The National Skills Academy
RAIL

City & Guilds Group

Back on Track

Gearing up to meet the increased demand for talent in the rail industry

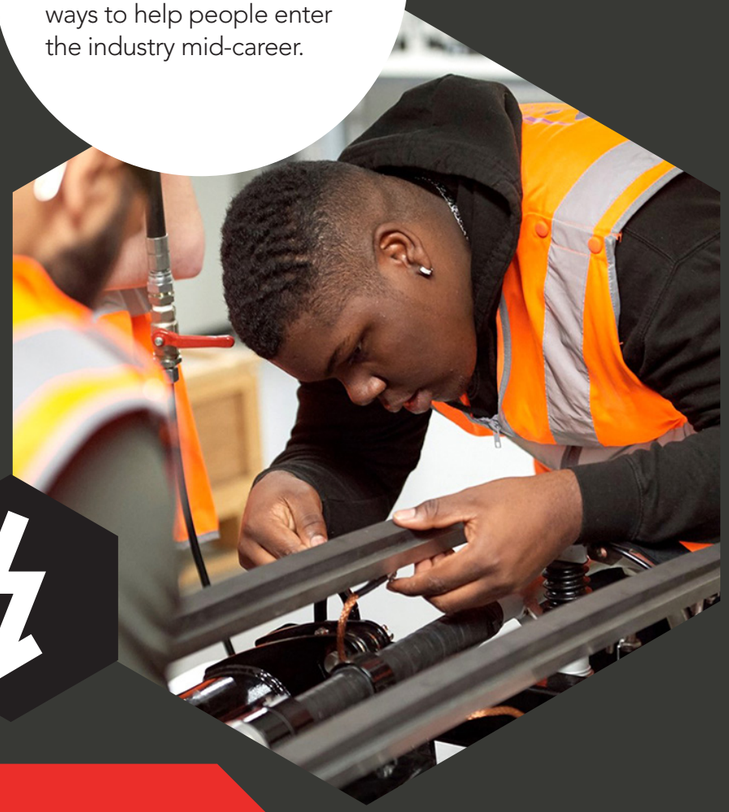
City & Guilds Group and NSAR
November 2020

Just 16% of the rail workforce is female

With new rail infrastructure projects expected to create new job openings, employers should look for ways to help people enter the industry mid-career.

42%

of people would not consider a career in rail owing to a lack of knowledge about jobs in the sector.



Changes to the diversity and age profile of the rail industry will be difficult unless there is a top-down approach led by the Government and key industry organisations.

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Foreword

Sir John Armitt, CBE FREng FCGI

In spite of the serious impact of Covid-19 on the UK jobs market and economy, we are expecting to see a great period of growth in the transport infrastructure sector. The rail industry is on the cusp of leading a once-in-a-generation infrastructure revolution in the UK with the realisation of high-profile projects such as HS2 and the Northern Powerhouse Rail upgrade project.

These large-scale projects have the potential to create up to 12,000 high quality jobs every year over the next five to ten years, get people back into work, drive up social mobility and help to get the UK's economy firing on all cylinders.

Whilst there is much promise on the horizon, the rail industry also has a number of hurdles to overcome if it is to deliver on these projects – the most prominent being a stagnant talent and skills pipeline. For several years, the rail industry has been suffering from a number of labour force issues including skills shortages, an ageing workforce leading to a retirement cliff edge, a lack of diversity, reputational issues and broken career paths. In addition, for decades the industry has relied on Europe for a steady stream of talent to fill roles such as engineers, construction workers and others, which now may be stymied by the end of freedom of movement brought about by Brexit.

Now, at a time when overseas talent and skills are increasingly harder to access, and the UK faces unprecedented economic difficulties – with the dual blow of Covid-19 and a with a great deal of uncertainty over Brexit – it's clear that the rail industry still has a great deal of work to do to truly address these issues, once and for all. We'll need to see real leadership from senior executives in the rail industry and Government, to pave the path for change and act as a driving force to help attract and recruit diverse talent. It's with this impetus and commitment to positive change that UK rail could set its sights on becoming 'the go to' sector for high quality talent.

This report seeks to highlight some of the issues faced in the sector and offer solutions, proposing ways in which industry could better work together, alongside government and regulators, to transform the talent pipeline and capitalise on what is a truly pivotal moment for the rail industry.

Sir John Armitt, CBE FREng FCGI
Chairman of the National Infrastructure Commission,
Chairman of the City & Guilds Group

The National Skills Academy RAIL

Foreword

Neil Robertson, CEO – National Skills Academy for Rail

The new infrastructure plan is an exciting moment for our industry. We have an opportunity to create jobs across the country, at a time when they are badly needed, and act as a driving force behind economic recovery.

"As I've said numerous times before, £1 spent on training on rail skills in the UK results in a £3 return on that investment."

But first we have to fully understand and address the number of important people and skills issues at play in the rail sector that could potentially hold it back. Our skills shortages and talent gaps, our lack of diversity and our industry's poor perception amongst younger people are well known, but less well understood. By shedding a light on these vital issues, we can identify the solutions that will truly make a difference.

It should be clear now that there is a solid business case for training. Investment in training is one that pays dividends: As I've said numerous times before, £1 spent on training on rail skills in the UK results in a £3 return on that investment. What's more, it's more cost effective to train than to poach talent to make up shortfalls and pay inflated wages. It's this longer-term approach that will help the industry get to where it needs to be in the next five to ten years.

As we look to invest in new talent to fill future skills gaps in the rail industry, it's important to note that we also have a valuable opportunity to improve social mobility across the UK. By hiring people from a wide range of backgrounds and regions, and equipping them with quality skills and career progression, we can ensure that these infrastructure projects not only create jobs, but also promote positive socioeconomic change. Raising awareness of careers and opportunities in rail among young people will play a vital role in ensuring the industry has the skills and people it needs to succeed.

For this reason, NSAR will be launching its Routes into Rail platform on 27 November 2020, a platform designed to engage and educate young people about careers in the rail industry.

I'm grateful to City & Guilds and the many people who contributed to this report, which highlights a number of important people and skills issues in rail and brings together some of the key solutions that will help the industry put its best foot forward in the years to come. This will give encouragement to the many of us who are already working to strengthen the rail industry's skills and talent pipeline through the Strategic Transport Apprenticeship Taskforce (STAT) and the rail supply group.

We welcome further collaboration and discussion to help the industry solve these problems once and for all – and deliver on its enormous potential.

Neil Robertson,
Chief Executive Officer,
National Skills Academy for Rail (NSAR)

1 Introduction – The UK rail industry's talent supply problem

Whilst strides have been made in recent years to address the talent supply problem in the industry, the UK rail sector is still faced with a multitude of challenges to its skills and talent pipeline that could hold it back from delivering many social, economic, and individual benefits in the years to come. Whether that's social mobility, upskilling and career progression, or the creation of new jobs.

Key challenges include:

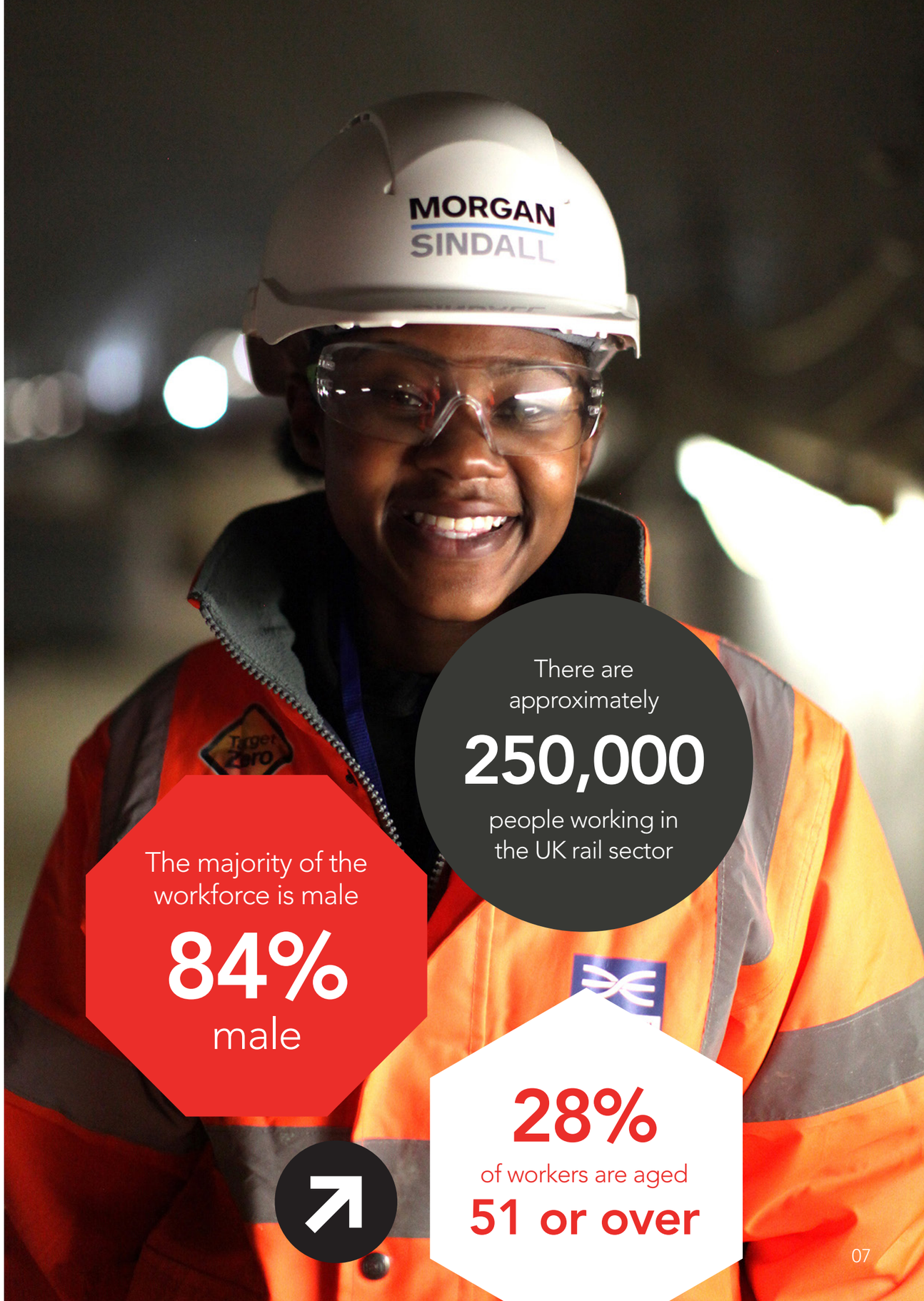
Ageing workforce and retirement cliff edge – The rail industry has an ageing workforce. With 28% of workers in the rail industry aged 51 or over[1], the sector is set to lose huge numbers of skilled workers over the next few years.

Retention issues – There are a number of factors at play that contribute to retention issues in the sector. These include limited career development and skills progression when people start working in the sector, inconsistent working patterns, unsociable hours, insecure contracts, and the short-term nature of projects leading to broken or incomplete apprenticeships.

Reliance on contract workers and overseas talent – When it comes to recruiting talent for infrastructure projects, the rail sector has traditionally relied on a 'forgotten' third tier of workers on short fixed-term or zero hours contracts as well as overseas talent. With EU net migration already on the decline due to Brexit, this will likely have a significant impact – and lead to additional skills and worker shortages in the sector.

Reputational issues – One of the biggest challenges for getting people into work in the transportation and infrastructure sector is the perception and concern that it's not a great place to work, or a lack of awareness of the opportunities available. This is a key reason why the industry is struggling to attract enough young people or women into the industry.

1 Data from National Skills Academy for Rail (NSAR)



2

Careers in rail lack widespread appeal

Our brand-new research findings[2] shine a light on how the rail industry is perceived by the UK general public, and perhaps the most striking finding is the lack of appeal to a more diverse talent pool. Rail is not seen as a desirable sector to work in, especially among women, young adults and people from the BAME community.

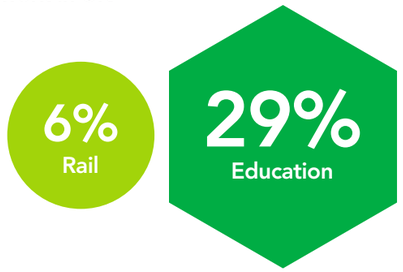
Digging deeper into the reasons why people consider the sector a desirable or undesirable sector to work in, these findings also uncover some of the barriers the sector needs to overcome in order to recruit from as wide a talent pool as possible, and deliver and maintain future transportation infrastructure projects.

How does rail fare as a desirable sector to work in against others?

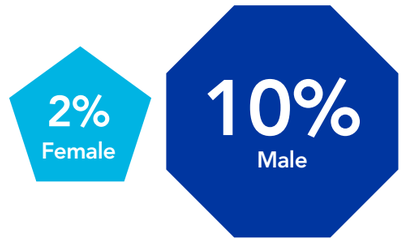
When asked to choose up to three sectors they'd consider most desirable to work in, only 6% of UK respondents chose Rail. Conversely, Education (29%), Healthcare (25%) and Technology (24%) were the most popular choices.

Women are much less likely than men to consider the rail sector as desirable to work in. Only 2% of female respondents chose rail as one of their choices, compared to 10% of male respondents. And, there was also a clear age gap in attitudes to the industry, with younger adults (18 - 24) being the least likely to find the sector desirable to work in (3%).

Desirability of sectors for work in UK

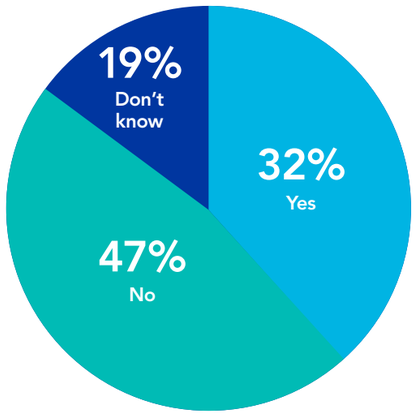


Desirability of rail sector for work by gender

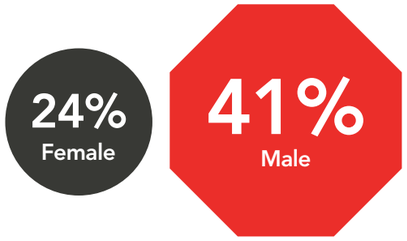


Would people consider a career in rail?

When asked specifically if they would consider a career in rail, nearly a third of respondents (32%) stated they would, but nearly half (47%) would not, and about a fifth (19%) don't know. Women, young adults and BAME respondents are some of the groups least likely to consider working in the sector.



Only 24% of women would consider a career in rail, compared to 41% of men. And just 26% of 18-24-year olds say they would consider a career in rail, compared to 39% of 35-44-year olds

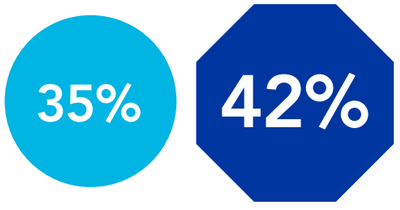


When looking at the role played by ethnicity, there was a small but distinct difference: 27% of BAME respondents said they would consider a career in rail vs 32% white. A large proportion (27%) of BAME respondents said they weren't sure, which could point to a lack of awareness about opportunities in the sector.

2 Unless stated otherwise, data cited in this section refers to analysis of 1532 of UK adults that are not retired

Amongst those who would not consider a career in the rail industry, why do they see rail as undesirable?

As opposed to a negative perception of the industry, the research revealed that the principal reasons why people would not consider pursuing a career in the rail industry stem from a lack of awareness about the careers that are available in the sector (42%) and the belief that they don't have the skills needed to get a career in the sector (35%).



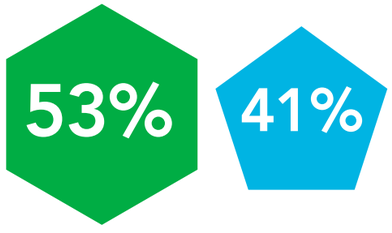
Believe they don't have the skills

Lack of awareness of careers

Other reasons that people would not consider a career in rail include the perception that work involves manual / physical work (15%), inflexible / unsociable hours (15%) and the need to travel far from home on a regular basis (17%).

More than men, women cited the manual nature of the work (Female 17% vs Male 12%), the need to travel away from home (Female 20% vs Male 13%) and not having the right skills (Female 40% vs Male 27%) to be reasons why they would not consider a career in the industry.

BAME respondents were more likely to say that they don't know enough about careers in the rail sector (BAME 53% vs white 41%) or that they don't have the skills needed to get a career in the sector (BAME 43% vs white 34%) – indicating that a lack of awareness about rail careers amongst this group could act as a barrier to entering the industry.



BAME

White

Amongst those who would consider a career in the rail industry, why do they see rail as desirable?

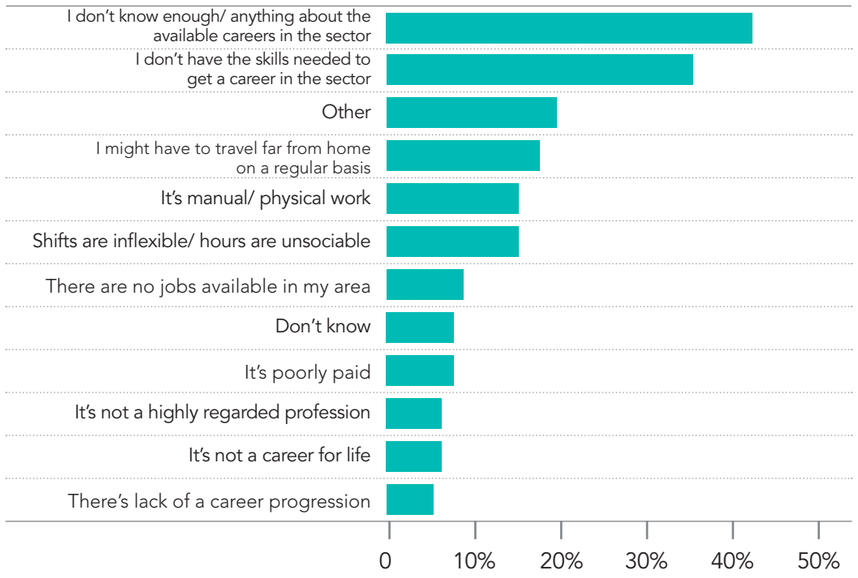
On the other side of the coin, the 32% of non-retired respondents who said that they would consider a career in the rail industry highlighted awareness of some very positive aspects of work in the sector – including training and career progression opportunities, and the variety of careers to choose from.

Top reasons given include: there are well paid jobs in the industry (50%), there are lots of different types of careers available (53%), and there are opportunities for on-the-job training in the sector (26%). Another 26% said that working hours could be flexible around their lifestyle and 23% cited the belief that the industry offers great opportunities for career progression as one of their reasons for considering a career in rail.

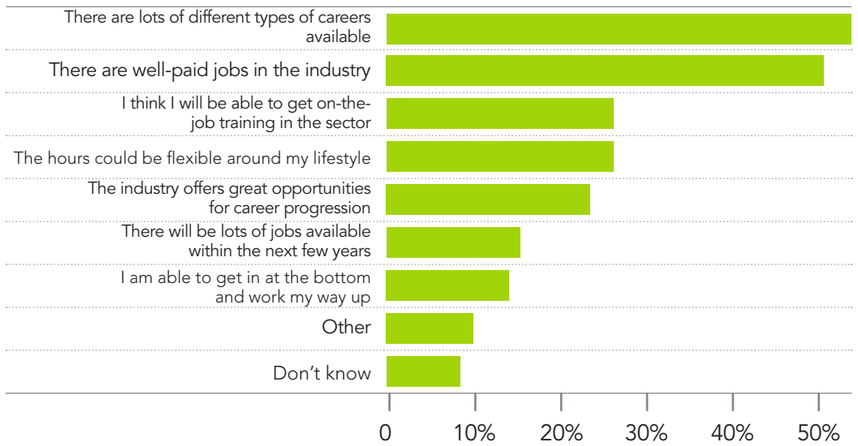
Well paid jobs

Lots of different types of careers

You have previously said you would not consider a career in the rail industry… Which, if any, of the following are reasons for this? (Please select all that apply)



You have previously said you would consider a career in the rail industry… Which, if any, of the following are reasons for this? (Please select all that apply)



3

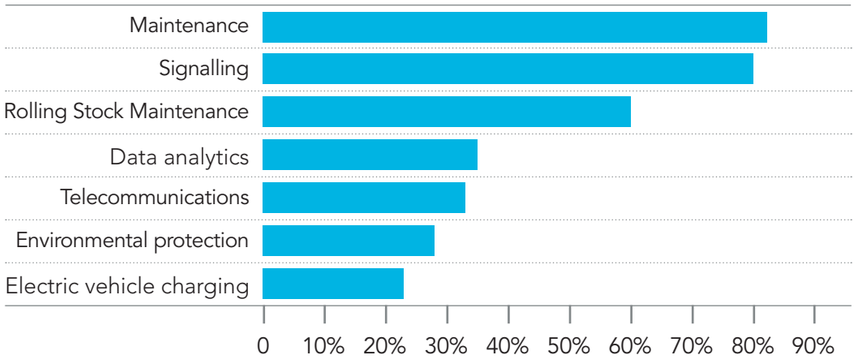
Rail's untapped employment potential

The opportunities in rail

As we've seen, a lack of awareness of career opportunities and a perceived lack of necessary skills are two major barriers preventing people from considering careers in the rail industry.

But this lack of awareness runs deeper. Our research found that the types of careers that people associate with rail do not reflect the full scale of opportunities that actually exist. Indeed, the types of careers most UK adults[3] associate with the sector are the ones that are most visible during everyday train travel, such as Track Maintenance (82%), Signalling (80%) and Rolling Stock Maintenance (60%). In contrast, there's much less awareness of jobs such as Telecommunications (32%), Environmental protection (26%), Electric vehicle charging (22%) and data analytics (33%).

Types of careers most people associate with the rail sector



At a time of rising unemployment there are a broad and varied range of careers available in the industry, from engineering roles, to project management and customer service roles – each in need of a different set of skills. Despite the variety of career opportunities on offer, the industry's ongoing image and reputation issues – and a lack of awareness of the opportunities available in the sector amongst the general public – could prevent a diverse range of people from discovering or applying for these positions.

3 Sample size 2057 UK adults, base: All UK adults

4 Unless stated otherwise, data cited in this section refers to analysis of 1532 of UK adults that are not retired

What do you look for in a new career?

62%

say a good salary

What would you look for when choosing a new job or career?

When asked to choose up to three things they'd look for when choosing a new job or career, unsurprisingly respondents[4] prioritised a good salary (62%). Meanwhile, with the current climate putting new ways of working and a shrinking jobs market in sharp focus, respondents also highly valued flexible working opportunities (37%) and job security (35%). 18% of people chose career progression opportunities as one of their three.

Focus on what would attract different groups to a career

As discussed, women, younger workers and people from BAME backgrounds were the least likely to say they would consider careers in rail. To the right we can see the employment preferences of some of the under represented groups from the rail industry and gain a better understanding of how the sector could attract these groups to apply for job openings.

Employment preferences of under-represented groups

Women

With women being more likely than men to have caring responsibilities, it's unsurprising to find that women rate flexible working opportunities as particularly important when choosing a new job or career. 43% of female respondents said this was one of the three things they'd look for in a job, compared to just 31% of male respondents.

Young adults

When it comes to younger age groups, career progression opportunities are very important when choosing a new job or career – 32% of 18-24 year olds and 30% of 25-34 year olds said this would be one of the three things they'd look for.

25-34 year olds were most likely to value training opportunities, with over one in 10 (11%) of respondents in this cohort saying that this is one of the things they'd look for.

People from BAME backgrounds

Career progression was also much more important for BAME respondents, with 27% choosing this as one of the three things they'd look for in a new job or career, compared to 17% of white respondents.

What are the most pressing problems that need to be addressed?

If the industry is to attract new talent into the sector, it will need to understand how to engage and appeal to a more diverse talent pool but also address common misperceptions.

This research has highlighted three key problems that need to be addressed:

1. Lack of awareness of careers in rail

Despite the great variety of careers on offer in the sector, many people are unaware of the scale and breadth of opportunities available. As a knock-on effect, this lack of awareness could be causing many people to have inaccurate perceptions of the industry as a whole, leading them to believe that they either don't have the necessary skills, or that the work is not suitable for 'people like them'.

Proactively publicising career opportunities – specifically targeting girls, women, young people and people from BAME communities, and showcasing other people from similar backgrounds who have forged careers in the sector – could in turn significantly boost the broadness of the industry's appeal. Many employers are already taking action. Network Rail, for instance, has a programme called 'Just like me' which aims to to inspire girls and young women to explore engineering.

2. Perceptions related to unsociable working practices

Many people who consider careers in the sector as undesirable believe that roles entail unsociable working hours and necessitate regularly travelling far from home. While this may be the case for some jobs in the industry, it's not the case for all.

Women in particular are more likely to have caring responsibilities outside of work and require more flexible and sociable hours, which fit around their responsibilities. If the sector can promote roles with more flexible and sociable working set-ups, this could play a role in attracting more women into the sector.

3. Job security, progression and training

At a time when many people are losing their jobs, facing extended periods of furlough, or trying to start a new career in a smaller job market, positioning rail as an industry that offers job security, progression and training could make the sector far more appealing to potential job seekers.

Offering greater career progression and training opportunities could be particularly beneficial for attracting young and BAME people into the industry, helping displaced mature workers (+25 years old) find new jobs, and improving social mobility.

4

Why this has to be tackled now

There are about 250,000 people working in the rail sector. Currently, around 4,000 vacancies remain unfilled, and the demand is only expected to increase. Skills shortages are often expensive to fill, delaying projects and pushing up costs.

This situation is only set to worsen in the coming years with huge transport infrastructure projects expected to start – while major civil engineering projects in other sectors such as energy, highways and housebuilding could lead to significant competition for talent. This is in addition to challenges that are threatening the talent and skills pipeline, such as an ageing workforce, the impact of Brexit on immigration and labour supply, and a lack of employer investment in training and upskilling. It's clear the industry needs to act quickly to recruit, train up and retain new talent.

Investment in skills and training will play a major role in helping to plug future skills gaps and doing so will pay dividends. The National Skills Academy for Rail (NSAR) has empirical evidence which suggests that every £1 spent on training on rail skills in the UK, results in a £3 return on that investment.[5] As well as wider economic benefits, skills investment can make huge differences on an individual level too – giving people from all backgrounds the chance to progress in their careers.

Every £1 spent on training on rail skills in the UK, results in a £3 return on that investment

5 Unless stated otherwise, insights in this section are from the National Skills Academy for Rail (NSAR)

Talent shortfall: retirement cliff edge and Brexit

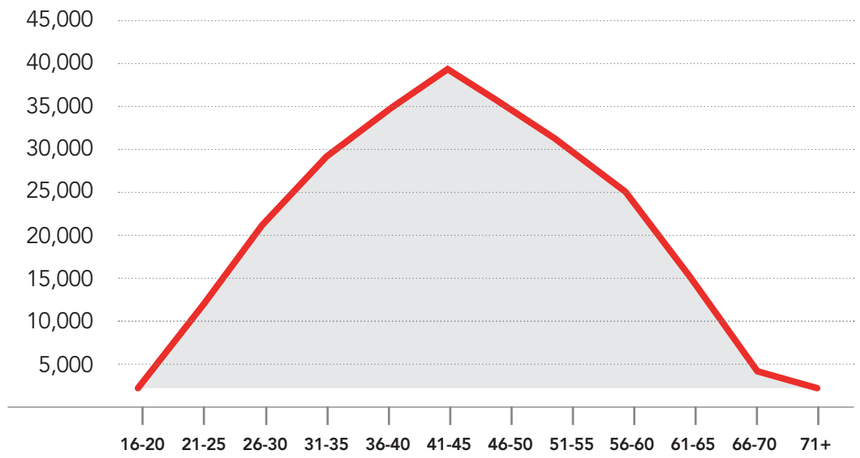
According to data from NSAR, over 28% of workers in the current rail workforce are aged 51 or over, and, by 2025, circa 15,000 people could potentially retire (reaching the age of 65).

Meanwhile research from NSAR's Brexit surveys in 2016 and 2018 show a decline in the proportion of EU workers from 17% to 15% of the workforce. We anticipate this declining trend will continue, which could have a worsening impact on supply chains.

And with just 16% of the current workforce female, and 84% male, attracting new talent from a more diverse talent pool could help to plug these growing gaps.

28%
of the workforce in rail aged 51+

Age profile of workforce



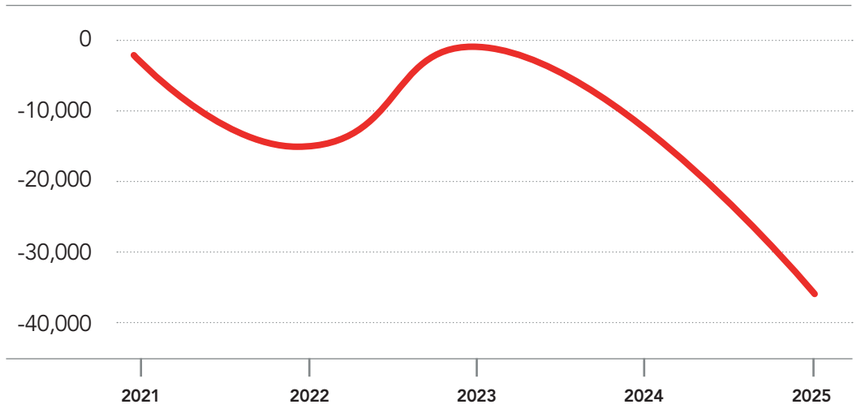
Looking at the changing age profile of workers in the industry in the graph above, we can see a clear retirement drop off. With relatively low numbers of young recruits joining the workforce, but high numbers of workers aged 36-50 in 2020, there's a risk that talent leaving the workforce through retirement won't be sufficiently replaced.

UK rail workforce skills gaps

Data from NSAR helps to paint a picture of the current workforce, and by analysing future expected workforce growth and upskilling, as well as forecasting of future projects, NSAR can shine a light on future skills gaps in the industry.

According to NSAR's analysis, on average, between 7,000 - 12,000 additional people will be required every year over the next 5 - 10 years. And with current modelling showing peak demand around 2025 – in five years' time – with the biggest skills gaps due to open at levels 3 and 5, people must be recruited now to equip them with the relevant skills and experience to meet demand at the time it is needed.

UK rail workforce gaps



Increase in staffing demand rail sector 2020 – 2025

7k-12k

Annually

Which types of jobs will be needed most?

A variety of skills and experience will be needed in the rail sector to fill these gaps. Some of the jobs that will be needed most are: Customer Service Assistant, Driver, Maintenance Operative and Engineer.

Forecast to be between 3,000 and 5,000 roles annually by 2025

- Customer Service Assistant
- Train Driver
- Maintenance Operative

Forecast to be between 1,000 and 2,000 roles annually by 2025

- Maintenance Technician
- Operator
- Engineer
- Operations Manager
- Project Manager

Forecast to be between 500 and 1,000 roles annually by 2025

- Operations Signaller
- Maintenance Fitter
- Engineering Supervisor
- Engineering Manager
- Project Management Supervisor
- Customer Service Co-ordinator
- Business Manager
- Customer Service Supervisor

The drive to make the rail sector greener

A growing area of skill requirement in the sector in the coming years will be linked to the rail industry's bid to become greener. This will including moving away from polluting fuels to green hydrogen. These new green jobs will require a whole host of new skills and provide an opportunity to attract a younger generation to the sector.

5

Recommendations

1. Build lifelong learning commitments into project specifications for national rail projects - starting with apprenticeships

Real change will be driven by commissioning clients, not just contractors.

Beyond 'false start' apprenticeships and short-term training, we need to collectively champion the inclusion of consistent learning commitments in national rail projects at all levels. To help this along, recruitment to training programmes could be incentivised through procurement.

2. Transform the rail industry into a career destination, especially for young people

It's vital that contractors and clients work together and continue to make the case that rail is an industry for everyone, with a diversity of roles and skills, rewarding benefits such as training and career progression (e.g. level 2 or level 3 apprenticeships), and the potential to improve social mobility.

This involves educating the public about what a career in rail really looks like and showcasing the spectrum of opportunities from digital to customer services. NSAR's Routes into Rail platform (to be released in November), which will educate young people about careers in rail, is an example of this put into practice.

More widely, there is more work to be done to create a more diverse workforce. Raising awareness of opportunities in the sector among women, young adults and people from BAME backgrounds will play a key role.

3. Develop strong career paths to attract and retain talent and maximise productivity

It's time to start thinking longer-term when it comes to employment. Short term, project-based recruitment results in high costs for employers. Investing in training and development for people at the start of their career will cut recruitment costs further down the line and maximises productivity. Therefore, we need to encourage more people into the industry with a longer-term prospect and provide a steady pipeline of talent across the industry.

Working together, employers and industry bodies must put an end to 'broken apprenticeships' that do not complete or end in a job.

4. Make mid-career entry to the industry and skills-transfer more frictionless

Covid-19 has led to the contraction of a number of UK industries and many more people are now looking for work in a shrinking jobs market.

With new rail infrastructure projects expected to create new job openings, employers should look for ways to help people enter the industry mid-career.

Employers and training providers could work together to create a series of 'skills bridges': short, sharp but high-quality training courses, that help people with existing transferrable skills top up their skillsets and prepare for careers in the sector.

Individuals should also consider Government training grants and other bursary opportunities, such as the City & Guilds Foundation and Intertrain track employment programme.

Changes to the diversity and age profile of the rail industry will be difficult unless there is a top-down approach led by the Government and key industry organisations.

5. Build greater participation at a local / regional level

With many parts of the UK set to benefit from new rail infrastructure projects, it is essential that local skills development goes hand in hand with this – and workers from other areas are not just temporarily relocated. By investing in local skills development, we can create a national workforce of rail engineers.

To help make this happen, any new infrastructure project must come with a clear, long-term skills commitment, that aims to create a permanent and positive impact on local communities.

Government should work with local authorities and employers to develop a national network of Employment and Training Hubs. These would help to match skills to jobs created by rail employers, and local supply to local demand.

6. Government and relevant partners should consider a perception and awareness raising campaign

Changes to the diversity and age profile of the rail industry will be difficult unless there is a top-down approach led by the Government and key industry organisations.

If a consistent talent pipeline is to be built, an awareness raising campaign needs to be run on a continuing basis which works to ensure that women, young and BAME people feel as if the rail industry offers careers they would seriously undertake. The Government should consider working with groups such as Women in Rail and the Young Rail Professionals TrailBlazers to help shape and drive the messaging.

The Department for Transport, Department for Business, Energy and Industrial Strategy and the Government Equalities office should also ensure that future legislation and policy-making is drafted taking into account factors, such as the findings from the 2017 McGregor-Smith Review 'Race in the Workplace', to ensure that all underrepresented groups in the industry feel as though this is a career they would consider in the long-term.

7. Utilise the Green agenda to attract a new generation of people to the industry

The rail sector has a large part to play in helping the Government in its ambition to become carbon neutral with a likely move to hydrogen as a green power source, for example. This will require a host of new skills to be brought into the sector. The green agenda provides an important opportunity to appeal particularly to a younger generation of workers – who often place high levels of significance upon environmental issues.

About City & Guilds Group

Our vision is for a world in which everyone has the skills and opportunities to succeed. We support 5 million people each year to develop skills that help them into a job, develop on that job and to prepare for their next job. As a purpose-led organisation, we're proud that everything we do is focused on achieving this purpose.

Through our assessment and credentialing, corporate learning and technical training offers, we partner with our customers to deliver work-based learning programmes that build competency to support better prospects for people, organisations and wider society.

We create flexible learning pathways that support lifelong employability, because we believe that people deserve the opportunity to (re)train and (re)learn again and again – gaining new skills at every stage of life, regardless of where they start.

Our foundation activities amplify our purpose by helping to remove barriers to getting into a job, celebrating best practice on the job, and advocating for jobs of the future.

City & Guilds Group

About NSAR

The National Skills Academy for Rail is an organisation established to enable the sector to deliver a modern and efficient, world class railway through the development of a highly skilled and productive workforce.

Promoting the sector as an industry with careers to be proud of; at NSAR we coordinate industry efforts in attracting and promoting new talent to enable the sector to be competitively positioned with other industries. In collaboration with our members, universities, colleges and training providers, we facilitate a modern qualification framework and apprentice programme that will increase competency across the sector.

We support training & assessment providers and ensure the quality of training provision is of a high standard.

Through knowledge and intelligence we help the rail sector & our members make informed decisions and target investment in resource planning. Our brokerage role enables the industry to increase its competitiveness through matching skills and workforce demand to training and education supply for both up-skilling and apprentices, thus enabling rail companies to deliver a more efficient railway; having the right people at the right time in the right place.

Our credibility within the industry, our unique resource and knowledge, enables us to provide specific support to individual companies who seek to meet their skills needs.

In a rapidly changing skills landscape we act as a coordinated powerful voice, on behalf of the sector, to influence government policy and planning safeguarding rail sectors interest.

NSAR is trusted by the rail industry to provide workable solutions for the provision of skills needed for the increasing demands of a modern railway. We develop people to excel every day, challenging the status quo and inspiring a change in the way skills and competences are delivered.

We will work with you to identify your skills gap, help you with resource planning and guide you on how to get funding for training.

We collaborate with employers to create and standardise course curriculum, develop training facilities and training plans, assess and assure the quality of training provision so you can be confident of a ready supply of trained and competent people.

The National Skills Academy RAIL

Methodology

All YouGov Plc quantitative data cited in this report is taken from a survey commissioned by City & Guilds and undertaken by YouGov in October 2020. Research was undertaken amongst a sample of 2057 adults between 6th - 7th October 2020, of which 1532 were not retired. The survey was carried out online. The figures have been weighted and are representative of all UK adults (aged 18+).

Unless stated otherwise, YouGov data cited in the report refers to an analysis of a sample of 1532 UK adults not retired.

Other data cited in the report comes from analysis provided by the National Skills Academy for Rail.

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