



Generation Green Jobs?

Exploring young people's readiness for the Net Zero skills revolution

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In partnership with:



Prince's Trust

Ennismore Foundation

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Executive summary

The Net Zero transition promises to create a vast number of good, green jobs for the British public. But delivering on this ambition will indisputably require a transformation in the UK's skills landscape.

Without this transformation, we will not meet our ambitious Net Zero targets, such as bringing 50GW of offshore wind online, installing 600,000 heat pumps, and improving the insulation of 6 million homes by 2030. All of these goals depend on training and retraining tens of thousands of workers.

We will also miss an unparalleled opportunity to transform the economies of areas such as Teesside, Eastern Scotland and South Wales, where new green jobs have the potential to reverse decades of industrial decline. Without significant efforts to help people in these areas access these roles, there is a risk that these opportunities will benefit those from elsewhere.

Two years on from the publication of the Government's Net Zero strategy, there are already worrying signs that there is a serious skills shortage on the horizon. In some sectors and roles, such as energy and the built environment, this shortage has already arrived. A lack of heat pump engineers has been blamed for the poor uptake of the Boiler Upgrade Scheme, with only half of the allocated budget being used until the recent grant increase.¹

The skills challenge is especially acute for our young people. Someone who is 16 years old now will spend most of their career in an economy undergoing a rapid transition to Net Zero.

However, there is little in-depth research into young people's perceptions, concerns and anxieties around green skills and jobs. This creates a critical gap for policymakers, who now have data on which jobs will be needed in a green economy but little sense of whether we are creating a generation of young people who will be able to fill them.

Through this project we have sought to understand young people's understanding of the green economy, their perceptions of the jobs that will see the greatest growth up to 2030 and how these relate to their views on Net Zero and their own careers.

This report will use the ONS categorisation of green jobs.²

Key insights from our research include:

- Young people are less likely to be interested in many of the green jobs that will be most in demand in the future. When asked about a range of specific jobs related to Net Zero and the environment, young people tend to show the least interest in roles we expect to be in high demand in the future. For example, only 7% of young people say they are interested in a heat pump engineer role, compared to 19% interested in being a farmer, or 22% in being a conservationist.

¹ House of Lords Environment and Climate Change Committee, *The Boiler Upgrade Scheme is failing to deliver, says Lords committee*, February 2023

² ONS, *"Green jobs" update, current and upcoming work: March 2023*, March 2023.

Green jobs are: "Employment in an activity that contributes to protecting or restoring the environment, including those that mitigate or adapt to climate change."² There are three types: new and emerging jobs; existing jobs requiring enhanced skills; and existing jobs which are now more in demand. For the purposes of this report, we are primarily focussing on new jobs or transformed jobs.

- Young people that live in the areas which will see the most investment in the green economy are no more interested nor aware of these jobs. We also found that young people in these regions are not more likely to think green jobs will be available in their local area, when in fact the opposite is true.
- Young people have a very limited understanding of how Net Zero will impact industries, jobs and their own lives. For example, young people are more likely to think that the environment and conservation sector (24%) would be one of the sectors with the most 'green jobs in the future than carbon capture (19%) and building energy/retrofit (20%), when the opposite is true.
- Environmental purpose does not make a role more attractive, and the merits young people associated with a green job are not influential in their career choice. Young people view the environment as a top concern but this does not translate into their career choices. Only 18% say that the environmental sustainability of their employer would be a factor in deciding between jobs, well below considerations like opportunity for career progression (49%), job security (48%) and flexibility of hours (48%). For many, social purpose is more of a motivator in their working lives, rather than the environment.
- Young people do not associate green jobs with the factors that drive their career decisions. Young people associate green jobs with having a positive impact (50%), being rewarding to work in (40%) and generating pride (37%). But these factors are seen as much less important than ones like pay and progression in determining their career choices. Poor pay is seen as the top disadvantage of green jobs, with 25% of young people identifying this as a barrier.
- Young people are unfamiliar with green jobs - which makes them less willing to consider applying for a role or entering training. Those familiar with the term "green jobs" are more interested in a role in the green economy, some 20 percentage points more than those less familiar with the term.
- Green jobs are seen as being for those who take an academic route, which limits how many young people feel confident they can access them. Respondents are likely to think of those who work in the "green economy" were young (30%; 5% said old), degree-educated (30%), and having studied science at school (27%).
- Young women are less aware of and less interested in green jobs - which risks perpetuating existing gender disparities in the industries that will be key to Net Zero. Young women are around half as likely to say they would enjoy working in more manual or traditionally male-dominated industries, for example electric vehicle (EV) manufacturing operative (17% v 6%), and heat pump installer (10% v 4%).

Our research suggests that politicians and policy makers should not assume that their optimistic view of green jobs is shared by young people. Whilst young people care deeply about the environment, this does not translate directly into a desire to work in jobs that will help deliver Net Zero and they have a very different understanding of the advantages and disadvantages of these roles.

Without significant efforts to change young people's awareness and perceptions of green jobs, there is a significant risk that these roles will not be filled and that the benefits of the highly skilled, highly paid employment they create will not be felt by the next generation.

Given the pace at which Net Zero targets must be delivered, particularly in the energy sector, we must urgently work to boost the pipeline of young people prepared to enter jobs in the green economy.

Our research suggested several meaningful steps employers, government and educators can take to reduce the barriers we identified and incentivise young people to consider green jobs.

We recommend:

Educators

1. Schools should start education on Net Zero, particularly its impact on young people's lives and the local economy, prior to students making their GCSE or equivalent choices.
2. Sixth forms, colleges and universities, especially in areas that will see large numbers of green jobs, should provide specific information about green jobs as part of careers education.
3. Universities and colleges should expand the use of placements and mentoring schemes linked to the local green economy.

Employers

1. Employers should engage with schools and career hubs in the areas where green jobs will be most numerous.
2. Employers should be highly visible in their partnerships with training providers and youth employment charities.
3. When marketing green jobs to young people, employers should emphasise the pay, progression and security they offer, rather than their environmental purpose.

Third sector organisations

1. Charities should utilise their links with the groups of young people that are at risk of being left out of the Net Zero transition to raise their awareness of green skills and jobs.
2. Charities should work with employers and educators to ensure that skills pathways are highlighted in their interactions with young people during the later stages of education.
3. Charities should work with expert delivery partners and sector specific employers to create high quality learning and progression opportunities for young people in the sectors that will see the greatest green growth up to 2030.

Government

1. National governments should commission occupational maps for green industries which clearly signpost to young people how different training routes can lead into green jobs.
2. National governments should provide additional funding for careers education in the regions that will see the most growth in jobs which support Net Zero and are therefore the greatest risk of skills shortages.
3. National governments should develop more flexible programmes for training and retraining in green industries.

Foreword from The Prince's Trust

Young people's relationship with green jobs is a vital issue for the future economy. As employers adapt their practices and products to help the UK meet its target of net zero emissions by 2050, we need to prepare young people for the opportunities that this presents.

This research shows us that while climate change is a top concern for young people, this isn't yet translating into their career aspirations and choices. This is especially true of young people from particular groups, such as young women, those from lower income backgrounds, or those who are not in education, employment or training. This presents potential challenges not just to the economy and the environment, but also to social mobility.

At The Prince's Trust, we know the talent and potential of young people in the UK, when given the tools and support they need to succeed. It is clear that across society there are important interventions needed from employers, governments, educators, and the third sector to put the building blocks in place to provide this support from school age and onwards, to help young people on their pathway into the labour market.

The green economy presents a huge opportunity for young people, both for their individual futures and for the contribution they can make to their communities and to the economy. We must ensure that the support and guidance is in place to turn this potential into reality.

Jonathan Townsend, UK Chief Executive of The Prince's Trust



Prince's Trust

About this research



Prince's Trust

The Prince's Trust believes that every young person should have the chance to succeed, no matter their background or the challenges they are facing. We help those from disadvantaged communities and those facing the greatest adversity by supporting them to build the confidence and skills to live, learn and earn. The courses offered by The Trust help young people aged 11-30 to develop essential life skills, get ready for work and access job opportunities.

Since The Trust was founded by HM The King in 1976, when he was HRH The Prince of Wales, we have helped more than a million young people across the UK, with three in four of those supported over the last five years moving into work, education or training.

Ennismore Foundation

Ennismore Foundation focuses on two strands of work; alleviating the impact of food and agriculture on the climate emergency, and working to give opportunities to disadvantaged young people. Increasingly we are supporting projects where these two areas intersect.

Ennismore Foundation has supported the work of The Prince's Trust for over 15 years. We are therefore very pleased to support them with this strategic piece of research, looking at how to create the workforce needed to deliver Net Zero in the UK by 2050. With the climate crisis deepening, it is imperative that we equip our young people with the necessary skills to build successful fulfilling careers in the green economy, helping themselves, future generations and the planet.

PUBLICFIRST

Public First is a policy strategy and research consultancy. We combine public opinion expertise with deep knowledge of the policy landscape, with teams specialising in energy and environment, education and tech. We use this to deliver data-rich, coherent policy arguments that are ready to implement and politically feasible.

Motivation and methodology

The Prince's Trust commissioned Public First to undertake this research project.

Motivation

Whilst there is ample research on the attractiveness of green jobs generally, or opinion research targeted at specific trade groups (for example plumbers that will need to be retrained for heat pumps), there is very little on how they are perceived by young people specifically. Specifically, we sought to understand:

- a) Young people's understanding of the changes in the economy that will be brought about Net Zero and roles within the green economy;
- b) How young people feel in particular about the jobs that will see the greatest growth up to 2030;
- c) How these views fit into their views on Net Zero and the environment; and
- d) How these views relate to the factors that influence their decisions about their careers and views on the work place.

Our aim in doing so was to both generate evidence about young people's views and to develop actionable insights for employers, government, educators and third sector organisations which could help to address gaps between these and what is needed to enable the transition to Net Zero.

Methods

The key elements inputting into these insights was a literature review, data analysis, a nationally representative poll of 16–25 year olds and five focus groups.

Data analysis

- We analysed ONS data, background data from the Government's Ten Point Plan for a Green Industrial Revolution (obtained by Public First via a FOI request), CCC impact analysis of Net Zero on employment, the Net Zero Strategy, and LGA and Ecuity Consulting data to draw conclusions on the key growth sectors to 2030, and what regions will see this growth.
- Our analysis identified four key growth sectors for green jobs based on government plans. We identified the estimated skills needs up to 2030, and what regions in the UK will see the greatest job growth.

Nationally representative poll

- 2,054 young people aged 16–25 years old. Conducted 1–14 September 2023
- All results are weighted using iterative Proportional Fitting, or 'Raking'. The results are weighted by interlocking age & gender, region and social grade to Nationally Representative Proportions
- You can find the polling tables [here](#).

Focus groups

- We held five online focus groups with mixed gender groups of young people aged 16–25 in areas that are due to see significant numbers of new green jobs. These included:
 - 2 x groups in the West Midlands, which is already seeing investment in lithium battery manufacturing and electric vehicle car manufacturing. 16 August 2023.
 - 2 x groups in Teesside, which is a carbon capture and hydrogen cluster which will attract investment from heavy emitters, such as fertiliser and steel manufacturers. 12 October 2023
 - 1 x group in Fife, Scotland, where a newly awarded "green port status" will see huge investment into Perth and Fife for renewable energy manufacturing and CCUS. 31 October 2023.
- These groups were recruited to reflect two different groups of young people:
 - 16–20 years old that were in education, employment and training; and
 - 20–25 years olds that were not in education, employment and training (NEET).

Green jobs: what are they, where are they and what's the problem?

What is the need?

One of the key challenges in this area is a lack of consensus on how to define green jobs.

Whilst there is broad agreement that Net Zero will have a very significant impact on employment, a lack of clarity about where and how this will take place is a major barrier to policy makers, educators and employers.

Various studies have sought to quantify the number of green jobs that will be created and need to be filled over the coming decades as a result of the Net Zero strategy. Many are sector, industry or occupation specific – with limited research comparing the estimated demand across the economy.

For this study, we have mirrored the categorisation used by the ONS, which suggests three types of green jobs: new and emerging jobs; existing jobs requiring enhanced skills; and existing jobs which are now more in demand.³ For the purposes of this report, we are primarily focussing on new jobs or transformed jobs.

The Government's own estimates are that its current policies and ambitions will support 480,000 green jobs across the UK by 2030.⁴ Our analysis, primarily using data from the Net Zero strategy, shows the huge number of direct jobs that will be supported by Net Zero, broken down by sector:⁵

Sector	Number of direct jobs supported
Offshore wind	30,000 in 2030
Net Zero emission vehicles	40,000 in 2030
Buildings: energy efficiency and low carbon heat	40,000 in 2030
Carbon capture, usage and storage (CCUS)	50,000 in 2030* (includes supporting industries)
Hydrogen	12,000 in 2030*
Natural environment	20,000 by 2027 (includes flood defence)
Nuclear	10,000 in 2030
Aviation and ships	5,200 by 2040
Public transport, cycling, and walking	3,000 by 2025

* Revised figures from Net Zero Strategy published in 2023.

Public First analysis identified four key growth sectors for green jobs based on the government plans: green buildings (energy efficiency and low-carbon heating), electric vehicles (including batteries), offshore wind, and CCUS, which we will focus on in this report.

The growth of green jobs up to 2030 will not be diffuse but concentrated in several key regions. Whilst greening buildings, for example installing energy efficiency measures like insulation, will need to take place in every part of

³ Skills Development Scotland, *Green Jobs in Scotland: An inclusive approach to definition, measurement and analysis*, November 2022

⁴ DESNZ, *Transmission Acceleration Action Plan*, November 2023

⁵ Background data from Ten Point Plan for Green Industrial Revolution obtained by Public First. *revised figures from Net Zero Strategy published in 2023

the country, there are several regions that will see particular growth in green industrial jobs. For example, Merseyside and Teesside will see the development of carbon capture, the North East of Scotland will continue to be the home of offshore wind, and the West Midlands will carve a niche in electric vehicle battery manufacturing.

Where will these green jobs be?⁶

Key growth sector to 2030	Government estimated location of jobs
Green buildings	UK-wide
Electric vehicles	UK-wide, specifically West Midlands, North East
Offshore wind	UK-wide, specifically the North East, Midlands, East Anglia, Scotland
CCUS	Specifically in industrial clusters (Merseyside, Humber, Teesside, South Wales, Scotland)

These regions' industrial history, for example the Midland's history of vehicle manufacturing, or Aberdeen's oil and gas production, mean they have the existing infrastructure, skills and partnerships that make them best placed to support green technologies.

These are also regions with longstanding challenges around skills, where skills levels and educational performance is relatively low. There is a strong correlation between the areas identified in our research as seeing the most growth in green jobs up to 2030, and the areas with a low proportion of the population with level 3+ (A Level and BTEC equivalent) qualifications. For example, taking the proportion of the population with level 3+ qualifications, the North East is the lowest performing region, and the West Midlands and Yorkshire and the Humber are also in the bottom half of regions.⁷

Without action, if the skills pipelines in these areas are not developed, there is a risk that business investment may stall, leading to fewer jobs, and/or industry choosing to outsource supply chain contracts internationally. In the North East of Scotland, trade unions are already warning that investment in renewable energies is seeing new jobs go to international workers, and also the supply chain contracts go to foreign firms.⁸ Without concerted action to engage young people in the areas where there will be the greatest supply of green jobs (and experience the greatest disruption as a result of the energy transition), there is a danger that these young people will not see the benefits of Net Zero themselves, in the form of skilled, in-demand green jobs with long-term job security.

As Labour's 2030 green grid target, and the country's 2050 Net Zero target nears, technologies such as wind, CCUS, and lithium batteries will need to be produced at scale in these industrial clusters. This explains why our analysis shows these regions will see the most growth in green jobs up to 2030.

What skills will these new green jobs require?

There is a huge range in the skills required for Net Zero. Each is highly specific to its sector, and many of these roles aren't entirely 'new' but are applying existing STEM skill sets in a new way, for example welders for offshore wind turbines, or battery technicians for electric vehicles.

Public First used background data from the Ten Point Plan for Green Industrial Revolution obtained through an FOI to pull out the government estimated skills needs up to 2030. For each of the four sectors we identified, we

⁶ Background data from Ten Point Plan for Green Industrial Revolution obtained by Public First

⁷ Gov.uk, *Levelling Up the United Kingdom: White Paper*, February 2022

⁸ Energy Voice, *Scottish Government deflects criticism from unions over BiFab contracts*, July 2018

mapped out which jobs would be needed, what skill level these required and what the pathway was for an individual to get the role, where this data was available.

We found a huge range in the skills level within each sector, with roles that would require a university degree, such as chartered surveyors or engineers, to entry-level roles that would simply need GCSEs or equivalent and perhaps a college course or bootcamp (or devolved equivalent) to enter, such as energy efficiency or charge point installers.

Below gives some specific examples of the skills needs for each sector:

Spotlight: Offshore wind

To reduce our dependence on fossil fuels, the government has ambitious targets to develop a huge number of offshore wind farms in the North Sea and off the coast of East Anglia.

Research from the Local Government Association (LGA) indicates that by 2050, jobs in low-carbon electricity will be relatively evenly split between manufacturing/production, construction/installation, and operation/maintenance.⁹

Examples of the types of skilled workers and qualifications required include:

Renewable energy technician

- Maintains and repairs energy infrastructure for wind turbines
- Skill level: L3-6
- Route to qualification: 5 GCSEs grades 9 to 4 -> T Level in Maintenance, Installation and Repair for Engineering and Manufacturing / 2-3 A Levels -> L6 degree in electrical or mechanical engineering -> Trainee

Other examples include welders (L3-4), roles in construction, electrical engineering (L3+) project managers (L4) and offshore technicians and seamen.

Spotlight: Greening buildings

In order to improve homes' energy efficiency and reduce their carbon footprint, the majority of British homes will need to be upgraded with insulation, heat pumps, electric vehicle charging points and double-glazing by 2050 at the latest.

The workforce required to construct and install these upgrades will be extensive, and spread out across the country rather than concentrated in a single region. Research from LGA indicates that by 2050, the majority of jobs for both energy efficiency and low carbon heating will be in construction and installation.¹⁰

Examples of the types of skilled workers and qualifications required include:

Retrofit advisor

- Gives independent advice to homeowners or residents to help them understand retrofit and what options are suitable for their homes. It is a customer service-focused role.
- Skill level: L3
- Route to qualification: L3 in Domestic Retrofit Advice.

Other examples include heat pump installers (L2-4), retrofit coordinators (L5), chartered surveyors, energy efficiency installers (L2-4), and data analytics for low carbon heating (L3-7).

⁹ Public First analysis of ONS LCREE data, 2021. LGA and Ecuity Consulting, *Local green jobs*, 2021

¹⁰ Public First analysis of ONS LCREE data, 2021. LGA and Ecuity Consulting, *Local green jobs*, 2021

Spotlight: Electric vehicles

Transport is the largest emitting sector in the UK, contributing 24% of the UK's total emissions.¹¹ In order to reach Net Zero, along with demand reduction measures, vehicles must switch away from fossil fuels to electric.

The West Midlands has been tabled as an area that will see growth in the manufacture of electric vehicles, and the manufacture of the lithium batteries used in EV's. Research from LGA indicates that by 2050, the majority (over 50%) of EV jobs in England will be in manufacturing/production.¹²

Examples of the types of skilled workers and qualifications required include:

EV manufacturing operative

- Works on the assembly line to manufacture parts or batteries for electric vehicles
- Skill level: L2+
- Route to qualification: 2+ GCSEs grades 9 to 3 -> L2 in manufacturing technology / L3 electrical automotive manufacture. Available apprenticeship routes for manufacturing operatives but not specifically EVs. Installs and maintains heat pump systems for heating and cooling in residential and commercial settings.

Other examples include battery systems engineers (L6+), charge point installers (L1-4), vehicle scrappage and recycling (L1-4), and purchasing (L2-6).

Spotlight: Carbon capture, utilisation and storage

We currently do not have the technology to move highly energy intensive industries away from fossil fuels, such as the steel, cement and fertiliser industries. However, we will continue to have demand for the products these industries produce, such as steel building our homes and infrastructure. Carbon capture is a technology which will reduce the emissions of these energy intensive processes, by capturing CO2 and storing it permanently deep under the sea bed. In the UK, this CCUS technology is in its early pilot phases, and in order to meet our Net Zero commitments must be rapidly scaled up in key industrial 'clusters' across the country, such as in Teesside and the Humber.

The limited data on the CCUS industry indicates that it is *currently* made up of two-thirds (67%) professional scientific and technical activities and one-third (33%) manufacturing jobs. However, LGA research indicates that the workforce up to 2050 will change to the majority (over 50%) of alternative fuels jobs in England being in construction/installation.

Examples of the types of skilled workers and qualifications required include:

Alternative fuels research and development scientist

- Develops innovative technologies and processes that enhance the efficiency, sustainability, and viability of carbon capture
- Skill level: L6/7+
- Route to qualification: Not a clear pathway, likely includes chemical engineering degree

Other examples include R&D welders, pipe fitters, machine installers and technicians, however there is limited granular data on skills requirements for these CCUS roles.

¹¹ Gov.uk, *Transport and environment statistics 2022*, October 2022

¹² LGA and Ecuity Consulting, *Local green jobs*, 2021

So what's the problem?

The problem is that across almost every area of Net Zero, employers are raising concerns about being able to recruit enough skilled, trained workers.

For example, a shortage of heat pump installers is seen as one of the main causes of the government failing to meet its target for heat pump grants, as part of the Boiler Upgrade Scheme.¹³ A report by Nesta estimates there are currently only 3,000 trained heat pump engineers in the UK, but at least 27,000 will be needed in the next six years, requiring increases of 4,000 to 6,000 per year – more trained new engineers each year than are currently in the whole industry.¹⁴ Another example is a shortage of welders in areas such as the Humber, for which demand will only increase: “this region has a huge void in welding and pipefitting skills and also a huge demand. We have tens of thousands of jobs needed to meet current projects, then more on the mega infrastructure projects that are coming.”¹⁵

These warnings from industry should act as a ‘red warning light.’ Our demand for these roles will only increase up to 2050, and there are already skills shortages which are beginning to hold back our Net Zero ambitions. There is a real concern in industry, and increasingly government,¹⁶ that whilst thousands of new roles may be available in places like Teesside or the West Midlands, there will not be the supply of suitably qualified workers to take up the roles.

¹³ Energy Live News, *UK heat pump scheme raises installer shortage concerns*, August 2023 and BBC, *Government heat pump scheme misses first year target*, June 2023

¹⁴ Nesta, *Shortage of trained heat pump installers could set back net zero*, July 2023

¹⁵ Business Live, *Skills shortage sparks dedicated welding and pipefitting hub launch on Humber Bank*, March 2023

¹⁶ House of Commons Environmental Audit Committee, *Green Jobs*, October 2021

Ten key challenges

Existing research

There is some existing research into what can attract young people into green jobs, which has raised some useful questions which we have probed more deeply in our poll and focus groups.

- A WorldSkills UK report found that 80% of young people felt it was important to work in an organisation tackling climate change,¹⁷ however research from Nesta found that framings around environmental and social impact had no discernible impact on people's willingness to take training in green skills.¹⁸
- Prince's Trust and HSBC research indicates that young people may be sceptical that green job opportunities exist in their local area, with only 25% believing it would be easy to find one locally.¹⁹
- WorldSkills UK states that the key barrier for young people to pursue a green career relates to a lack of understanding of what roles are available, and what skills they require.
- Research from Green GB suggests a gender gap – men were significantly more interested in training and green jobs than women,²⁰ and World Skills UK found men were more likely to have learnt about green skills at school or college.²¹

Key questions in our research:

- What are young people's current perceptions of the impact of Net Zero to job opportunities locally, what assumptions do they have about the skills required to do these roles? How could actors increase their knowledge?
- To what degree does environmental purpose impact the attractiveness of a green job, and what matters more?
- Are young people living in the places that will see the most green growth (and therefore will need to attract the greatest number of skilled workers) at all more aware of or interested in green jobs?
- Are women and young people who are NEET less attracted to these roles? What can educators and employers do to overcome this barrier?

Our research identified ten key challenges that may impact young people's interest in jobs and training in the green economy.

1. Young people have a very low understanding of Net Zero and green jobs

We found that despite young people having heard of many of the terms associated with Net Zero – for example carbon emissions, climate change, Net Zero, green jobs – their understanding of these terms was low.

Whilst most young people (68%) had heard of the term Net Zero, it was not a term they were confident talking about. Only 31% felt they would be able to explain what it means. A majority (59%) of those who had heard of green jobs could not explain what they were. Young people did have a better grasp of terms such as climate change, carbon footprint and carbon neutral compared to Net Zero, for example 76% thought they could explain climate change.

¹⁷ WorldSkills UK, *Skills for a net-zero economy: Insights from employers and young people*, June 2022

¹⁸ Nesta, *How to increase the appeal of green skills and training*, June 2023

¹⁹ The Prince's Trust Group and HSBC, *Future of Work*, June 2021, additional polling findings in Linked In, *Green Gurus? Young people and the workforce required for Net Zero*, November 2023

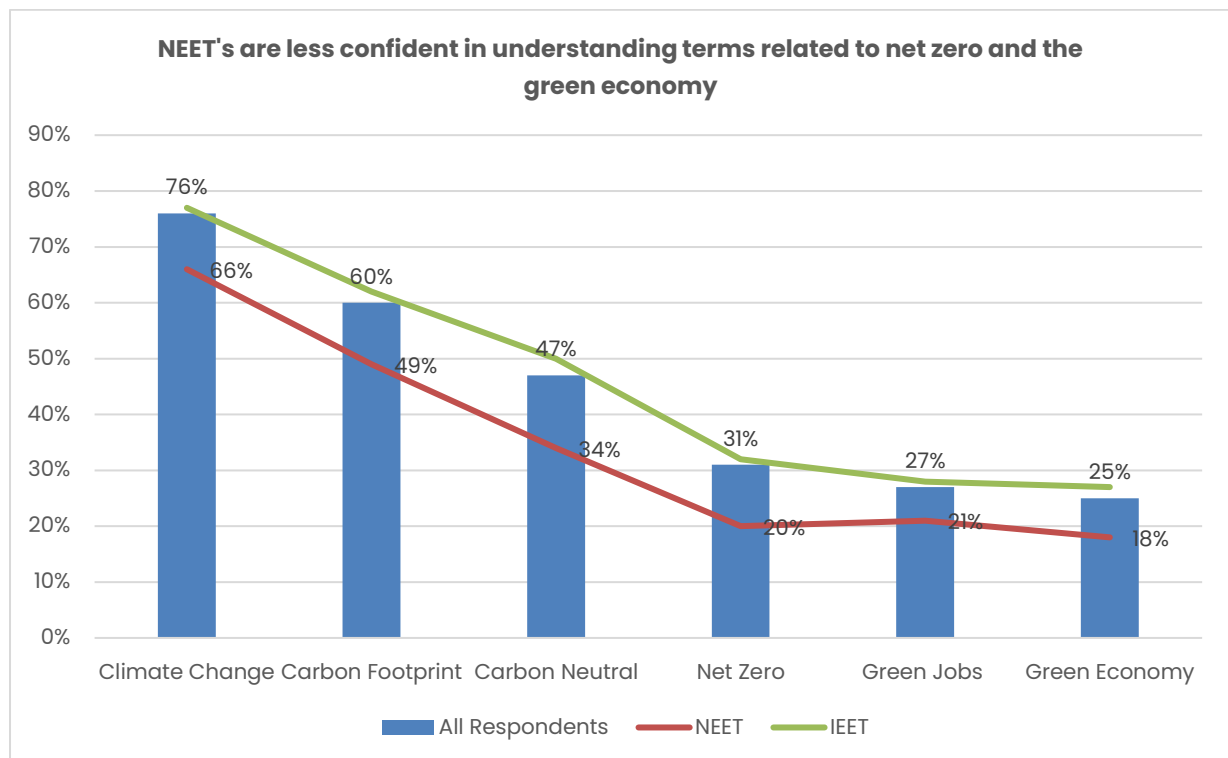
²⁰ Fe news, *3.7 million young people want a job in the #GreenGB economy*, October 2018

²¹ WorldSkills UK, *Skills for a net-zero economy: Insights from employers and young people*, June 2022

In our focus groups, many young people did not feel confident using them and they felt like jargon. Instead, phrases such as “make our country more environmentally friendly” and “tackle climate change” were better understood.

“I’ve heard about different things to do with global warming and things we can do to make it better, but I’ve never heard of Net Zero” (Female, aged 24, NEET, Solihull, West Midlands).

There are also inequalities in young people’s understanding of Net Zero. Across all terms we found that young people who were not in education, employment or training (NEET) were around ten percentage points less likely to feel confident with these terms than those that were not.



Survey question: *I have heard of this and could explain what it means. Respondents that selected: I have heard of this, and would be able to explain what it means.*

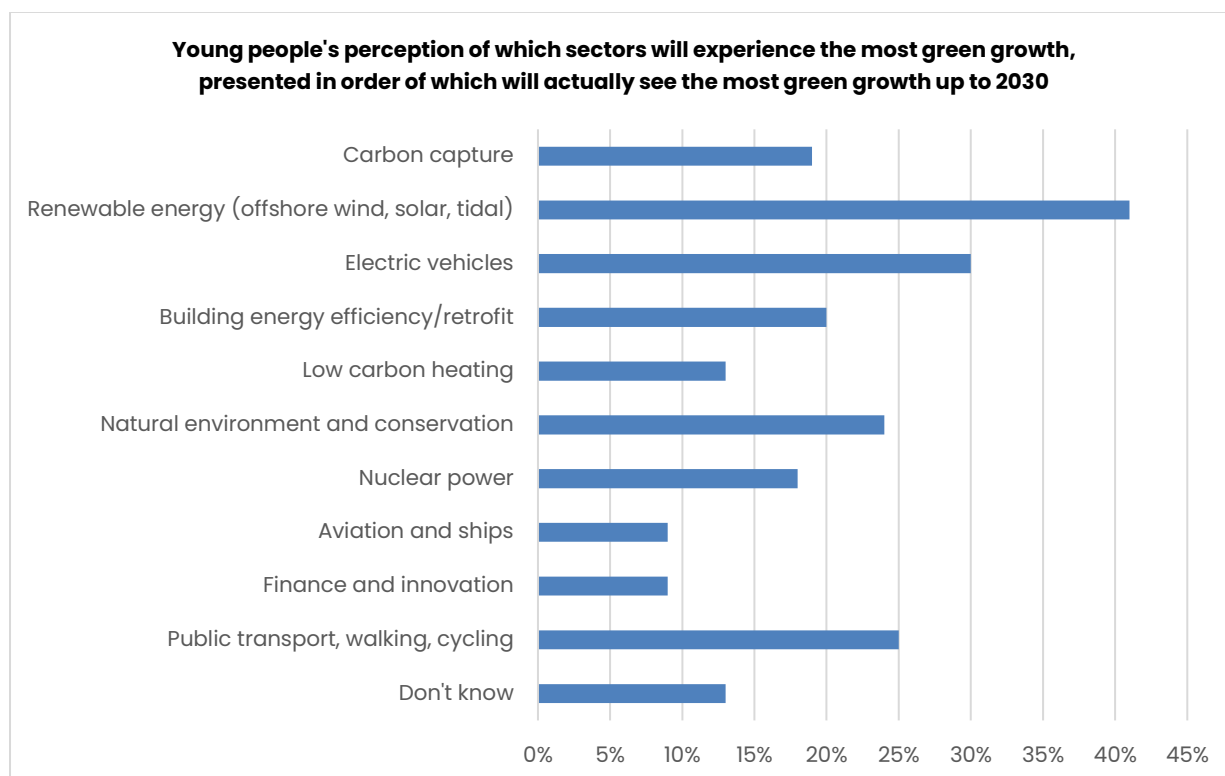
There were also higher levels of understanding for those who received an education on green jobs in school (+12% for green economy) or know someone in the industry (+16% for green economy).

2. Young people have a shallow understanding of how Net Zero will impact industries, jobs and their own lives

We found that less than half (46%) of respondents were very or somewhat familiar with the kinds of jobs that would exist in the green economy, *even after the phrase was explained*. This was consistent across background and ethnicity but, notably, NEET young people were 20 percentage points less likely to be familiar than their counterparts in education, employment or training.

When asked to identify three industries that will create the most green jobs in the future from a list of relevant sectors, young people were most likely to identify renewable energy (41%), electric vehicles (30%), and public transport, walking, cycling (25%). This is in line with our analysis of which industries will see the most job growth.

However, they were much less likely to select building energy/retrofit (20%) and carbon capture (19%) – the other two key industries we identified. Conversely, young people were more likely to think there would be the greatest number of new jobs in the natural environment and conservation (24%) – which our analysis suggests will see relatively little growth. This shows that the perceptions that young people have of the impact of Net Zero is not reflective of the reality.



Survey question: Which of those sectors do you think will have the most “green economy” jobs available in future?

In our focus groups this lack of understanding was even more stark. When asked how Net Zero might impact their area, and despite several prompts, young people struggled to think what changes it might cause. The few suggestions there were centred around increased public transport and reductions in private car use, which may be due to high profile ULEZ schemes across the country.

“I feel like lots of laws might be changed, or things banned or weaned out. Like driving cars and stuff... it might change some jobs” (Female, aged 21. NEET, Great Barr, West Midlands).

3. Young people that live in the areas which will see the most investment in the green economy are not more interested nor aware of these jobs

When we asked young people if they thought jobs in the green economy would be located close to them, most expected at least some jobs in their local area (46%).

However, young people living in the areas where green jobs are likely to see the most growth, which we identified in our earlier data analysis, are not more likely to think jobs in the green economy will be available in their local area. In fact, those in London were most likely to expect ‘a lot of these jobs’ in their local area (15%), and those in the North East (7%) and Yorkshire and the Humber (8%) are among the least likely to – when the opposite is true

For example, the Humber alone is expected to have 20,000 direct and indirect jobs created by Net Zero.²² Put simply, they are unaware that their area will see a disproportionate number of green jobs.

We also observed no variation between region and young people's interest and knowledge in green jobs. For example, young people living in the North East of Scotland were not more likely to be aware of Net Zero nor more interested in the green jobs themselves.

The majority of the young people we spoke to in Teesside, the West Midlands and Fife did not think Net Zero would produce any new jobs in their area, and had certainly not seen or heard anything to suggest otherwise. Some even thought that Net Zero may lead to job losses. Given the recent closure of Redcar steelworks in Teesside, this assumption of job losses and industrial decline is, perhaps, not an unsurprising one.

"I feel like it could cost us a lot of money in order to do all the work to preserve everything, but not really too sure [what the impact of Net Zero would be]... maybe not very good for the economy" (Male, aged 17, A level student, Bromsgrove, West Midlands)

"There will be job losses [because of Net Zero], there already was when the steelworks shut down. Places like that, the steelworks, car manufacturers, maybe certain types of mechanics because people change cars " (Female, aged 17, in college, Redcar, Teesside).

Participants were shocked that their local area would see lots of investment, for example that Fife and Perth would see investment due to the Firth of Forth green port. They had not heard this news or seen any evidence.

"You don't hear about what's happening here. It just somewhere that's on the sidelines almost" (Female, aged 23, NEET, Rosyth, Fife).

4. Young people are less likely to be interested in many of the green jobs that will be most in demand in the future.

59% of young people said they were somewhat or very interested in having a job in the green economy at some point in their career, and only 8% were not at all interested. However, their interest does not currently align with our analysis of the future of the green job market. When provided with a list of possible green job roles, young people are less likely to express interest in roles which our analysis indicated would be in high demand for employers.

Interest was lowest for the roles most needed. The most popular options were a conservationist (22%) and a farmer (19%), neither of which will see huge growth from Net Zero. The least popular were in industries that will have the greatest demand, such as only 7% interested in a heat pump installer role, 9% retrofit coordinator and 9% battery engineer.

"I haven't really heard of any of them... Haven't really spoken about them or learnt about them at school. None of them really jumped out to me" (Female, aged 17, A levels, Sutton Coldfield, West Midlands).

Interestingly, we found no meaningful differences in attraction to green jobs generally or specifically based on ethnicity, but we did for household income – those with lower household income were around 20 percentage points less interested in green jobs than those with a higher income.

²² Gov.uk, *Minister supports shared ambition for growth across the Humber*, May 2011

Given the sheer number of roles that will need to be filled by 2030 in the retrofit, CCUS, renewables and electric vehicle sectors, employers will need to attract young people from outside their sector, and those with no pre-existing experience or knowledge. For this reason, it is concerning that roles in these sectors are amongst the least attractive of those that we tested. This shows the low base that employers, local government and employment charities will need to start from to increase young people's interest in the roles to persuade them to embark on training and applying for roles.

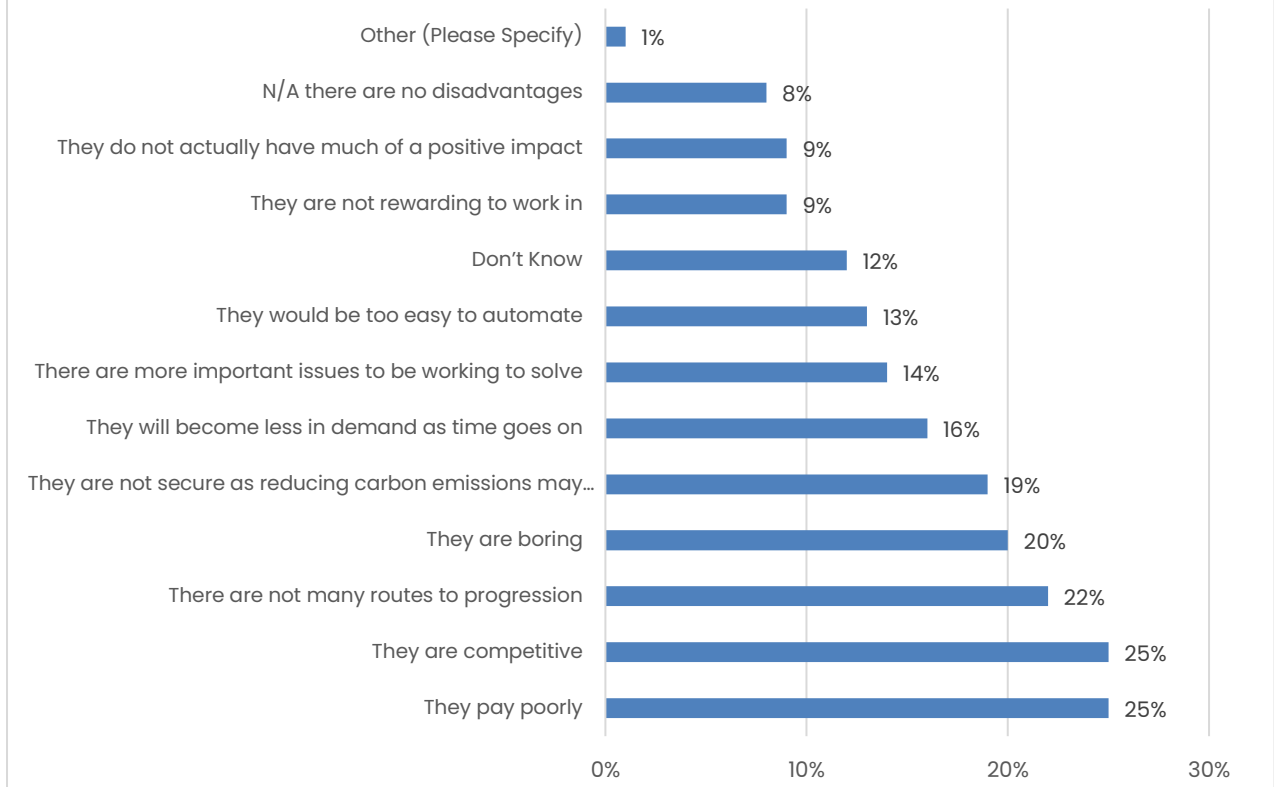
5. Young people do not associate green jobs with the factors that drive their career decisions.

What will make green jobs attractive is similar to what makes jobs attractive generally. When asked what would make them more likely to consider working in a job in the green economy, young people identified knowing it would pay well (38%), knowing they would find the job interesting (34%) and knowing the jobs were secure (29%) as most important. Considering that knowing it would pay well was most likely to make young people consider working in a green job, it is notable that "they pay poorly" was viewed as the top disadvantage of a green job, by 25% of young people – showing that this negative perception is a serious barrier to green jobs being seen as attractive.

But the perceptions young people have about the pros and cons of green jobs does not line up with what factors matter most to young people.

The disadvantages associated with green jobs were the factors most important to young people when making their career decisions. For example, when asked what the disadvantages would be of a job in the green economy, young people thought green jobs were competitive (25%), pay poorly (25%) and had fewer clear routes for progression (22%). These negative associations are an obstacle given that young people say pay and progression matter most in their careers. When we probed the reasons behind these negative assumptions in our focus groups, participants often felt simply that they did not know enough about green jobs and therefore were sceptical. Their views were not driven by negative press or social media, or negative stories from friends and family.

Disadvantages young people associate with jobs in the green economy



Survey question: "Thinking generally about jobs in the "green economy", what do you think are the main disadvantages of these jobs over other jobs, if any?"

Indeed, when asked, 36% of respondents felt their current job or jobs they were looking at were more highly paid than green jobs, compared to 21% who thought green jobs were better paid. Considering that 45% of young people said that earning a lot of money was the most important thing in their working life, this perception that green jobs do not pay as well is a major barrier.

"If I'm struggling to find a job then I will just do what's available if that makes sense. If it's good money and good hours I am not going to turn down the possibility of getting a different job" (Female, aged 21. NEET, Great Barr, West Midlands).

Research from the London School of Economics has found that green jobs command a 4% wage premium on average relative to similar occupations, and this premium is higher in low-skilled jobs.²³ The premium varies by role – for example, welders in Teesside command a higher salary due to the scarcity of welders in the region. However, more recent research from LSE suggests there is *not* a positive wage premium for low carbon jobs,²⁴ and Unite Scotland has warned that electrical technicians in oil and gas earn £20,000 more per annum than those working in renewables.²⁵ Young people are therefore perhaps right to be sceptical that green jobs would pay any better than existing roles.

²³ Vona et al. cited in Grantham Research Institute on Climate Change and the Environment, *Skills and wage gaps in the low-carbon transition: comparing job vacancy data from the US and UK*, January 2023, pp.7

²⁴ Grantham Research Institute on Climate Change and the Environment, *Skills and wage gaps in the low-carbon transition: comparing job vacancy data from the US and UK*, January 2023, pp.21

²⁵ The Times, *Wage gap puts fossil-fuel workers off green jobs*, November 2023

Just as the disadvantages associated with green jobs were the factors most important to young people, the aspects young people rated green jobs highly for did not guide their career decisions. Green jobs were thought to have a positive impact (50%), be rewarding to work in (40%) and generate pride in those who work for them (37%) – aspects which we found are not major factors in how young people view the attractiveness of a job role. Rather, pay and progression were the top priority to young people.

6. Young people care deeply about environmental issues but environmental purpose is not influential in their career choices

Young people care deeply about the threat of climate change, as our polling and other research regularly shows, although it is one of *several* key concerns such as the quality of the NHS and the cost of living. Over half (59%) state climate change is the most or one of the most pressing issues of our time, and only 8% that it is not much of or not a concern at all. In previous polling, Public First found young people tended to be slightly more concerned about the environment than the wider UK public, with 6 percentage points more viewing it as the most pressing issue of our time.²⁶

However, young people said environmental purpose does not make a job attractive on its own. Only 18% of respondents said that the environmental sustainability of their employer would be a factor in deciding between jobs, well below considerations like opportunity for progression (49%), job security (48%) and flexibility of hours (48%).

When asked about factors that make a job interesting, young people found environmental options less appealing than options focusing on 'social' issues, such as helping vulnerable people (34%), helping younger generations (34%) or reducing inequality (30%). This was echoed in the focus groups, where participants talked about being motivated by wanting to have a positive impact, but they clearly did not see any correlation between social impact and environmental action. For example, a participant had dropped out of a welding apprenticeship to become a palliative care nurse.

"It's not really emphasised, I don't think many people care about the environment in that sense" (Male, aged 17, in college, Middlesbrough, Teesside).

"I think realistically, people only have jobs because they need the money. It's a bonus if you're helping the environment" (Female, aged 18, college student, Solihull, West Midlands).

Therefore, although the environmental message behind these jobs *is* a motivator, it is not a strong one and considerations such as opportunity for progression and job security rate much more highly.

7. Young people are unfamiliar with these roles – which makes them less willing to consider applying for a role or entering training – but they want to learn more

Almost half of young people have not heard about green jobs during their education (46%) and this was even higher for NEETs, 64% of whom had not received any education on green jobs before. This explains why, in our focus groups, young people were unable to articulate why they would not like the role because they simply did not know enough about the role to begin with.

"I haven't really heard of any of them... Haven't really spoken about them or learnt about them at school. None of them really jumped out to me. I'm quite set on a few things, obviously I'm doing A

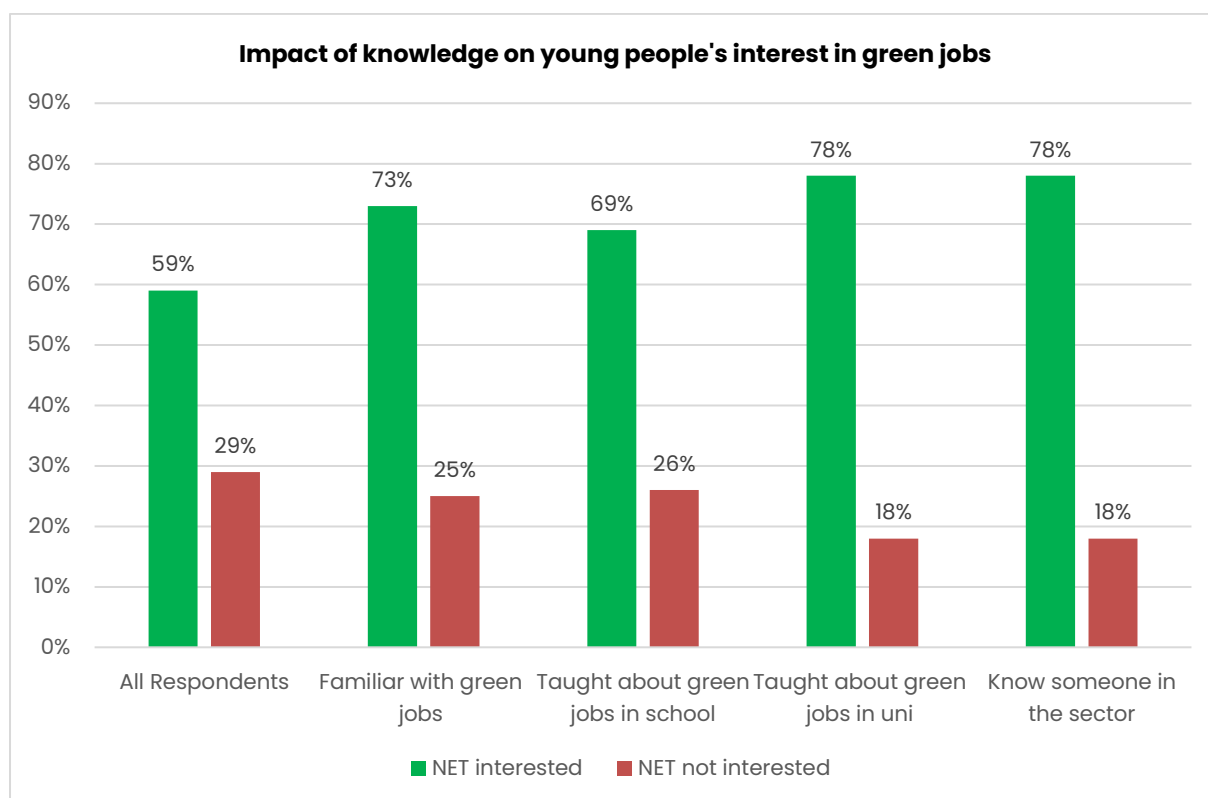
²⁶ British Gas, *Net Zero Homes Index*, September 2023. Polling took place in May 2023.

levels and I've got pathways I can go down at the moment and none of these really fall into any category" (Female, aged 17, A levels, Sutton Coldfield, West Midlands).

Education on the green jobs at school and college led to more awareness and higher interest in the roles. This is to be expected – as we know from careers education interventions laid out in the Gatsby benchmarks – knowledge of jobs and visibility of them is absolutely key to young people being able to make informed decisions about their futures.

Indeed, those that had received some form of education at school about green jobs were most confident in explaining the key terms such as Net Zero, green jobs and carbon footprint. For example, whereas only 27% of all young people had heard the term green jobs and could explain what it meant, this rose to 40% of those educated on green jobs at school, and 41% of those that know someone that works in the green economy.

Crucially, those familiar with the term green jobs were more interested in a role in the green economy, by 20 percentage points more than those less familiar with the term. Those taught about green jobs in school were 15 percentage points more interested than those who were never taught about it in their whole education, and those taught about them in university were 25 percentage points more interested than those who were never taught about it in their whole education.



Survey question: How interested, if at all, would you be in having a job in the "green economy" at some point in your career?

There was strong appetite from young people to learn about green jobs during their education (76%). This view was consistent for those who are NEET versus those in education, training or employment, and no matter if they had themselves received education on the subject.

"I would have to know more about it, because I'm not really sure what it means or what it entails" (Female, aged 25, NEET, Glenrothes, Fife).

In our poll, 45% of respondents told us they decided what they wanted to do with their career when they were between the ages of 14 and 18 years old. Matching this, young people in our focus groups thought learning about it in sixth form or college and when choosing GCSEs or equivalent would be most effective.

What are organisations doing to overcome these barriers? – The Prince’s Trust Achieve Programme and Green Skills.

The Prince’s Trust Achieve programme is a flexible offer delivered in secondary schools and other education settings across the UK. Its aim is to support 11–18 year olds to develop the skills, attitudes and experiences they need to succeed. Delivered through a range of units and modules, young people also have the opportunity to work towards a recognised Prince’s Trust qualification, with units also linked to key curriculum areas to support their broader educational development.

The Prince’s Trust has recently introduced green skills modules into the Achieve programme looking at “Green Economy Careers for a Greener Future” and “My Role in the Green Economy” – both of which were developed in partnership with the international sustainability charity Global Action Plan and supported by corporate partner Boots. The aim of these modules is to explain the green economy, the different sectors it covers and why it is important for the UK. As well as educating young people on the impact of Net Zero on employment, the module aims to enhance their understanding of the different career pathways they can pursue. The module is delivered by Prince’s Trust trained delivery staff and teachers through a mix of classroom activities, case studies and worksheets. With the opportunity to complete these modules alongside other content on the world of work and sustainability, the Prince’s Trust is working to ensure that more young people are leaving their education journey aware of the opportunities that the transition to Net Zero can present and they are excited about the potential of these job roles.

8. Green jobs are seen as being for those who take an academic route, which limits how many young people feel they can access them

Our poll found that young people were likely to think those who work in the “green economy” are young (30%; 5% said old), degree-educated (30%), and have studied science at school (27%). Despite a significant proportion of green jobs in the green economy being accessible via technical and vocational training, only 5% pictured the typical person working in these roles as not having gone to university. This was echoed in focus groups.

“They’d probably need some sort of course in hydraulics or engineering. Or a welding degree” (Male, aged 17, in college, Middlesbrough, Teesside).

Most (67%) respondents thought that at least a degree would be needed to undertake most green job, with 37% saying it should be in a related field, and 17% saying it would have to be at higher than degree level. Young people who were NEET were slightly less likely to think a degree was required (55% NEET v 69% IEET) although about a fifth (21%) did think extensive training (without a degree) would be needed.

“The sort of requirements you would need to do, it’s going to be very niche. Like you might need a degree in a very specific sort of qualification” (Male, aged 17, A level student, Bromsgrove, West Midlands).

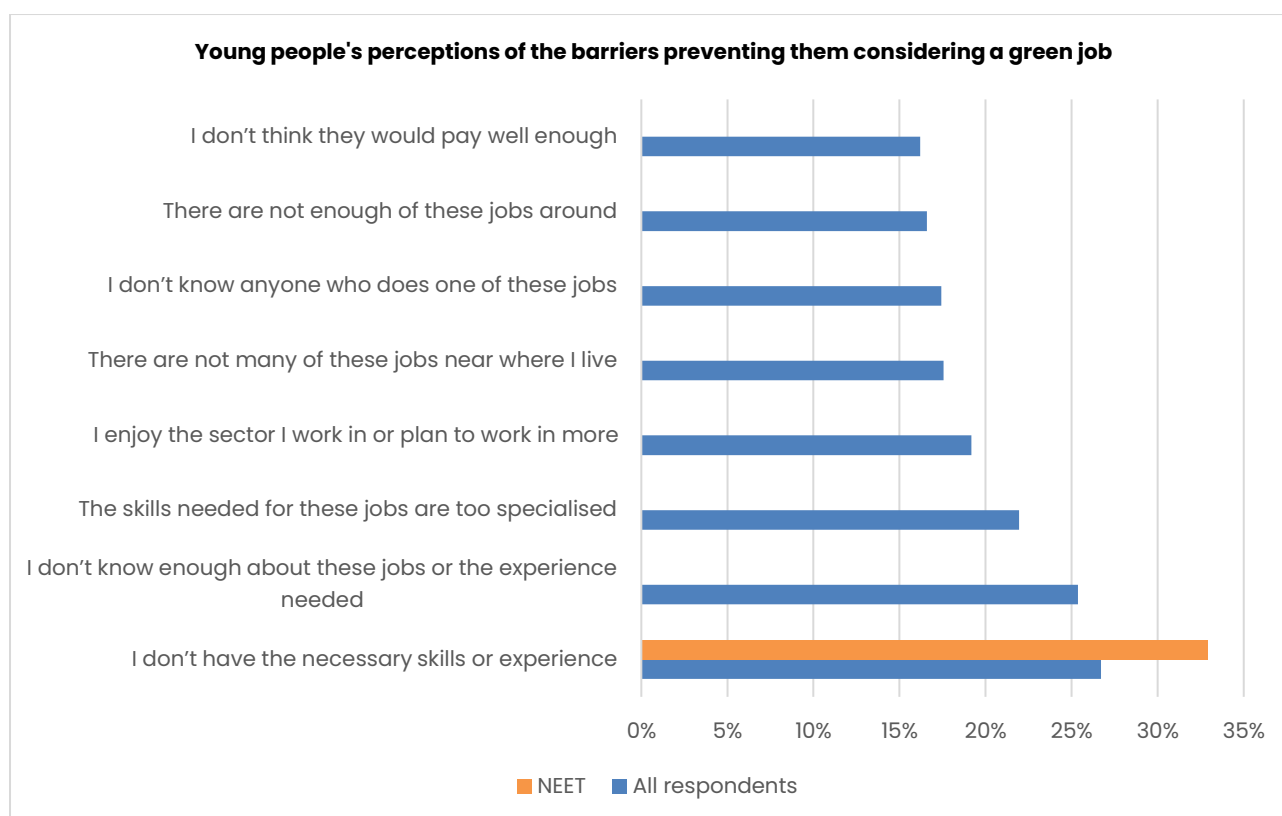
This assumption creates a significant barrier because it adds to the sense among some young people that they were not qualified or experienced enough for these roles.

In our poll, when asked what might be a barrier to them personally working in the green economy, young people were most likely to say that they did not have the necessary skills (27%), did not know enough about them or the experience needed (25%) or that the skills required would be too specialised (22%). In focus groups it was clear

when speaking to young people that their assumption that the job would need technical and degree-level qualifications made them feel less confident that they would be able to get the job, or be very good at it.

"I feel like you would have to have pretty good knowledge to be some kind of technician. I don't have that kind of knowledge... it's just the complete opposite of what I'm interested in and I feel like I don't think I'd be able to learn that kind of skill set" (Female, aged 17, in college, Redcar, Teesside).

There are two clear implications to young people's assumption that green jobs are for those that take an academic route. Firstly, young people misunderstand what training these jobs will require. Our preliminary research and data analysis found that there is a huge range in the skill levels required for jobs in the green economy, with many roles simply requiring GCSEs or equivalent and a college course or bootcamp/devolved equivalent. Secondly, this perception of green jobs risks excluding the huge number of young people who do not go to university, who are ideally suited to filling the many roles that do not require a university degree. This is a particular challenge given that many regions of the country which will see the largest number of green jobs are also those which have a relatively low proportion of young people going on to university.



Survey question: What, if anything, would you consider a barrier to you personally working in a job in the "green economy"?
Select any which apply

This is particularly a problem among young people who are NEET, as reflected in our poll and focus groups. Only 41% of NEETs would be interested in training for green jobs, compared to 58% of young people overall. And when asked what would be a barrier for them personally working in the green economy, the young people who were NEET said they were most concerned with their lack of skills or experience (33%).

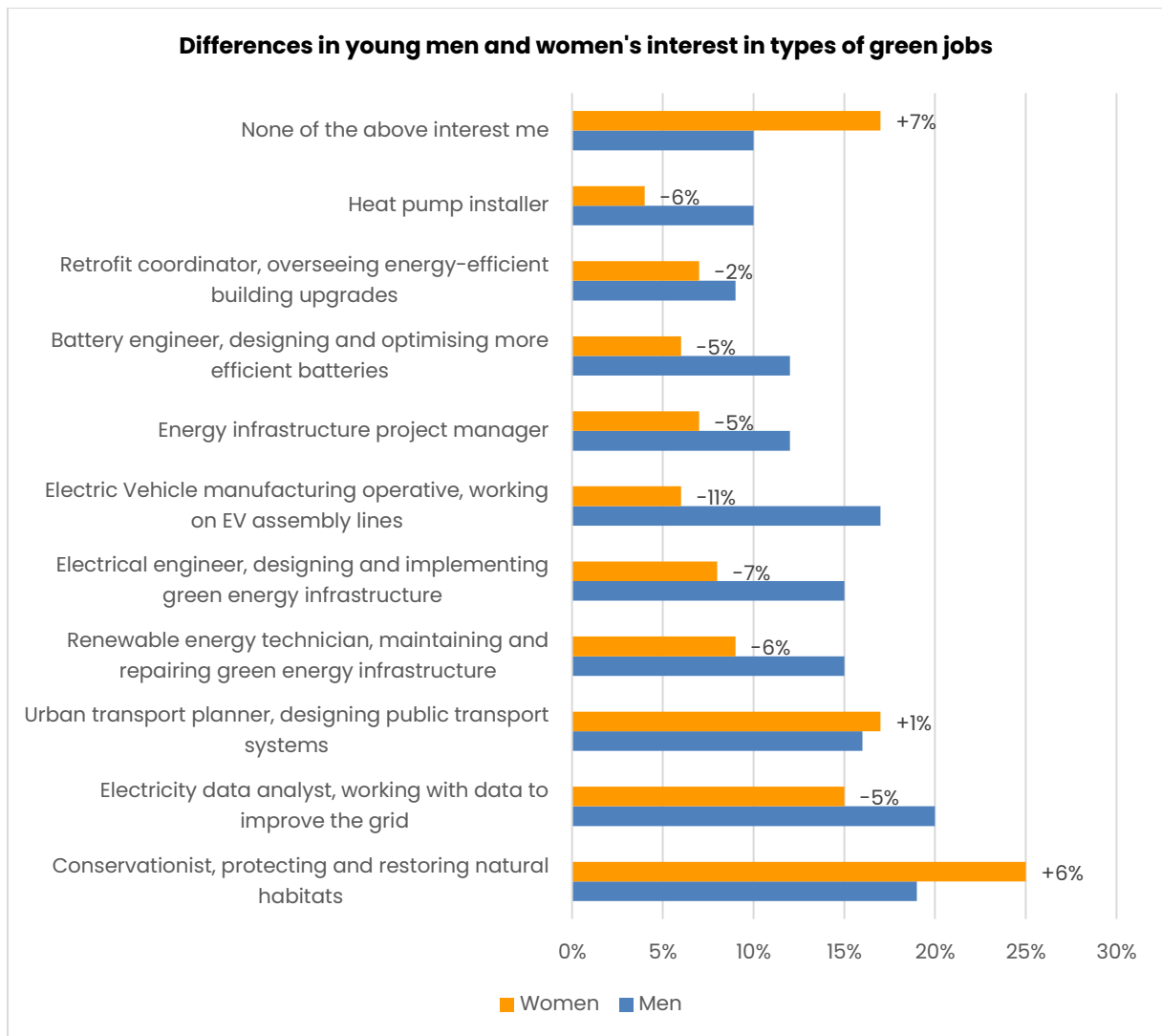
"I think the jobs sound quite interesting. But I think the biggest barrier to me would be the lack of experience or qualifications or any sort of knowledge to actually be able to carry them out. I do like the hands on work but I'd be so out of my depth with these jobs. And getting the degree would be a big issue for me" (Male, aged 21, NEET, Rosyth, Fife).

9. Young women are less aware of and less interested in green jobs – which risks perpetuating existing gender disparities in the industries that will be key to Net Zero.

The most significant gap between how different demographic groups responded to our research was based on gender. Whilst we did not find a significant gender gap in the interest in a green job generally, we did see these in the roles which will see the most growth.

Our poll found that female respondents were around half as likely to say they would like to work in the more manual or traditionally male-dominated industries, for example EV manufacturing operative (17% v 6%), and heat pump installer (10% v 4%).

This is a particular issue for some types of green jobs. Interestingly, in the sectors that will see far less growth, such as farming, public transport and conservation, there was less of a gender imbalance, and in the sectors that will see the most growth, such as greening homes and electric vehicle manufacturing, there was the greatest gender imbalance in terms of interest.



Survey question: Which of those roles do you personally think you would most like to work in, if any?

Young women are less likely to say they have received education on green jobs during their education (51% vs 40%). Though polling can often reveal differences in how confidently men and women answer such questions, this is still a striking disparity.

The majority of the young women we spoke to in our focus groups told us they saw green roles as technical, STEM-focussed and 'hands on' which they said was not attractive to them. Compared to the young men we spoke to, the young women saw the roles as less attractive, stating they "couldn't imagine myself doing that job."

"[when asked what they thought of the green jobs] Just that I don't suit them... I don't know they just sound a bit complicated" (Female, aged 20, NEET, Rosyth, Fife).

"I couldn't imagine myself doing it... My previous job was dance and arts... these jobs don't really seem like me" (Female, aged 25, NEET, Tamworth, West Midlands).

The women we spoke to also seemed less confident they would be good at the job, because they felt that the technical and STEM skills set was out of their comfort zone or not playing to their strengths.

"I think sometimes the technical things can feel really daunting and unapproachable... I was a nursery teacher and if somebody put me in front of a wind turbine I would think 'what the hell is this, where do I even start?' You get it into your head that it's big and scary. Maybe if they did apprenticeships or accessible training" (Female, aged 23, NEET, Rosyth, Fife).

"Too technical. I've never been good at that, like ever. So I would have no idea what to do. [when probed on if training would help] I would probably still have no idea what to do" (Female, aged 20, NEET, Hartlepool, Teesside).

Finally, childcare was an issue. When asked what the barriers to training might be, none of the male participants brought up flexible hours in order to facilitate caregiving but almost a third of the women did, particularly in the NEET group. Two women also stated that training would need to include adequate pay as they have dependants and therefore cannot be as financially flexible.

"I've got a daughter and it would be a bit difficult if you had to go away for training. But if it was like the apprenticeship style, like regular working hours that would be fine. Again it depends on the pay... if you've got your own house, if you've got kids it's harder" (Female, aged 25, NEET, Tamworth, West Midlands).

This clear gender split in the attractiveness of green jobs, and the difference between men and women's confidence in their ability to succeed in such roles, represents a risk that the green economy will continue perpetuating the existing inequalities in industries that will be key to the Net Zero transition.

This gender gap in industries such as manufacturing, energy and engineering, particularly in STEM-related roles, is a well-documented problem. Despite efforts to address it, we see consistent challenges with helping women access these industries, for example in the lower uptake of women in apprenticeships.²⁷

Without targeted action, there is a risk that much of the benefits of Net Zero, in the form of good quality, secure jobs, will be predominantly felt by men – undermining the goal of a just transition.

²⁷ The Times, *Trade skills shortage 'will cost UK £98bn'*, October 2023

What are organisations doing to overcome this barrier? – British Gas’ work attracting young women into apprenticeships

British Gas is an energy supplier based in the UK, and owned by Centrica. It supplies gas and electricity to over seven million homes, and employs around 20,000 people.

British Gas has recognised the challenges of recruiting a diverse workforce to its primarily STEM-based and technical roles, such as in EV charging or heat pump installation. It has set an ambitious target of 50% of its apprentices to be female. While it is not meeting this aim, with one third of the 600 apprentices it recruited in the past year being women, considering that today approximately 7% of professional engineers are women, this is a marked improvement.

To boost interest from female applicants, British Gas has run a targeted recruitment campaign that includes virtual careers events, and they have partnered with Tech She Can, which is a charity focussed on increasing the number of women working in the technology sector.

British Gas’ communications strategy has focused on the transferable skills that make a person suited to roles such as a Smart Energy Expert. They include case studies from women that have worked previously in retail or teaching and whose customer service and social skills have been transferable to the apprenticeship role.²⁸ Given our research has found that women and young people who are NEET are particularly concerned they do not have the right skills or qualifications to excel, these case studies of apprentices that have thrived having come from outside of STEM could help dispel assumptions, and give potential applicants the extra confidence they need to apply.

10. For young people to undertake training they need to know there is a clear pathway to employment, and have a strong grasp of the role itself, which is more of a challenge for green jobs

Overall, barriers for training were similar to any job – young people wanted to be paid a living wage, close to their home, and a guaranteed role at the end. However, the young people we spoke to felt that *particularly for green jobs*, they needed certainty on their pathway from training into a career.

Because green jobs are relatively unknown, young people need a greater degree of certainty about the security of the role, such as training leading to a role and long-term career progression. Roles related to low carbon industries were not seen as offering more security than other types of jobs. Only 29% of young people thought that jobs which have a role in making the UK more environmentally friendly would be more secure than other jobs, compared to almost half (46%) who thought they would be no more or less secure than other jobs. Indeed, 29% of young people said that knowing the job would be secure would make them more likely to consider a job in the green economy.

Young people also need much more comprehensively educated on the role, and its pre-requirements before applying. For example, they could not properly consider training as a heat pump engineer before they had an understanding of what they would do on a day-to-day basis, how they can expect to progress, and if they need GCSEs, or equivalent, to apply.

“They should make a website showing you how to get from A to B... what you’re gonna learn, where it’s gonna take you. If you learn something at the start, then what you can go into, and then if there’s more branches that are specific” (Female, aged 24, NEET, Glenrothes, Fife).

²⁸ Centrica, *British Gas ramps up campaign to encourage women to choose engineering*, March 2022

Focus group participants felt that hearing from an employer before they entered training would be very useful, and employers feel like the most trustworthy source of information. This extended to marketing about jobs and training too.

“Maybe the company could come out and give a talk if you’re interested and how to apply... To get an understanding of what you’re actually going into” (Male, aged 17, in college, Middlesbrough, Teesside).

“[When asked what would motivate them to take training] Encouragement. They would have to show that they will train you from beginner level. You can come into this job and know nothing and we will give you all the skills you need. Maybe having that reassurance or even tailored training or a mentor” (Male, aged 21, NEET, Glenrothes).

Lessons on marketing green jobs to young people



28%

have **never seen or heard anything** about green jobs



17%

have learnt about green jobs through their education at **school**



19%

have learnt about green jobs through the **general media** e.g. newspapers



26%

have learnt about green jobs through **social media**



15%

have learnt about green jobs through their education at **University**

What should organisations seeking to market green jobs to young people take away from this research?

1. **Green jobs must be good jobs.**

What matters most to young people is that jobs have good pay, progression, and long-term security. Lead with these messages. Green jobs have a particularly strong message on long-term security (a merit of green jobs which young people are currently unaware of) so emphasise this.

"I would probably focus on the fact that the world is changing, and that it's a good job for the future. Instead of focussing your time on something where the career might not be there in ten, fifteen years" (Female, aged 24, NEET, Glenrothes, Fife).

2. **Dial down the environmental purpose aspect, and avoid jargon like Net Zero.**

Although young people might have heard of Net Zero, understanding of the term and, most importantly, how it relates to their lives and the world of work is *poor*. On top of that, environmental purpose is not a key motivator for career decisions.

3. **Be specific – young people are not educated on these roles and need the details.**

Do not assume young people have pre-existing knowledge about these roles. Because education on and recognition of these new roles is so low, you will have to work extra hard to make sure potential applicants feel confident that they understand what the role entails, such as the day-to-day tasks, what to expect from training and where they can progress to.

4. **Use social media to target young people for roles and training now.**

26% of the young people we polled had learnt about green jobs through social media, which is more than any other place. Indeed, in focus groups young people said social media was the only place they got their news. Using social media to target young people that have already left school may be the most effective way to make an impression.

5. **Educating young people at school can make a big difference in the longer term.**

We know from our research that learning about green jobs in schools, or understanding terms like Net Zero makes young people more interested in pursuing a green role, but almost half of young people have not received education on green jobs. The young people we spoke to and polled thought that educating young people in sixth form and when choosing their GCSEs or equivalent would be most effective.

Recommendations

Our research findings should serve as a clear warning that without concerted action to change young people's perceptions of green jobs, there is a risk that the UK does not develop the pipeline of skills it needs to deliver Net Zero.

The analysis of our report suggests that the exciting view the policy makers and politicians have about green jobs is not shared by young people. For example, whereas for policy makers green jobs feel like very secure roles, young people do not see them as more or less secure than other jobs,

The UK Government's *Green Jobs Delivery Group* is tasked with producing a *Net Zero and Nature Workforce Plan* in 2024. The insights highlighted in this report suggest several areas where educators, employers, third sector organisations and government need to intervene:

Educators

1. **Schools should start education on Net Zero, particularly its impact on young people's lives and the local economy, prior to pupils making their GCSE, or equivalent, choices.** Our research shows that young people want more education on the green economy and that increasing their understanding of Net Zero makes them more interested in relevant roles. As most young people start making career choices around the time they are selecting their GCSEs, or equivalents, there is a window where schools can deliver this information in a particularly impactful way. Secondary schools should target their careers education activities to ensure young people are aware of Net Zero and the job opportunities it will create by around the age of 14.
2. **Sixth forms, colleges and universities, especially in areas that will see large numbers of green jobs, should provide specific information about green jobs as part of careers education.** Our research found that a lack of understanding of what the role and career pathway entails was a key barrier. Educators should signpost young people to the roles specific to their area, such as electric vehicles in the West Midlands, provide detailed careers guidance linked to the specific jobs in that area, and ensure their course offering reflects local skills needs. This would also then increase young people's confidence when applying.
3. **Universities and colleges should expand the use of placements and mentoring schemes linked to the local green economy.** The young people we spoke to were unfamiliar with the roles and what they would entail, and young people who are NEET and young women in particular did not feel as confident that they would be experienced enough or well suited to get the role and excel in it. Increasing the availability of schemes that open up the industry for young people, for example through mentoring and industry placement scheme, would help increase awareness among young people and reassure about them about green roles, making them more attractive.

Employers

1. **Employers should engage with schools and career hubs in the areas where green jobs will be most numerous,** to increase students' awareness of Net Zero and the specific, local green jobs and training opportunities available. We found that the areas that will see the most growth, and have the greatest need for skilled workers, did not have higher awareness of, understanding of, or interest in green jobs. Employers and employment charities can bridge the gap between need and awareness, which will boost the pipeline of interested young people in these key regions.²⁹
2. **Employers should be highly visible in their partnerships with training providers and youth employment charities.** Young people are not convinced that green jobs are well paid, more secure or with good career progression. In fact, many had negative perceptions about green jobs. Young people

²⁹ The Careers & Enterprise Company, *Businesses say working with schools helps close skills gaps*, August 2023

wanted to hear directly from employers, who can play an important role communicating the benefits of green roles, dispelling any incorrect assumptions, and comfort young people that they do have the right skills set and experience to apply. As employers offer apprenticeships and engage in government or third sector programmes to train people for green jobs, it is crucial that they are highly visible and communicate their commitment to those undertaking this training

- 3. When marketing green jobs to young people, employers should emphasise the pay, progression and security they offer, rather than their environmental purpose.** Our research found that young people have a low understanding of terms such as Net Zero, and although they care about the environment, environmental purpose is not a key motivator for job attractiveness. Employers should use extremely simple terms, steering clear of jargon, and should emphasise the pay, progression and job security of the roles rather than environmental purpose alone. The pull out box on page 27 gives greater detail.

Third sector organisations

- 1. Charities should utilise their links with the groups of young people that are at risk of being left out of the Net Zero transition to raise awareness of green skills and jobs.** Our research should serve as a warning that young people who are NEET and young women are less educated on, less aware of and less interested in green jobs – and there is a risk this will replicate inequalities in the makeup of the current workforce in the next generation of workers. These groups may need extra support and confidence-building in the application and training process. Charities that work with young people have a particularly important role in reaching these groups outside formal education, using their existing touchpoints to educate them on the impacts of Net Zero on employment opportunities, and green jobs and skills.
- 2. Charities should work with employers and educators to ensure that skills pathways are highlighted in their interactions with young people in the later stages of education.** A lack of knowledge of what the role and career pathway entails makes young people less attracted to the role, and young people did not see green jobs as more secure than other jobs. Charities can work to educate young people on the skills pathways behind specific green roles at the point they are most amenable to considering their future career – which our research found was when they were making their GCSE and A level, or equivalent, choices.
- 3. Charities should work with expert delivery partners and sector specific employers to create high quality learning and progression opportunities for young people in the sectors that will see the greatest green growth up to 2030.** A primary barrier for young people in being interested in a green job, particularly for young people who are NEET and young women, was that they didn't feel confident that they would have the right skills and qualifications for a successful application or to excel in the role. Internships, work experience and mentoring schemes with employers, and taster days with training programmes could be a valuable way to educate young people and give them extra confidence in the career pathway and their application.

Government

- 1. National governments should commission occupational progression maps for green industries which clearly signpost to young people how different training routes can lead into green jobs.** Our research found that many young people lack an understanding of what training is required for green jobs, which compounds a sense that they would not be able to undertake them. Clearer guidance is therefore required to help young people understand what training routes are available and how these lead into different roles. To deliver this, governments should commission the development of occupational maps for green industries which show the skills required for key roles and which qualifications deliver this. In England, the Institute for Apprenticeships and Technical Education has already produced similar maps that show how apprenticeship standards relate to many green roles³⁰. Similar maps are now needed for Higher Education and technical qualifications, as well as in the

³⁰ IfATE, *Green themes*, accessed October 2023

devolved nations. In future these occupational maps could be work in step with proposals for a new skills classification tool to help local authorities, schools, trainers and employers more clearly understand and communicate which skills are required in different roles.³¹

2. **National governments should provide additional funding for careers education in the regions that will see the most growth which support Net Zero and are therefore at the greatest risk of skills shortages.** Meeting the green skills challenge in regions that will see the largest numbers of new green jobs will be a particular challenge. Governments should provide additional funding to careers education in these regions to create a network of Net Zero 'beacons' that supercharge the existing careers education infrastructure, enabling schools and colleges, employers and local government to build awareness of the opportunities specifically in that region. They should also allocate extra funding for the delivery of entry-level green skills training programmes, which will contribute towards the supply of trained workers in roles relevant to the region. Entry-level routes must be accessible – training programmes requiring level 3 or above will have higher entry requirements than many young people, particularly in the regions that will see the greatest green job growth up to 2030, are able to demonstrate.
3. **National governments should develop more flexible programmes for training and retraining in green industries.** The skills bootcamps currently being funded to deliver training in areas such as the North East of England are welcome. Our research suggests that offering free training that leads to a job or job interview is likely to be popular and help overcome the uncertainty some young people have about entering green industries. However, our work has also identified that this type of very intensive training is unlikely to be accessible to some groups – such as young mothers and others with caring responsibilities. Government funding therefore needs to support a range of training options beyond just the bootcamp model, including programmes which provide more flexibility.³²

³¹ FE Week, *DfE plans 'classification' tool to fix 'fragmented and deficient' skills system*, October 2023

³² Gov.uk, *Find a skills bootcamp: North-east*, accessed October 2023