would result in the women's labour-force participation rate rising from 76 percent under the bussines-as-usual forecast in 2025 to 79 percent, and in women working an average of 25 to 30 minutes more per day in 2025, the equivalent of women's working hours climbing from 79 percent of men's in 2015 to 84 percent of male working hours in 2025. Every region in the United Kingdom has the potential for an increase in gross value added (a measure of the value of goods and services produced in an area, industry, or sector of the economy) of between 5 and 8 percent, with the largest opportunities in London, the South East, and the North West.[3] This could translate into 840,000 additional female employees in the economy, a 2.4 percent increase over business-as-usual 2025 projections.

To understand how this uplift could be achieved, we take a deeper look at where women are participating in the UK economy today (Exhibit E1). We find that women tend to be concentrated in low-productivity sectors and low-paying occupations.

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1 As projected by Oxford Economics.

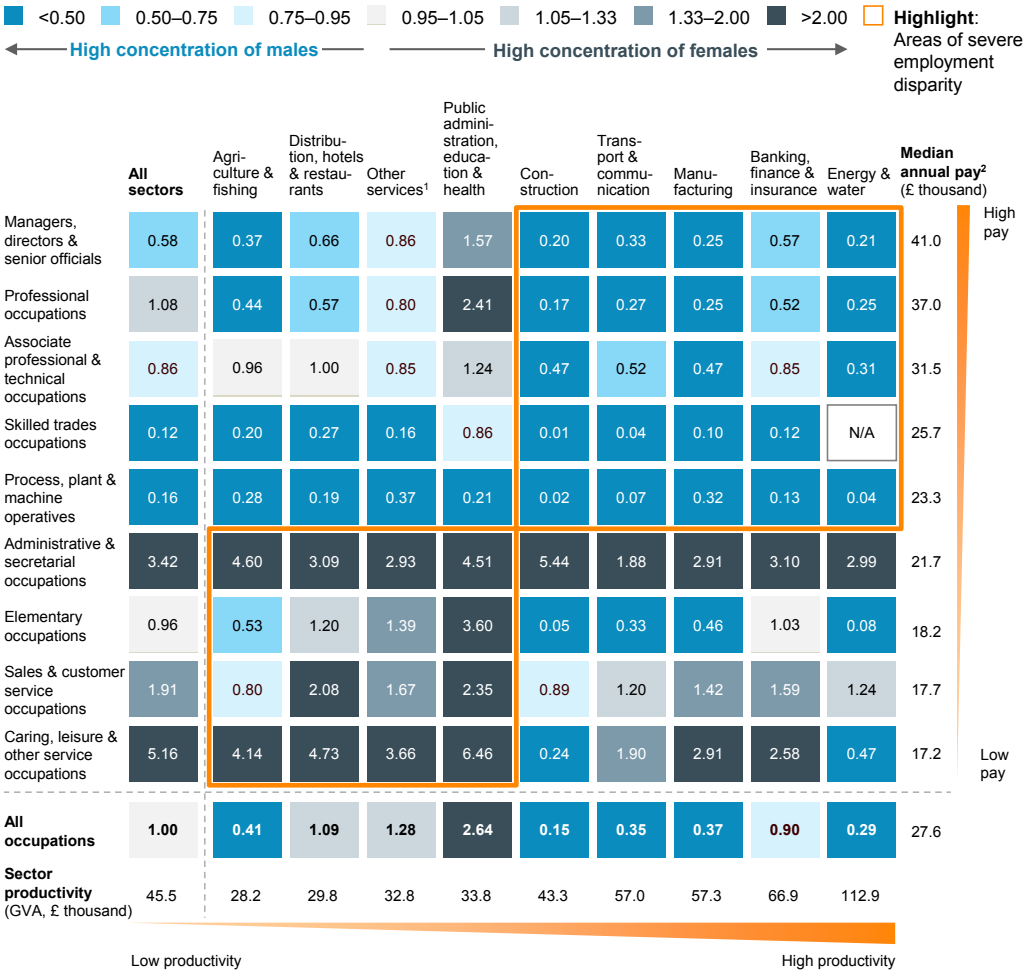
2 Regions based on Nomenclature of Territorial Units for Statistics (NUTS) category, a European Union geocode standard for referencing the administrative divisions of countries for statistical purposes. Refer to the appendix for details of our methodology and selection of best-in-UK benchmark regions.

3 GVA = GDP + subsidies - (direct and sales) taxes. GVA is used for regional projections because the United Kingdom reports only GVA, not GDP, at the regional level. These regional-level GVA results are rolled up proportionately to derive GDP impact.

Exhibit E1

Women are overrepresented at the intersections of low-productivity sectors and low-paying occupations, while the reverse is true of men

F/M ratio: employment as a proportion of total sex employed



1 Includes arts, entertainment, and recreation; other service activities; activities of households as employers; undifferentiated goods- and service-producing activities of households for own use; and activities of extraterritorial organisations and bodies.
2 Full-time employees.

SOURCE: ONS Annual Population Survey 2015; ONS Annual Survey of Hours and Earnings 2015; ONS Workforce Jobs Survey 2015; Oxford Economics; McKinsey & Company analysis

Applying a sector lens, we find that public administration, education, and health; other services; and distribution, hotels, and restaurants have the highest female representation. Most of these sectors are growing (except public administration) and less susceptible to automation: for example, health-care therapists and educators are among the jobs least likely to be replaced as technological advances continue.[4] More than half of the GDP benefits we have identified can be achieved by increasing the participation of, and number of hours worked by, women in the sectors and occupations where they are currently prevalent. However, for the United Kingdom to capture the full GDP benefit, women need to break into more productive sectors where their share of employment is currently lower; examples include energy and water; manufacturing; and transport and communication. Among others things, this will involve building skills that are relevant to these sectors, particularly early in women's careers.

4 Carl Benedikt Frey and Michael Osborne, *The future of employment: How susceptible are jobs to computerisation?,* Oxford Martin Programme on Technology and Employment, 2013.

Looking at occupations, women are currently overrepresented across sectors in lower-paid activities, such as caring, leisure, and other services, and administrative and secretarial roles. Women in these occupations are unlikely to progress up the earnings ladder without targeted intervention; research shows that income mobility is low in the United Kingdom—48 percent of people in the bottom income quintile in 2000 were still there in 2008.[5] Women are also underrepresented in leadership and managerial positions in all sectors except public administration, education, and health. Reducing the barriers to women's progression and skill building will allow them to access a better range of jobs and help ameliorate national skill shortages. There are significant vacancies in high-productivity sectors, with the top three skills gaps in energy and water; banking, finance, and insurance; and manufacturing. The same is true of high-salary occupations, such as skilled trades and managerial and leadership positions, from which women are largely absent. More broadly, the United Kingdom is facing a skills gap in science, technology, engineering, and mathematics (STEM), with an additional one million new professionals needed by 2020. This talent shortage could impede the progress of the United Kingdom's most productive industries, such as energy and manufacturing. While some STEM careers such as health care employ many women, in other careers, such as engineering, women make up only 10 percent of the workforce. Paving the way for women to occupy these types of roles could support productivity gains and act as one of the levers for the United Kingdom to narrow the productivity gap with its peers.[6]

We acknowledge that in addition to the supply-side approach presented here, demand-side policies will be required to help create jobs to absorb additional female workers. In addition, education and vocational training systems will need to keep pace with rapid technological changes that are altering the nature of work and creating new types of jobs.

GENDER PARITY INDICATORS HIGHLIGHT NINE AREAS TO TARGET TO ENSURE THAT WOMEN FULFIL THEIR ECONOMIC POTENTIAL

Worldwide, enhancing women's economic potential has gone hand in hand with achieving greater gender equality in society. In September 2015, the McKinsey Global Institute (MGI) published *The power of parity: How advancing women's equality can add $12 trillion to global growth,* which showed that the level of gender equality in society is a powerful indicator of the female contribution to the economy. In order to fulfil the economic opportunities outlined, interventions to address the gender gap need to extend beyond the workplace and have wider societal impact. MGI's global research used 15 work and societal indicators to evaluate gender inequality by nation. We have adopted a similar approach, with some adjustments, to produce 16 priority indicators of gender inequality for the United Kingdom (Exhibit E2). Analysis of the UK data suggests high or extreme inequality on nine indicators, spanning both work and society.[7]

Of the indicators we examined, data suggest that gender parity across social metrics is mixed, with parity in higher education and in legal protection. However, other social indicators reveal medium levels of disparity or worse. The highest disparity is in single parenthood. In addition, women spend almost twice as much time as men on unpaid care work, lagging North America and Oceania but ahead of the average in Western Europe. The problem is exacerbated by the United Kingdom's relatively high rates of teenage pregnancy: it sits in the second quartile of the 95 countries examined in MGI's global report, along with many developing nations. Further data indicate that the second-highest inequality indicator relates to STEM careers; women are less than one-fifth as likely as men to fill these roles.

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5 Lee Savage, *Moving on up? Social mobility in the 1990s and 2000s,* Resolution Foundation, 2011.

6 International comparisons of productivity, UK Office for National Statistics (ONS), 2014.

7 For an explanation of how indicators are mapped to "low", "medium", "high", and "extreme" inequality, please see the appendix.

This appears to be a particular problem for the United Kingdom, which has a lower proportion of women in STEM—particularly in engineering—than the rest of Europe.[8] Political representation is the third-highest source of UK inequality, lagging the Western European average. Sexual violence against UK women is at a medium level, with 0.53 percent of women aged 16 to 59 experiencing severe sexual violence (including attempts) on an annual basis.[9]

Exhibit E2

Analysis of the UK data suggests parity in higher education and legal protection, and extreme inequality in STEM careers, single parenthood, and political representation

Low inequality Extreme inequality

Gender equality in work	
Labour-force participation rate F/M ratio—employed or looking for work as % of gender aged 16–64	0.87
Median annual pay F/M ratio—gross annual salary of full-time employees	0.81
Mean hours worked F/M ratio—mean hours worked, per week, by employees of gender	0.79
Leadership and managerial positions F/M ratio—in managerial role[1] as % of employees of gender aged 16–64	0.58
Unpaid care work M/F ratio—mean hours spent on unpaid care work, per week, by gender aged 16–64	0.54
Entrepreneurship F/M ratio—employed or involved in new enterprise[2] as % of gender aged 18–64	0.56
Breadwinning Incidence—earning ≥50% household income as % of mothers with dependent children	33%
STEM careers F/M ratio—employed in a STEM-related position[3] as % of employees of gender aged 16–64	0.17
Gender equality in society	
Essential services and enablers of economic opportunity	
Higher education F/M ratio—enrolled in higher education as % of gender aged 16–64	1.22
Single parenthood[4] F/M ratio—single parent with dependent children as % of all parents	0.09
Teenage pregnancy[4] incidence—1+ births in past year as % of women aged 15–19	1.69%
STEM degrees F/M ratio—studying STEM subject as % of higher education enrolees of gender	0.80
Access to credit F/M ratio—took a loan in past year as % of gender aged 15+	0.74
Legal and political voice	
Legal protection (composite) Binary average–selected law is in place	1.00
Political representation (composite) F/M ratio—in selected political office[5]	0.35
Physical security and autonomy	
Sexual violence[6] Incidence—victim of 1+ incidents in past year as % of gender aged 16–59	0.53%

1 Defined as occupations within the managers, directors and senior officials band of the Standard Occupational Classification (SOC) 2010.
2 Defined as those involved in setting up a business (<3 months), or who are owner-managers of a "new" business (<3.5 years).
3 Includes associate health professionals, health professionals, science professionals, research and development managers, draughtspersons and building inspectors, science and engineering technicians, IT service delivery occupations, ICT professionals, building professionals, SET managers, engineering professionals, and skilled construction and building trades.
4 Excludes Northern Ireland and Scotland due to lack of data.
5 Composite indicator, averaging the F/M ratio of representatives in the House of Commons, the House of Lords, and ministerial positions.
6 Defined as the "most serious" incidents of sexual violence, including attempts, under the Crime Survey for England and Wales 2012 guidelines.

SOURCE: ONS; OECD; IPPR; GEM; IET; World Bank; HESA; UK Parliament; McKinsey & Company analysis

At work, women are underrepresented at the higher levels of organisations in the United Kingdom, lagging North America and Oceania but ahead of the Western European average. Women are also almost 50 percent less likely to be involved in entrepreneurial activity than men despite the United Kingdom's being ranked fifth on the Dell Global Women Entrepreneur Leaders index. Among the more commonly used work-

8 Women's Engineering Society, *Women in engineering: Statistics on a page, 2014; Women in engineering: Fixing the talent pipeline,* Institute for Public Policy Research (IPPR), 2014.
9 As defined by the Crime Survey for England and Wales (CSEW), 2013.

related indicators—labour-force participation rate, median annual pay, and mean hours worked—data indicate medium inequality in the United Kingdom. Women's participation in the workforce has been growing, from 69.1 percent in 2004 to 72.3 percent in 2015, in contrast with trends in some other developed economies such as the United States.[10] However, UK women work fewer hours compared with women in regional peers such as Sweden and other comparable countries such as the United States. Due to a lack of consistent data at the time of our analysis, we have not included a measure of equal pay for equal work, but national research continues to be conducted into this topic, with the Institute for Fiscal Studies launching a programme looking into the gender wage gap in 2016, and the government publication of companies' gender pay data scheduled to begin in 2018.[11]

Data suggest that national work indicators have not shown significant improvement: labour-force participation rate, hours worked, and median wage have all remained within the medium inequality range, while the women in leadership and managerial positions indicator continues to demonstrate high inequality. At the same time, while UK regions have seen differing rates of improvement over the past decade, there is currently little regional variation in parity measures—especially relative to the level of disparity among states in India and the United States—and no apparent correlation between inequality and regional productivity.[12]

To better understand how to address inequality, we mapped each source of gender disparity to the stages of a woman's life: childhood, young adulthood, adulthood, and parenthood (Exhibit E3). We have referenced all indicators from the global report, including those deprioritised in the rest of this report, in the interests of providing a comprehensive view. The United Kingdom has little gender inequality during childhood, with strong scores in digital inclusion, education, legal protection, child marriage and sex ratio at birth.[13] Once a woman reaches young adulthood, factors such as the UK's relatively high prevalence of teenage pregnancy may limit her ability to enter the workforce; when coupled with low income mobility, this can restrict her future economic contribution. Gender-based violence may also impact some women during this phase, with possible ramifications for educational attainment and, later, labour-force participation. In the workplace, high inequality in leadership opportunities, entrepreneurship, access to credit, breadwinning, and STEM careers can hinder a woman's ability to be as productive as her male peers, both as an individual and as a contributor to the UK economy.[14] If she becomes a mother, high levels of inequality in unpaid care work and single parenthood can impede a woman's ability to participate in the workforce to the extent that she may like, reducing the number of hours she can work and her ability to be as productive as her male peers. Mothers often earn less than they otherwise would have for the remainder of their career. Meanwhile, high inequality in political representation throughout life may contribute to further inequalities.[15]

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10 Annual Population Survey, ONS, December 2005–December 2015; Labour Force Survey, ONS, December 2005–December 2015; Current Population Survey, US Bureau of Labor Statistics.

11 Monica Costa Dias, William Elming, and Robert Joyce, *The gender wage gap*, briefing note number BN186, UK Institute for Fiscal Studies, 2016; UK Government Equalities Office and Nicky Morgan, *Nicky Morgan: Nowhere left to hide for gender inequality,* February 12, 2016.

12 *The power of parity: Advancing women's equality in India,* McKinsey Global Institute, November 2015; *The power of parity: Advancing women's equality in the United States,* McKinsey Global Institute, April 2016.

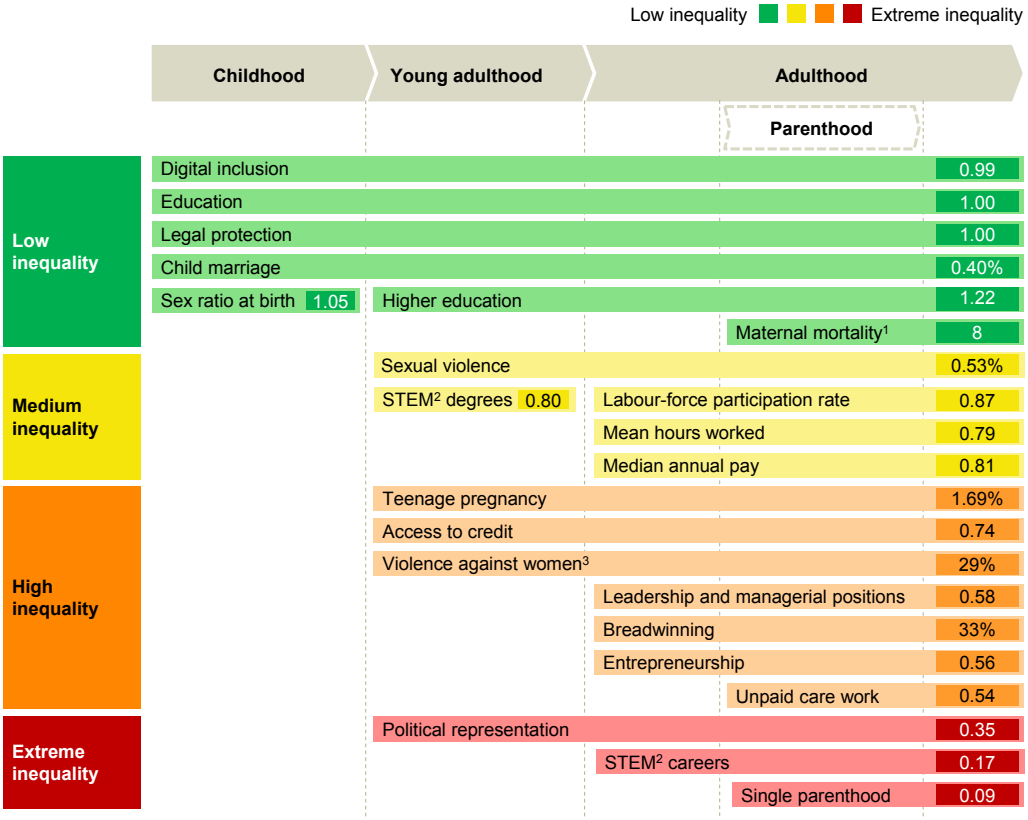
13 Defined as the female-to-male ratio of Internet users.

14 STEM career include associate health professionals, health professionals, science professionals, research and development managers, draughtspersons and building inspectors, science and engineering technicians, IT service delivery occupations, ICT professionals, building professionals, SET managers, engineering professionals, and skilled construction and building trades.

15 *Why women? The impact of women in elected office,* Political Parity, 2015.

Exhibit E3

In the United Kingdom, inequality is low in childhood, but women confront greater inequality as they progress through their lives



1 Per 100,000 live births.
2 Science, technology, engineering, and mathematics.
3 By an intimate partner at any point in lifetime.

SOURCE: ONS; OECD; IPPR; GEM; IET; World Bank; HESA; UK Parliament; McKinsey & Company analysis

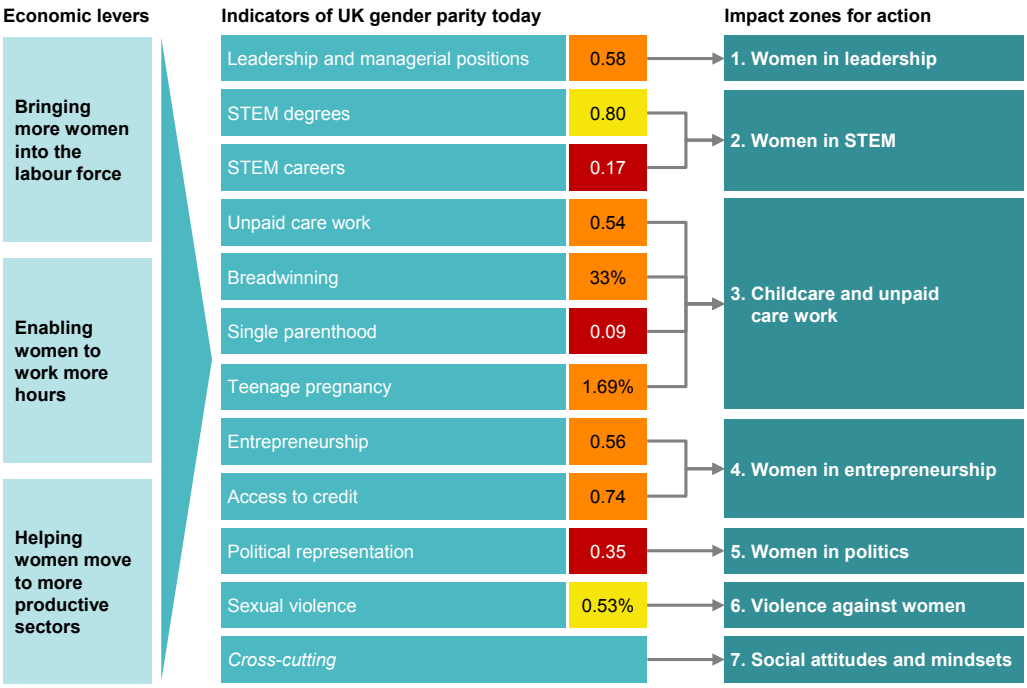
INITIATIVES WILL BE REQUIRED IN SEVEN IMPACT ZONES, FOCUSING ON UNDERSTANDING, ADDRESSING, AND TRACKING THE GENDER GAP

To capture the economic opportunity, government, private-sector organisations, and other groups should undertake a package of actions to remove direct barriers to women working; create better opportunities to enable them to work in the most productive sectors, occupations, and roles; and reshape the underlying social norms and attitudes that define the choices women make and the way society receives and supports those choices. These actions are grouped into seven "impact zones": women in leadership, women in STEM, childcare and unpaid care work, women in entrepreneurship, women in politics, violence against women, and social attitudes and mindset. These categories of intervention are designed to respond to our priority parity indicators and to help achieve the three economic levers of increased labour-force participation, moving into more productive sectors, and higher hours worked (Exhibit E4).

McKinsey undertook an extensive review of initiatives in the United Kingdom and comparable countries that have been considered to tackle aspects of the gender gap. Clearly, a large number of initiatives can help, so from a list of over 120 interventions we prioritised 35 key actions across the impact zones, grouped into three types of action essential to drive change: stakeholders will need to understand the drivers of inequality to a sufficient degree, carry out targeted intervention programmes to address the specific issues holding back women, and track the progress and impact of current and future efforts to ensure that they are having a material effect.

Exhibit E4

Impact zones are designed to respond to the indicators with highest disparity and to help achieve the three economic levers



SOURCE: McKinsey & Company analysis

- For women in leadership, this means organisations that employ women should use data to understand the female talent pipeline, improve the uptake of agile working, establish strong return-to-work programmes, create an inclusive environment in which women and other diverse groups can reach their full potential, and visibly track progress in implementing the interventions as well as the outcomes.

- For women in STEM, this entails industry, educators, and professional bodies focusing on recruiting more women into the STEM pipeline from a young age and then putting additional emphasis on retaining women through agile working, return-to-work programmes, and creating inclusive work environments.

- For childcare and unpaid care, this necessitates making care more affordable through a range of financial support mechanisms, making care more accessible by encouraging investment in care businesses, and ensuring that care can be shared more equally between men and women.

- For women in entrepreneurship, this involves building on current efforts to help women entrepreneurs access the capital, contacts, and skills needed to start and scale their businesses. This includes encouraging investment in less traditional growth sectors such as care, education, and lifestyle sectors.

- For women in politics, this means creating a more inclusive political culture and encouraging more women into politics through apprenticeship and mentoring.

- For violence against women, this requires increased activity to prevent violence, provide survivor support, and improve the likelihood of perpetrators being brought to justice—all of which needs to be tracked and underpinned by robust data about the prevalence of violence.

- For social attitudes and mindsets, this entails addressing gender stereotypes across media and in all organisations, working with all ages and across demographics, as well as tracking how attitudes change as progress is made across all the other impact zones.

Alongside the specific initiatives, certain established factors have been shown to increase the likelihood of success. They include visible commitment from leaders in government and at the top of organisations, engaging women in the diagnosis of gender equality issues and solutions, engaging men in inclusive programmes for change as role models and as promoters of the diversity agenda, engaging stakeholders from across sectors and industries to reach broad audiences and tap diverse skills sets, tackling multiple interventions as part of a broad crosscutting action plan, and identifying opportunities to build on what is already in place to create scale and momentum. Bodies such as the Women and Equalities Parliamentary Committee, a parliamentary select committee, will act as overall focal points across all aspects of gender parity–but government, private-sector organisations, and other groups all have a role to play as well. Individual UK regions may prioritise different sets of actions depending on whether their challenge is principally to help women who choose to increase their participation in work, to facilitate women's access to more productive-sectors, or both.

Closing the gender gap could give the UK economy a substantial boost: adding £150 billion to GDP in 2025, helping to address skill shortages, and contributing to closing the productivity gap with comparable countries. Capturing this opportunity will require action across work and society, encompassing change within business in concert with government and other organisations as well as new coalitions. This effort should focus on the seven identified impact zones that can help women access a wider range of opportunities and choices and so create change that will benefit everyone.

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1. THE ECONOMIC OPPORTUNITY FROM GREATER GENDER PARITY

Moving towards gender equality is not only a moral and social issue; it is also important for future economic growth. Globally, gender inequality has significant social and economic costs: research by the McKinsey Global Institute (MGI) suggests that the world can add $12 trillion in incremental GDP in 2025 if every country attains the gender parity improvement rates of the fastest progressing of its regional peers.[16] Within the United Kingdom, if every region matches the pace of the fastest-improving region over the past decade (our "best-in-UK" scenario), that improvement can add £150 billion in GDP in 2025.[17] This research explores the economic potential of narrowing gender gaps at the national level as well as across UK regions; it also examines the opportunity to address gender disparities within various sectors of the economy and occupations. Gender equality in work necessitates gender equality in society, so this research adopts a holistic view, assessing how these issues impact a woman through her life and identifying a comprehensive set of interventions to help UK stakeholders combat gender inequality in the short and longer term.

NARROWING THE GENDER GAP IN WORK HAS THE POTENTIAL TO ADD £150 BILLION TO UK GDP FORECASTS FOR 2025 AND ADDRESS THE SKILLS GAP IN HIGH-PRODUCTIVITY SECTORS

Over the past ten years, the trend in the United Kingdom's female labour-force participation rate has shown steady improvement; participation increased from 69 percent in 2004 to 72 percent in 2015.[18] Significantly, this contrasts with trends in some other developed economies such as the United States, which experienced a decline in the female labour-force participation rate over the same period, from 68 percent in 2004 to 66 percent in 2013.[19] This positive shift has resulted in greater gender equality within the UK workforce: women now make up 46 percent of the total workforce, on a par with the average for Western Europe.

Although UK women's GDP contribution is currently 39 percent—slightly higher than the global average of 37 percent but below the figures for regional peers such as France (43 percent) and Portugal (47 percent)—it remains significantly lower than their share of population.[20] This is in part attributable to three factors. First, despite a rising rate of female participation in the workforce, only 72 percent women of working age are economically active, compared with 83 percent of men. Second, women work fewer hours on average—currently 29 hours per week compared with men's 37 hours. Notably, UK women work fewer hours compared with women in regional peers such as Sweden (33 hours per week) and other comparable countries such as the United States (39 hours). Third, women are more concentrated in less productive sectors, such as public administration, education, and health, where average annual productivity is £33,800, than in high-productivity sectors such

16 *The power of parity: How advancing women's equality can add $12 trillion to global growth,* McKinsey Global Institute, September 2015.

17 Regions based on Nomenclature of Territorial Units for Statistics (NUTS) category, an European Union geocode standard for referencing the administrative divisions of countries for statistical purposes. Refer to the appendix for details of our methodology and selection of best-in-UK benchmark regions.

18 Annual Population Survey, ONS, December 2005–December2015; Labour Force Survey, ONS, December 2005 –December 2015.

19 Current Population Survey, US Bureau of Labor Statistics.

20 Ibid. McKinsey Global Institute, *The power of parity,* September 2015.

as energy and water (£112,900 annually) or manufacturing (£57,300).[21] Another factor, not accounted for in our GDP analysis, but one that affects women's earning potential, is their occupations. Women tend to hold lower-paying jobs such as care work and leisure services—annual median pay £17,200—rather than managerial positions, in which median annual pay is £41,000 (see sidebar, "Identifying gaps in UK productivity through a gender lens"). Given these gaps, there is considerable potential to boost women's contribution to the UK economy.

We modelled three scenarios to estimate the potential impact of narrowing gender gaps using the drivers of labour-force participation rate, hours worked, and sector mix of employment (see sidebar, "Approach to estimating the size of the GDP potential of UK women"). We analysed the three drivers at a regional level to calculate impact on gross value added (GVA), because GDP is not reported at this level in the United Kingdom.[22] The regional GVA projections are rolled up into national total GVA and then scaled up at 15 percent—a ratio that has been stable over the past five years—to derive the national GDP contribution.[23]

The first scenario is a "business-as-usual" projection based on consensus forecasts for GDP growth combined with historical trends for labour supply, sector productivity mix, and hours worked by gender. With no specific effort to bridge the gender gap, it is expected that women's contribution to GDP will remain steady at around 40 percent, with additional GDP of £183 billion by 2025 compared with today. The second is a "full-potential" scenario in which women in the United Kingdom participate in paid work in the market economy identically to men. This depends on eradicating current gaps in labour-force participation rates, representation within each sector, and hours worked.[24] It could add £600 billion of additional GDP in 2025, or 26 percent over and above the business-as-usual scenario.[25]

It is, however, unlikely that women in the United Kingdom will attain full gender equality at work within a decade, because it is doubtful that the underlying barriers hindering them from participating in the labour market on a par with men will be fully addressed within that time frame; moreover, such participation is a matter of personal choice. Therefore, we have added a "best-in-UK" scenario, in which every UK region (as per the NUTS 1 categorisation) matches the pace of the fastest-improving region over the past decade.[26] The prize of even partial progress towards parity is well worth striving for: in this scenario, there is potential to add as much as £150 billion to annual GDP in 2025 over and above the business-as-usual scenario—or 6.8 percent higher than business as usual (Exhibit 1). This would be the equivalent of raising GDP growth by 0.7 percent per year for the next ten years, and it roughly equates to current annual GDP across the nation's entire financial and insurance sector or combined government expenditure on education, defence, and transport annually.

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21 Productivity of sector is measured by gross value added per workforce job; this should be taken into account when considering the productivity of sectors dominated by public provision; Annual Population Survey, ONS, 2015.

22 Gross value added (GVA) is a measure of the value of goods and services produced in an area, industry, or sector of the economy. GVA plus taxes on products and services minus subsidies on products and services equals GDP.

23 For further information on regional growth, see *Unlocking regional growth,* Confederation of British Industry (CBI), 2016 (forthcoming).

24 Assume closing the representation gap within each of the three basic sectors of the economy—agriculture, industry, and services—but not across the three sectors.

25 In the full-potential scenario, females' contribution is higher than males' because the absolute number of females age 16–64 is 0.45 percent higher than the number of males, meaning that there are over 2 million more females in the labour force.

26 For the female labour-force participation rate, we used benchmarks linked to the rate of improvement over the past ten years rather than the absolute level of performance achieved by regions in 2015, in order to more accurately reflect the potential achievable within the coming decade.

Approach to estimating the size of the GDP potential of UK women

Several studies have estimated the potential economic value that could be created by enhancing the role of women in the workforce. The majority have analysed the impact of bridging the full labour-force participation gap between men and women, and have found that this could boost GDP by anywhere between 5 and 20 percent for most countries. The Organisation for Economic Co-operation and Development (OECD) estimates that 10 percent could be added to UK GDP by 2030 if gender gaps in labour-force participation are fully eliminated vs. the status quo.[27] Other studies have used econometric models to estimate the economic impact of various gender inequalities, such as education gaps. A recent study by the International Monetary Fund (IMF) finds a correlation between labour-force participation rate and the legal rights of women, which is significant even when accounting for levels of education and fertility.[28]

McKinsey's calculation is a supply-side estimate of the amount of UK GDP made available by closing the gender gap in employment. It assesses all UK regions to build a supply-side model that helps us understand the economic impact of gender parity, taking into account labour-force participation rate by gender and age cohorts within each region; employment patterns for men and women across sectors of the economy; and the prevalence of part-time vs. full-time work among men and women (see the appendix for more detail). We acknowledge that this supply-side approach should be accompanied by demand-side policies that create jobs to absorb additional female workers. Additionally, education and vocational training systems will need to keep pace with rapid technological changes that are altering the nature of work and creating new types of jobs.

For the purpose of these estimates, we assume the same level of labour productivity for men and women within each subsector—that is, we do not account for productivity differences due to the roles men and women play within companies, the size of firms that employ men and women, and so on. In addition, we use average productivity in our calculations. This approach is primarily a sizing of the impact of bridging the gap in labour markets. It does not take into account other economic implications of bridging the gender gap, such as the impact from increased diversity in entrepreneurship, intergenerational benefits, costs related to women working longer hours, or shifts in consumption by women due to higher wages; nor does it account for any negative impact on male labour-force participation due to women's increased participation—the 2004–14 trend showed female participation increasing to 72 percent from 69 percent, yet male participation remained consistent at around 83 percent.[29] If men were to cut back the time they spend in paid work to share unpaid care work more equally, this could reduce GDP, but we do not factor it in.

Finally, we do not account for the value of unpaid work either in our 2015 estimates of women's GDP contribution or in our scenarios. While the value of unpaid work affects total economic activity, it is not captured in GDP. Similarly, the value of leisure affects total welfare but is not captured in GDP. Given data limitations, it is difficult to quantify the mechanisms through which increased women's participation becomes possible: reduced leisure time, fewer hours in unpaid work, redistribution of unpaid care work, and the marketisation of that work. However, it is clear that, if women are freed from spending some time in unpaid care work, they have the opportunity to use and improve their skills and pursue higher-paid professions, which will boost GDP. We therefore estimate the economic impact only in GDP terms, while acknowledging that this lens does not measure total welfare and total economic activity. Nevertheless, we believe that the impact of unpaid work on economic activity and welfare warrants further study.

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[27] Olivier Thévenon et al., *Effects of reducing gender gaps in education and labour force participation on economic growth in the OECD,* OECD Social, Employment and Migration Working Papers, Organisation for Economic Co-operation and Development (OECD), December 10, 2012.

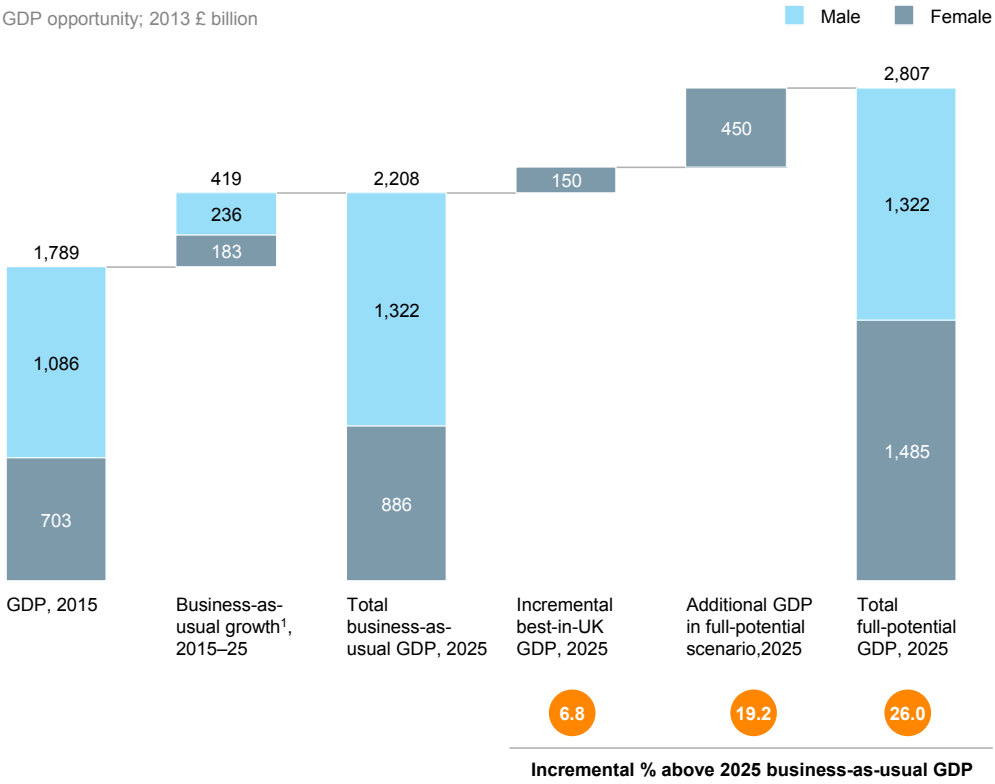
[28] *Fair Play: More Equal Laws Boost Femal Labor Force participation,* IMF, February 2015.

[29] Annual population and labour force survey, NOMIS, 2004–15. NOMIS is the official system for dissemination of UK local area labour market data. The service is provided by Durham University under contract to the ONS.

Exhibit 1

Narrowing the gender gap in work has the potential to add £150 billion to UK GDP forecasts for 2025

UK GDP opportunity; 2013 £ billion



1 Business-as-usual GDP is consistent with Oxford Economics baseline GDP projections, which capture the short-term impact of Brexit; the growth figure represents the difference between actual GDP in 2015 and projected GDP under the business-as-usual scenario in 2025.
NOTE: Numbers may not sum due to rounding, 2015 projected GDP numbers are rounded to nearest tenth.

SOURCE: *The power of parity*, McKinsey Global Institute, September 2015; Oxford Economics; ONS Workforce Jobs Survey 2005–15; ONS Annual Population Survey 2005–15; ONS Annual Survey of Hours and Earnings 2005–15; McKinsey & Company analysis

Investing in gender parity can add significantly to GDP irrespective of the economic outcomes of Brexit. Various studies have been undertaken to understand the impact of Brexit, many of which predict negative economic consequence for UK GDP. A selection of studies by reputable sources—for example, Oxford Economics, the Centre for Economic Performance, HM Treasury, and the National Institute of Economic and Social Research—suggests a potential dampening of UK GDP growth, by 0.6 percent to 9.5 percent, by 2030. In the context of the best-in-UK scenario, this translates into a relatively small reduction of between £3 billion and £6 billion out of the £150 billion 2025 opportunity.[30] Moreover, should the United Kingdom experience any decline in productivity as a consequence of the Brexit vote, increasing women's contribution to national economic productivity will represent an even more important opportunity.

EVERY UK REGION HAS THE OPPORTUNITY TO GAIN AT LEAST 5 PERCENT GVA IN THE BEST-IN-UK SCENARIO VS. THE BUSINESS-AS-USUAL SCENARIO

In the best-in-UK scenario, every region in the United Kingdom has the potential to increase GVA by between 5 and 8 percent compared with the business-as-usual scenario.

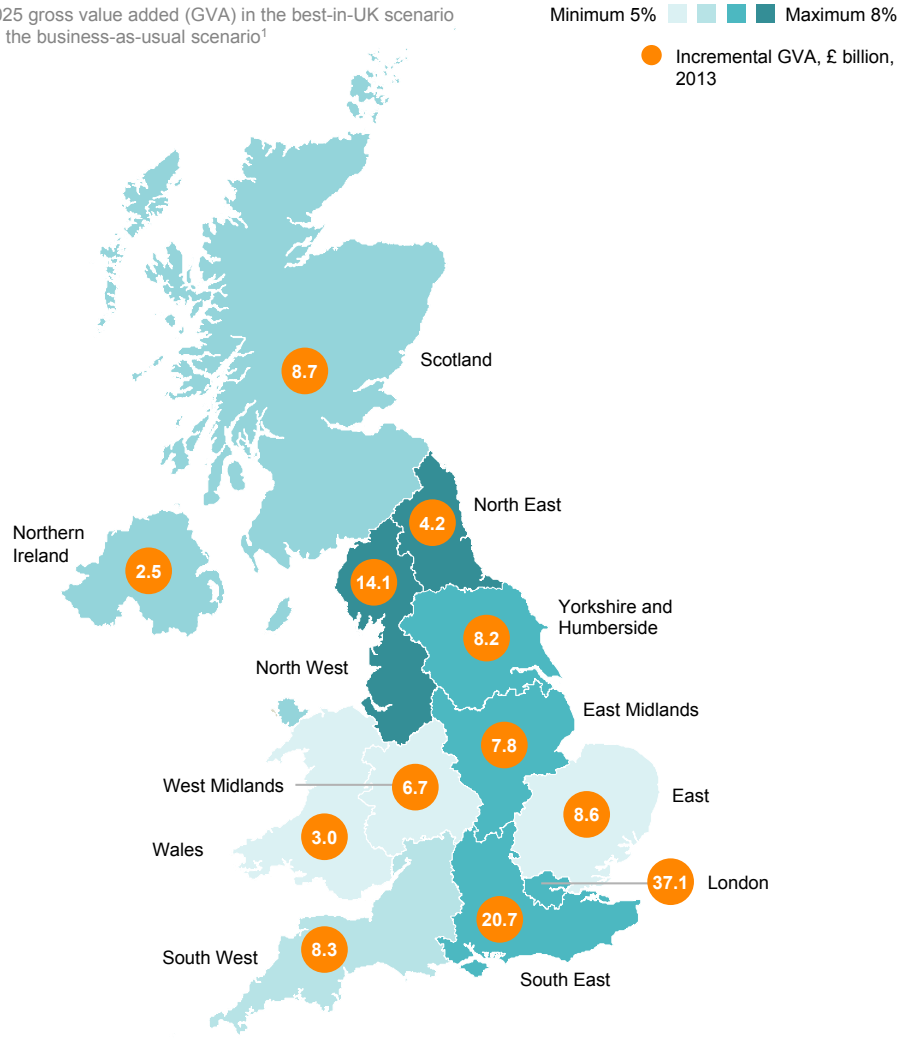
30 To gauge Brexit's potential effect on our estimates of the gender parity economic opportunity, we assume an average of the forecasts of total impact across studies and simulate the implied impact due to reduced average labour productivity.

The largest opportunities are in London, the South East and North West regions, which together account for approximately 55 percent of the incremental GVA under the best-in-UK scenario (Exhibit 2).

Exhibit 2

Every UK region has the opportunity to gain at least 5 percent GVA in the best-in-UK scenario vs. the business-as-usual scenario

Incremental 2025 gross value added (GVA) in the best-in-UK scenario compared with the business-as-usual scenario[1]



1 Gross value added (GVA) = GDP + subsidies – (direct and sales) taxes. GVA is used for regional projections because the United Kingdom reports only GVA, not GDP, at the regional level. These regional-level GVA results are rolled up proportionately to derive GDP impact.

SOURCE: Oxford Economics; ONS Workforce Jobs Survey 2005–15; ONS Annual Population Survey 2005–15; ONS Annual Survey of Hours and Earnings 2005–15; McKinsey & Company analysis

IN THE BEST-IN-UK SCENARIO, 38 PERCENT OF INCREMENTAL GDP COULD COME FROM GREATER FEMALE PARTICIPATION IN THE LABOUR FORCE

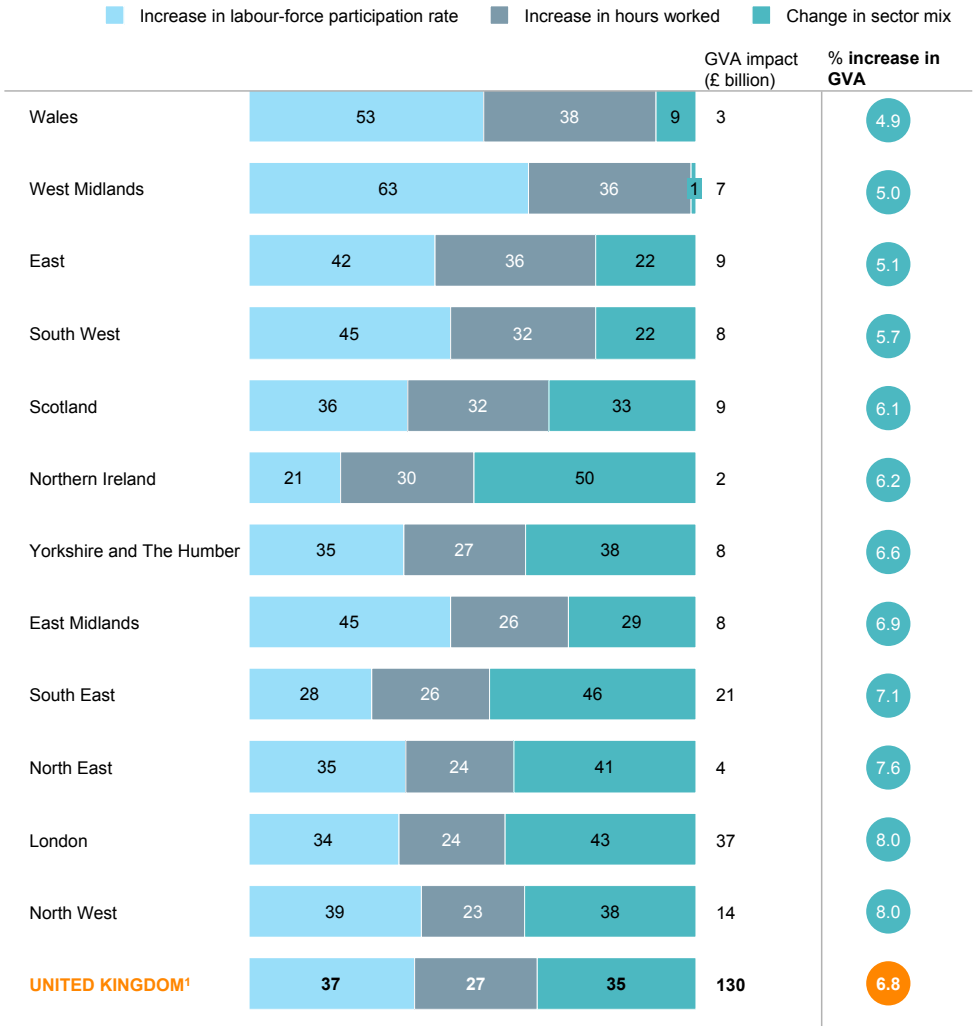
In the best-in-UK scenario, 38 percent of incremental GDP comes from increased female participation in the labour force; this rises from 76 percent for business as usual in 2025 to 79 percent under the 2025 best-in-UK scenario. Additionally, 35 percent is derived from women moving to more productive sectors, primarily within subsectors across industries and services, and 27 percent from an increase in female hours worked, up from 29 hours per week in 2015 (79 percent of male working hours) to 31 hours in 2025 (84 percent of male working hours).

The impact split on GVA between the three drivers (labour-force participation rate, sector mix, and hours worked) varies by region (Exhibit 3). This variation is driven by the current state of gender parity in each of these dimensions in each region as well as the differences between historical growth rates in bridging the parity gap in each region.

Exhibit 3

At the national level, labour-force participation rate is the strongest lever for incremental GVA impact; regionally, the impact split between the three drivers varies

Incremental 2025 GVA in the best-in-UK scenario compared with the business-as- usual scenario; %



1 Total GVA impact scales up to GDP impact of £150 billion assuming 15% difference between GVA and GDP based on historical rate.

SOURCE: Oxford Economics; ONS Workforce Jobs Survey 2005–15; ONS Annual Population Survey 2005–15; ONS Annual Survey of Hours and Earnings 2005–15; McKinsey & Company analysis

LABOUR-FORCE PARTICIPATION RATE IS THE STRONGEST LEVER FOR INCREMENTAL GDP IMPACT

Achieving the best-in-UK scenario assumes that women participate more in the labour force; the rate is three percentage points higher than business as usual by 2025, making it the strongest lever for incremental GDP impact at the national level. This scenario also narrows the gap with the men's labour-force participation rate, which is projected to hold steady at 83 percent in 2025.

Opportunity varies across regions. Some have seen only marginal improvement over the last decade—for instance, in the West Midlands, the women's labour-force participation rate improved only one percentage point over ten years, from 68 percent to 69 percent—while others, such as Northern Ireland, have seen more

significant improvement, from 62 percent to 67 percent in ten years. As a consequence, the significance of this lever varies regionally based on historic performance of bridging the gender gap in the labour-force participation rate, accounting for only 21 percent of the overall GVA increase in Northern Ireland but as much as 63 percent in the West Midlands. This means that for regions where the participation rate is highly significant, efforts should focus on getting women into employment or back into work in sectors with growth opportunities. Such measures are likely to be focused on flexible working schemes, investments in childcare, and "returnships" to help those who have taken a career break and would like to return to work (for further detail, see the "Impact zone" section). These measures will also help capture the contribution from an increase in female working hours.

The increase in the labour-force participation rate nationally is an achievable acceleration of the increase in the female participation rate from 69 percent to 72 percent over the past decade. While the decision to seek paid employment remains an individual choice, factors such as those listed above, higher education credentials, and skills training are expected to strengthen women's incentives to join the labour force.[31]

IMPROVING WOMEN'S REPRESENTATION IN HIGHER-PRODUCTIVITY SECTORS IS THE SECOND-BIGGEST LEVER TO IMPROVE GDP

Currently, women are disproportionately concentrated in sectors with low productivity (measured by GVA per worker) such as public administration, education, and health; other services; and distribution, hotels, and restaurants. Within sectors, women are overrepresented in lower-paid occupations, such caring, leisure, and other services, as well as administrative and secretarial occupations (see sidebar, "Identifying gaps in UK productivity through a gender lens"). The best-in-UK scenario calculates the uplift gained by adding and moving women to more productive sectors within each region, such as the financial and insurance and the information and communication sectors. The resulting uplift accounts for over a third of the total incremental GDP impact in the United Kingdom, making it the second most important lever of economic opportunity.

Potential for GVA uplift varies widely by region, from 1 percent of the total potential impact in the West Midlands to 50 percent in Northern Ireland. In regions where the impact of this lever is low (for example, the West Midlands and Wales), men and women are currently equally represented in low-productivity sectors. Consequently, a focus on improving gender parity alone will not significantly contribute to higher GDP in these regions; however, raising the share of high-productivity sectors within the regional economies will benefit both male and female workers. In regions where the impact of this lever is high, efforts should focus beyond simply getting women into work, it is important to help women move into higher-productivity sectors by building relevant skills and through targeted efforts to make these sectors more attractive to women by removing structural and cultural barriers.

INCREASING THE TIME WORKED BY WOMEN BY 25 TO 30 MINUTES A DAY COULD CONTRIBUTE AN OVERALL GDP INCREASE OF 27 PERCENT

Currently we see regional variation in hours worked by women relative to men, from a low of 77 percent in the East Midlands to a high of 87 percent in London. The best-in-UK scenario assumes that women's hours at work will increase on average from 79 percent to 84 percent of those worked by men. This means adding around 25 to 30 minutes a day. The current UK female weekly working average of 29 hours is significantly lower than the 33 hours women work in Sweden and France as well as the 39 hours they work in the United States. This suggests that the United Kingdom can implement measures to enable women to increase their working hours.[32]

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[31] Lone Engbo Christiansen et al., *Unlocking female employment potential in Europe: Drivers and benefits,* International Monetary Fund (IMF), 2016.

[32] *Doing better for families,* OECD, 2012; *Caring for children in Europe,* RAND Europe, 2014.

Achieving the best-in-UK scenario assumes that women allocate more of their time to paid work and less to unpaid work.[33] While its elements are clearly valuable to society, unpaid work does not affect GDP, because the current measure values only market-based activity. Thus, substituting non-market work with market-based work—for instance, by earning a wage and choosing to employ a caregiver—would increase GDP. However, we acknowledge that many women undertake unpaid work voluntarily. UK childcare costs are significantly higher than those in comparable countries, and women in the United Kingdom are more likely than women in most other European countries to choose to reduce their working hours to care for children. In order for women to have the ability to choose between paid, market-based work and childcare, the OECD has emphasised the importance of recognising, reducing, and redistributing unpaid work.[34] Streamlining unpaid care work, with the help of appropriate investment, offers multiple benefits and frees women to work in the market economy—full time—if they so desire. Improvements in childcare facilities (on-site or off-site) would enable mothers to work longer hours and could, at the same time, create additional childcare jobs. As unpaid care work shifts from the family arena into the formal economy, this could lead to a growing segment of paid jobs in childcare, elderly care, care for individuals with disabilities, and home care, as well as a response to demographic trends such as an ageing population. (For further detail, see "Impact zone 3: Unpaid care and childcare".)

CREATING THE RIGHT CONDITIONS COULD ENABLE 840,000 WOMEN TO JOIN THE LABOUR FORCE, PARTICULARLY IN HIGH-PRODUCTIVITY SERVICE SECTORS

In the best-in-UK scenario, the incremental £150 billion GDP gain by 2025 equates to 840,000 additional women in the workforce, on top of the 1.8 million in the business-as-usual scenario.[35] While the absolute increment is high, this outcome requires only a 0.7 percent compound annual growth rate in female employment vs. 0.5 percent for the business-as-usual scenario. There are numerous ways in which these additional women could find employment across sectors; however, it is important to note that, in the long run, they would need to be in relatively higher-productivity sectors in order to boost GDP (see sidebar, "Identifying gaps in UK productivity through a gender lens"). Raising gender parity in a way that contributes to UK productivity is a priority because the country's productivity growth has stagnated since the 2008–09 recession. Labour productivity in the first quarter of 2016 was only about 0.1 percent above what it had been nearly eight years earlier in the second quarter of 2008 (the peak recession period).[36]

One approach is to create the majority of new employment opportunities in high-productivity sectors that have grown historically or are expected to grow strongly: for instance, in 2025, 330,000 professional, scientific, and technical employees can be added, representing a 10 percent increase over business as usual. The number of these jobs has risen by 790,000—38 percent—over the past decade, and their average productivity is close to the national average. Similarly, a further 150,000 information and communication jobs could be added, representing a 10 percent increase over the business-as-usual level in 2025.

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[33] *Recognise, redistribute, reduce the women's unpaid care burden,* ActionAid International, 2013. Unpaid care work refers to the work done in the home and in communities, including preparing food, collecting firewood and water, and taking care of children, the ill, and the elderly.

[34] The formulation "recognising, reducing, and redistributing" originally appeared in Diane Elson, *The three R's of unpaid work: Recognition, reduction, and redistribution,* presented at the Expert Group Meeting on Unpaid Work, Economic Development and Human Well-Being in New York, United Nations Development Programme, November 2008. Also see *Unpaid care work: the missing link in the analysis of gender gaps in labour outcomes,* OECD, 2014.

[35] The business-as-usual scenario would lead to 1.8 million women in incremental employment by 2025, which is consistent with Oxford Economics employment projections and with *Working Futures 2014–2024,* UK Commission for Employment and Skills evidence report number 100, April 2016.

[36] *Productivity in the UK,* House of Commons briefing paper, May 26, 2016.

Jobs in information and communication have grown by more than 14 percent over the past decade, with productivity above the national average and a female share of the workforce of 32 percent. Some 230,000 additional jobs could come from construction, and from transportation and storage, boosting female representation from today's low rate—14 percent and 24 percent, respectively, in 2015. Peer countries see significantly higher numbers of women choosing to pursue study and career paths that feed into these productive sectors, and if the United Kingdom can start to close the gap, there is a real opportunity to raise productivity and economic competitiveness in the global market.[37]

Another approach is to add jobs for women that may have lower future growth potential or productivity in the business-as-usual case but historically have seen high female representation. For example, the financial and insurance sector could add some 50,000 jobs for women—4 percent higher than the 2025 baseline—despite a marginal reduction in employment of 1.2 percent over the past decade. It is one of the most productive sectors of the economy, with high female representation at around 47 percent. Similarly, jobs in education and in human health and social work have high female representation—69 percent and 79 percent, respectively, in 2015. Their average productivity is lower than the national average, but they still have the potential for an even higher female labour-force participation rate and an increase in hours worked. In addition, observations of national investment in a number of countries show that care services as a core part of social infrastructure can plausibly be seen as a growth opportunity, as opposed to a drain on resources. (For further detail, see "Impact zone 3: Childcare and unpaid care work".)

While it is important to address supply-side barriers to better match demand for and supply of jobs, we acknowledge that to achieve the additional GDP potential in the best-in-UK scenario, demand-side policies would also be needed to help create jobs to absorb additional female workers. This would require investment to support the additional workers joining the labour force as women's participation climbs, as well as to increase the supply of skills and to facilitate better matching of skills to available jobs. In the best-in-UK scenario, we estimate that £28 billion of incremental capital-stock investment will be required in 2025 at an aggregate macroeconomic level, which is about 7 percent higher than the capital stock required in the business-as-usual scenario.[38]

Beyond investment, interventions will also be required to tackle demand-side barriers to job creation. Many reforms to increase investment and spur job growth are gender-neutral, including, for example, accelerating infrastructure investment and cutting red tape that constrains businesses. Additionally, some reforms could be targeted to stimulate job growth in industries that have historically hired fewer women and to address barriers that inhibit women from stepping up their participation—for instance, not having the right skills or not finding flexible work opportunities.

[37] *Maximising women's contribution to future economic growth,* Women's Business Council, 2013.

[38] Capital stock describes how many factors of production such as factories, equipment, machinery, and the like are available in an economy (or firm). The MGI model is based on historic capital stock–to–GDP ratio; by factoring the incremental GDP ratio, we can calculate the additional capital stock—or, in layman's terms, the investment required.

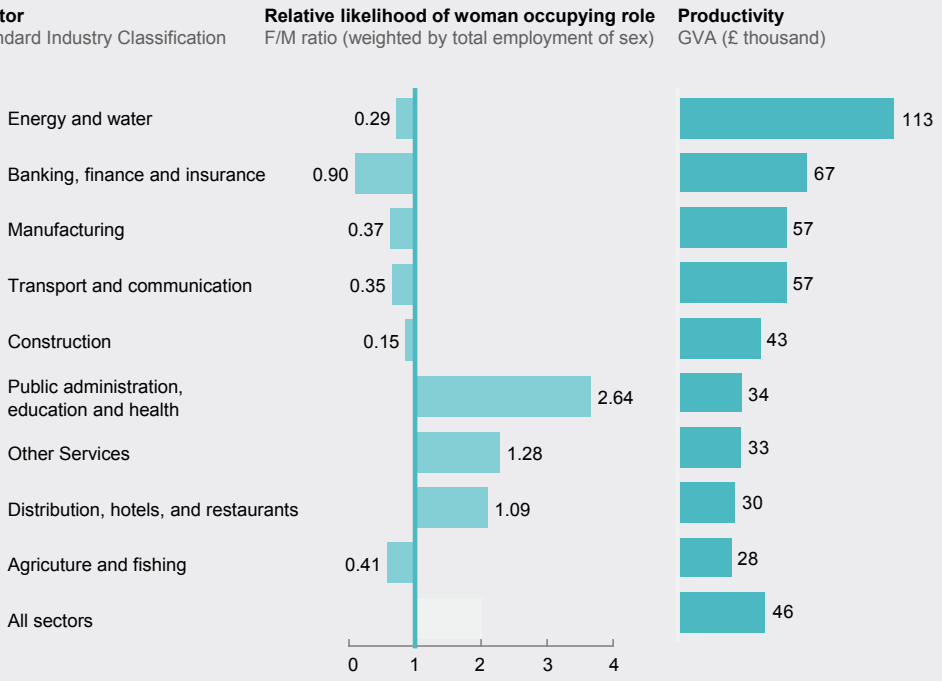
Identifying gaps in UK productivity through a gender lens

To understand how the United Kingdom could achieve the GDP boost we describe, we took a deeper look at where women are participating in the economy today.

The country exhibits wide variation in productivity between sectors, with energy and water—the most productive sector—being more than four times more productive than agriculture and fishing (Exhibit 4). Public administration, education, and health; other services; and distribution, hotels, and restaurants are the sectors with the highest female representation. Public administration, education, and health is the only sector in which women significantly outnumber men, with women 2.6 times more likely to be employed than men. These are three of the lowest-productivity sectors in the United Kingdom (as measured by GVA per worker).[39] Nevertheless, they are growing sectors and less susceptible to automation than others: for example, health-care therapist and educator are among the least likely jobs to be replaced as technology advances.[40] Consequently, 65 percent of the GDP benefits identified can be achieved by increasing the participation of, and number of hours worked by, women in the sectors and occupations where they are currently prevalent, including these. However, to capture the full UK GDP benefit, women need to break into more productive sectors where their share of employment is currently lower. Examples include energy and water; manufacturing; and transport and communication.

Exhibit 4

Women are concentrated in low-productivity sectors, while men are highly concentrated in the most productive



SOURCE: ONS Annual Population Survey 2015; ONS Workforce Jobs Survey 2015; Oxford Economics; McKinsey & Company analysis

Additionally, women are currently overrepresented in lower-paid occupations within sectors. They are predominant in three major roles—administrative and secretarial, caring and leisure, and other services—all of which fall into the lower half of the range of occupations in terms of median annual pay.

[39] It should be noted that where these sectors involve extensive public provision, measuring productivity can be challenging.

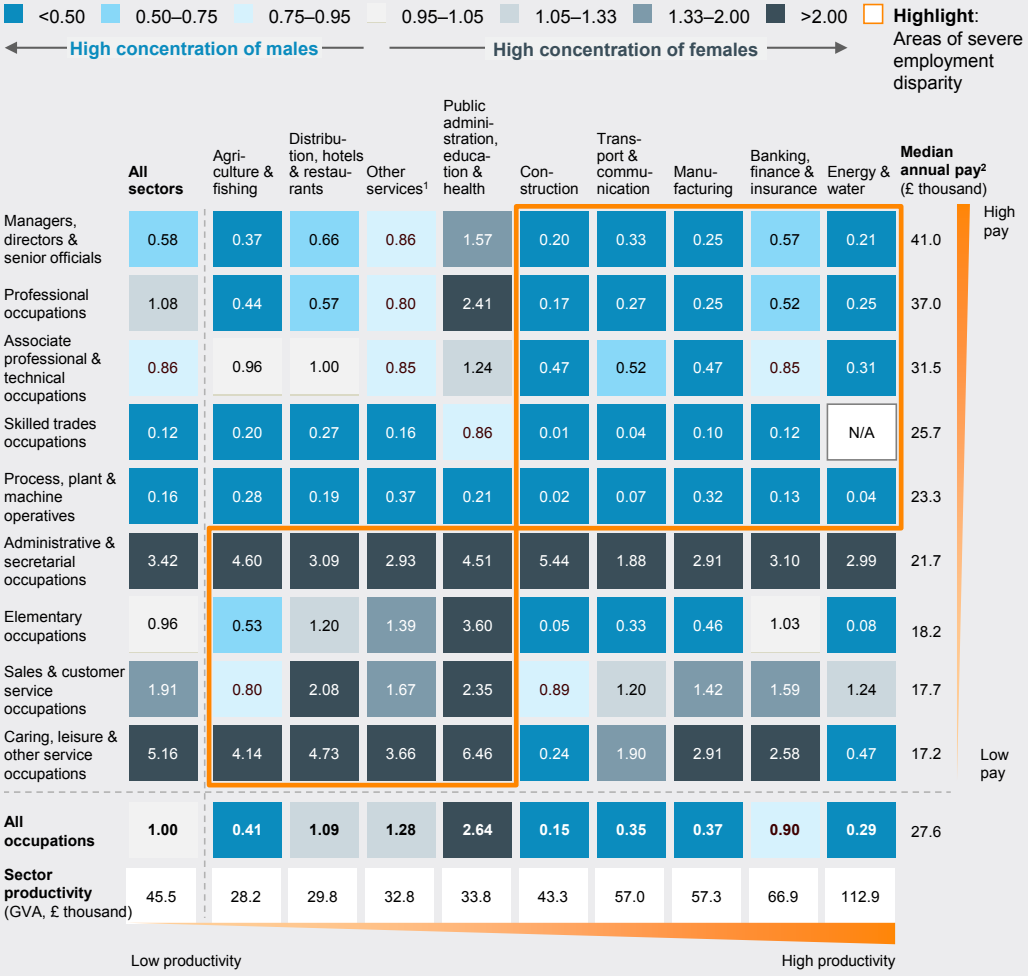
[40] Carl Benedikt Frey and Michael A. Osborne, *The future of employment: how susceptible are jobs to computerisation?;* Oxford Martin Programme on Technology and Employment, 2015.

These two types of disparity, across sectors and across occupations, combine and compound their effects. Just three of the 81 sector-occupation intersections fall within the low-disparity range. Men are highly concentrated at all intersections of the five most productive sectors and the five most lucrative roles, and they are twice as likely as women to occupy the most productive sector-occupation combinations. Conversely, women are overrepresented in the least productive, lowest-salaried sector-occupation intersections: across the four least productive sectors, more women than men are employed in almost all of the four lowest-paying occupations (Exhibit 5). With few exceptions, this picture is consistent across UK regions.

Exhibit 5

Women are overrepresented at the intersections of low-productivity sectors and low-paying occupations, while the reverse is true of men

F/M ratio: employment as a proportion of total sex employed



1 Includes arts, entertainment, and recreation; other service activities; activities of households as employers; undifferentiated goods- and service-producing activities of households for own use; and activities of extraterritorial organisations and bodies.
2 Full-time employees.

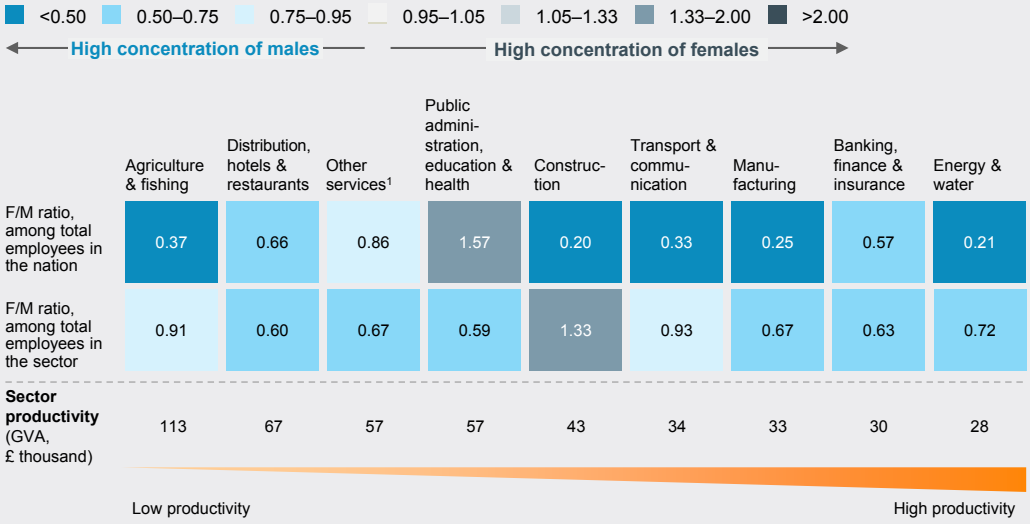
SOURCE: ONS Annual Population Survey 2015; ONS Annual Survey of Hours and Earnings 2015; ONS Workforce Jobs Survey 2015; Oxford Economics; McKinsey & Company analysis

In the highest-paid occupations—managers, directors, and senior officials—men are highly concentrated in all sectors except public administration, education, and health, highlighting an overwhelming lack of female leaders (Exhibit 6). This disparity is apparent in terms of both absolute numbers and share of women in employment.

Exhibit 6

Men hold more leadership positions than women across all sectors except one: public administration, education, and health

F/M ratio: managers, directors, and senior officers



1 Includes arts, entertainment, and recreation; other service activities; activities of households as employers; undifferentiated goods- and service-producing activities of households for own use; and activities of extraterritorial organisations and bodies.

SOURCE: ONS Annual Population Survey 2015; ONS Workforce Jobs Survey 2015; Oxford Economics; McKinsey & Company analysis

Being concentrated in the low-productivity intersections of sectors and occupations has a significant impact on women's financial security. Low-productivity, low-paying work reduces their financial stability, with serious ramifications for unmarried female retirees and families headed by single mothers. The problem is compounded by low income mobility within the United Kingdom; research shows that 48 percent of people in the bottom income quintile in 2000 were still there in 2008.

There are significant vacancies and skills gaps among the UK's high-productivity sectors as well as within high-salary occupations—such as skilled trades and managerial and leadership positions—from which women are largely absent. In 2015, there were 209,500 reported skills-related vacancies in the United Kingdom, an increase of 43 percent over 2013. Occupationally, the highest densities of vacancies were reported in skilled trades occupations (43 percent) and process, plant, and machine operatives (32 percent). These are the two occupations in which women are most underrepresented—men are more than six times as likely to hold such jobs—and both occupations sit in the top half of the range for median salary. At the sectoral level, a similar picture becomes apparent: the industries with the highest density of skills-related vacancies—namely, energy and water; banking, insurance, and finance; manufacturing; and transport and communications—are also the most productive sectors, according to the Commission for Employment and Skills' Employer Skills Survey 2015. Men are currently at least twice as likely as women to work in all of these industries except banking, insurance, and finance (in which men are only 11 percent more likely to work).

Along with capturing the identified GDP benefit, efforts to help women break into more productive sectors and occupations where their share of employment is lower today will also help ameliorate the overall UK skills gap. Among other things, efforts will need to involve women building skills that are relevant to high-productivity sectors and occupations, particularly early in their careers. Paving the way for women to occupy more productive sectors and roles offers the potential for the United Kingdom to narrow the productivity gap with its peers.[41]

[41] International comparisons of productivity, ONS, 2014.

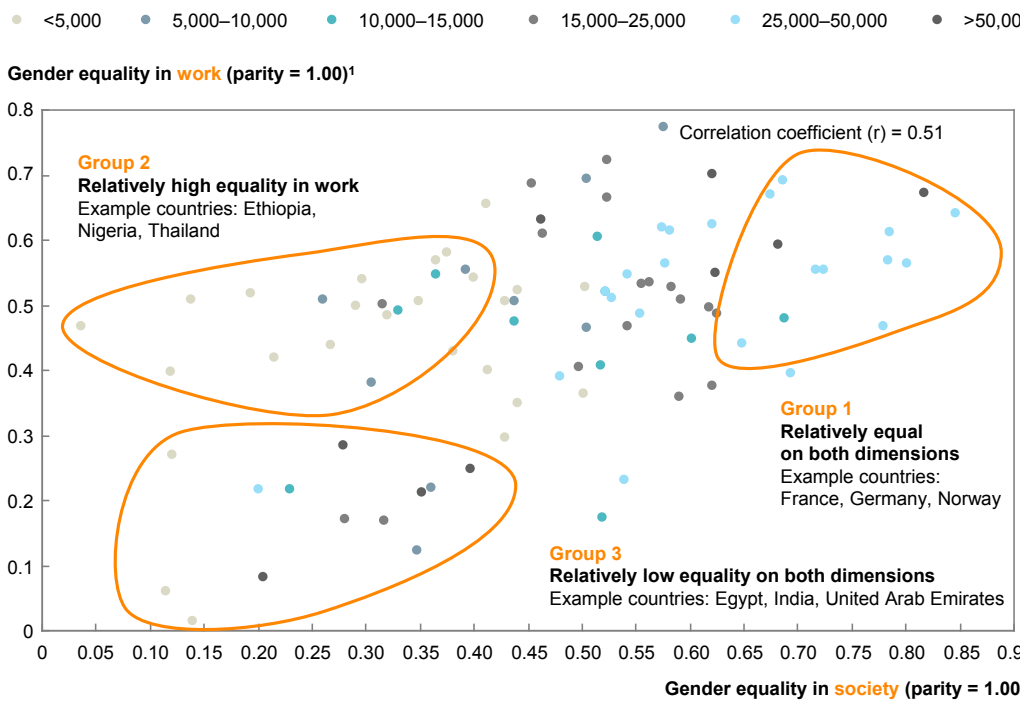
2. MAPPING GENDER EQUALITY WITHIN THE UNITED KINGDOM

To fulfil the economic opportunity we have outlined, the United Kingdom needs to take steps towards identifying and addressing gender inequality in wider society, beyond the workplace. MGI's report on global gender equality demonstrated a clear link between inequality in work and society: none of the 95 countries examined exhibited high levels of equality in work without an accompanying high level of equality in society (Exhibit 7). This correlation offers concrete evidence for an economic incentive to closing society's gender gap, in addition to the moral imperative.

Exhibit 7

Gender equality in society is linked with gender equality in work[1]

Gender Parity Score[3], per capita GDP levels, 2014 purchasing-power-parity international dollar



1 Labour-force participation rate, professional and technical jobs, perceived wage gap for similar work, leadership positions, unpaid care work.
2 Essential services and enablers of economic opportunity, legal protection and political voice, physical security and autonomy.
3 MGI's Gender Parity Score measures how far a country is from full gender parity.

SOURCE: McKinsey Global Institute analysis

In this section, we assess the United Kingdom across 16 priority gender inequality indicators, which demonstrate severe inequality in many areas spanning work and society.[42] We then examine these indicators in the context of a woman's life stages, finding that UK women experience most inequality after they have passed through childhood education and into adulthood. Exploring the evolution of national and regional inequality indicators over the past decade suggests that these measures have not shown significant improvement, while data demonstrate little variation in parity across regions.

[42] When examining inequality over a woman's lifetime, we have included several deprioritised indicators from MGI's global gender parity report, to provide a more comprehensive picture.

GENDER PARITY INDICATORS HIGHLIGHT NINE AREAS TO TARGET TO ENSURE THAT WOMEN FULFIL THEIR ECONOMIC POTENTIAL

MGI's global report used 15 work and societal indicators to evaluate gender inequality by nation. We have adopted a similar approach, with some adjustments, to produce 16 indicators of inequality that are particularly pertinent to the United Kingdom. As in the global report, these indicators have been categorised into four areas of inequality, which underpin women's ability to grasp the economic opportunity outlined in the previous section. The first pertains to gender equality in work, the next three to gender equality in society:

- **Gender equality in work,** or the ability of women to be equal players in labour markets—to find employment, be compensated fairly for it, gain the skills and opportunities to perform higher-productivity jobs, and share work outside the market economy equitably. For the United Kingdom, we have used eight indicators: labour-force participation rate, leadership and managerial positions, median annual pay, mean hours worked, unpaid care work, breadwinning, entrepreneurship, and STEM careers.[43]

- **Essential services and enablers of economic opportunity,** such as health care, education, and financial and digital services (which are also vital enablers of social progress). For the United Kingdom, we have used five indicators: single parenthood, teenage pregnancy, access to credit, higher education, and STEM degrees.

- **Legal and political voice,** or the equal right of women to self-determination, including the right to work, access institutions, inherit assets, be protected from violence, and have the opportunity to participate actively in political life. For the United Kingdom, we have used two indicators: political representation and legal protection.

- **Personal security and autonomy,** or the right of women to be safe from physical, mental and emotional harm. For the United Kingdom, we have used one indicator: sexual violence.

Each indicator is assigned to an inequality range—low, medium, high, or extreme—with the methodology behind this assignment dependent on the indicator type. Typically, these indicators take the form of a ratio of females affected to males affected, or vice versa. In these cases, scores range from 0 to 1, with 0 indicating the worst case and 1 indicating full parity.[44] For issues that by their nature disproportionately or exclusively affect women—such as teenage pregnancy—a true "parity" ratio does not accurately illustrate the problem. To ensure that this report captures these important factors, incidence rates are used in lieu of scores. Details of the indicator methodologies and range definitions can be found in the appendix.

Analysis of the UK data suggests high or extreme inequality on nine indicators, spanning both work and society (Exhibit 8).[45]

[43] Breadwinning is defined as the percentage of mothers who are the primary earners in their household (earning at least 50 percent of household income), including single mothers.

[44] For most indicators, low inequality is defined as being within 5 percent of parity, medium inequality between 5 and 25 percent, high inequality between 25 and 50 percent, and extremely high inequality 50 percent or above. For details and exception, see the appendix.

[45] For an explanation of how indicators are mapped to "low", "medium", "high", and "extreme" inequality, see the appendix.

Exhibit 8

Analysis of the UK data suggests parity in higher education and legal protection, and extreme inequality in STEM careers, single parenthood, and political representation

Low inequality Extreme inequality

Gender equality in work	
Labour-force participation rate F/M ratio—employed or looking for work as % of gender aged 16–64	0.87
Median annual pay F/M ratio—gross annual salary of full-time employees	0.81
Mean hours worked F/M ratio—mean hours worked, per week, by employees of gender	0.79
Leadership and managerial positions F/M ratio—in managerial role[1] as % of employees of gender aged 16–64	0.58
Unpaid care work M/F ratio—mean hours spent on unpaid care work, per week, by gender aged 16–64	0.54
Entrepreneurship F/M ratio—employed or involved in new enterprise[2] as % of gender aged 18–64	0.56
Breadwinning Incidence—earning ≥50% household income as % of mothers with dependent children	33%
STEM careers F/M ratio—employed in a STEM-related position[3] as % of employees of gender aged 16–64	0.17
Gender equality in society	
Essential services and enablers of economic opportunity	
Higher education F/M ratio—enrolled in higher education as % of gender aged 16–64	1.22
Single parenthood[4] F/M ratio—single parent with dependent children as % of all parents	0.09
Teenage pregnancy[4] incidence—1+ births in past year as % of women aged 15–19	1.69%
STEM degrees F/M ratio—studying STEM subject as % of higher education enrolees of gender	0.80
Access to credit F/M ratio—took a loan in past year as % of gender aged 15+	0.74
Legal and political voice	
Legal protection (composite) Binary average—selected law is in place	1.00
Political representation (composite) F/M ratio—in selected political office[5]	0.35
Physical security and autonomy	
Sexual violence[6] Incidence—victim of 1+ incidents in past year as % of gender aged 16–59	0.53%

1 Defined as occupations within the managers, directors and senior officials band of the Standard Occupational Classification (SOC) 2010.
2 Defined as those involved in setting up a business (<3 months), or who are owner-managers of a "new" business (<3.5 years).
3 Includes associate health professionals, health professionals, science professionals, research and development managers, draughtspersons and building inspectors, science and engineering technicians, IT service delivery occupations, ICT professionals, building professionals, SET managers, engineering professionals, and skilled construction and building trades.
4 Excludes Northern Ireland and Scotland due to lack of data.
5 Composite indicator, averaging the F/M ratio of representatives in the House of Commons, the House of Lords, and ministerial positions.
6 Defined as the "most serious" incidents of sexual violence, including attempts, under the Crime Survey for England and Wales 2012 guidelines.

SOURCE: ONS; OECD; IPPR; GEM; IET; World Bank; HESA; UK Parliament; McKinsey & Company analysis

Of the indicators we examined, data suggest that the highest disparity is in single parenthood: women are over ten times more likely than men to have primary responsibility for a dependent child. In addition, women spend almost twice as much time as men on unpaid care work, which has been shown to impact women's participation in the labour force.[46] At 0.54, the United Kingdom's male-to-female ratio of unpaid care work is less equitable than that of North America and Oceania (0.74) but is closer to parity than the 2014 Western European average of 0.48.[47] The problem is exacerbated by the United Kingdom's relatively high rate of teenage pregnancy, which has been shown to inhibit women's

46 Magdalena Sepúlveda Carmona, *Report of the special rapporteur on extreme poverty and human rights,* United Nations, August 2013.
47 Ibid. McKinsey Global Institute, *The power of parity,* September 2015.

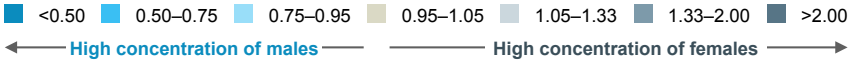
education and employment prospects.[48] In 2014, 1.69 percent of women aged 15 to 19 gave birth, placing the United Kingdom in the second quartile of the 95 countries examined in MGI's global gender parity report, along with many developing nations. Taken together, these statistics suggest that women are economically impeded to a disproportionate extent by the responsibilities associated with childcare.

The second-highest inequality indicator relates to STEM careers—the relative likelihood of women being employed in science, technology, engineering, or mathematics-related occupations.[49] Women are less than one-fifth as likely as men to fill these roles, which are among the most productive and undersupplied with regard to skilled personnel in the United Kingdom. Consequently, this indicator highlights a sizable opportunity to improve the contribution women are able to make to the UK economy. Digging deeper, when we examine who studies specific STEM subjects at the degree level, we see a pronounced gender split: women are highly concentrated in medical, veterinary, biological, and agricultural subjects, while men are highly concentrated in physical, mathematical, and computer sciences, as well as engineering and architectural subjects (Exhibit 9). This appears to be a particular problem for the United Kingdom, which has a lower proportion of women in STEM careers—particularly in engineering—than the rest of Europe.[50]

Exhibit 9

Although the United Kingdom exhibits medium disparity in STEM degree enrolment overall, men and women are highly concentrated in disparate fields

F/M ratio: enrolment in subject



SUBJECT AREA	Ratio (absolute)	Ratio (rate)[1]
Medicine and dentistry	1.30	1.02
Subjects allied to medicine	3.85	3.00
Biological sciences	1.56	1.22
Veterinary science	3.18	2.48
Agriculture and related subjects	1.61	1.26
Physical sciences	0.65	0.51
Mathematical sciences	0.60	0.47
Computer science	0.21	0.16
Engineering and technology	0.20	0.16
Architecture, building, and planning	0.56	0.44
Overall	**1.02**	**0.80**

1 Enrolment in subject as a proportion of total enrolment.

SOURCE: HESA Statistical First Release 2015; McKinsey & Company analysis

48 As the productivity loss associated with teenage pregnancy is negligible (under € 2 million) in terms of the UK economy, this is not treated as a priority area for the purposes of this report. Saul D. Hoffman and Rebecca A. Maynard, eds., *Kids having kids: Economic costs and social consequences of teen pregnancy,* Urban Institute Press, 2008.

49 STEM careers include associate health professionals, health professionals, science professionals, research and development managers, draughtspersons and building inspectors, science and engineering technicians, IT service delivery occupations, ICT professionals, building professionals, SET managers, engineering professionals, and skilled construction and building trades.

50 Women's Engineering Society, *Women in engineering: Statistics on a page,* 2014; Amna Silim and Cait Crosse, *Women in engineering: Fixing the talent pipeline,* Institute for Public Policy Research, 2014.

Of the indicators we examined, political representation is the third-highest source of UK inequality: the female-to-male ratio of 0.35 lags the Western Europe average of 0.49.[51] Men outnumber women by more than two to one in the House of Commons, the House of Lords, and ministerial positions, and academic literature suggests that this may diminish the extent to which women's views and concerns are represented in legislative proceedings.[52] (For further detail, see "Impact zone 5: Women in politics".)

Sexual violence against UK women is at a medium level, with 0.53 percent of women aged 16 to 59 experiencing severe sexual violence (including attempts) on an annual basis.[53] This is the third-highest rate of intimate partner violence in Europe and Central Asia.[54] Among other important impacts, sexual violence can limit women's ability to engage productively with work or progress in their careers, curtailing their opportunity to contribute to the economy.[55]

Meanwhile, several factors in the work sphere serve to limit women's earnings potential and productivity. Women are severely underrepresented at the higher levels of organisations in the United Kingdom—the female-to-male ratio (adjusted for labour-force numbers) in leadership or managerial positions is 0.58.[56] This is behind the North America and Oceania average of 0.74 but ahead of the Western European average of 0.50.[57] Women are also almost 50 percent less likely to be involved in entrepreneurial activity; research suggests this may be related to the fact that women are 25 percent less likely to have accessed capital in the past year.[58] This puts the United Kingdom ahead of OECD peers on women's access to startup capital—and improving more quickly than several peers—but behind peers such as the United States on numbers of women in entrepreneurship overall.[59] Among the more commonly used work-related indicators—labour-force participation rate, median annual pay, and mean hours worked—data indicate medium inequality in the United Kingdom. Women remain likely to earn less and work fewer hours than men and are less likely to be working or seeking work.

Due to a lack of consistent data at the time of our analysis, we have not included a measure of equal pay for equal work. However, recently published data show that the pay gap between men and women in the United Kingdom for full and part-time workers stood at 19%; the gap has narrowed only among those with the lowest levels of education, not among graduates or those with A-levels.[60] Several of the drivers of this disparity relate to childcare, according to the Institute for Fiscal Studies.[61] In addition, Parliament has requested the publication of gender pay data by 2018 for all large companies.

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51 European data from 2014 compared against UK data from 2015.

52 Ibid. Political Parity, *Why women?* 2015.

53 *Crime Survey for England and Wales,* Home Office and ONS, 2013.

54 "Violence against women (indicator)", OECD, 2016.

55 Elizabeth M. Ellis, Beverly M. Atkeson, and Karen S. Calhoun, "An assessment of long-term reaction to rape", *Journal of Abnormal Psychology,* volume 90, number 3, June 1981.

56 Throughout this section of the report, "likelihood" is a percentage calculated as number of women (or men) fulfilling a specific criterion relative to the total number of women (or men) who could fulfil the criterion. For this indicator, it is calculated as the number of women in leadership and managerial positions over total number of employed women over the same ratio for men. Leadership or managerial occupations are defined as occupations within the managers, directors and senior officials band of the UK Standard Occupational Classification (SOC) 2010.

57 Ibid. McKinsey Global Institute, *The power of parity,* September 2015. Comparison is to European data from 2014.

58 Access to capital is defined as those involved in setting up a business (company is under three months old) or those who are an owner-manager of a "new" business (company is under 3.5 years old). *Banking on women: An action plan to open up access to finance for women,* Government Equalities Office, 2013.

59 *Enhancing women's economic empowerment through entrepreneurship and business leadership in OECD countries,* OECD, 2014; "Women's enterprise and entrepreneurship facts and statistics", Prowess, September 2016.

60 Gender pay gap: Second report of session 2015–16, House of Commons Women and Equalities Committee, 2016

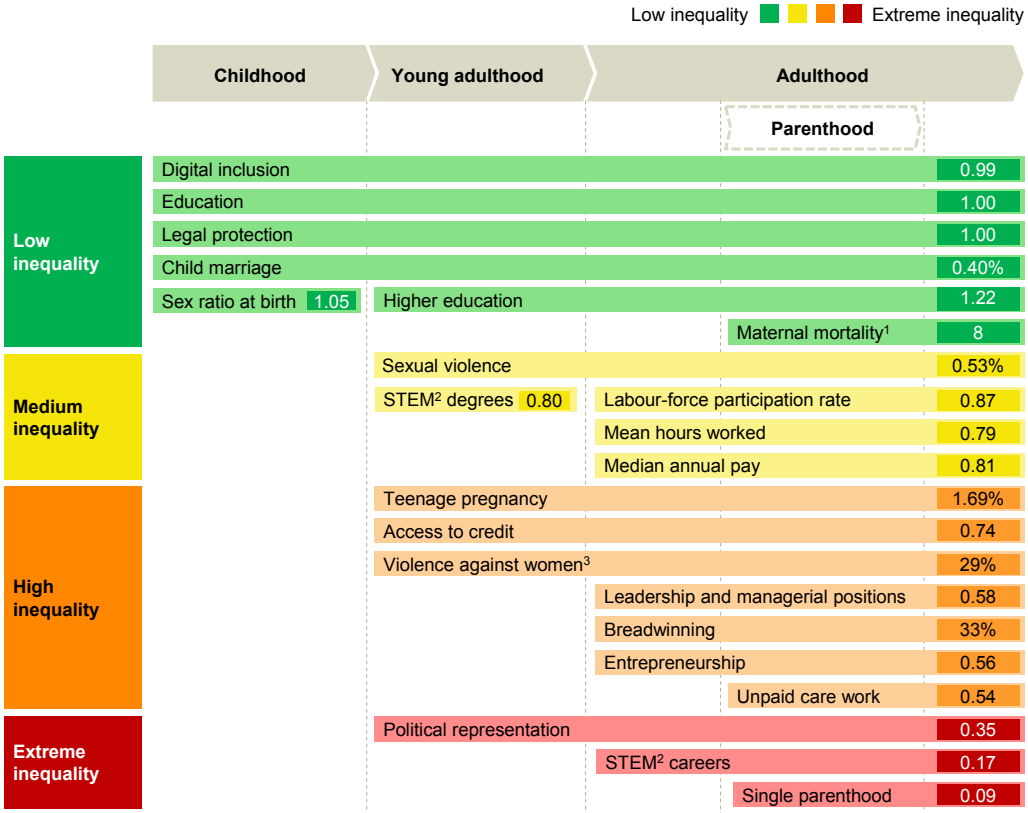
61 *The gender wage gap,* Institute for Fiscal Studies, 2016. www2.deloitte.com/uk/en/pages/press-releases/articles/deloitte-analysis-without-action-gender-pay-gap.

WOMEN CONFRONT GREATER INEQUALITY AS THEY PROGRESS THROUGH THEIR LIVES, NECESSITATING DIFFERENT APPROACHES TO INTERVENTION

As we have seen, the labour-force participation rate, hours worked, and productivity are the three primary drivers to be improved if women in the United Kingdom are to fulfil their economic potential. To better understand the social and economic factors impacting these levers, we mapped each source of gender disparity to the stages of a woman's life: childhood, young adulthood, adulthood, and parenthood. We have referenced all indicators from the global report, including those deprioritised in the rest of this report, in the interest of providing a comprehensive view (Exhibit 10). Inequality at each life stage impacts women in different ways, necessitating tailored interventions to combat specific consequences.

Exhibit 10

In the United Kingdom, inequality is low in childhood, but women confront greater inequality as they progress through their lives



1 Per 100,000 live births.
2 Science, technology, engineering, and mathematics.
3 By an intimate partner at any point in lifetime.

SOURCE: ONS; OECD; IPPR; GEM; IET; World Bank; HESA; UK Parliament; McKinsey & Company analysis

Data for the United Kingdom displays strong gender parity during childhood, with high levels of parity in the indicators of sex ratio at birth and education, as well as legal protection and digital inclusion—which are relevant throughout a woman's life—and very low levels of child marriage.[62] Once a woman reaches young adulthood, factors such as the country's relatively high prevalence of teenage pregnancy may limit her ability to enter the workforce; when coupled with low income mobility, this can restrict her future economic contribution. Gender-based violence may also impact some women during this phase, with possible ramifications for educational attainment and, later, labour-force participation. Studies indicate that younger women are particularly likely to have been victims of domestic abuse.[63]

62 Digital inclusion is defined as the female-to-male ratio of Internet users.
63 Angela Kail et al., Hard knock life, 2008.

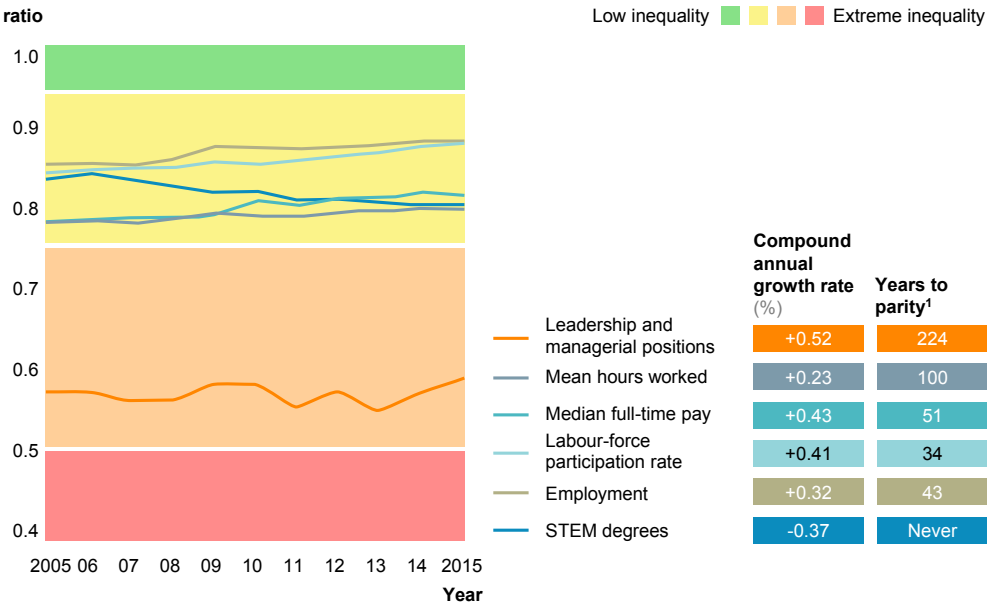
Once a woman is in the workforce, high inequality in terms of leadership opportunities, entrepreneurship, access to credit, breadwinning, and STEM careers can hinder her ability to be as productive as her male peers, both as an individual and as a contributor to the economy. If she becomes a mother, high levels of inequality in unpaid care work and single parenthood can impede a woman's ability to participate in the workforce to the extent that she may like, reducing the number of hours she can work and her ability to be as productive as her male peers. On returning to work, mothers often earn less than they might have without a career break, and the effect endures for the remainder of their working lives. While many older women and those who have passed the parenting stage can make a powerful renewed contribution to the economy when returning to work or through entrepreneurship, the stalling effect of parenting may limit their future productivity and seniority. Meanwhile, high inequality in political representation throughout life may contribute to further inequalities (see "Impact zone 5: Women in politics").[64]

WHILE INCREASES IN GENDER PARITY REMAIN SPARSE, POLITICAL REPRESENTATION HAS SEEN THE GREATEST IMPROVEMENT OVER THE PAST DECADE

Data suggest that national work indicators have not shown significant improvement (Exhibit 11). Gender gaps in labour-force participation rate, employment, median pay, and mean hours worked have all remained within the medium inequality range. At the current rate of improvement, all metrics will take more than three decades to reach parity. The proportion of women in leadership and managerial positions continues to demonstrate high inequality, with significant volatility making it difficult to determine if the small improvement of the past two years is likely to be sustained. Enrolment of women in STEM degree programmes has declined marginally over the past decade.

Exhibit 11

Data suggest that national work indicators have not shown significant improvement over the past decade



1 At current compound annual growth rate.

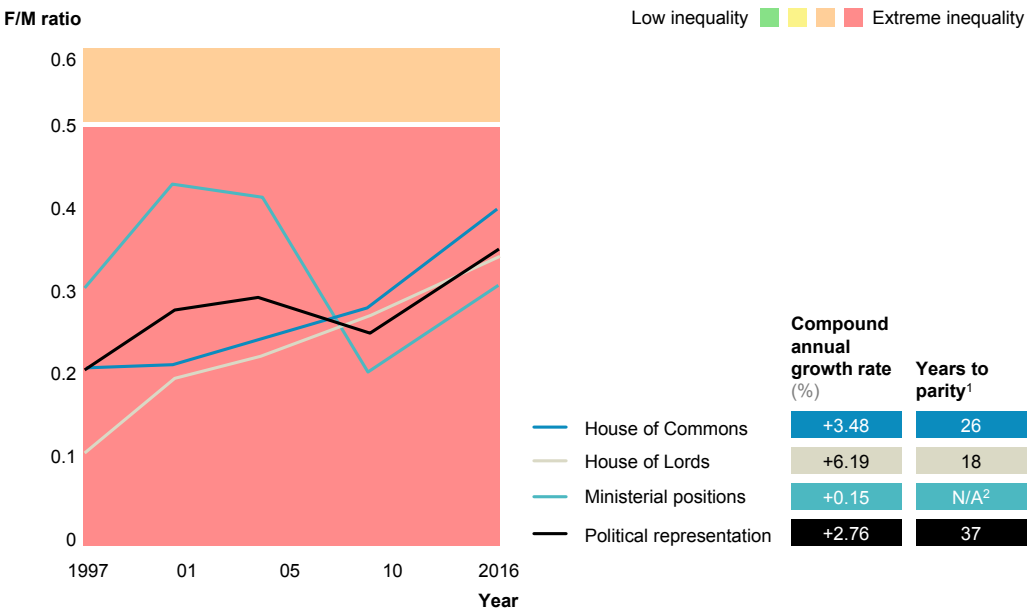
SOURCE: ONS Annual Population Survey 2005–15; ONS Annual Survey of Hours and Earnings 2005–15; HESA; McKinsey & Company analysis

64 Ibid. Political Parity, *Why women?* 2015.

In contrast, political representation has shown significant progress over the course of the five most recent general elections (Exhibit 12). This indicator is a composite of female-to-male representation in the House of Commons, the House of Lords, and ministerial positions. Equality of representation in both Houses of Parliament has improved steadily at the national level since 1997, from 17 percent women to 29 percent women. The sharp improvement in the House of Lords between 1997 and 2001 is likely due to the reduction in the number of seats occupied by hereditary peers under the House of Lords Act 1999. However, gender ratios in ministerial positions have varied significantly, both upwards and downwards, over the period under consideration. This has had the effect of dragging the composite indicator down, particularly in 2010. Despite an overall improvement in the political representation indicator, all components remain in the extreme inequality range, demonstrating that there is still significant work to be done towards achieving parity in this area.

Exhibit 12

Political representation has shown progress over the five most recent general elections but remains in the extreme inequality range



1 At current compound annual growth rate.
2 Years to parity for ministerial positions is greater than 100 years based on historical data but vary significantly based on appointments.

SOURCE: UK Parliament; McKinsey & Company analysis

GENDER PARITY MEASURES SHOW LITTLE VARIATION BETWEEN REGIONS AND DO NOT CORRELATE WITH REGIONAL PRODUCTIVITY, SUGGESTING THAT THESE ARE NATIONAL ISSUES

To achieve a more granular view of inequality in the United Kingdom, we assessed the variation in eight indicators at the regional (NUTS 1) level. For gender equality in work, we looked at labour-force participation rate, median annual pay, mean hours worked, and leadership and managerial positions; for gender equality in society, we examined higher education, teenage pregnancy, single parenthood, and political representation (Exhibit 13). These indicators were selected based on data availability and relevance to the United Kingdom.

For the majority of indicators, the disparity does not vary significantly between regions. Nor does it appear to be related to regional productivity, although this does differ considerably. Perhaps this is unsurprising given the commonalities in the legal and social frameworks of

the UK regions—in contrast to the differing systems between states in India or the United States, for example—as well as the relatively small size of the country.[65]

One exception is the leadership and managerial positions indicator. Data from the South East region indicates extreme inequality—men are more than twice as likely as women to occupy a managerial or leadership position—with Yorkshire and the Humber showing similar disparity. Performance on this measure is significantly better in other regions, such as the North East, where men are less than 1.5 times more likely to fill these senior positions.

A further exception is political representation, which exhibits the most striking regional variation overall. Inequality is extreme in several regions, including Northern Ireland, which scores 0.13—that's one female Member of Parliament for every 7.7 male MPs. This is in contrast to regions such as London (0.66) and the North East (0.61), the regions ranked highest on political equality, with one female Member of Parliament for every 1.5 male MPs.

Exhibit 13

Data suggest little variation between regions in gender parity, with leaders and managers, political representation, and teenage pregnancy being notable exceptions

Low inequality — Extreme inequality

	GENDER EQUALITY IN WORK				GENDER EQUALITY IN SOCIETY				
	Labour-force participation rate	Median full-time wage	Mean hours worked	Leadership & managerial positions	Higher education	Teenage pregnancy (%)	Single parenthood	Political representation	Productivity[1] (GVA, £ thousand)
London	0.84	0.82	0.87	0.60	1.25	2.14	0.11	0.66	63.1
South East	0.89	0.79	0.79	0.49	1.23	1.51	0.13	0.35	49.3
Scotland	0.91	0.82	0.80	0.61	1.20	No data	No data	0.51	44.5
East	0.87	0.79	0.76	0.56	1.36	1.55	0.13	0.23	43.8
North West	0.87	0.83	0.81	0.63	1.23	2.00	0.12	0.60	40.5
South West	0.88	0.79	0.77	0.64	1.18	1.43	0.13	0.22	40.1
North East	0.88	0.80	0.79	0.69	1.32	1.51	0.12	0.61	39.8
West Midlands	0.85	0.78	0.78	0.61	1.12	1.90	0.13	0.31	39.7
East Midlands	0.87	0.75	0.77	0.64	1.26	1.35	0.13	0.35	39.4
Northern Ireland	0.84	0.91	0.79	0.59	1.22	No data	No data	0.13	39.4
Yorkshire & the Humber	0.87	0.79	0.77	0.50	1.19	1.59	0.13	0.43	38.2
Wales	0.89	0.83	0.78	0.59	1.12	1.55	0.13	0.29	35.8
UK overall	**0.87**	**0.81**	**0.79**	**0.58**	**1.22[2]**	**1.69**	**0.09**	**0.35**	**45.5**

High — Low

1 F/M productivity ratio by region not available.
2 Regional breakdown uses ONS data with UK overall ratio of 1.24, while national-level data use HESA data with overall ratio of 1.22.

SOURCE: ONS; HESA; UK Parliament; McKinsey & Company analysis

65 *"The state of girls' rights in the UK",* Plan International UK, 2016.

Teenage pregnancy also exhibits regional variation between the high and medium inequality ranges. Certain regions—the South East, South West, North East, and East Midlands—have teenage birth rates over 25 percent lower than the worst-performing regions. The regional difference is likely to be related to the well-documented correlation between deprivation and teenage pregnancy. Additionally, it is important to note that, while the current picture of regional inequality shows little variation, historical rates of improvement for these indicators differ significantly between regions. This observation forms the basis of the best-in-UK projection put forward in this report.

•••

The United Kingdom has scope for improvement in many areas of gender equality, spanning both work and society. In order to counteract the harmful effects of gender disparity on women as individuals, society as a whole, and the UK economy, a broad suite of targeted interventions should be evaluated and considered for implementation. The following section will explore priority areas for the United Kingdom and consider how these issues could be addressed by government, the private sector, and other groups. The interventions that follow are designed to give more women the opportunity to work, to give them the freedom to work longer hours (or full time if they wish), and to enable them to occupy more productive sectors and roles—a combination that offers the potential for the United Kingdom to boost its GDP and narrow the productivity gap with its peers.

3. TAKING ACTION TO CAPTURE THE OPPORTUNITY

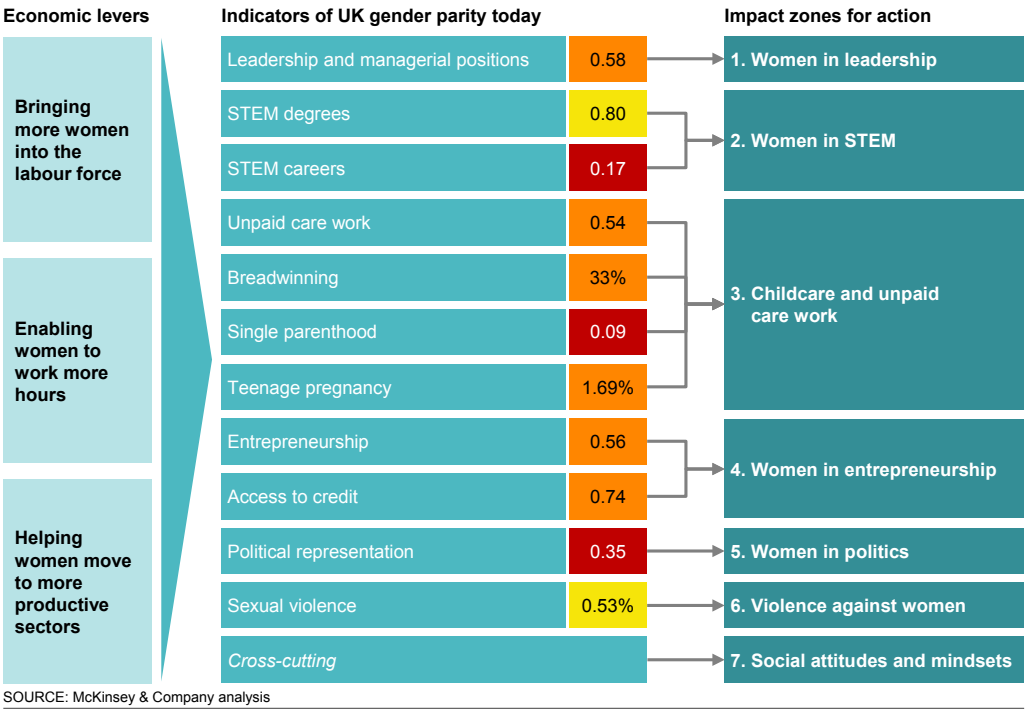
Reaching a higher degree of gender parity will be a crucial part of the United Kingdom's journey to a higher level of productivity and economic opportunity, as outlined in Chapter 1. We have set out a series of interventions to address the three measures modelled for improved economic opportunity by 2025: improving female labour-force participation, moving women into higher-productivity sectors, and raising the number of hours worked by women. The prioritised interventions seek to improve these measures by removing direct barriers to women working; by creating better opportunities to enable them to work in the most productive sectors and geographies, in higher-paid occupations, and at higher levels of seniority; and by reshaping underlying social norms and attitudes that define the choices women make and the way society receives and supports those choices.

INITIATIVES WILL BE REQUIRED IN SEVEN IMPACT ZONES, FOCUSING ON A THREE-STAGE PROCESS: UNDERSTANDING, ADDRESSING, AND TRACKING THE GENDER GAP

We have translated ten of our priority gender parity indicators—leadership and managerial positions, unpaid care work, entrepreneurship, breadwinning, STEM careers, single parenthood, teenage pregnancy, access to capital, political representation, and sexual violence—into seven impact zones, which correspond to the areas in which the need for change is most urgent and where interventions should be focused. These impact zones are women in leadership, women in STEM, childcare and unpaid work, women in entrepreneurship, women in politics, violence against women, and social attitudes. These categories of intervention are designed to respond to the indicators with the highest disparity and to help achieve the three economic levers(Exhibit 14).

Exhibit 14

Impact zones are designed to respond to the indicators with highest disparity and to help achieve the three economic levers



SOURCE: McKinsey & Company analysis

McKinsey undertook an extensive review of initiatives in the United Kingdom and comparable countries that have been, or are being, implemented or piloted to address various aspects of the gender gap. We reviewed over 120 interventions and have prioritised a package of 35 across the impact zones, grouped into three types of action essential for driving change: stakeholders must understand the drivers of inequality to a sufficient degree, carry out targeted intervention programmes to address the specific issues holding back women, and track the progress and impact of current and future efforts to ensure that they are having a material effect (Exhibit 15). Understanding the issues will involve more granular use of data—including quantitative analysis as well as qualitative discussions with women and girls about their experiences—to examine the behaviours driving and sustaining inequality. Addressing the issues will involve a variety of measures to break down barriers to advancement, combat bias in the workplace, change mindsets and culture, and create an inclusive environment for all. Tracking these issues will require setting stretch goals with individuals and organisations held accountable for their attainment, with regular reporting on progress in public and open forums.

1. **Women in leadership:** Significant efforts have been made in recent years to improve the numbers of women in leadership and management, including the government-sponsored Davies reports, work by the Women's Business Council, initiatives by the parliamentary Women and Equalities Select Committee, 30% Club actions, annual reports from the Women's Economic Forum, the Cranfield Female FTSE report, and others. The Hampton-Alexander review is the latest in a sustained legacy of efforts to improve the numbers of women leaders in the United Kingdom. However there are still only 52 women in leadership and managerial positions for every 100 men; at the current pace of change, it would take 224 years to reach parity in leadership. To accelerate progress, individual organisations should focus on practical actions to retain women and help them progress, informed by better use of analytics to understand female talent pipelines and why women drop out; find ways to increase the uptake of agile working by both men and women, including through the innovative use of technology; establish and strengthen return-to-work programmes; and take robust steps to crack down on discriminatory behaviour and create inclusive work environments. Tracking progress on goals for numbers of female leaders and prevalence of actions that improve the pipeline of women leaders and managers will help maintain momentum. While many of the public goals relate to women in the most senior positions, it is only by fixing the "leaky pipeline" that will enable organisations to retain and develop experienced and skilled women at all levels of leadership and management.

2. **Women in STEM:** Despite wide-ranging efforts to increase the numbers of UK women in STEM, there are still only 13 women working in STEM for every 100 men. To address this, schools, universities, and professional bodies need to redouble efforts to recruit more women and girls into the academic and vocational STEM pipeline by tackling gender stereotypes, showcasing role models, and engaging girls in STEM activities in and out of school. At the same time, individual STEM organisations should focus on retaining and developing female talent through agile working, return-to-work programmes, and activities that build inclusive work environments, while also tracking individual organisation and collective industry progress, with the help of professional and industry bodies.

3. **Childcare and unpaid care work:** UK women report spending an average of 23 hours each week caring for family members, most often children. In recent years, the government has introduced a number of measures to reduce the financial burden of unpaid care and childcare, yet 29 percent of women find that returning to work after having a child is not financially viable—twice the number of men who think the same thing. We acknowledge that the unpaid care work a person undertakes involves an important element of choice. Nevertheless, enabling more individuals who wish to

carry out paid work means making care more accessible by encouraging investment in care industry business and making it more affordable, potentially by adopting the Confederation of British Industry's 2014 recommendations to close the gap between free provision of childcare and statutory maternity pay. Ensuring sufficient childcare is particularly important to help teenage and single mothers into work.[66] At the same time, more can be done to help men and women share care responsibilities by supporting men who combine unpaid care work with their careers.

4. **Women in entrepreneurship:** In recent years, the UK government and other organisations have put significant resources into growing the numbers of women in entrepreneurship, through a combination of strategic support and financial backing. Their efforts are paying off; more women in the United Kingdom now run their own businesses than ever before. Fundamental to increasing the number of women entrepreneurs is helping them access startup capital, including by removing negative gender bias from the funding decision process and encouraging investment in less traditional sectors such as the care, education, and lifestyle sectors. Mentoring, access to networks, and targeted skill building can help female entrepreneurs scale their businesses. A visible goal for the number of women-led small and medium-sized enterprises supplying the government could also help drive momentum.

5. **Women in politics:** Stronger female representation in politics can create a stronger voice for issues that may be particularly relevant to women and can encourage more women to run for office. The United Kingdom has made progress in recent years, yet there are still only 35 women for every 100 men in politics. A review of global practices suggests that the United Kingdom might adopt UN guidelines on gender-sensitive political media coverage to help make the political culture more inclusive, as well as strengthening programmes to encourage and track women's progress through the pipeline from local to national politics.

6. **Violence against women:** Twenty-nine percent of women in the United Kingdom experience intimate partner violence in their lifetime. Apart from the physical and emotional toll this abuse takes on women and children—and the violation of fundamental human rights—there is a clear economic dimension: studies estimate that violence against women costs some £40 billion each year. Reducing violence against women requires a multipronged approach: prevention activities, including encouraging third parties to intervene to stop violence; survivor support to help women back into work and education; and steps to increase the likelihood of perpetrators being brought to justice. All of these actions need to be tracked and underpinned with robust data about the prevalence of violence against women.

7. **Social attitudes and mindsets:** Social attitudes towards gender parity tend to correlate with better pay for women, lower gender-based violence, and higher national GDP. The United Kingdom is just below the top quartile globally on progressiveness of social attitudes, with support for traditional gender roles declining over time. Yet some issues persist, and others, such as online bullying of women, may be intensifying. Changing social attitudes means addressing gender stereotypes in all media and across all ages and demographics, including tracking the impact of efforts to improve gender parity. Specific steps should include supporting campaigns that help build girls' self-esteem, promoting positive images of women in advertising, and improving the balance of women in the media, with a particular focus on fostering greater visibility for female experts.

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[66] A better off Britain: Improving lives by making growth work for everyone, CBI, 2014. (This report relies on analysis prepared in partnership with McKinsey & Company and with Abigail McKnight of the London School of Economics.)

Exhibit 15

A portfolio of prioritised initiatives for stakeholder groups to advance the three economic levers

Impact zone	Economic impact	Type	Actions	Primary driver: Government	Primary driver: Individual organisations	Primary driver: Other[1]
Women in leadership	Labour-force participation rate, hours, productivity	Understand	Use analytics to map the female talent pipeline and uncover the reasons for women dropping out		●	
		Address	Encourage uptake of agile working by addressing negative perceptions and using technology to foster new ways of working		●	
			Strengthen return-to-work programmes to help people maintain networks, skills, and knowledge during periods of care leave		●	
			Safeguard against bias in hiring and promotion by including "diversity spotters" for unconscious bias, blind CV screening, and leadership skill checklists		●	
			Eliminate discriminatory behaviour in the workplace and put robust disciplinary processes in place		●	
			Establish sponsorship schemes for undersupported talent, including women		●	
		Track	Track goals for the number of women in leadership and management positions; track improvements in the drivers of the female talent pipeline	●	●	
Women in STEM	Hours, productivity	Address	Recruit more women into STEM by improving its perception among young girls, showcasing inspiring role models and and raising interest through activities in schools and youth clubs	●	●	●
			Retain more women in STEM by putting special focus on agile working, return-to-work programmes, and inclusivity		●	●
		Track	Track individual and shared goals for the number of women entering and growing careers in STEM organisations and across industry	●	●	●
Childcare and unpaid care work	Labour-force participation rate, hours	Address	Help women entrepreneurs secure startup capital, including by removing negative gender bias from assessment of credit applications	●	●	●
			Make childcare more affordable including by extending free provision of childcare	●	●	
			Stimulate further investment in the care sector to increase the accessibility of care	●		●
		Track	Track effects of care policies on families' ability to afford care and allow more of those who wish to combine paid work and care to do so	●	●	●
Women in entrepreneurship	Productivity	Address	Help women entrepreneurs secure startup capital, including by removing negative gender bias from assessment of credit applications		●	●
			Expand mentoring schemes for women entrepreneurs, including helping them build customer and supplier networks	●	●	●
			Help women to grow existing businesses and become more productive through targeted skill building		●	●
			Support investment in entrepreneurship for industries outside of sectors traditionally viewed as drivers of growth, including the care, education and learning, and family and lifestyle sectors	●	●	●
		Track	Set and track goals for including women in SME contracting and spending by government	●		
Women in politics	Indirect contribution	Address	Follow UN guidelines for gender-sensitive media coverage to help make political culture more inclusive	●		●
			Build the pipeline of women in local and national politics through apprenticeship and mentoring programmes	●		●
		Track	Track number of women in all aspects of political life with particular focus on the pipeline between local and national politics	●		●
Violence against women	Indirect contribution	Understand	Collect reliable and comprehensive data on incidence of sexual, domestic, financial, and emotional abuse	●		●
		Address	Educate men and boys about behaviours that help reduce gender-based violence	●		●
			More widely publicise bystander initiatives to broaden the population prepared to intervene and help stop violence	●		●
			Improve tools (e.g., apps, gadgets) and skills training to be able to recognise, quickly respond to, and treat violence		●	●
			Ensure that victims are able to access legal counsel as well as emotional and practical support	●		●
			Work with legal system to increase likelihood of perpetrators being brought to justice	●		●
		Track	Track utilisation of facilities that provide support to victims and prosecution rates, and monitor at-risk women to ensure progress	●		●
Social attitudes	Indirect contribution	Understand	Conduct regular surveys of UK social attitudes to understand changing perceptions	●		●
		Address	Work with institutions with influence over young children to help them avoid and tackle limiting gender stereotypes	●	●	●
			Support campaigns to reduce self-esteem issues among young women and reduce negative stereotyping in advertising	●	●	●
			Improve the balance of women in the media, including greater visibility for experts who are women	●		●
			Create discussion forums for men and boys to contribute to the elimination of gender stereotypes and allow them to talk about their own experiences of negative social attitudes towards gender	●	●	●
		Track	Track changes in perceptions and analyse how progress in impact zones has made a difference	●		●

1 Third sector, industry bodies, schools, universities, political parties, and media.
SOURCE: McKinsey & Company analysis

Depending on the circumstances, various stakeholders can be the primary drivers of different sets of interventions, with government and other entities such as the third sector and industry bodies acting as coordinators of specific activities. Individual UK regions may prioritise different sets of actions depending on whether their challenge is principally to help women who choose to increase their participation in work, to facilitate women's access to their more productive sectors, or both. Bodies such as the parliamentary Women and Equalities Committee will act as overall focal points across all aspects of gender parity, but all groups will have a role to play in securing success. Each of the 35 interventions across the seven impact zones is discussed in more detail in the following sections.

ACHIEVING SUSTAINED CHANGE NEEDS TOP-LEVEL COMMITMENT AND A PARTNERSHIP APPROACH

In order to maximise the potential for future UK productivity and economic uplift, certain established factors have been shown to increase the likelihood of success, including:

Drive change from the top. Visible commitment from leaders in government and at the top of organisations combined with strong drives towards diversity and inclusion from middle management helps to model behaviours and encourage wider buy-in (see sidebar, "What can I do as a business leader?"). A 2012 survey of European companies found that, while 92 percent of companies had the CEO's commitment to drive gender equality, only 41 percent of respondents saw the commitment as well implemented.[67] Within organisations, individuals need to be held accountable for achieving success to ensure that action is sustained. In the United Kingdom, 72 financial services firms have signed a charter agreeing to link their own bonuses to the actions outlined in the Gadhia review on women's productivity.[68]

Involve women in diagnosing drivers and solutions. It is important that women are engaged in the diagnosis of gender equality issues, as noted in the United Nations Women's Empowerment Principles.[69] Focus groups and women's initiatives are powerful ways of allowing women to drive the change they want to see. After the UK retailer ASDA engaged female employees directly in the diagnosis and tackling of pervasive gender imbalance at senior levels, the number of female store managers increased by 4 percent, and the share of promotion-ready female employees almost doubled.[70]

What can I do as a business leader?

As employers and managers, business leaders have a special responsibility to help encourage gender parity. This starts with leading by example: by being vocal about the working practices that enable both male and female leaders to balance work and caring responsibilities, including taking advantage of available agile working programmes; by having visible involvement in diversity networks and programmes; and by personally holding their employees and colleagues to account for supporting organisational efforts to tackle structural and cultural barriers to parity of opportunity for both men and women. Institutionally, it is important not only to have a nominated individual with ownership of the parity agenda, but also to ensure that equality is seen as the responsibility of everyone within the organisation, and one that the organisation takes seriously in the way it recognises its people. Leaders are critical to setting a tone of inclusivity by personally helping to sponsor women, as well as men, in their career progression and by ensuring that inclusivity is an important feature of the way the organisation interacts with those outside it, including suppliers (particularly small businesses), customers, contractors, and search firms. As ever, all of this needs to be underpinned by data and good management information. Only by measuring the effect of their efforts on the organisation's pipeline of women managers and leaders over time will leaders be able to prioritise resources to the initiatives that have the greatest potential for impact.

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67 *Women matter: Making the breakthrough,* McKinsey & Company, March 2012.

68 This is a review of gender diversity, spearheaded by the chair of Virgin Money and driven through the government, which links transparent progress on gender diversity to City bonuses; HM Treasury and Harriett Baldwin, *72 firms sign up to new charter to link City bonuses to the appointment of senior women,* July 11, 2016.

69 Women's Empowerment Principles, United Nations, http://weprinciples.org/Site/ompaniesLeadingTheWay/.

70 Jane Nelson et al., *A path to empowerment: the role of corporations in supporting women's economic progress,* US Chamber of Commerce Foundation and Harvard Kennedy School, 2015.

Engage the right stakeholders, including men. Involving men in inclusive programmes for change is important for a variety of reasons. Men are often in positions of leadership and so vital to making change happen; their involvement also helps ensure that these issues are not seen as "women-only" matters. Involving men as women's partners, co-parents, colleagues, managers, and friends plays a critical role in the success of initiatives.[71] Schemes such as HeForShe and the Great Men Initiative are examples of men taking centre stage as role models and promoters of the diversity agenda, showing that men are part of the solution, not part of the problem.

Create partnerships to tap diverse skill sets. Engaging stakeholders from across sectors and industries can often be the initiative with the greatest impact. The Lord Davies Women on Boards report and the Cranfield Female FTSE 100 Index have appealed to a wide range of stakeholders in their efforts to increase the number of women on UK boards, and those stakeholders beat a 25 percent target set for 2015. After a number of campaigns engaging the UK government, police forces, third sector, and media, cases of domestic violence being reported rose by 31 percent between 2013 and 2015, likely due to the reach of these campaigns.[72]

Tackle multiple barriers simultaneously. Interventions tend not to have great impact in isolation; they are most effective as part of a broad, crosscutting action plan. Hundreds of companies in the UK have signed up for the government's holistic "Think, Act, Report" gender equality campaign and committed to understand, address, and track a broad range of interventions: 70 percent are now gathering more data, 59 percent are publishing more information externally, and 80 percent have conducted pay analyses.[73] Multifaceted plans combine short- and longer-term interventions to address immediate barriers at the same time that they create a more systemic change in attitudes. This approach also serves to address the fact that long-term cultural change is a crucial element of making progress stick.

Identify opportunities to scale solutions. Many of the gender parity interventions in the United Kingdom are already in place but are in need of greater scale and momentum. By tracking progress and correlations between specific actions and increased parity, stakeholders can coordinate to allocate resources to the actions with the greatest return. Creating collaboration between groups around recognition of the business case for parity can help create scale for the most impactful diversity programmes.[74]

•••

The opportunity to add £150 billion to 2025 GDP, address skill shortages, and close the United Kingdom's productivity gap with its peers makes gender parity a key priority for the future economy. Capturing this opportunity will require concerted action to improve gender equality across work and society by business, government, and other bodies, as well as new coalitions. This effort should focus on the seven identified impact zones to help women access a wider range of opportunities and choices and so create change that will benefit everyone.

In the impact zones that follow, we take a deeper dive into each of the seven areas of interventions, reviewing the current state of gender parity in each area and highlighting potential opportunities for action.

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71 *Engaging men in gender initiatives: What change agents need to know,* Catalyst, 2009.

72 *Increasingly everyone's business: A progress report on the police response to domestic abuse,* Her Majesty's Inspectorate of the Constabulary, 2015.

73 *Think, Act, Report: Mending the gap,* UK Government Equalities Office, 2014.

74 Frank Dobbin and Alexandra Kalev, "Why diversity programs fail", *Harvard Business Review,* July-August 2016.

IMPACT ZONE 1: WOMEN IN LEADERSHIP

SITUATION IN THE UNITED KINGDOM

The business case for increasing the number of women at senior levels of organisations has been widely recognised in the United Kingdom. Across Europe, listed companies with the highest proportions of women in senior leadership positions and at least two women on their boards have outperformed industry averages, with 10 percent higher return on equity, 48 percent higher earnings before interest and taxes, and 1.7 times the stock price growth.[75] This relationship is particularly strong in the United Kingdom, where research has shown that for every 10 percent increase in gender diversity on the executive team, earnings before interest and taxes rose by 3.5 percent.[76] Yet women are still underrepresented in leadership positions across UK regions. At 0.51, the national ratio of women in leadership relative to men is poor vs. comparable peers. For example, the United Kingdom lags such countries as the United States, Sweden, Norway, Australia, and Canada on senior management.[77] It is also behind France, Sweden, Norway, Italy, and Australia on board membership.[78]

Significant efforts have been made in recent years to improve the number of women in senior leadership. The 2015 Lord Davies Women on Boards review reported achieving a higher number of women on FTSE 100 boards than the 25 percent target set five years earlier, and in 2016 the parliamentary Women and Equalities Committee began to look beyond boards to executive positions.[79] Nevertheless, the proportion of women being appointed to FTSE 100 boards reached a five-year low between September 2015 and March 2016.[80] The extension of the target to 33 percent of women on FTSE 350 boards by 2020 will be an important next step to avoid losing momentum; however, future progress may be more challenging, as FTSE 250 and 350 companies have fewer women at senior levels than those in the FTSE 100, and ambitious goals have been set here as well.[81]

Crucially, although many of the public targets relate to the most senior positions, women in leadership is a "leaky pipeline" issue that affects all managerial and leadership levels, not just the very top.[82] Building a strong leadership bench and trajectory for women within organisations is important for the retention and development of experienced and skilled women across the workforce. In 2012 the Department for Business, Innovation and Skills showed how a deficit of management and leadership quality is likely to contribute to the productivity gap between the United Kingdom and other developed economies.[83]

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75 Stoxx Europe 600 Index; *Women Matter: Gender diversity, a corporate performance driver,* McKinsey & Company, 2007; Thomas Barta, Markus Kleiner, and Tilo Neumann, "Is there a payoff from top team diversity?" *McKinsey Quarterly,* April 2012.

76 *Why diversity matters,* McKinsey & Company, January 2015.

77 *The global gender gap report 2015,* World Economic Forum, November 2015.

78 Ibid. *Why diversity matters,* McKinsey & Company, January 2015.

79 *Women in executive management inquiry,* UK Women and Equalities Committee, 2016.

80 "Female UK board appointments hit five-year low", *Financial Times,* July 6, 2016.

81 *Unlocking the full potential of women at work,* McKinsey & Company, 2012; *The female FTSE Board report 2016: Women on boards: Taking stock of where we are,* Cranfield University School of Management, 2016; "BoardWatch: Tracking appointments of women directors to FTSE 100 and FTSE 250 companies", Professional Boards Forum, May 2016.

82 *Unlocking the full potential of women at work,* McKinsey & Company, 2012.

83 *Leadership and management in the UK—the key to sustainable growth,* UK Department for Business, Innovation and Skills, 2012; Nicholas Bloom et al., *Management practices across firms and countries,* National Bureau of Economic Research working paper number 17850, February 2012.

The Institute for Government and EY brought together stakeholders from across sectors in 2014 to explore how the leadership pipeline can be better built within Whitehall and the public sector.[84] Extensive research has investigated the causes of leadership inequality and potential solutions, all of which is as relevant to women in midlevel management positions as it is to FTSE 100 CEOs.[85] Indeed, if the targets for the most senior women are to be met, then the challenge is to ensure that women are supported throughout their managerial and leadership progression.

AREAS FOR ACTION

Understand

Use people analytics to make better decisions on the female talent pipeline. Individual companies and industries face unique challenges in recruiting, retaining, and promoting women. People analytics is a critical tool for managing talent pipelines; it draws on advanced human resources data to make better and fairer hiring, promotion, talent management, and retention decisions. It also helps companies make decisions based on their specific context and challenges. For example, Thomson Reuters used people analytics to discover that its biggest problem was midcareer retention rather than recruitment of female professionals. As a result, it has improved diversity at every level of the organisation.[86] Arts Council England pledged in 2015 to publish a report based on detailed data analysis of its workforce, audiences and organisations so that the council understands where its greatest diversity challenges lie, including how women are represented across seniority levels.[87] People analytics can also be used to understand which specific solutions can be most effective in improving levels of women in leadership positions (such as having a female manager and enabling women to work across different departments and geographies to gain credit and experience). It can also be used to diagnose disadvantages affecting women, created through informal networking with senior (often male) leaders that can benefit men more than women at work.[88] However, most UK companies do not undertake such analysis. While 86 percent of business leaders say they are deeply concerned about retention and engagement, only 17 percent of HR departments are using people analytics techniques to ensure that appropriate talent reaches senior levels.[89]

Address

Implement properly supported agile working schemes. Working women in the United Kingdom see balancing work and family as the greatest barrier to career progression, according to research by Opportunity Now.[90] In another study, women named a flexible working environment as the second-biggest differentiator of a good workplace and indicator of an attractive employer (after compensation).[91] There are multiple types of flexible working arrangements, including part-time employment, job sharing, and agile working (in which location and working hours can vary), that can be embedded into business-as-usual

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84 "Women leaders series: Building a talent pipeline", Institute for Government, July 22, 2014.

85 For example, the 30% Club published research for its members and the public on the key structural barriers stopping women from rising to senior levels in business, and Business in the Community's Opportunity Now campaign is working with employers to address them at a faster pace. For more details, see www.30percentclub.org/resources/research-articles and www.gender.bitc.org.uk/about-opportunity-now/campaign-aims.

86 Christine Ashton, *How Thomson Reuters uses data to boost gender diversity in IT,* www.computing.co.uk, July 13, 2016.

87 "Equality and diversity data", Arts Council England, www.artscouncil.org.uk/diversity-data.

88 Evan Bloom et al., *Strengthening networks: Using organizational network analysis to promote network effectiveness, scale, and accountability,* World Bank Institute capacity development brief number 28, August 2008; Herminia Ibarra, Robin J. Ely and Deborah M. Kolb, "Women rising: the unseen bariers", *Harvard Business Review,* September 2013.

89 "Only 17% of HR professionals are using analytics technology, despite 73% admitting its importance", www.onrec.com, September 1, 2015.

90 *What holds women back? Women and men's perceptions of the barriers to women's progression,* Opportunity Now, December 2010.

91 *Workforce mindset study: Key findings on what differentiates, what rewards, and what communicates,* AON, 2015.

working practices.[92] Agile working can allow more women to hold full-time positions and still play a meaningful part in family life, as well as creating value for companies through efficiency and retention.[93] In its impact assessment on the rollout of flexible working to all employees, the government estimates that, in its first ten years, the new policy will bring overall economic benefits of some £475 million through promoting greater efficiency, higher employee productivity, and lower absenteeism.[94]

The main issue in the United Kingdom appears to be not an absence of agile working schemes being offered, but rather poor adoption rates by employees. While 94 percent of British organisations have flexible working arrangements, only 19 percent of UK working women are actually able to vary the hours they work, the Institute for Public Policy Research found.[95] Many organisations do not publicise their agile options, relying on employees to submit requests—yet employees can struggle to ask for or receive permission to use them, with negative perceptions about the choices threatening career progression.[96] In 2014, the government extended flexible working rights to all, but one-third of UK managers have heard colleagues make derogatory remarks about agile workers, and almost half say that flexible schedules for workers cause resentment in teams.[97]

Employers can promote adoption by making agile choices available as part of normal practice rather than waiting for employees to request them. It is equally important to ensure that such programmes are available to and taken up by both male and female employees. Currently, male employees are only one-third as likely as their female peers to work less than full time.[98] Digital technologies can be used to create new flexible working models that are an accepted choice for all employees, and companies can reap real business benefits. For example, virtual call centres—such as those used by the AA, The Co-operative Travel, and English Heritage—let employees work from home wherever possible and offer multiple benefits. In addition to providing advantages such as reduced running costs for employers, they were found to reduce employee churn (which can be up to 40 percent in traditional centres), reduce employee travel time by 15 percent, increase satisfaction, and facilitate the attraction of higher-quality talent from a wider geographic pool.[99] Creating collaboration across industries and sectors to share agile working strategies, the Agile Future Forum encourages connections between businesses to allow members to enjoy benefits equivalent to 3 to 13 percent of workforce costs, with the potential to increase that by a further 3 to 7 percent, and in some instances to see a sales uplift of 11 percent.[100] BT, Eversheds, Ford, KPMG, Tesco, and TSB are among the UK companies generating a business benefit through the encouragement of agile working.[101]

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92 *Property in the economy: Agile working,* Royal Institute of Chartered Surveyors, June 2009.

93 *Modern workplaces consultation: Government response on flexible working,* HM Government, November 2012.

94 *Business benefits of flexible working,* Department for Business, Innovation and Skills and Jenny Willott, 2014.

95 *Flexible working: Goodbye nine to five,* Institute of Leadership and Management, 2013; *Women and flexible working,* IPPR, 2014.

96 Emma Stewart et al., *Building a sustainable quality part-time recruitment market,* Joseph Rowntree Foundation, 2012; "Chartered Institute of Personnel and Development, September 9", 2016; Shweta Khare, "Part-time workers face promotion discrimination", Careerbright, January 2007.

97 Ibid. Institute of Leadership and Management, *Flexible working,* 2013.

98 *Women and work: The facts,* Business in the Community, 2012.

99 "Future travel virtual call centre", www.flexibility.co.uk.

100 "The launch of the Agile Future Forum", Norman Broadbent, June 23, 2013; Understanding the economic benefits of workforce agility, Agile Future Forum, June 2013.

101 "Flexible working report: Key points", The Telegraph, June 23, 2013.

Return-to-work programmes

Seventy percent of professional women are anxious about taking a career break because of the difficulties they expect to face on their return, according to a 2014 London Business School survey.[102] Seventy-seven percent of women in the United Kingdom report discrimination following maternity leave, with many exchanging the promotion track for a position that is "non-promotable" after leave.[103] This is a problem because proven success in a P&L role is often a hiring criterion for a senior position. Only 6 percent of all CEOs on the S&P 500 Index previously held a non-P&L position, and non-P&L divisions (such as support functions and compliance) typically employ more senior women because of their greater degree of flexibility and predictable working hours.[104]

Holistic support throughout career breaks is critical to ensuring that women are treated fairly following time off. Yet only 5 percent felt they had been supported through returning by their HR department, according to research by the National Childbirth Trust.[105] The most successful programmes combine support before and during leave to maintain clients, professional networks, and strategic knowledge, with reintegration activities to ensure a successful transition back into the workplace. Working Families created a "pocket guide" for managers to explain the process of parental leave and encourage employers to think about how to tackle challenges throughout the process, built around a clear business case.[106]

One solution growing in prevalence is the "returnship" for women rejoining the workforce after a prolonged absence. Companies in the financial services sector piloted the concept in 2008, and many companies have since followed suit, offering return-to-work programmes as part of recruiting talented women.[107] KPMG's programme recruits externally by offering coaching, client-facing work, and networking,[108] while HitReturn offers cross-company returnships in partnership with Centrica, Mars, Vodafone, and Women Returners. PwC's "Back to Business" programme resulted in 75 percent of the first cohort taking on permanent roles.[109] In addition to individual organisations that offer return-to-work options, others have stepped in to further support women returners with information and networking opportunities. Reed hosts free Career Break CV templates on its job-search website, with advice and tips for women to present their skill set and position it at its best.[110] The consultancy Women Returners offers a free networking service for women on maternity leave or career breaks to exchange advice and tips with others, as well as supporting businesses that want to build stronger return-to-work programmes internally.[111] Mumsnet has spawned multiple campaigns and initiatives aimed at creating better opportunities, and its job pages for women on career breaks are frequently used by companies such as Barclays, PwC and Tesco.[112] Collaboration across STEM organisations is also attracting increasing numbers of women, with Equate Scotland, Prospect (the trade union for engineers), and Skills Development Scotland pioneering career clinics in person and online to help reintroduce men as well as women following career breaks.[113]

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[102] *Women in Business Conference survey,* London Business School, 2014.

[103] *Pregnancy and maternity-related discrimination and disadvantage: Final reports,* Department for Business, Innovation and Skills and Equality and Human Rights Commission, March 2016.

[104] *Women in financial services,* Oliver Wyman, 2014.

[105] *The experiences of women returning to work after maternity leave in the UK,* National Childbirth Trust, 2008.

[106] *A pocket guide for managers: Pregnancy, maternity leave and a successful return to work,* Working Families, 2012.

[107] For details of returnships offered in the United Kingdom, see http://wrpn.womenreturners.com/returnships/

[108] Women's initiatives at KPMG LLP, KPMG, 2014; www.hitreturn.co.uk.

[109] "PwC expands return to work scheme to bring more talented women back into the workplace", press release, PwC, July 18, 2016.

[110] Michael Cheary, "Career break cover letter template", reed.co.uk.

[111] http://wrpn.womenreturners.com/

[112] Mumsnet is a UK parents' network that now has over 90 million page views and 19 million visits a month. "Mumsnet launches new flexible working job site", Recruitment Grapevine, May 18, 2015; www.mumsnet.com/campaigns.

[113] "Pioneering project helps women return to STEM careers", Our Skillsforce, April 29, 2016.

Build safeguards against bias into systems and processes. In addition to facing structural barriers such as lack of childcare, women are disproportionately less likely to be promoted than men.[114] Some researchers have found that this is true even where women's performance ratings are the same as men's or higher.[115] There is evidence that underlying biases can cause decision makers to act based on stereotypes rather than on objective criteria.[116] Many companies with UK arms have successfully implemented unconscious bias training, including Airbnb, Pinterest and Slack.[117] However, unconscious bias training alone is no longer sufficient; while many companies have training in place, it has been shown to have little effect on changing behaviours, and it can even have adverse effects on diverse promotions by drawing attention to difference.[118] Making individuals accountable for calling out bias is a sustainable way to temper the effects of unconscious prejudice on HR outcomes in the workplace over time.[119] A good example is Google, where employees are encouraged through "Unconscious Bias @ Work" programmes to recognise and call out discrimination.[120] A related initiative is to include "spotters" in hiring and promotion meetings to flag bias and establish objective criteria for making decisions. Studies have found that evaluators are statistically more likely to hire men for roles involving stereotypically male skills such as mathematical tasks even over better-qualified women—and that men were less likely to be favoured for roles involving literature skills.[121]

Blind or automated CV screening can be effective in addressing gender bias at the entry level. A professional services firm automated CV screening and found a 15 percent increase in the number of women admitted through the process.[122] For senior appointments, encouraging evaluators to discuss a checklist of the leadership skills they are looking for in advance, and reviewing candidates' CVs next to those of individuals who previously held the position (rather than in isolation), can help to highlight the attributes that are genuinely relevant for the role as opposed to biases resulting from "confirmation" or "availability" heuristics.[123]

Eliminate discriminatory behaviour in the workplace. It is important to stamp out other discriminatory behaviour that may hold women back at work. Research has shown that a "boys' club" culture still promotes discriminatory biases against UK women in some lines of work.[124] A study by the Trades Union Congress and Everyday Sexism Project found that 52 percent of women have experienced unwanted behaviour at work (including groping, sexual advances, and inappropriate jokes).

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[114] *Women in the workplace,* LeanIn.Org and McKinsey & Company, 2015.

[115] Julian Barling and Cary L. Cooper, eds., *The SAGE handbook of organizational behavior, volume one: Micro approaches,* SAGE Publications, 2008.

[116] Max H. Bazerman, George Loewenstein, and Sally Blount White, "Reversals of preference in allocation decisions: Judging an alternative versus choosing among alternatives", *Administrative Science Quarterly*, 1992, Stephen M. Nowlis and Itamar Simonson, ""Attribute-task compatibility as a determinant of consumer preference reversals", Journal of Marketing Research, volume 34, number 2, May 1997; Kahneman et al., "When more pain is preferred to less: Adding a better end", *Psychological Science*, volume 4, number 9, November 1993, Christopher K. Hsee et al., "Preference reversals between joint and separate evaluations of options", *Psychological Bulletin*; volume 125, issue 5, September 1999).

[117] Polina Marinova, "Unconscious bias training", Not a silver bullet", Fortune, October 12, 2015.

[118] Ibid. Frank Dobbin and Alexandra Kalev, "Why diversity programs fail", 2016.

[119] Ibid. Polina Marinova, "Unconscious bias training: October 12, 2015.

[120] Brian Welle, "Watch unconscious bias @ work", re:Work, http://rework.withgoogle.com/guides/unbiasing-raise-awareness/steps/watch-unconscious-bias-at-work/.

[121] Iris Bohnet, Alexandra van Geen, and Max H. Bazerman, *When performance trumps gender bias: Joint versus separate evaluation,* Harvard Business School working paper number 12-083, March 2012.

[122] Henri de Romrée, Bruce Fecheyr-Lippens, and Bill Schaninger, "People analytics reveals three things HR may be getting wrong", *McKinsey Quarterly,* July 2016.

[123] Ibid. Iris Bohnet et al., *When performance trumps gender bias,* March 2012; Iris Bohnet, *What works: Gender equality by design,* Harvard University Press, 2016; Daniel Kahneman, *Thinking, Fast and Slow,* Farrar, Straus and Giroux, 2011.

[124] Lydia Smith, "United Nations: Britain ravaged by sexism because of boy's club culture", *International Business Times,* April 15, 2014; "Sexual harassment rife in the workplace: New study reveals", press release, Slater and Gordon, October 23, 2013.

The proportion was 63 percent among younger women.[125] Appointing office ombuds for employees to contact regarding inappropriate conduct, and tasking individuals with calling out discriminatory actions and use of vocabulary, can help—especially when combined with robust processes for dealing with inappropriate incidents.

Create a truly inclusive environment that helps women to thrive. Sponsors, who act as champions to help junior colleagues succeed as well as providing mentorship, can be hugely impactful in helping men and women to progress. They confer a statistical career benefit that ranges from 22 to 30 percent by helping individuals to secure pay rises and the assignments needed for progression.[126] In the United Kingdom, women with sponsors are 58 percent less likely to say they plan on quitting their jobs within a year, yet men are 46 percent more likely than women to have a sponsor.[127] Schemes such as EY's "Career Watch", Cisco's "Inclusive Advocacy", and PepsiCo's "Power Pairs", as well as the English National Ballet's "She Said" programme create supported opportunities for women and other diverse groups to find inspiring sponsors from a variety of backgrounds and make the most of their relationships.[128] The Equality Challenge Unit has also highlighted the benefit of mentoring in higher education careers.[129]

Track

Set a goal against which to track and publicise progress towards achieving it. Transparent tracking helps create a goal to work towards and serves as a method of incentivising progress. Following the publication of each Lord Davies report, there has been a spike in female board appointments.[130] Organisations can consider a variety of statistics, including hard metrics, such as outcomes across the leadership pipeline and adoption rates for various programmes, and soft metrics, including employee satisfaction and attitudes. Performance against these could be linked to management incentives.

Financial institutions including Barclays, HSBC, Lloyd's, and RBS have signed up for the voluntary Gadhia review—spearheaded by the chair of Virgin Money and driven through the government—which links transparent progress on gender diversity to City bonuses.[131] Following the recommendations of the 2011 Lord Davies review and 2014 independent Sweeney review, the business secretary announced in 2014 a new code of conduct for executive search firms to pledge to support organisations in reaching gender diversity targets.[132] The Bloomberg Financial Services Gender-Equality Index uses gender diversity metrics to inform investor decisions, offering public access to statistics for multiple companies. This information not only enables investors to channel money into diversity efforts and see the financial benefits, but can also be used to compare specific gender equality measures against overall representation to assess impact.

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[125] *Still just a bit of banter? Sexual harassment in the workplace in 2016,* Trades Union Congress and Everyday Sexism Project, 2016.

[126] *The sponsor effect: Breaking through the last glass ceiling,* Center for Work-Life Policy, December 2010; Sylvia Ann Hewlett, Melinda Marshall, and Laura Sherbin, *Sponsor effect 2.0: Road maps for sponsors and protégés, Center for Talent Innovation,* 2012.

[127] Ibid. *The sponsor effect: Breaking through the last glass ceiling,* Center for Work-Life Policy, December 2010.

[128] "About us: A diverse and inclusive workforce", EY; "Inclusive Advocacy Program", Cisco, 2010; "Pepsico Inc.—women of color multicultural alliance", Catalyst, January 2007; "What's on: She Said", English National Ballet, 2016.

[129] *Mentoring: Progressing women's careers in higher education,* Equality Challenge Unit, April 2012.

[130] Christian Doherty, "How to get more women on board", *CIO Australia*, March 19, 2012.

[131] HM Treasury and Harriett Baldwin, *72 firms sign up to new charter to link City bonuses to the appointment of senior women,* July 11, 2016.

[132] The enhanced voluntary code of conduct for executive search firms: Davies review accreditation, Department for Business, Innovation and Skills, 2014.

Bloomberg found that investing in the firms that have performed best for gender diversity over the past ten years would have generated a total return of 238 percent, outperforming the S&P 500 average by 141 percent.[133]

The gender pay gap

The pay gap between men and women in the United Kingdom has stood at around 19 percent for the past four years, and it needs to be further understood and tracked.[134] A recent study shows that at current rage of progress, it will take up to 2069 to close the gender pay gap, or 99 years after the 1970 Equal Pay Act.[135] Although it has shrunk over time, the gap is largely due to the presence of dependent children and associated barriers to working, the Institute for Fiscal Studies said in 2016. For each year a mother spends out of the workforce, she faces a "penalty" of a 4 percent wage reduction on her future earnings.

Although progress has been made on pay gap analyses in the United Kingdom, more can be done to create transparency around the pay rates for comparable work. The parliamentary Women and Equalities Committee has unveiled plans for a 2018 league table ranking companies' gender pay gaps as part of the government's promise to eliminate the gap within a generation; this will shed light on the reality of the disparity for work in similar occupations and sectors.[136] While legislation and individual organisations can help to eliminate pay inequality, continued publication and tracking of comparable pay rates will be important to ensure that a reduction in barriers to mothers working also helps to eliminate the pay gap.

[133] Vignesh R S and Constantin Cosereanu, "A gender-focused strategy beat the S&P 500 by 141 percent", Bloomberg, June 16, 2016.

[134] *Gender pay gap: Second report of session 2015–16,* House of Commons Women and Equalities Committee, 2016.

[135] www2.deloitte.com/uk/en/pages/press-releases/articles/deloitte-analysis-without-action-gender-pay-gap.

[136] Government Equalities Office and Nicky Morgan, Nicky Morgan: Nowhere left to hide for gender inequality, February 12, 2016.

IMPACT ZONE 2: WOMEN IN STEM

SITUATION IN THE UNITED KINGDOM

One of the most severe talent shortages in coming years will be in the STEM sector. Over half of STEM businesses already see a shortfall in experienced, skilled staff, and experience difficulties in recruiting people with relevant skills at every level.[137] Meeting the shortfall is critical for the UK economy because STEM-related industries are also the most productive. Energy and water; manufacturing; transport and communication; and, to an extent, banking, finance, and insurance all depend on STEM graduates and workers. Professional, scientific, and technical jobs will see high growth, and enterprises investing heavily in innovation will require higher proportions of STEM graduates.[138] The Royal Academy of Engineering projected in 2012 that over one million new STEM workers would be required by 2020; EngineeringUK has reported that Britain currently experiences an annual shortfall of at least 55,000 people with engineering skills, and the gap is worsening every year.[139]

There have been many efforts to address the shortage of women in UK STEM. The engineering sector in particular has already done much to recruit talent, with at least 600 different organisations working to attract more young people, alongside schools, universities, and cross-organisation industry bodies such as Women in Science and Engineering, which has 140 institutional members.[140] Despite all of these efforts, women make up only 14 percent of the STEM workforce overall.[141] The proportion of women in engineering jobs estimated to be only 10 percent; and female representation in architecture, construction, technology, and computer science is similarly low.[142] However, public administration, education, and health have been more successful (see sidebar, "Women in STEM in the health-care sector"). Industry bodies are emerging as the coordinators of industry- and sector-wide efforts to attract and retain more women in STEM that otherwise risk being overly fragmented, with Women in Science and Engineering and the Royal Academy of Engineering "Ten Steps" towards better diversity across STEM organisations in 2015.[143] Sustaining and increasing cross-industry efforts to understand, address, and track women in STEM fields will help to create the necessary focus on the areas experiencing the biggest need for female talent.

While most countries experience a "leaky pipeline" in STEM careers, girls in the United Kingdom are moving away from studying pertinent subjects earlier in life, resulting in the lowest proportional representation in the STEM workforce in Europe.[144] According to STEM experts, the issue is not one of girls' competence, but of choice and availability of opportunity.[145]

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137 CBI and Pearson, *Inspiring growth: The education and skills survey 2015,* July 2015.

138 *Working population survey,* ONS, 2005–2015; Hugh Smith, *STEM review: The science, technology, engineering, maths supply chain,* The Council for Industry and Higher Education, March 2007.

139 Matthew Harrison, *Jobs and growth: The importance of engineering skills to the UK economy,* Royal Academy of Engineering, September 2012.

140 *The UK STEM education landscape,* Royal Academy of Engineering, May 2016; Women in Science and Engineering (WISE), www.wisecampaign.org.uk/membership.

141 *Women in the UK STEM workforce,* WISE, September 7, 2015.

142 *The state of engineering,* EngineeringUK, 2015.

143 Industry led ten steps, WISE, 2014.

144 *STEM: The infamous leaky pipeline,* EUROfusion, March 18, 2016; Eleanor Muffitt, "The 'leaky pipeline' of women in science", *The Telegraph,* February 14, 2014; *Women in scientific careers: Sixth report of session 2013–14,* House of Commons Science and Technology Committee, February 2014; Women's Engineering Society (2014) *Women in engineering: statistics on a page,* 2014.

145 Lizzy Woods, "We asked an expert why girls don't study STEM subjects", *The Tab,* July 12, 2016; Phoebe Parke, "Ask the experts: How do we get girls into STEM?" CNN, October 27, 2014.

Women drop out of the pipeline disproportionately at every stage: throughout school, college, and apprenticeships, during tertiary education, and through their careers.[146] Almost half of boys who obtain an A* grade in GCSE Physics go on to take the subject at A level, but the same is true for only one in five girls.[147] At the same time, while apprenticeships in business, administration and law, and health, public services, and care are on the rise, there are still very few available in engineering and manufacturing or in construction.[148]

AREAS FOR ACTION

Understand

Explore the reasons women are not entering certain areas of the STEM pipeline. There are two areas in which the United Kingdom needs greater visibility and understanding of gender trends in STEM. First, few girls than boys are entering STEM at a young age, and fewer young people overall place value on STEM subjects compared with their peers in other parts of the world.[149] Studies show that the paucity of girls choosing STEM options is likely linked to confidence, as boys are already more comfortable with maths than girls at age 10; by age 14, girls' confidence has declined still further.[150] They drivers for this are not yet fully understood. Second, more can be done to analyse why some specific areas of STEM have had much greater success in attracting and retaining women than others. Third-sector organisations such as The King's Fund (a non-profit think tank helping to shape health- and social-care policy) and media such as Fast Company have conducted surveys of female health-care workers from across organisations to understand what is working well and not so well for them. In 2013, the ASPIRE project was set up to conduct longitudinal studies of children's attitudes towards STEM. The findings suggested that boys were likely to associate science capital with masculine versions of intelligence, while girls who define themselves as "girly" are highly unlikely to pursue science at present, though they were more likely to be interested in medicine.[151] Further investigations of this nature will help shed light on what else the United Kingdom can do to build a stronger female STEM pipeline.

Address

Recruit more women into STEM education. A number of issues have been identified that affect the recruitment of girls into STEM in the United Kingdom. Female students cite gender stereotypes dictating that girls do not belong in STEM fields as discouraging them from choosing STEM from a young age.[152] At the same time, studies have found that girls' anxiety around testing in subjects such as mathematics is higher than that of boys.[153] Eighty percent of girls and young women say the science and technology sector is lacking high-profile female role models, and 30 percent of girls have cited worries about sexism in the workplace as a reason not to pursue a career in science or engineering.[154] Some girls also report perceiving STEM fields as "dull".[155]

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[146] *Women in science, technology, engineering and mathematics: The talent pipeline from classroom to boardroom: UK statistics 2014,* WISE, July 2015.

[147] Institute of Physics, *It's different for girls,* 2013; Elizabeth Truss, "A gender gap that simply doesn't add up", *The Telegraph,* December 8, 2013.

[148] Ibid. Royal Academy of Engineering, *The UK STEM education landscape,* 2016.

[149] *Studying STEM: What are the barriers?* Institution of Engineering and Technology, 2008.

[150] Lydia Dishman, "Why are these 3 STEM fields dominated by women?" *Fast Company,* April 13, 2015.

[151] *ASPIRES: Young people's science and career aspirations, aged 10–14,* King's College London, 2013.

[152] *The future of food manufacturing: Feeding a sustainable skills pipeline,* Mondelez International, 2014.

[153] Ibid. Royal Academy of Engineering, *The UK STEM education landscape,* 2016; Selin Erturan and Brenda Jansen, "An investigation of boys' and girls' emotional experience of math, their math performance, and the relation between these variables", *European Journal of Psychology of Education,* volume 30, issue 4, December 2015.

[154] *Continuing to power economic growth: Attracting more young women into science and technology 2.0, Accenture,* 2015; *Girls' attitudes survey 2011,* Girlguiding, 2011.

[155] Ibid. Mondelez International, *The future of food manufacturing,* 2014.

Efforts, therefore, need to start at school and there are a number of good examples of effective action to build on. STEM Learning and Northern Ireland Curriculum offer web-based resources for teachers as well as school and college leaders to make STEM fields exciting and provide clear, attractive career paths within the bounds of the national curriculum.[156] Universities could look to participate in schemes such as OpenCourseWare for STEM, in which international universities are encouraging more women and diverse groups to take online qualifications in STEM and use Internet resources as a way in.[157] Partnerships such as Project ENTHUSE bring together organisations across sectors to participate in funded development programmes for teachers to improve the quality of STEM teaching in schools.[158]

Individual organisations are helping to address this issue by recruiting 30,000 volunteer "STEM Ambassadors", drawn from a wide range of careers and companies, to help schools and other young people's facilities make STEM subjects more exciting and the possibilities they create more tangible.[159] Similarly, third-sector initiatives such as Dr Marily Nika's Women in Computing group's community hackathons, the London Geekettes hub for raising female interest in technology, and groups such as Women 2.0, Code First: Girls Stemettes, and Geek Girl Meetup are working to encourage more young women to take part in innovative STEM activities such as coding competitions and hackathons in a fun setting.[160]

In the private sector, organisations such as General Electric and National Grid offer career advice, focussing their messages around cutting-edge renewable energy and robotics, and adapting their publicity to demonstrate a more inclusive version of STEM to help inspire girls. Encouraging these activities to take place in a coordinated way across sectors will help drive more deep-seated change to show that STEM "isn't just about men in hard hats", in the words of the chief executive of EngineeringUK.[161] Collaboration across organisations and stakeholder groups can also increase the effectiveness of efforts to recruit women into STEM. Jaguar LandRover has offered sponsorship and outreach opportunities in conjunction with WISE, Women in Engineering, and others in order to bring more young women into the sector, and a number of mobile phone and telephony companies including BT, Ericsson, O2, and Vodafone have launched a networking programme called "Step into STEM".[162] The media also affect young people's propensity to choose STEM subjects, and there is an opportunity to showcase more women in scientific and technical roles.[163]

Retain more women in STEM careers. In addition to being less likely to enter STEM fields through study and apprenticeships, women are also more likely to leave careers in these fields. Even when enrolled in special mentoring programmes, women in STEM have higher attrition rates than their male colleagues.[164] Several factors drive this trend, including

[156] "STEM works," Northern Ireland curriculum, Council for the Curriculum, Examinations and Assessment; www.opencourseware.eu/STEM; "Project ENTHUSE", STEM Learning; "STEM ambassadors", STEM Learning; "Dr Marily Nika: Winner of the WISE Influence Award 2015", WISE, November 12, 2015; www.geekettes.io; www.women2.com; www.codefirstgirls.org.uk; www.stemettes.org; www.geekgirlmeetup.co.uk.

[157] www.opencourseware.eu/STEM.

[158] www.stem.org.uk/project-enthuse.

[159] www.stemnet.org.uk/ambassadors.

[160] www.wisecampaign.org.uk/inspiration/2015/11/dr-marily-nika, 2015; www.geekettes.io; www.women2.com; www.codefirstgirls.co.uk; www.geekgirlmeetup.co.uk; www.stemettes.org.

[161] *Evaluation of Tomorrow's Engineers core funded activities 2015: key findings,* EngineeringUK, May 2016; Bernadette Ballantyne, "Tomorrow's Engineers week: Engineering isn't just about men in hard hats", Infrastructure Intelligence, November 2, 2015.

[162] "Best practice case study project: Jaguar Land Rover", The Royal Society; Alex Scroxton, "Telecoms firms launch Stem mentoring scheme for girls", Computer Weekly, March 3, 2016.

[163] Ibid. Mondelez International, *The future of food manufacturing,* 2014.

[164] *National assessments and benchmarking of gender, science, technology and innovation,* Women in Global Science and Technology and Organization for Women in Science for the Developing World, 2012.

a lack of provisions for women to negotiate STEM careers alongside caring responsibilities, inadequate return-to-work support, and an insufficiently inclusive environment.

While many of these factors apply to other types of organisation, STEM organisations have a particular need to focus and invest. In 2014, *Prospect* science magazine asked its female readers about the single most important change employers could make; the response was more flexible working hours and arrangements.[165]

Employers that have taken effective action to retain women include Bechtel, which reduced female resignations from 20 percent in 2013 to 9 percent in 2015; it achieved a 13 percent rise in the female graduate population in 12 months by conducting a detailed Six Sigma analysis of gender data, introducing speed mentoring whereby women were offered frequent opportunities to find senior supporters, and establishing family focus groups to concentrate attention on areas for improvement. The number of women engineers Bechtel now employs is twice the national average, and almost 40 percent of its engineers working on CrossRail are women.[166] The Royal Air Force has also made progress by extending the time during which women are protected from deployment after giving birth, providing support during career breaks, and introducing a new mentoring programme in partnership with Airbus, the Royal Aeronautical Society, and the University of the West of England. Women now fill over 35 percent of the organisation's senior management courses, 16 percent of officers are women, and 14 percent of the entire workforce is female.[167]

Track

STEM sectors lag others in setting targets for improving the representation of women and tracking progress against them: 63 percent of employers surveyed by the Institute of Engineering and Technology do not have guidance in place to measure diversity.[168] Targets will need to be set at the recruitment stage for universities and workplaces as well as for promotion and leadership representation in work. Positive developments to build on include Talent 2030's dashboard to monitor progress in the manufacturing, engineering, and software sector pipelines; the campaign has set targets of 30 percent of women at the undergraduate and 25 percent at the postgraduate level by 2030.[169] The government's "Your Life" campaign also brings together organisations from all STEM sectors around a set of goals, one of which is targets for shortlists and nomination pools for awards and fellowships.[170] Professional bodies also have an important role to play in tracking the entry and progress of women throughout STEM organisations, as well as by providing recommendations on what they observe to be the most effective interventions to make improvements.

[165] Institute of Engineering and Technology (2015) *Progressing women in STEM roles.*

[166] www.wisecampaign.org.uk/inspiration/2015/11/bechtel.

[167] www.workingfamilies.org.uk/employers/case-studies/shared-parental-leave/royal-air-force

[168] *Engineering and technology skills and demand in industry 2015 survey,* Institution of Engineering and Technology, 2015.

[169] www.ncub.co.uk/what-we-do/dashboard.html.

[170] www.yourlife.org.uk.

Women in STEM in the health-care sector

Public administration, education, and health is the only sector in the UK economy in which women hold more managerial positions than men. Although men are concentrated at the most senior levels within health care, the sector has higher representation of women throughout all leadership levels than many others.[171] Women make up 47 percent of the executive directors of National Health Service (NHS) trusts, which is far ahead of other sectors, and hold 38 percent of non-executive NHS roles.[172] In December 2015 women accounted for 90 percent of nurses, 57 percent of medical students, 67 percent of GP registrars, 70 percent of salaried GPs, and 41 percent of GP partners.[173] The health-care pipeline is strong—women have represented over 50 percent of medical school entrants since 1992—and is sustained by working practices that enable women to have children and remain in their careers whether in the public or the private sector.[174]

In the public sector, hospitals across the country have flexible working options that both men and women use. The NHS provides extensive childcare offerings, with crèches and nurseries at a number of hospital sites.[175] The NHS Leadership Academy offers an internal mentoring and support programme for employees returning from breaks in a way that frames the issue as one of supporting parents rather than just mothers.[176] Across organisations, Disruptive Women in Health Care UK connects leaders from the health-care world with innovators in technology, business, and politics to share experiences, discuss issues such as pay and policy, and provide opportunities for networking and debate.[177]

[171] Michael West et al., *Making the difference: Diversity and inclusion in the NHS,* The King's Fund, December 2015.

[172] Action not words—making NHS boards more representative, UK National Health Service, 2016; NHS accused of disgraceful failures in progressing women and ethnic minorities, CIPD, 22 August, 2016; Under-representation of BME community in NHS disgraceful, Guradian, 21 August 2016.

[173] *A workforce in crisis? The UK nursing labour market review 2015,* Royal College of Nursing, 2015.

[174] Action not words—making NHS boards more representative, UK National Health Service, 2016; NHS accused of disgraceful failures in progressing women and ethnic minorities, CIPD, 22 August, 2016; Under-representation of BME community in NHS disgraceful, Guradian, 21 August 2016.

[175] "Childcare in the NHS", NHS Employers, September 17, 2015.

[176] www.leadershipacademy.nhs.uk.

[177] www.disruptivewomen.net/uk.

IMPACT ZONE 3: CHILDCARE AND UNPAID CARE WORK

SITUATION IN THE UNITED KINGDOM

The most significant components of unpaid care work—domestic work such as looking after others, cooking, and cleaning in the home—include childcare and caring for other family members such as elderly parents and relatives with disabilities. Projections suggest that the amount of unpaid care needed will more than double in the next 30 years as the population ages.[178]

UK women report spending an average of 23 hours each week caring for family members, most often children, compared with 10 hours reported by men.[179] This disparity in unpaid care work is higher in the United Kingdom than in many developed-nation peers.[180] This has a direct impact on women's ability to participate in the workforce; a decrease from five to three hours of unpaid care work a day has been found to correlate with a ten-percentage-point increase in the female labour-force participation rate.[181] At the same time, increases in men's levels of unpaid care work internationally correspond with decreases in women's unpaid care work and increases in female labour-force participation.[182]

The cost of care is a particular barrier to work in the United Kingdom, where parents spend 33 percent of their net household income on childcare, against an OECD average of 13 percent.[183] Because women earn significantly less than men, 29 percent of women report that returning to work after having a child is not financially viable—twice the number of men who say the same thing.[184] Consequently the employment rate for mothers with their youngest child aged three to five years old stands at 60 percent in the United Kingdom, below the OECD average of 66 percent,[185] with maternal employment in London 15 percentage points lower than the UK average.[186] There are many skilled women who stop work because of childcare costs, but young single mother face even higher... Young single mothers face even higher barriers (see sidebar, "Teenage pregnancy and single parenthood"), and having a second child can have a serious impact on the ability of mothers in low-earning families and low-skilled mothers to work.[187] The Institute for Public Policy Research estimates that if 300,000 more women with children under the age of five worked full time, the increased number of workers would raise almost £1.5 billion in extra tax extra tax credits to assists with childcare.[188] That is before the well documented benefit of good quality early years childcare on children's outcome in life.

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178 *The gender gap in unpaid care provision: Is there an impact on health and economic position?* ONS, 2013.

179 *British social attitudes: The 30th report,* NatCen Social Research, 2013.

180 *Ibid. CBI, A better off Britain, 2014.*

181 *Unpaid care work: The missing link in the analysis of gender gaps in labour outcomes,* OECD, 2014.

182 *Doing better for families,* OECD, 2011.

183 Deepta Chopra, *A feminist political economy analysis of public policies related to care: A thematic review,* Institute of Development Studies, 2013. Member nations of the OECD constitute many of the world's most advanced countries as well as leading developing economies.

184 Donna Ferguson, "The want-to-work mothers trapped at home by prohibitive cost of childcare" (based on National Childbirth Trust data for *The Observer), The Guardian,* October 5, 2015.

185 Ibid. CBI, A better off Britain, 2014.

186 Donna Ferguson, "The want-to-work mothers trapped at home by prohibitive cost of childcare" (based on National Childbirth Trust data for *The Observer), The Guardian,* October 5, 2015.

187 Marion Leturcq and Claudia Hupkau, *Fertility and mothers' labor supply: new evidence using time-to-conception* (working paper), February 2016.

188 Dalia Ben-Galim and Spencer Thompson, *Childmind the gap: Reforming childcare to support mothers into work,* IPPR, 2014.

Balancing work and unpaid care is deeply personal, and not all women with caring responsibilities also want to do paid work. Nevertheless, the Department for Education found that 54 percent of mothers who do not work outside the home said they would like to if they could obtain convenient, reliable, and affordable childcare.[189] The effect is intensified for the less well-off: nearly half of low- to middle-income mothers identified a lack of affordable, quality childcare and an inability to combine full-time work with caring responsibilities as barriers to working full time.[190]

The UK government has already made efforts to reduce the financial burden of unpaid care and childcare. The annual spend on childcare support—for schemes such as tax credits, employer childcare vouchers, and universal credit—has been estimated at 0.4 to 1 percent of GDP.[191] In 2015, the government announced a plan to further reduce barriers for working parents and thus increase labour-force participation and employment across the UK: doubling the free childcare entitlement for three- and four-year-olds to 30 hours a week from September 2016, plus a lifetime cap on elderly care costs of £72,000.[192]

AREAS FOR ACTION

Understand

Measure time spent on unpaid care and the way it is distributed. Quantifying the disparity between men and women is critical to understanding which kinds of intervention will have most impact. Over time, reports such as the Household Satellite Accounts[193] and British Social Attitudes survey have worked to track the amount of unpaid care work done by men and women, and continued efforts of this kind across the population would allow recognition of caring work so that it can be reduced and better redistributed to allow women's fuller participation in the economy.[194]

Address

Create provisions for more equal sharing of care between men and women. In 2015 the United Kingdom introduced a shared parental leave scheme. It provides two weeks' paid leave for both fathers and mothers, with the remaining 50-week allowance—39 weeks of which are paid—to be split according to parental choice. Yet a year after the provisions were introduced, only 1 percent of fathers were taking advantage of the additional time; over 40 percent of companies had not seen any male employees using the programme. Survey respondents cited a lack of support for the scheme from employers, fears about negative effects on fathers' careers or negative financial impact, and a pervasive cultural resistance to change. Employers were equally concerned about the cost of further supporting employees; nearly 60 percent felt the costs of enhancing shared parental pay were inhibiting.

To tackle this, efforts to change perceptions to encourage the sharing of care will be necessary. First, taking active steps to support men who take parental leave as well as agile working schemes to balance caring responsibilities with work is important; currently, 44 percent of fathers report lying to their bosses in order to spend time at home.[195] For example, organisations can consider encouraging senior men in business and government departments to take parental leave, then offer them as role models to publicise new parental leave provisions as genuine options. In 2015, the Duke of Cambridge took six weeks' parental leave from his air ambulance pilot duties following the birth of his second child,

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189 *Childcare and early years survey of parents: 2012 to 2013,* Department for Education, 2014.

190 "The high price of motherhood", press release, Resolution Foundation, February 9, 2012.

191 *First report—Affordable childcare,* House of Lords Select Committee on Affordable Childcare, February 2015.

192 *Fixing the foundations: Creating a more prosperous nation,* HM Treasury et al., 2015.

193 Household satellite accounts: 2005 to 2014, ONS, April 7, 2016; British Social Attitudes, NatCen Social Research.

194 *Shared parental leave: The perspective from employers,* Working Families Briefing, January 2016.

195 The modern families index 2015, Bright Horizons and Working Families, January 2015.

while in the US Mark Zuckerberg, CEO of Facebook, took two months off after his first child was born; both were the subject of extensive media coverage.[196] Iceland, Norway, and Sweden have addressed some of these issues by introducing protected paternity leave and paternity leave quotas.[197] All have higher female labour-force participation and gender equality scores across a number of social indicators than the United Kingdom. None of this is without cost, but it must be considered in the overall context of an investment in boosting the number of women in the workforce and the potential increase in GDP that comes with it. To help make the case, third-sector organisations and HR departments could take on the role of tracking the uptake of shared parental leave and its effects on the retention and progression of female employees.

Thus far, care leave initiatives have largely applied to childcare, but care for the elderly is likely to grow in importance as the population ages. Carers UK is calling for a mandatory period of paid care leave of five to ten days for adult care, and in 2016 Deloitte announced 16 weeks of fully paid "family leave time", which can be used to avoid caregiving responsibilities interrupting employees' careers.[198] Santander also introduced an early extension of shared parental leave to grandparents to create additional working flexibility for parents, an arrangement that is believed to be the first of its kind in the United Kingdom.[199]

Make care services more affordable. Because of the cost of childcare in the United Kingdom, many people consider it more economically viable to care for their children themselves rather than to work outside the home, with almost half of UK mothers calling lack of affordable childcare the major barrier to working.[200] The cost of childcare is rising. The cost of a part-time place for a child under two was £119 per week (for 25 hours Nursery) in 2016, an increase of 20 percent since 2011. This is set against backdrop of 70 percent of the UK households experiencing falling market income over the period 2015-16.[201]

Government support for childcare to encourage both parents to work has been seen to induce higher female labour-force participation. Canada reduced the tax contribution of the second earner in a family, and this resulted in an increase in labour-force participation among women.[202] Approaches vary across Europe: for example, the Danish state offers to pay at least 75 percent of care costs for young children, whereas Spain offers little in terms of universal payments but instead has a high level of tax concessions.[203] Alongside free hours for 3 and 4 year olds, the UK government provides free childcare for two year olds from lower-income backgrounds and will offer up to £2,000 tax relief per child through the upcoming Tax-Free Childcare scheme. The scheme will launch in 2017, and will replace the existing employer supported childcare voucher scheme. It will be available to families where both parents work, either in employment or self employment, as well as support lower-income families of up to 85% of childcare costs through Universal Credit. The Family and Childcare Trust describes the public funding of childcare in the United Kingdom as complicated compared with many other developed countries.[204] In 2014, the Confederation of British Industry called for the government to simplify how it supports families with childcare as well as to close the gap between free provision of childcare and statutory

196 Gordon Rayner, "Royal baby: Duke of Cambridge gets six weeks paternity leave after finishing air ambulance training early", The Telegraph, April 21, 2015; "Mark Zuckerberg to take 2-month paternity leave", Financial Times, November 21, 2015.

197 Emma Jacobs, "Shared parental leave: The fathers bringing up baby", Financial Times, March 13, 2016.

198 www2.deloitte.com/us/en/pages/about-deloitte/articles/press-releases/deloitte-announces-sixteen-weeks-of-fully-paid-family-leave-time-for-caregiving.htm

199 "Santander: The Centrica best for modern families award 2016 finalist", Top Employers for Working Families.

200 *Quality childcare: Improving early years childcare,* Policy Exchange, 2013.

201 *Poorer than their parents? Flat or falling incomes in advanced economies, McKinsey Global Institute, July 2016.*

202 Evridiki Tsounta, Why are women working so much more in Canada? An international perspective, IMF 2006.

203 Employment, social affairs and inclusion: Denmark—child care, European Commission, 2016; Colette Fagan et al., Women and European employment, Routledge, 2015.

204 Jill Rutter, 2016 Childcare Survey, Family and Childcare Trust, 2016.

maternity pay. Specifically it suggests offering 15 hours of free childcare to all children aged one and two, extending statutory maternity pay from 39 to 52 weeks and aiming to further increase the number of hours of free childcare in time. [205] It suggests making its recommendations fiscal neutral by reducing the qualifying cap for Tax-Free Childcare, and estimates that these changes could result in an increase in the female employment rate of 2-6% over the medium term.

Alongside government, employers can support parents with childcare costs, and could be incentivized to do more. At present, employers can provide tax-deductible on-site crèches, which can give employees with small children flexibility and help build employee loyalty, engagement and efficiency. [206] The taxi company Addison Lee found that implementing a "babies in the office" initiative providing on-site childcare for infants under age one had the effect of increasing employee loyalty.[207] However, on-site childcare does not work for all companies, particularly for employers based in urban locations such as Central London where employees commute long distances to work. Providing employers with further flexibility in the type of tax-deductible childcare support they are able to offer could help expand their ability to target the specific challenges that their workforces face in combining work and family responsibilities.

Make care services more accessible. The United Kingdom is facing a shortage of care services. According to the Family and Childcare Trust, under half of local authorities in England, Wales and Scotland reported that they had enough childcare for working parents, with fewer than 10 percent reporting sufficient childcare for parents with atypical working patterns.[208] The Public Accounts Committee reported in 2016 that there was a growing risk of child minders and nurseries not offering the extended 30 hours of childcare announced by the government because of concerns that they would be unable to make ends meet.[209] Similarly, while there has been extensive work on the part of the government to increase care provisions, concerns have been raised about a shortage of carers and care homes for the elderly.

Detailed observations of national investment in a number of countries show that considering care services a core part of social infrastructure can plausibly be seen as a growth opportunity, as opposed to a drain on resources. Research has found that investing 2 percent of GDP in care services could create 1.5 million jobs, generate £20 billion in GVA (1.8 percent of total national output), and significantly increase the availability of care.[210] Government one-off grants worth as much as £1,000 are currently available. Yet low margins and difficulties securing capital funding and credit make starting and expanding care services (especially childcare) difficult, particularly in deprived areas.[211]

Track

Monitor the effects of different care policies over time. Care policies, particularly in relation to childcare, have seen several changes in recent years. Better tracking of trends over time would allow policies to be set in the most effective way. Cohort analyses have revealed the extent to which caring arrangements affect families and children socially as well

[205] Ibid. A better off Britain, CBI, 2014.

[206] www.brighthorizons.co.uk/solutionsatwork/workplace-nurseries/investing-in-a-workplace-nursery.

[207] *Babies in the office,* Working Mums, February 3, 2014.

[208] Jill Rutter, 2016 Childcare Survey, Family and Childcare Trust, 2016.

[209] *Entitlement to free early years education and childcare: Fourth report of session 2016–17,* House of Commons Committee of Public Accounts, 2016.

[210] *Investing in the care economy: A gender analysis of employment stimulus in seven OECD countries,* International Trade Union Confederation and Women's Budget Group, March 2016.

[211] Jill Rutter, 2016 Childcare Survey, Family and Childcare Trust, 2016.

as economically.[212] UK childcare policy has been prioritised on the basis of research into socioeconomic outcomes, so more consistent tracking of the effects of different policies could help future governments to make more informed decisions.[213]

Teenage pregnancy and single parenthood

Barriers created by lack of affordability and access to childcare services are higher for teenage mothers and single parents. The cost burden of childcare is likely to fall particularly heavily on single parents, and teenage mothers are also more likely to be lone parents, which intensifies the cost threat.[214] Almost half of single parents in the United Kingdom had to borrow money from family, friends, or lenders to pay for childcare costs between 2013 and 2015, and only 11 percent of single parents had not found childcare to be a barrier to working, according to Gingerbread, a charity for the support of single parents.[215] While this is usually taken into account in income-assessed childcare support, it is particularly important that single parents are able to work if they want to, in order to support themselves and their children. The cost of offering single parents further childcare support could be assessed against the possible economic benefit of allowing these parents to work. Gingerbread has suggested that local authorities lend single parents the upfront guarantee deposits often required by nurseries, so that the parents can enter a new job and keep up with childcare costs before their first salary payment—a scheme that has been endorsed by the mayor of London.[216]

While teenage pregnancy rates have almost halved in the past ten years, and births among women aged 40 and over have risen above those aged under 20 for the first time since 1947, this issue remains a significant hurdle for mothers' full participation in the economy.[217] Teenage mothers are statistically less likely to work as many hours as women who have children at an older age, and less likely to work at all. A concerted government strategy to address the issue, and the proliferation of contraceptive information and services via the Internet, has significantly reduced UK teenage pregnancy levels, with particularly high reductions in the areas with the most teenage conceptions two decades ago.[218] At the same time, third-sector organisations like Extended Family are offering financial assistance to single parents and their children.[219] It is important that this momentum continues, coupled with recognition that young mothers may need additional training and upskilling, as well as child support or flexible arrangements, to allow them to reach their full potential in work.

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[212] Elizabeth Cooksey et al., "Does mothers' employment affect children's development? Evidence from the children of the British 1970 birth cohort and the American NLSY79", *Longitudinal and Life Course Studies,* volume 1, number 1, 2009; Delma Byrne, *The influence of childcare arrangements on child well being from infancy to middle childhood,* Irish Research Council and Tusla, the Child and Family Agency, 2015; Ingrid Schoon et al., *Wellbeing of children: Early influences,* Nuffield Foundation, April 2013.

[213] Mike Brewer et al., "Reforms to childcare policy", in *The IFS green budget,* Robert Chote et al., eds., Institute for Fiscal Studies, 2005.

[214] www.maternal-and-early-years.org.uk/topic/pregnancy/teenage-pregnancy

[215] *Paying the price: The impact of the Summer Budget on single parent families,* Gingerbread, October 2015.

[216] *Upfront: A childcare deposit guarantee,* Gingerbread, 2016.

[217] *Conceptions in England and Wales: 2014,* ONS, 2016.

[218] Sophie Arie, "Has Britain solved its teenage pregnancy problem?" *BMJ,* April 2014; *Areas with highest conception rates among under-18s in England and Wales,* ONS, 2014.

[219] www.extendedfamily.org.

IMPACT ZONE 4: WOMEN IN ENTREPRENEURSHIP

SITUATION IN THE UNITED KINGDOM

Entrepreneurship helps stimulate economies through innovation and productivity growth: 51 percent of annual labour productivity growth during 2000–08 was the result of innovation, whether directly or through general competition and spillover effects that saw new firms encourage innovation in existing firms.[220] The UK government and other organisations have put significant resources into growing the number of women in entrepreneurship in recent years, through a combination of strategic support and financial backing. The Department of Trade and Industry's Strategic Framework for Women's Enterprise, in collaboration with the Prowess women in business hub and drawing on research from the Women's Business Council (a body established in 2012 to advise the government on optimising women's contribution to economic growth), has helped to inform strategy regarding women in enterprise.[221] The government has made efforts to help women entrepreneurs through financial support, including the Aspire Fund—a £25 million investment pool for women-led businesses jointly funded by government and the private sector—and a £1 million challenge fund for broadband accessibility to help women grow their businesses online. In 2015 the government Ambassador for Women in Enterprise laid out an action plan to help women become entrepreneurs, focussing on inclusive thinking and breaking down barriers.[222]

These efforts have paid off: the UK startup rate has increased at a record pace in recent years, particularly in London, and now stands ahead of the rates in peer nations.[223] The United Kingdom ranks ninth on the 2016 Global Entrepreneurship Index and has more women involved in enterprise than many of its comparable peers; the country was fifth on Dell's Global Women Entrepreneur Leaders Scorecard for 2015.[224] This ranking is based on the current ecosystem of women in leadership, policies supporting women entrepreneurs, and breakthrough initiatives. More women in the United Kingdom run their own businesses than ever before, and the number of women in self-employment has risen 40 percent in eight years; in contrast, the percentage of self-employed men has risen by only 13 percent.[225] In 2012, women-led small and medium-sized enterprises (SMEs) contributed £75 billion to UK GVA.[226]

Overall, the number of women entrepreneurs remains low compared with men. Women hold a majority stake in around one in five of all businesses, and they are one-third less likely than men to start a business.[227] Yet while progress is slow, the pipeline of women is

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220 Zoltán J. Ács and László Szerb, *The global entrepreneurship index (GEINDEX),* Jena economic research papers 2009-028, 2009; Annual Innovation Report, Department for Business, Innovation and Skills, 2012; Kitty Ussher and Nida Broughton, *Good for growth: Refocusing entrepreneurship policy,* Social Market Foundation, 2013.

221 *A strategic framework for women's enterprise,* UK Department of Trade and Industry, 2003; *Maximising women's contribution to future economic growth,* Women's Business Council, June 2013.

222 Lorely Burt, *Inclusive support for women in enterprise: The Burt report,* Department for Business, Innovation and Skills, February 2015.

223 *How entrepreneurial was the UK in 2015?* Centre for Entrepreneurs and Startup Britain, January 2016.

224 *Global entrepreneurship index,* Global Entrepreneurship and Development Institute, 2016; *Global Women Entrepreneur Leaders Scorecard,* Dell, 2015.

225 *Unlocking the potential of female entrepreneurs,* Government Equalities Office and Nicky Morgan, March 2015; *Women in enterprise: The untapped potential,* Federation of Small Businesses, 2016.

226 *Chris Rhodes, Business statistics, House of Commons briefing paper number 06152, December 7, 2015.*

227 Alice Enders and Claire Enders, *Women at work in the UK,* Enders Analysis, 2014; Lorely Burt, *Inclusive support for women in enterprise: The Burt report,* Department for Business, Innovation and Skills, February 2015; United Kingdom profile, Global Entrepreneurship Monitor, 2014.

growing, and there are far more women entrepreneurs in the under-35 age bracket than in older demographics.[228] Research also suggests that women tend to make very good entrepreneurs: research shows that they are considered to be more calculated risk-takers, less likely to be overconfident, and to take a longer-term view of business than men.[229]

AREAS FOR ACTION

Address

Support women to secure the capital they need to start businesses. Access to credit is historically one of the greatest challenges female entrepreneurs face; specifically, gaining access to venture capital and other private funding can be more challenging for women than for men.[230] This is for two reasons: research shows that women entrepreneurs are likely to ask for significantly lower funding for their businesses, and they are less likely to receive it when they do ask.[231] In fact, a Harvard Business School study has shown that investors tend to prefer entrepreneurial ventures pitched by men.[232] As a result, men start their businesses with nearly twice as much capital as women.[233] Among digital startups, men's businesses are 86 percent more likely to be funded by a venture capital firm than women's, and 59 percent more likely to secure angel investment.[234]

Researchers believe this preference may be due to stereotyping: the characteristics that many still look for in a business leader tend to correlate with traits traditionally considered "masculine", such as aggressiveness, independence, competitiveness, and risk taking—a perception that remains despite the fact that recognition and research into women's particular entrepreneurial and leadership talents has begun at a larger scale.[235] To overcome this, and to identify talented women entrepreneurs, financial institutions can better ensure that their assessment processes do not unfairly disadvantage women. The Government Equalities Office has worked with the British Bankers' Association, Council for Mortgage Lenders, and Building Societies Association to develop a broad joint stakeholder action plan to do so. The plan includes recommending that the Financial Conduct Authority develop tighter regulations to ensure that women have fair access to capital, and the Bankers' Association carrying out more creative outreach activities to provide capital to businesswomen.[236] Banks could also take the distinctive requirements of women into account in their credit ratings; they currently tend to ignore career breaks, women's lower overall levels of asset ownership, and the fact that women have a higher overall likelihood of repaying debt.[237]

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[228] *Beyond the first business: The myths, risks and rewards of being a serial entrepreneur,* Coutts and Centre for Entrepreneurs, February 2016.

[229] Techpro, *Reasons why women make better entrepreneurs than men,* BusinessZone, 2016.

[230] Elizabeth J. Gatewood et al., *Women entrepreneurs, growth, and implications for the classroom,* Coleman Foundation white paper series for the United States Association for Small Business and Entrepreneurship, 2004; *Benchmarking enterprise policy: First results from the scoreboards,* European Commission staff working document, October 2000; *Young women, ethnic minority and co-entrepreneurs,* Centre for Enterprise and Economic Development Research, 2001; Maija Palmer, "Access to finance remains a problem for female entrepreneurs", *Financial Times*, March 31, 2015.

[231] Sharon Poczter and Melanie Shapsis, *Know your worth: Angel financing of female entrepreneurial ventures,* May 2016.

[232] Alison Wood Brooks et al., "Investors prefer entrepreneurial ventures pitched by attractive men", *Proceedings of the National Academy of Sciences,* volume 111, number 12, March 2014.

[233] *Startup DNA (see Shivvy Jervis, "Why women entrepreneurs are far less likely to be funded", The Guardian, August 6, 2015).*

[234] Access to capital by high-growth women-owned businesses,National Women's Business Council, 2014.

[235] Sarah Thebaud, "Why are there so few women entrepreneurs?" *Newsweek*, March 9, 2015; Justine E. Tinkler et al., "Gender and venture capital decision-making: The effects of technical background and social capital on entrepreneurial evaluations", *Social Science Research*, volume 51, May 2015; Startup DNA (see Shivvy Jervis, "Why women entrepreneurs are far less likely to be funded", *The Guardian,* August 6, 2015).

[236] *Banking on women: An action plan to open up access to finance for women,* UK Government Equalities Office, June 2013.

[237] *Bridging the enterprise gap: Strategies to support socially excluded women into self-employment,* Prowess, 2004; Katharine Esty, *Five reasons why Muhammad Yunus focuses on lending to women,* Impatient Optimists blog, Bill & Melinda Gates Foundation, January 10, 2014.

Offer support networks and mentoring schemes to help women get started. Eighty-three percent of women who have started their own business have known someone else who has done so.[238] The Cherie Blair Foundation, in partnership with mentoring specialists Clutterbuck Associates, has developed an online platform where mentors and protégés can find each other and share best practices.[239] After appearing on the TV programme *Dragons' Den* with her own successful business, Naomi Timperley set up Enterprise Lab with partners she met through social media, and she now works with young people to provide mentorship and advice for budding entrepreneurs. In its first year, the initiative reached out to 18,500 young people.[240] Organisations such as the British Association of Women Entrepreneurs coordinate networking events for members to form new connections.[241] The UK government-backed Get Mentoring project in connection with the Institute of Enterprise and Entrepreneurs has run a series of successful roadshows aimed at women new to enterprise.[242] Programmes such as Entrepreneur First also help young people build companies from scratch with community to support and learn from. There is also a role for existing private-sector companies to play in helping nurture startups led by women. Larger businesses could provide access to their customer bases or supply chains for small businesses in return for the opportunity to add up-and-coming female innovators to their networks. In the United States, 70 percent of small businesses increased in revenue and size within two years of becoming part of a larger company's corporate supplier base.[243]

Help existing women entrepreneurs grow their businesses. Women entrepreneurs do not lack the ambition to expand. A new report from the Centre for Entrepreneurs shows that, of existing entrepreneurs, 82 percent of men and 83 percent of women are very or extremely interested in growing their business. Larger businesses are more productive and profitable, yet women entrepreneurs are more likely to own smaller businesses than men: 92 percent of women surveyed by Coutts gave the turnover of their most recent business as under £500,000, compared with 59 percent of men, while 30 percent of men cited turnover of £1 million and above, a category with no women.[244] Women entrepreneurs need to be provided with the opportunities to scale their businesses. This will involve targeted skill building, to help women feel confident to pursue on their enterprise ambitions. While women and men rate their existing business-related skills equally, many more women see themselves as needing to acquire more knowledge and gain a higher level of skills in order to achieve further growth.[245]

Consider focusing government investment in innovation on female talent. While government growth agendas are often focussed on more traditionally male-driven industries such as construction and transport, evidence is emerging that investment in more typically female-driven businesses can be at least as profitable for the economy; many of the United Kingdom's fastest-growing women-led SMEs operate in areas such as care, education and learning, family, and lifestyle.[246]

For example, 2016 research from the Women's Budget Group shows that investing 2 percent of GDP in care industries could create 1.5 million jobs—double the number from the

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238 J. Waring and J. Brierton, *Missing the market: The untapped growth potential of UK women entrepreneurs,* 2010.

239 www.cherieblairfoundation.org/mentoring-programme-skill-building.

240 *Entrepreneurs: What can we learn from them? Part 2/3: Inspiring female entrepreneurs,* Chartered Institute of Personnel and Development, 2013.

241 www.bawe-uk.org/about.

242 Department for Business, Innovation and Skills and Michael Fallon, "Business mentors are ready and waiting to support SMEs", press release, January 30, 2013.

243 Mark Foggin, *Giving small firms the business,* Center for an Urban Future, 2011.

244 Coutts and Centre for Entrepreneurs, *Beyond the first business,* 2013.

245 Ibid.

246 *Fortuna 50: The UK's fastest growing women-led small businesses,* Centre for Entrepreneurs, 2016.

equivalent level of investment in physical infrastructure—and the investment would largely pay for itself.[247] Innovate UK is launching a new government-sponsored initiative, infocus, to attract women to the core areas of UK innovation, and participation includes access to valuable innovation hubs and capital.[248] The initiative's definition of innovation is currently concentrated in manufacturing, infrastructure, technology, and sciences—and it could be expanded to include investment in social infrastructure.

Track

Consider setting government goals for including women in SME contracting and spending. The US government has set aside 5 percent of federal contracting dollars to be awarded to women-owned small businesses (a target that was reached in 2016).[249] Previous research has shown that bringing the number of UK women-owned businesses up to the level of the United States could add as much as £42 billion in GDP to the economy.[250] The UK government set a goal in 2014 to designate £1 out of every £3 spent on central government contracts for SMEs by 2020, having exceeded the previous parliament's target of 25 percent in 2015.[251] It could consider extending this effort to include a target for women-owned or women-led SMEs. To support these targets, data on the number of women participating in key roles in new businesses could be collected through Local Enterprise Partnerships and Enterprise Zones and shared publicly to track progress against goals.[252] For instance, the Annual Business Population estimates published by the government calculate the number of businesses of varying sizes in the United Kingdom and could be extended to track the number of women-led businesses within these categories.[253]

[247] Ibid. *Investing in the care economy,* International Trade Union Confederation and Women's Budget Group, 2016.

[248] "Women in innovation: Apply for infocus funding award"; InnovateUK, May 26, 2016.

[249] "SBA: Federal government breaks contracting record for women-owned small businesses", press release, US Small Business Administration, March 2, 2016.

[250] Home Office and Theresa May, *The Home Secretary's speech on women and the economy,* November 4, 2011.

[251] Cabinet Office, Matt Hancock, and Crown Commercial Service, *Big opportunities for small firms: Government set to spend £1 in every £3 with small businesses,* August 27, 2015; "Government 'exceeds SME spending target'—Cabinet Office figures", Civil Service World, December 7, 2015.

[252] *2010 to 2015 government policy: Local Enterprise Partnerships (LEPs) and enterprise zones,* Department for Business, Innovation and Skills, May 2015.

[253] Ibid. Federation of Small Businesses, *Women in enterprise,* 2016.

IIMPACT ZONE 5: WOMEN IN POLITICS

SITUATION IN THE UNITED KINGDOM

Greater female representation in politics can create a stronger voice for issues that may be particularly relevant to women and can encourage other women to run for office. For example, an international study found that higher numbers of women in parliament correlated with a higher spend on education as a share of GDP, and female legislators have been found to be more likely than their male counterparts to speak about social issues and propose and prioritise laws affecting women, children, and families.[254] In the United States, female citizens are typically better informed and more active in politics if they are represented by a woman senator.[255]

The United Kingdom has made progress in recent years, with a number of women currently holding senior political positions. The 2016 cabinet includes women in close to half its roles for the first time.[256] In 2015, there were 29 percent women MPs, 32 percent women in local authorities, and 34 percent women members of the European Parliament. The number of women in the House of Commons rose by a third in the 2015 election, with all major parties seeing increases through activities ranging from electoral shortlists to women's support and networking groups.[257] Over 25 percent of House of Lords appointments made between 1997 and 2015 were women.[258] The parliamentary Women and Equalities Committee was set up in 2014 on behalf of the government as a whole to identify interventions to create inclusivity.[259] An inquiry into maintaining and improving the number of women in the House of Commons is due for publication in autumn 2016.

However, women's representation in UK politics is still low compared with peers in Western Europe; only France, Greece, Ireland, and Luxembourg lag behind the United Kingdom on the proportion of women in parliament.[260] Fewer women enter politics than men, and a smaller proportion makes the move from local to national politics.[261] The role of women in politics remains a global impact zone; for example, women account for less than 5 percent of mayors globally, according to the World Bank Group.[262] Most countries that have achieved a high level of female representation in national parliament have used a combination of outreach activities to address women's willingness to enter politics and some form of positive action to ensure results. Belgium, Norway, Spain, and Sweden—countries with between 36 and 45 percent women in parliament—have all adopted

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254 Li-Ju Chen, "Female policymakers and educational expenditures: Cross-country evidence", European Journal of Comparative Economics, January 2009; Luke Blaxill and Kaspar Beelen, *"Women in parliament since 1945: Have they changed the debate?",* History & Policy, 2016; *"Why women? The impact of women in elective office", Political Parity, 2015.*

255 Kim L. Fridkin and Patrick J. Kenney, "How the gender of US senators influences people's understanding and engagement in politics", *Journal of Politics,* volume 76, number 4, 2014.

256 Steven Swinford, "Women to make up nearly half of Theresa May's reshuffled Cabinet", *The Telegraph,* July 12, 2016.

257 We need more women in Parliament, 14 March 2016, Siobhain McDonagh MP, March 14, 2016.

258 UK Parliament data; McKinsey & Company analysis

259 "Role—Women and Equalities Committee", UK Parliament, June 3, 2015.

260 Inter-Parliamentary Union, Proportion of seats held by women in national parliaments, World Bank 2015; also see Electoral gender quota systems and their implementation in Europe, Directorate General for Internal Policies of the Union, European Parliament, September 2008

261 Peter Allen, "Gendered candidate emergence in Britain: Why are more women councillors not becoming MPs?" Politics, volume 33, issue 3, October 2013.

262 Voice and agency: Empowering women and girls for shared prosperity, World Bank Group, 2014

either party or electoral quotas, while Denmark and Finland have relied on informal party mechanisms to reach their high historical levels of women in parliament.[263]

AREAS FOR ACTION

Address

Change the culture of British politics to be more inclusive for women. A study of UK citizens found that political interest is higher among men (61 percent) than among women (45 percent), and that only 46 percent of women feel they know at least a fair amount about the UK Parliament, compared with 58 percent of men, although this gap has narrowed in the past ten years.[264] One of the reasons women report a lower inclination to run for office is the portrayal of female politicians in the media. Media coverage of female politicians is often found to be either overtly sexist or diminishing their political voice, and this perception is growing more prevalent over time.[265] Studies have found that, despite the increasing number of women in UK politics, coverage of them in the media has shrunk: they are less likely to appear in an article whose main focus is politics, and less likely to be quoted in their own words, than 20 years ago.[266] While the number of female politicians increased by 144 percent over that period, the number of times they were quoted dropped by 35 percent. Gender-sensitive coverage of elections is a recommendation made by the United Nations, which suggests that women and men be provided with equal amounts of airtime and press coverage.[267] (For a broader discussion of the portrayal of women in the media, see "Impact zone 7: Social attitudes and mindsets".)

Bring more women from local to national politics. Evidence indicates that there is no meaningful difference in the ambition of male and female MPs once they reach the House of Commons, with 60 percent of both genders stating an ambition to attain a ministerial position.[268] However, the transition between local and national politics is one that women make less often than men: while local councils are usually "fertile breeding grounds" for future MPs—with up to 63 percent of new MPs having previously been local councillors—women are much less likely to make the transition.[269] Female local councillors are also more likely to drop out after one term; once these women leave politics, they are less likely to pursue other political careers.[270] One reason for this may be that men in local politics are more likely to be encouraged to aspire to the national level. The Northern Ireland Assembly has suggested that women not feeling they have a place in politics and not being encouraged to join parties is a key barrier to entry.[271] There are a number of good domestic and international examples of actions to combat this, which could be expanded. The Bristol Lord Mayor Clare Campion-Smith's 2015 campaign to bring more women into politics has a goal to raise the representation from 34 to 50 percent.[272] Programmes such as the Speaker's Internships are actively exposing diverse talents to politics at national level.[273]

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[263] Electoral gender quota systems and their implementation in Europe: Update 2013, European Parliament, 2013.

[264] Audit of Political Engagement, Electoral Commission and Hansard Society, 2016.

[265] Sexism in the media coverage of Theresa May, Media Diversity Institute, July 19, 2016; How sexist is the media coverage of women in politics? Empowering Women, Hearst UK, 2016; The election campaign's invisible women, Fawcett Society blog, April 30, 2015; Deirdre O'Neill and Heather Savigny, "Female politicians in the British press: The exception to the 'masculine' norm?" *Journalism Education,* volume 3, number 1, 2014.

[266] Deirdre O'Neill and Heather Savigny, How are female politicians represented in the press? Political Insight blog, Political Studies Association, November 25, 2013.

[267] *Women and elections: Guide to promoting the participation of women in elections,* United Nations Office of the Special Adviser on Gender Issues and Advancement of Women, March 2005.

[268] Sarah Childs and Philip Cowley, in Sarah Childs, New Labour's Women: women representing women, 2004

[269] Ibid. Peter Allen, "Gendered candidate emergence in Britain", 2013.

[270] Peter Allen, "Last in, first out: Gendered patterns of local councillor dropout", *British Politics*, volume 8, issue 2, June 2013.

[271] *Report on women in politics and the Northern Ireland Assembly,* Northern Ireland Assembly and Executive Review Committee, 2015.

[272] Laura Churchill, "Bristol campaign to get more women councillors", *Bristol Post*, July 15, 2015.

[273] Speaker's Internship Scheme, The Creative Society, 2015.

The scheme offers nine-month paid placements in parliament to young people from diverse backgrounds; in 2015, 40 percent of the interns were female. Internationally, Melbourne University in Australia uses its Pathways to Politics programme to access female graduate students and alumni and provide support and training to encourage them to aspire to elected office at local, state and national levels,[274] and across Ireland Women for Election used lessons learned in the 2009 Lisbon Treaty referendum to set up an organisation to ensure women's political voices are heard.[275]

Track

Actively monitor progress towards gender parity in politics. Tracking numbers of women moving through every level from local to national, and in every legislative house, can help stakeholders in government and individual parties monitor numbers of women at different stages in the political pipeline. In doing so, identify initiatives that are most effective at helping women start and progress through a political career. The UN Women campaign is currently developing the first-ever baseline numbers of women elected to local government within the Sustainable Development Goals framework, which will allow countries to compare the women in their political pipelines against the situation in other countries.[276] This is a first step to understanding which practices from other countries might help to increase women's representation in local politics in the United Kingdom, as well as through the transition to the national level.

[274] "Pathways to Politics Program for Women' launched at Parliament House", University of Melbourne, November 25, 2015.

[275] www.womenforelection.ie/about-us.

[276] "Facts and figures: Leadership and political participation", UN Women, August 2016.

IMPACT ZONE 6: VIOLENCE AGAINST WOMEN

SITUATION IN THE UNITED KINGDOM

Violence against women carries an enormous physical and emotional toll. It constrains woman's potential to fully contribute to society, as a healthy physical and emotional state is considered a prerequisite for social participation.[277] There is also a clear economic dimension: several studies have estimated that violence against women in the United Kingdom costs around £40 billion each year, made up of the human and emotional cost, cost to public services, and cost in lost economic output.[278] This is likely a conservative estimate due to the common underreporting of such crimes.[279] Violence against women further weakens the UK economy by placing an additional burden on resources such as the criminal justice system, the health-care system, social services (especially for children), housing, and civil legal aid (for example, in situations involving restraining orders, divorce, and child custody).[280]

Compared with European peers, the United Kingdom has some of the worst statistics on violence against women, including violence by an intimate partner, domestic violence, and sexual violence. The UK has the third-highest rate of violence by an intimate partner in Europe and Central Asia.[281] At least one in four women experiences domestic violence over the course of her life, compared with an average one in five across continental Europe and Central Asia.[282] Around one in nine women experiences such violence on an annual basis.[283] Domestic violence accounts for 8 percent of overall recorded UK crime and claims an average of 104 lives each year; 45 percent of UK women aged 16 to 59 say they have experienced some form of domestic violence, sexual assault, or stalking.[284] Sexual violence statistics show that one million UK women have been raped, another 300,000 have been subjected to attempted rape, and every week, 2,000 women experience rape.[285] The reported number of rapes has increased by 24 percent over the past three years, yet the conviction rate has fallen by 6.29 percent. Meanwhile, other forms of violence such as female genital mutilation and forced marriage continue to affect specific communities in the UK. Around 3,000 forced marriages take place every year, while an estimated 66,000 women have been affected by genital mutilation, and 20,000 women under the age of 15 are currently at risk.[286]

The UK government has dedicated resources to tackling the issue. Since 2010, it has budgeted £40 million for specialist local support services and national helplines. The highly successful "This Is Abuse" campaign, featuring prominent celebrities on popular television

277 Naila Kabeer, Violence against women as "relational" vulnerability: Engendering the sustainable human development agenda, UN Development Programme occasional paper, 2014.

278 This is modelled through experimental valuation on what individuals say they are willing to pay in currency to lower the risk of this violence occurring. Ibid. Justine Järvinen et al, Hard knock life, April 2008.

279 Crime Survey for England and Wales: Violent crime and sexual offences, ONS, 2015.

280 Sylvia Walby, The cost of domestic violence, Women and Equality Unit, Department of Trade and Industry, 2004.

281 Violence against women (indicator), OECD, 2016.

282 Equality justice, Fawcett Society, 2015; Violence against women (indicator), OECD, 2016.

283 Ibid. Fawcett Society, Equality justice, 2015.

284 How common is domestic abuse? Women's Aid, 2015; Sylvia Walby and Jonathan Allen, Domestic violence, sexual assault and stalking: Findings from the British Crime Survey, Home Office research study number 276, March 2004.

285 Ibid. Justine Järvinen et al., Hard knock life, 2008.

286 Alison Macfarlane and Efua Dorkenoo, Female genital mutilation in England and Wales: Updated statistical estimates of the numbers of affected women living in England and Wales and girls at risk: Interim report on provisional estimate, City University of London and Equality Now, July 2014.

channels, was relaunched, focusing on young male perpetrators. Policies and legislation have also been updated through criminalising forced marriages, evaluating the Domestic Violence Protection Order, and reviewing the police response to domestic violence by Her Majesty's Inspectorate of Constabulary.[287] Nottinghamshire Police announced in July 2016 that it has become the first force in the country to record misogyny as a hate crime, with the intention of providing visibility and proper investigation into this kind of abuse, as well as better victim support.[288]

However, of the cases of violence against women that have gone to trial, the current average conviction rate is only 73 percent for domestic violence and just 56 percent for rape cases, lagging behind the conviction rate of 85 percent for all other crimes by a significant margin.[289] A closer look at the data reveals that cultural pressures, language barriers, immigration issues, and being cut off from their support network tends to isolate black, Asian, and minority ethnic abuse victims.[290] Studies also indicate that younger women are especially likely to have been victims of domestic abuse: 12.6 percent of women aged 16 to 19 in 2015 experienced abuse, compared with an average of less than 9 percent across all age groups.[291]

AREAS FOR ACTION

Understand

Collect reliable and comprehensive data. One of the key barriers to understanding the issue is a lack of reliable data: no single available source comprehensively represents the full extent of violence against women in the United Kingdom. Without this, it is challenging to assess and track the effectiveness of solutions. In addition, the available data are largely based on self-reporting, and women do not always come forward. Research shows that 85 percent of rape cases are never reported to the police.[292] In addition, methods of recording reported crimes can understate the real incidence levels: the Office for National Statistics caps recording at five crimes per victim, and research shows that the occurrence of violent crime may be 60 percent higher than officially reported.[293] Adopting methods of measuring gender-based violence according to international best practices on the types of crime measured, frequency, and method of reporting will help to place the United Kingdom in context compared to its peers.[294]

Address

Engage men and boys in helping to prevent incidents of violence. The attitudes that underpin violence against women can be addressed through a combination of childhood education to combat formation of misogynistic attitudes and tackling the existing stereotypes that justify abuse. Education, especially early education, may help address the problem at the community level by changing perceptions and attitudes about abuse. Nearly one-quarter of young men believe that having sex with someone who has said no does not constitute rape.[295] The handbook Voices against violence is a tool developed by the World Association of Girl Guides and Girl Scouts, in collaboration with UN Women, to help peer educators coach young people through age-appropriate non-formal educational

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[287] A call to end violence against women and girls: Action plan 2014, Home Office, 2014.

[288] "Police in Nottinghamshire recognise harassment of women as a hate crime", Nottinghamshire Police, July 13, 2016.

[289] *CPS violence against women and girls crime report 2014–2015 data,* UK Crown Prosecution Service, 2015.

[290] Ibid. Justine Järvinen et al., *Hard knock life,* 2008.

[291] Ibid. Justine Järvinen et al., *Hard knock life,* 2008; *Crime in England and Wales: Year ending Mar 2016*, ONS, July 2016; *Focus on violent crime and sexual offences: Year ending March 2015*, ONS, February 11, 2016.

[292] *An overview of sexual offending in England and Wales,* Home Office and Ministry of Justice, January 2013.

[293] Sylvia Walby, *Official statistics mask extent of domestic violence in the UK,* The Conversation, June 15, 2015.

[294] Lindsay Stark and Alastair Ager, "A systematic review of prevalence studies of gender-based violence in complex emergencies", Trauma, Violence, & Abuse, volume 12, number 3, July 2011.

[295] *"Where is your line?" Survey summary report,* Opinion Matters, 2010.

activities.[296] Social media campaigns such as "UK Says No More" and ambassador campaigns such as the "That's Not Cool" boys' programme are other targeted ways to spread the message.[297] The White Ribbon Scotland organisation has developed the "Working with men and boys to prevent gender-based violence" guide, a comprehensive tool kit for men to raise awareness through group exercises, community programmes, readings, case studies, and discussion boards.[298]

Focus efforts on bystanders. Bystander programmes can engage the wider population in safeguarding the protection and rights of women. In a survey on domestic violence, the BBC found that only 54 percent of men said they would intervene or call the authorities if they knew someone was beating a partner, yet 74 percent said they would intervene if the same scenario were happening to a dog.[299] Public Health England has launched the bystander "Intervention initiative", a free resource with an educational tool kit on what to do in a situation involving violence against women.[300] Building on rigorous evaluative studies, "RealConsent", a US campaign that uses a bystander-based model to reduce sexual violence perpetration by college men, produced results showing a decrease in sexual violence and an increase in positive bystander behaviour within six months.[301]

Improve alert, screening, and responder capabilities. Useful tools for preventing assault include alert apps and gadgets, such as Vodafone TecSOS, which provides a 24/7 instant link to emergency services at the touch of a button. Studies have shown that victims' perceived level of fear dropped by 62 percent after a few weeks of having the device.[302] Training for first responders, such as ambulance technicians, police, and hospital workers, can help develop the skills necessary to deal effectively and compassionately with recent gender-based violence. There is strong evidence that training for medical staff can help screening for intimate partner violence, in which physicians are trained to spot repeated presenting at health-care facilities by women with injuries that correlate to those of intimate partner violence, in order to identify potential victims.[303] In the United States, the health-care provider Kaiser Permanente has instituted the "Family violence prevention program", which is intended to help physicians and health-care providers be proactive in identifying domestic violence; it provides referrals to authorities who are able to properly intervene.[304]

Provide survivor support as well as legal protection and counsel. Survivor support consists of tools to empower women, having an effective crisis management system in place, and ensuring justice. First, victims should be provided with emotional support and advice. Involvement of specialists such as Independent Domestic Violence Advisors, who support rape victims, has been proven to result in a complete or near cessation of abuse for 57 percent of survivors, while 79 percent of survivors said they felt safer after the intervention.[305] Second, effective crisis management is critical to treating the detrimental effects of violence as they happen. A stable and nurturing support network is crucial to

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296 *Voices against violence: A non-formal education programme for children and youth to help stop violence against girls and young women,* World Association of Girl Guides and Girl Scouts and UN Women, 2013.

297 www.uksaysnomore.org; "About the ambassadors", That'sNotCool.com, 2016.

298 *"Workshops, toolkits and activities",* White Ribbon Scotland, 2013.

299 Ibid. Justine Järvinen et al., Hard knock life, 2008.

300 *The intervention initiative toolkit,* University of the West of England, 2016.

301 *Sexual violence: Prevention strategies,* US Centers for Disease Control and Prevention, 2016.

302 www.tecsos.co.uk

303 L. Kevin Hamberger, Karin Rhodes and Jeremy Brown, "Screening and Intervention for Intimate Partner Violence in Healthcare Settings: Creating Sustainable System-Level Programs", Journal of Women's Health 24, 2015; Lorna J. O'Doherty et al., "ResearchScreening women for intimate partner violence in healthcare settings: abridged Cochrane systematic review and meta-analysis", BMJ 348, 2014; Responding to intimate partner violence and sexual violence against women: WHO clinical and policy guidelines, World Health Organisation, 2013

304 *"Family violence prevention program",* Kaiser Permanente, November 3, 2014

305 *"Safety in Numbers - A multi-state evaluation of independent domestic violence advisor services",* The Henry Smith Charity, November 2009

encourage victims of violence to come forward and increase the rate of reporting violence against women; such networks can also help provide women with the confidence and economic empowerment to move past incidents of violence, including through financial literacy programmes that encourage economic self-sufficiency.[306] This is achieved by providing readily available facilities such as rape crisis centres and shelters, which are currently lacking. A Women's Aid annual survey shows that 92 women and 75 children were turned away from UK refuges on just one day in 2016.[307] Less than one-quarter of local authority areas have a sexual violence service.[308] Third, bringing perpetrators to justice is important. A well-informed and specialised court system can improve the plaintiff experience and so increase conviction rates. Studies have shown that cases run through services such as the Special Domestic Violence Court system and using specialist rape prosecutors achieved better outcomes than cases in other courts, and cases were more likely to end in conviction.[309] Organisations such as Women's Aid Leeds's HALT offer women counsel on personal protection via a legal advice line and provide advocates, with services to keep women up to date with developments in their cases at the specialist domestic violence court and to prepare women for their appearances in court and accompany them to court.[310]

Alongside convictions, informing survivors, informing survivors of their rights or assisting in obtaining a restraining order could help prevent a future offence. A 2011 study in the United States found that 75 percent of women who were granted protection orders—even if the orders were violated—reported that they felt safer with the order.[311] Programmes can also be initiated among perpetrators to reduce reoffending rates. A UK study estimates that one-third of sexual offenders and 61 percent of abusive partners will reoffend if they do not participate in a rehabilitation programme.[312] Nearly half of the regions in England do not have perpetrator programmes that are part of an accredited network. A stable and nurturing support network is crucial to encourage victims of violence to come forward and increase the rate of reporting violence against women; such networks can also help provide women with the confidence and economic empowerment to move past incidents of violence, including through financial literacy programmes that encourage economic self-sufficiency.

Track

In order to fight violence against women, it is important that resources and efforts are concentrated in the most impactful areas. The utilisation of physical facilities and premises will be an important element. Each campaign's effectiveness should be monitored through surveys, in order to direct investment to where it matters most. It is also important to monitor and track women who have been abused throughout the entire recovery pipeline; following each woman's journey will help future understanding of the milestones that are part of the recovery process. Crucially, conviction rates as a proportion of total reported incidents should be tracked in order to conduct research into whether violence rates themselves or simply conviction rates are changing over time.

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306 Judy L. Postmus, *Economic empowerment of domestic violence survivors*, National Online Resource Center on Violence Against Women, October 2010.

307 "Women's Aid releases Annual Survey 2015 statistics", press release, Women's Aid, May 25, 2015.

308 *"Safety in numbers: A multi-state evaluation of independent domestic violence advisor services",* The Henry Smith Charity, November 2009.

309 *Violence against women and girls crime report 2013–2014*, Crown Prosecution Service, July 2014.

310 www.leedswomensaid.co.uk/our-services/leeds-domestic-violence.

311 Emma Fulu and Alice Kerr-Wilson, *"What works to prevent violence against women and girls evidence reviews: Paper 2: Interventions to prevent violence against women and girls",* What Works to Prevent Violence, 2015.

312 *Violence against women and girls newsletter,* Home Office, 2015.

IMPACT ZONE 7: SOCIAL ATTITUDES AND MINDSETS

SITUATION IN THE UNITED KINGDOM

Social attitudes towards gender parity are important: positive attitudes towards reaching gender parity correlate with better pay for women, lower violence against women, higher overall GDP, and a tendency to treat women as individuals (see sidebar, "The gender pay gap").[313] The top-scoring countries for social attitudes towards gender parity also score highest across a number of other gender parity indicators, while those that score worst tend to score poorly on women's health, voice in society, and contribution to the economy.[314] Attitudes towards gender roles can influence outcomes across all of the other impact zones discussed here. Social attitudes towards gender roles in the UK have become increasingly positive over time. In 1984, 49 percent of respondents to the British Social Attitudes Survey said they believed a man's job was to earn money and a woman's role was in the home; by 2012 this proportion had declined to 13 percent.[315] This period also coincided with women's participation in the labour force increasing by 7 percent.[316] YouGov research ranked the progressiveness of British social attitudes towards gender seventh among the world's most developed economies, just below the top quartile.[317] A study for the Fawcett Society found that 83 percent of the British public supports equality of opportunity for women.[318]

However, there is still progress to be made. Some 33 percent of people in the United Kingdom believe that a mother should stay at home while her child is under school age, and 60 percent of women report doing more than their fair share of unpaid household work, compared with only 10 percent of men.[319] Public figures in the field have even suggested that misogyny is rebounding.[320] Studies from the University of Glasgow have found that the media play a highly significant role in shaping public attitudes. Yet the majority of UK films fail to pass the Bechdel test (which measures the appearance in film of women as agents in their own right), and women are underrepresented in UK news media.[321] Studies show that many news bulletins across channels featured at least twice the number of male panellists compared with the number of women experts between October 2015 and March 2016.[322] Social media brings new challenges: for instance, a recent study by think tank Demos highlighted the rise of "aggressive tweeting", which had led to increased misogyny online through social media portals.[323]

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313 Simon Janssen, Simone N. Tuor Sartore, and Uschi Backes-Gellner, Social attitudes on gender equality and firms' discriminatory pay-setting, Institute for the Study of Labor (IZA) discussion paper number 7959, 2014; Violence prevention: evidence, World Health Organization, 2010; What the world thinks, YouGov, 2015; Tracie L. Stewart et al., "Attitude toward women's societal roles moderates the effect of gender cues on target individuation", Journal of Personality and Social Psychology, volume 79, number 1, July 2000.

314 What the world thinks, YouGov, 2015.

315 Ibid. NatCen Social Research, British social attitudes, 2013.

316 Female labour-force participation in the United Kingdom: Evolving characteristics or changing behaviour? Bank of England, 2004.

317 Ibid. What the world thinks, YouGov, 2015.

318 Sex equality: State of the nation 2016, Fawcett Society, January 2016.

319 Ibid. NatCen Social Research, British social attitudes, 2013.

320 Joan Smith, "Women-hating has come roaring back—now we must confront it", The Guardian, July 28, 2016.

321 The Bechdel test asks whether a work of fiction features at least two women who talk to each other about something other than a man.

322 Jasper Jackson, "BBC and ITV flagship news shows 'still fail to represent women fairly'", The Guardian, May 18, 2016.

323 The use of misogynistic terms on Twitter, Demos, 2016

AREAS FOR ACTION

Understand

Explore changing social attitudes over time. The Social Attitudes Survey is a rare source of insight into changing public perceptions, yet gender is not featured as a focus area every year, which makes progress difficult to track over time. Increased funding for longitudinal studies of UK attitudes to survey larger portions of the population, with a comprehensive list of attitude questions, could help us understand how attitudes are changing in the longer term and how they may be affecting areas of disparity, such as the academic and career choices of young people and levels of violence against women. The findings would also allow funding to be allocated to the most impactful activities that influence attitude change, as has been achieved with attitudes towards safe sexual practices, road safety, and alcohol consumption.[324]

Address

Address implicit limiting biases in young women. Attitudes towards gender stereotypes are formed before the age of three.[325] Biases affecting girls from a very young age can already hinder the future opportunities they may pursue. Ofsted research confirms that young girls are already making choices based on gender stereotypes, and the Equal Opportunities Commission found that young people felt their career options were restricted by attitudes about gender-appropriate work.[326] The National Union of Teachers has piloted working with primary schools to challenge stereotypes about work and social opportunities, providing materials and thought partners for teachers.[327] These efforts could be rolled out nationally, accompanied by media initiatives to increase the prominence of women. The third-sector group Let Toys Be Toys, set up by parents, has successfully used online petitions to lobby several major UK stores to remove gendered signage or to make their toy ranges inclusive. Over two years, the group found a 60 percent reduction in the use of "girls" and "boys" signage in stores, and a 46 percent reduction in the use of gendered labelling for website navigation.[328] The findings have led to the creation of an award scheme for stores making progress on eliminating gender-specific advice about their toys.

Social attitudes can also lead to a wide range of confidence and self-esteem issues. A Girlguiding study found that growing numbers of UK girls feel unhappy with the way they look and increasingly less positive about life in general, driven by disproportionate social and media pressures on girls.[329] The objectification of women both by others and by themselves is recognised as holding them back from achieving their full potential in society.[330] In response, the Government and Equalities Office launched the "Be Real" campaign for body confidence in 2010 and has worked with private-sector organisations, sports bodies, and schools to address factors that perpetuate negative body image and help women to

[324] Melanie A. Wakefield, Barbara Loken, and Robert C. Hornik, "Use of mass media campaigns to change health behaviour", The Lancet, volume 376, number 9748, October 9, 2010; M. C. Yzer, F. W. Siero, and B. P. Buunk, "Can public campaigns effectively change psychological determinants of safer sex?" Health Education Research, volume 15, issue 3, June 2000.

[325] Laura D. Hanish and Richard A. Fabes, Peer socialization of gender in young boys and girls, Arizona State University, August 2014; Diane N. Ruble, Carol Lynn Martin, and Sheri A. Berenbaum, "Gender development", in Handbook of child psychology, volume 3: Social, emotional, and personality development, sixth edition, William Damon, Richard M. Lerner, and Nancy Eisenberg, eds., 2006.

[326] Girls' career aspirations, UK Office for Standards in Education, Children's Services and Skills (Ofsted) April 2011; Gender equality in work experience placements for young people, working paper series number 27, UK Equal Opportunities Commission, spring 2004.

[327] National Union of Teachers, It's child's play: Challenging gender stereotypes through reading, 2014.

[328] http://lettoysbetoys.org.uk/wp-content/uploads/2015/12/LetToysBeToys-Advertising-Report-Dec15.pdf.

[329] Girls' attitudes survey 2014, Girlguiding, December 2014.

[330] Rachel M. Calogero, "Objects don't object: Evidence that self-objectification disrupts women's social activism", Psychological Science, volume 24, number 3, March 2013; Diane M. Quinn et al., "The disruptive effect of self-objectification on performance", Psychology of Women Quarterly, volume 30, number 1, March 2006; Tamar Saguy et al., "Interacting like a body: Objectification can lead women to narrow their presence in social interactions", Psychological Science, volume 21, number 2, February 2010; Sarah J. Gervais, Theresa K. Vescio, and et Jill Allen, "When what you see is what you get: The consequences of the objectifying gaze for women and men," Psychology of Women Quarterly, volume 35, number 1, March 2011.

challenge the stereotypes they perceive.[331] London Mayor Sadiq Khan has pledged to ban "body-shaming" advertising on the city's public transport.[332] Unilever's #UNSTEREOTYPE initiative aims to eliminate restrictive gender stereotyping in advertising across all of its brands, portraying women in roles that show aspiration and achievement, with three-dimensional personalities, and treating their appearance positively and uncritically.[333] The Always brand tackled limiting gender stereotypes in its 2014 "Like a Girl" campaign,[334] and Sports England's "This Girl Can" campaign to encourage more women in sport ran in the months leading up to the 2016 Olympics–2.8 million 14- to 40-year-old women reported having participated in some sport as a result.[335] Social media campaigns are also being used to empower women. Women are more likely than men to use the Internet for social media purposes, and to use a tablet for browsing rather than a workplace desktop computer.[336] Campaigns such as Verizon's #inspireher to encourage young women into STEM, Elle magazine's #morewomen, and the viral #YesAllWomen campaign to raise awareness of sexism and discrimination are expected to have a far-reaching influence.[337]

Increase the visibility of women in the mainstream media. Exposure to the media can be a powerful determinant of social attitudes towards women. Studies have found a strong correlation between television watching and poor body image as well as a risk of eating disorders among young women.[338] At present, women are both less visible and portrayed more negatively than men in UK media.[339] This not only applies to women politicians (see "Impact zone 5: Women in politics") but is a trend across media. To coincide with the 2016 Olympics, researchers at the University of Cambridge found that men in sport were more likely to be referred to as "strong", "big", "real", "great", or "fastest", while women were more likely to be referred to with the words "aged", "pregnant", or "unmarried".[340] Male experts outnumber female experts by between two and three times across major news channels; compared with women, there are between twice as many and five times as many male broadcasters and presenters as female ones on the major UK news channels.[341]

The issue is not that women are unavailable to appear in the media or that copy is written only by men. A 2016 study by the Reuters Institute for the Study of Journalism found that, while 45 percent of UK journalists are women, female journalists are less likely than men to feel that they have freedom over the subject matter and emphasis of their reporting.[342] One way of addressing the lack of representation has been the formation of networks of women experts and public figures to create forums, which media and PR representatives can easily access for comment. Journalist Caroline Criado-Perez's crowd-funded initiative The Women's Room and The 30% Club's Women for Media UK database are two examples.

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331 https://campaignforbodyconfidence.wordpress.com/about/.

332 Pippa Crerar, "Sadiq Khan: There will be no more 'body-shaming' adverts on the Tube", Evening Standard, June 12, 2016.

333 "How #UNSTEREOTYPE aims to change the way we see gender", Unilever, June 23, 2016.

334 Emma Muckersie, "Brands with purpose: The role of insight in creating campaigns we really care about", Freshminds, April 29, 2016.

335 This Girl Can delivers results one year on, Sport England, January 12, 2016.

336 Adults' media use and attitudes report 2015, UK Office of Communications (Ofcom), May 2015.

337 Chris Matyszczyk, "Verizon's brilliant ad to get more women into tech", CNET, June 25, 2014; "Join the Elle #MoreWomen feminism campaign", Team Elle, October 1, 2015; Jessica Valenti, "#YesAllWomen reveals the constant barrage of sexism that women face", The Guardian, May 28, 2014; http://www.elleuk.com/life-and-culture/news/a27791/join-the-elle-morewomen-feminism-campaign; http://www.elleuk.com/life-and-culture/news/a27791/join-the-elle-morewomen-feminism-campaign/

338 Eva Wiseman, "Uncomfortable in our skin: The body-image report", The Observer, June 9, 2012; Anne E. Becker et al., "Eating behaviours and attitudes following prolonged exposure to television among ethnic Fijian adolescent girls", British Journal of Psychiatry, volume 180, issue 6, June 2002.

339 Women in the media, Fawcett Society, 2014.

340 "Aesthetics, athletics and the Olympics: Cambridge University Press research shows gender divides in the language of sport", Cambridge University Press, August 5, 2016.

341 Lis Howell, Women on air monitoring survey, University of London, 2016.

342 Journalists in the UK, Reuters Institute for the Study of Journalism, 2013.

These repositories aim to enable a more visible and well-rounded view of women in the media.[343]

Work with men and boys to shift attitudes. Shifting men's attitudes, including articulating the case for change, will be a key ingredient in promoting progress. Gender stereotypes are also harmful for men: 76 percent of girls and 59 percent of boys say they would be interested in a non-traditional work sector if they were given the opportunity.[344] Educating men about the benefits of equality is an increasingly well-recognised step towards parity: in 2014 the Government Equalities Office held a policy seminar on engaging men in gender equality to highlight the need. Creating action plans as outcomes of such events would help stakeholder groups cooperate to develop and implement the recommendations; changing social attitudes is particularly effective when groups work together on an integrated action plan.[345] Ernst & Young, Goldman Sachs, IBM, and Shell sponsored a research study by Catalyst US on how to engage men in gender initiatives.[346] Helping men to empower women is of itself empowering for men. The Great Initiative has a pilot in place for a national campaign, "Great Men", to engage and involve men and boys in gender equality.[347] The pilot has found that giving men the opportunity to run community workshops educating boys about the need to respect women as equals has resulted in boys feeling empowered, not ashamed, about the issue. Working with groups of boys aged 12 to 18 in schools has given workshop leaders and participants the chance to talk about how they regard and treat women, as well as how they suffer from gender stereotyping.

Track

Record the impact of interventions on social attitudes more consistently over time. Measuring the impact of interventions on attitudinal issues over time would help to chart progress. It is crucial to track the nature of women's coverage in the media, both to reduce stereotyping and to offer more positive role models. Companies can also explore tracking progress on tackling implicit bias and its effects within workplaces (as explored in "Impact zone 1: Women in leadership"). If a better understanding of the interventions that affect social attitudes can be gained, social attitudes can be successfully addressed in and of themselves, rather than being only a longer-term outcome of changes to systems and processes.

[343] http://womenformedia.30percentclub.org; http://thewomensroom.org.uk/aboutus.
[344] Ibid. Fawcett Society, Women in the media, 2014.
[345] Change making: How we adopt new attitudes, beliefs and practices, We Can Campaign, 2011.
[346] Engaging men in gender initiatives: What change agents need to know, Catalyst, May 4, 2009.
[347] www.thegreatinitiative.org.uk/great-advocacy/great-men/.

APPENDIX

This appendix has the following sections:

1. Building a supply-side GVA model
2. Differences in parity indicators between MGI's global report and this report
3. Indicator formulas and sources
4. Range definitions

1. BUILDING A SUPPLY-SIDE GVA MODEL

McKinsey has built a supply-side model that estimates the economic impact of closing the gender gap in labour markets in the United Kingdom and its regions. We cover all 12 UK regions as defined in the NUTS 1 (Nomenclature of Territorial Units for Statistics) categorisation. The model estimates and forecasts the gross value added (GVA) contribution of women and men in the period to 2025 for the 12 regions covered in the analysis.

The model calculates GVA using five inputs, each of which is estimated by gender:

GVA =
working-age population
x
labour-force participation rate
x
employment rate
x
full-time equivalent rate
x
labour productivity per full-time equivalent employed

The employment rate is the percentage of the labour force that is employed. The full-time equivalent rate is the ratio of full-time equivalent employees relative to total employees. Labour productivity per full-time equivalent employed is the economic output of each full-time equivalent employee. The GVA projections are then rolled up and scaled up to derive the national GDP contribution, because GDP is not reported at the regional level. We assume 15 percent scale up from GVA to GDP—a ratio that has been stable over the past five years.

Overall approach

Drivers of the difference in male and female GVA. The model captures differences in male and female contributions to GVA along three dimensions: participation rates, hours worked, and the distribution of employment among 19 subsectors of the economy that are typically used by the UK Office of National Statistics (ONS) for reporting purposes. The 19 subsectors are: agriculture, forestry and fishing; mining and quarrying; manufacturing; electricity, gas, steam, and air; water supply; construction; wholesale and retail trade; transportation and storage; accommodation and food service; information and communication; financial and insurance; real estate activities; professional, scientific, and technical; administrative and support; public administration and defence; education; human health and social work; arts, entertainment and recreation; and other service activities.

We assumed that there is no impact on productivity due to the different roles men and women play in companies or the size of firms that employ men and women.

Second-order impact on GVA. We do not include any second-order impact from increased participation of women, including increased consumption by women, or any drag on productivity due to changes in the supply of labour relative to capital.

Summary of approach and data sources

Labour force. To estimate the total labour-force for each UK region, we calculate its working-age population and labour force participation rate separately for six cohorts, comprising the two genders and three age cohorts: 16–24 years, 25–59 years, and 50–64 years. The working-age population for all scenarios is sourced from the ONS population estimates by age bands. The historical labour-force participation rate is sourced from the ONS Annual Population Survey and Labour Force Survey.

Full-time equivalent employment. We first apply an overall employment rate to each region's aggregate labour supply. The employment rate for historical periods is sourced from the ONS Annual Survey of Hours and Earnings workplace analysis. We use these data to calculate employment split by gender. To convert employment by gender into full-time equivalents, we also use the ONS Annual Survey of Hours and Earnings workplace analysis. Specifically, we use the following variables to convert full-time equivalent employment:

- Employment by full-time and part-time split by gender
- Average total hours worked by men and women

We assume that the hours worked by men and women per week do not vary by sector.

Labour productivity. For each UK region, we estimate labour productivity per full-time equivalent employee for men and women as the average sector productivity, weighted by the sector share of full-time equivalent employment for each gender.

We assume that productivity of men and women in the same subsector (for example, education, human health and social work, agriculture, and so on) is the same and that any variations in average productivity among men and women are due to the sector mix of their employment. We use a three-step calculation:

- First, we estimate the relative productivity of men and women in each subsector. For example, in most regions, services productivity is lower for women than for men because women are disproportionately concentrated in low-productivity sectors (as measured by GVA per worker) such as education and health services. We calculated relative productivity at the subsector level for all UK regions.
- Second, we use relative productivity at the subsector level to estimate sector productivity by gender for agriculture, industry, and services. Each of the 19 subsectors falls into one of these categories. We calculate average productivity for men and women using GVA from Oxford Economics, ONS employment data, and employment projections from Oxford Economics for each of agriculture, industry, and services, and the hours worked estimates described above to convert employment numbers to full-time equivalent employees. We then apply the relative productivity of men compared with women calculated in the first step to this average productivity to estimate a male and a female productivity figure for each of agriculture, industry, and services.
- Finally, we estimate overall productivity by gender by weighting gender-specific productivity for agriculture, industry, and services by the respective shares of employment of men and women in these sectors.

Assumptions

McKinsey modelled three scenarios to calculate the economic opportunity available from bridging the gender gap in 2025.

- The first scenario is a business-as-usual forecast of GVA based on Oxford Economics and ONS data, supplemented with historical trends to obtain gender-disaggregated forecasts.
- The second is a full-potential scenario that describes the maximum GVA opportunity from achieving complete gender parity for each region on the various dimensions included in our model.
- The third is a best-in-UK scenario that describes the GVA opportunity for each region if it were to bridge the gender gap at the best historical rate among all UK regions.

For all projections, we use ONS Annual Population Survey data and linear trend projections for population, labour-force participation rate, and employment rate.

Business-as-usual scenario

In the business-as-usual scenario, we calculate detailed data on labour supply broken down by gender according to growth rates over the past ten years, ensuring that they followed a few overall constraints. In detail:

- We first estimate the labour-force participation rate by age group and gender, based on its compound annual growth rate between 2005 and 2015. Finally, we apply three constraints: the participation rate does not exceed 100 percent for any cohort; for each age cohort, the rate of female participation does not exceed that of males; and the participation rate of those aged 50–64 and older for each region remains equal to or less than that of those aged 25–49 for that region.
- For the employment rate, we use the overall employment rate forecast from Oxford Economics, scaled to separate male and female employment rates, based on the observed historical ratio of female-to-male employment rates in 2015.
- The ratio of hours worked and the relative productivity of full-time equivalent males and females in industry and services remained constant over the business-as-usual forecast. This assumption is based on analysis of historical data in MGI's global report on gender parity, which shows little or no change for most countries in our sample over the past ten years.
- Estimates for the future distribution of employment by sector and gender are based on historical trends and reasonable assumptions for productivity growth. First, we forecast the share of employment by sector based on historical trends from the latest ten-year time frame with data. We then modify the projection to bring GVA growth for agriculture, industry, and services into accordance with forecasts from Oxford Economics and average sector productivity in line with three overall constraints we apply: projected productivity growth from 2015 to 2025 is greater than or equal to zero; the productivity ranking of agriculture (which typically has the most volatile productivity-growth rates) does not change relative to other sectors; and the difference between sector productivity growth and overall productivity growth should not be more than two percentage points different from any historical gap for agriculture, industry, and services. We chose the two-percentage-points differential based on typical historical trends for these two measures.

Full-potential scenario

The full-potential scenario sizes the total opportunity of closing the gender gaps in the labour-force participation rate, employment rate, hours worked, and sector mix. Male inputs into GVA stay constant at business-as-usual levels. We calculate female inputs so that they are equal to those of males in 2025: the gap in participation rates for each age group, the gap in employment rates, the gap in hours worked, and the gaps in relative productivity between men and women within the industry and service sectors are fully bridged.

Best-in-UK scenario

The best-in-UK scenario sizes the GVA opportunity for each UK region if that region were to bridge the gender gap at the best historical rate of improvement achieved by any UK region for hours worked and sector share.

For labour-force participation rate, we match the fastest historical rate of improvement for the UK regions: these are South West for the 16–24 age group, Wales for 25–49, and North East for 50–64. An exception is made for Northern Ireland, which has the fastest historical rate of improvement for the 50–64 age group; however, this high growth rate can be attributed to the region's low starting base of female labour-force participation rate in that age group in 2005, which was 45 percent vs. the UK average of 58 percent. Consequently, the North East is chosen as the second-best option.

The scenario assumes that, for each region and each input, the male growth rate is constant at business-as-usual levels, but the female growth rate is equal to the male growth rate plus the best-in-UK rate of convergence. The rate of convergence is calculated as the difference between the growth rate of female labour-force participation rate and growth in the male labour-force participation rate. The convergence rate is capped for each region so that the female GVA input does not overtake the male GVA input in 2025. Additionally, due to a slight difference between the best-in-UK and full-potential scenarios, we assume that the rate of convergence for hours worked was the same in both the scenarios. We calculate the rate of convergence for industry and services productivity based purely on the change in distribution of employment of men and women in the 19 subsectors examined, and not as a consequence of any change in underlying productivity of each of these sectors—this is independently factored into productivity forecasts.

In this scenario, we have modelled using the fastest rate of progress towards bridging the gender gap for the three levers of labour-force participation, hours worked, and sector mix. We do not use the actual best-in-UK value because of the high variability between the top- and bottom-performing regions. For instance, South East and South West have the highest female labour-force participation rates for the 16–24 age group, at 69 and 67 percent, respectively; in comparison, Northern Ireland and West Midlands have rates of 52 percent and 55 percent, respectively. To arrive at an actual best-in-UK value, Northern Ireland would need to increase its female labour-force participation rate at more than 3.3 percent a year compared with decline of 0.4 percent a year over the past decade.

Implications of scenarios on the overall structure of GVA

We analyse the impact of bridging the gender gap on the overall structure of the economy and job creation needed to provide opportunities to the additional women entering the workforce. For all regions, this represents an expansion of service-sector GVA, due to both increased employment in services and a shift of employment of women to more productive service-sector jobs. This corresponds to the creation of 840,000 incremental jobs in the best-in-UK scenario relative to the business-as-usual scenario.

2. DIFFERENCE IN PARITY INDICATORS BETWEEN MGI'S GLOBAL REPORT AND THIS REPORT

For this report, we used 16 indicators for our analysis of gender inequality in the United Kingdom, building on and tailoring the 15 indicators used in MGI's September 2015 report *The power of parity: How advancing women's equality can add $12 trillion to global growth* (Exhibit A1).

Exhibit A1

Differences in inequality indicators between MGI's global report and this report

Category	Indicator
Similar or identical indicators UK indicator is the same as or similar to a Gender Parity Score (GPS) indicator[1]	▪ Labour-force participation rate ▪ Leadership and managerial positions ▪ Unpaid care work ▪ Political representation ▪ Legal protection ▪ Access to capital (similar to financial inclusion) ▪ Median annual pay (similar to perceived wage gap for similar work) ▪ Sexual violence (similar to violence against women) ▪ Higher education (similar to education)
New indicators Customised for the UK context	▪ Mean hours worked ▪ Breadwinning ▪ Entrepreneurship ▪ STEM careers ▪ Single parenthood ▪ Teenage pregnancy ▪ STEM degrees
Eliminated GPS indicators Removed due to lack of relevance to the United Kingdom and its peers	▪ Digital inclusion ▪ Maternal mortality ▪ Child marriage ▪ Sex ratio at birth ▪ Unmet need for family planning

1 MGI's Gender Parity Score measures how far a country is from full gender parity.
SOURCE: McKinsey & Company analysis

Nine of these indicators are identical or similar to those used in the global work:

- **Labour-force participation rate** is the same as the indicator used in the global report.
- **Leadership and managerial positions** is the same as the indicator used in the global report.
- **Unpaid care work** is the same as the indicator used in the global report.
- **Political representation** is the same as the indicator used in the global report.
- **Legal protection** is the same as the indicator used in the global report.
- **Access to capital** is one of the two components of the "financial inclusion" composite indicator used in the global report. The other, "account ownership at a formal financial institution", was very close to full parity in the United Kingdom, and is thus excluded.
- **Median annual pay** is used as a proxy for "perceived wage gap for similar work" due to the paucity of contemporary data for this metric in the United Kingdom.
- **Sexual violence** replaces "violence against women", which dealt with the percentage of women who had experienced violence from an intimate partner at some point in their lives. This new indicator deals with sexual violence from any source and is an annual incidence rate, making it more dynamic and reflective of the effects of current policy and social attitudes.

- **Higher education** is one of the three components of the "education" composite in the global report. The other two, "literacy" and "secondary education", we deemed less relevant to the United Kingdom and its peers.

We acknowledge that, while these indicators are intended to be similar and comparable to the indicators used in the global report, slight variations will be present due to differences in sources.

Seven new indicators are employed to more fully capture the state of gender inequality in the United Kingdom:

- **Mean hours worked** illustrates the issue of women working more in part-time jobs than men.
- **Breadwinning** captures the fact that men remain more likely than women to be the primary earner in their household.
- **Entrepreneurship** highlights women's decreased participation in this pertinent area of the United Kingdom's economy.
- **STEM careers** is an indicator relevant to the productivity gap between women and men, and the skills gap in the United Kingdom's economy.
- **STEM degrees** is selected for the same reasons as STEM careers.
- **Single parenthood** reflects a nuance of workplace inequality that is particularly relevant to the United Kingdom.
- **Teenage pregnancy** captures the absence of a key demographic of women from the workforce and higher education.

Five metrics from the global report—digital inclusion, maternal mortality, child marriage, sex ratio at birth, and unmet need for family planning—are excluded from the UK report as less relevant to the United Kingdom and its peers.

The indicators used in this report are measures of outcomes, facilitating an objective evaluation of gender disparity in the United Kingdom. The data for these indicators are derived primarily from government sources, such as the Office for National Statistics. Third-party publications are used where government data were unavailable.

3. PARITY INDICATOR FORMULAS AND SOURCES

The majority of indicators used in this report measure the difference between the situation of men and of women (Exhibit A2). They are formulated as female-to-male or male-to-female ratios, depending on whether a disadvantageous figure for women is lower or higher than for men. For each of these indicators, a score of 1 represents full parity.

There are several exceptions to this ratio methodology. For issues that by their nature disproportionately or exclusively affect women—such as teenage pregnancy—the indicator is expressed as an incidence rate in percentage terms. For legal protection, the indicator is a composite average of binary states across 14 legal provisions designed to protect and empower women, with a score of 1 representing the existence of the law in the United Kingdom's legal system and 0 representing its absence.

We chose to use an absolute measure of equality across indicators, rather than relative thresholds for each indicator, to ensure an objective assessment of equality. These thresholds were chosen by examining the education indicator, which we believe is a core gender equality indicator. We found that there were virtually no countries with gender gaps

Exhibit A2

Data overview: Indicators used, formulas, and sources

GENDER EQUALITY IN WORK		
Indicator	**Formula**	**Source**
Labour-force participation rate	% women aged 16–64 in labour force / men	ONS, Annual Population Survey, 2015
Median annual pay	Median gross annual salary of women in full-time employment / men	ONS, Annual Survey of Hours and Earnings, 2015
Mean hours worked	Mean hours worked weekly by women / men	ONS, Annual Survey of Hours and Earnings, 2015
Leadership and managerial positions	% employed women who are managers, directors and senior officials / men	ONS, Annual Population Survey, 2015
Unpaid care work	Mean hours spent by men on unpaid care work / women	OECD, Gender, Institutions and Development database 2014
Breadwinning	Mothers with dependent children earning over 50 percent of family income / mothers with dependent children	IPPR, *Who's Breadwinning in Europe?*, 2015
Entrepreneurship	% women aged 18–64 involved in setting up a new business (<3 months) or who are owner-managers of a new business (< 3 years) / men	GEM, UK 2015 Monitoring Report, 2015
STEM careers	% employed women aged 16–64 in STEM-related occupations / men	IET, Women in STEM, 2014
GENDER EQUALITY IN SOCIETY		
Essential services and enablers of economic opportunity		
Single parenthood	Number of families with dependent children headed by lone mothers / number of families with dependent children headed by lone fathers	ONS, National Census, 2011
Teenage pregnancy	% of women aged 15–19 giving birth in the past year	ONS, Live Births, 2014
Access to capital	% women aged 15+ borrowing from a financial institution in the past 12 months / men	World Bank, Global Financial Development Database, 2014
Higher education	% women aged 16–64 in higher education / men	ONS, Annual Population Survey, 2015
STEM degrees	% women in higher education enrolled in STEM-related subjects	HESA, Statistical First Release, 2015
Legal and political voice		
Political representation	Average: number of women in House of Commons / men; number of women in House of Lords / men; number of women in ministerial positions / men	UK Parliament, MPs, Lords, and offices
Legal protection	Composite of 14 legal provisions protecting women's rights and security	World Bank, Women, Business and the Law Database, 2015
Physical security and autonomy		
Sexual violence	Three-year average: % women aged 16–59 experiencing one or more incidence of the most serious sexual violence offences, including attempts, in the past year	ONS, Crime Survey for England and Wales, 2010-2012

SOURCE: McKinsey & Company analysis

greater than 50 percent for this indicator. About 15 percent of countries had gaps greater than 25 percent, and about 50 percent of countries had gaps less than 5 percent. The same thresholds were mapped to legal protection.

For a few indicators, a different methodology has been used. Breadwinning is formulated as the percentage of mothers with dependent children who are the primary earner in their household. We converted this to a proxy ratio by assuming an equal number of mothers and fathers with dependent children. We ignore the fact that single mothers significantly outnumber single fathers, making this is an imperfect conversion, but we believe that it remains practical within the context of this report.

For teenage pregnancy, we used absolute measures with a threshold derived from the 50th, 75th, and 95th percentile cut-offs of a range of their respective global scores.

This range includes scores from developed and developing countries, thereby enabling us to understand how the United Kingdom scores for teenage pregnancy compared with the rest of the world.

For sexual violence, the indicator captures the annual incidence rate of women experiencing one or more incidents of the most serious types of sexual violence (including attempts).[348] For the purposes of calculating thresholds, this has been projected to the probability of a woman experiencing this kind of sexual violence at some point in her life.[349] To reflect the gravity of this indicator, the threshold for extreme inequality has been set lower than for the educational proxy, at 33 percent. All other thresholds mirror the educational proxy.

4. RANGE DEFINITIONS

We have set the ranges of low to extreme inequality for each indicator based on global comparisons and research into expected ranges across the metrics (Exhibit A3).

Exhibit A3

Inequality thresholds for each indicator used in this report

INDICATOR	Inequality range thresholds: LOW	MEDIUM	HIGH	EXTREME
F/M ratio		0.95	0.75	0.50
▪ Labour-force participation rate				
▪ Median annual pay				
▪ Mean hours worked				
▪ Leadership and managerial positions				
▪ Entrepreneurship				
▪ STEM careers				
▪ Access to capital				
▪ STEM degrees				
▪ Higher education				
▪ Political representation				
M/F ratio		48.7	42.9	33.3
▪ Unpaid care work				
▪ Single parenthood				
Composite index		0.95	0.75	0.50
▪ Legal protection				
% of all mothers with dependent children		48.7	42.9	33.3
▪ Breadwinning				
% of women aged 15–19		0.51	1.53	6.89
▪ Teenage pregnancy[1]				
% of women aged 16–19		0.12	0.67	0.93
▪ Sexual violence				

1 In comparison, highest score for teenage pregnancy is South Korea at 0.06% and lowest score is Niger at 20.36%.

SOURCE: McKinsey & Company analysis

[348] As defined by the 2012 Crime Survey for England and Wales.

[349] Between the ages of 16 and 59, the range for which data are available.

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