WARRINGTON SKILLS COMMISSION REPORT 2023

September 2023









The Warrington Skills Commission aims to ensure local people have the skills employers want and need. The commission is made up of representatives from a broad range of sectors, including the council, local business, education and skills, public and the voluntary and community sector.



Autonomy is an independent research organisation which creates data-driven tools and research for sustainable economic planning. Our research focuses on issues such as the future of work, sustainable jobs and just green transitions.

Thank you to our commission members for their support and participation throughout the Skills Commission process and for their input into the final report of findings and recommendations:

Professor Steven Broomhead

WBC, Chief Executive, Committee Chair

Steve Park

WBC, Director of Growth

Paula Worthington

WBC, Director of Education, Community Services

Gareth Hopkins

WBC, Director of Workforce & Organisational Change

Cllr Tom Jennings

WBC, Cabinet Member, Economic Development and Innovation

Cllr Sarah Hall

WBC, Cabinet Member, Children's Services

Cllr Kath Buckley

WBC, Councillor for Lymm South

» Nicki O'Connor

Department for Work and Pensions, Strategic Partnership Manager

» Nichola Newton

Warrington & Vale Royal College, Principal & CEO

Alison Cullen

Warrington Voluntary Action, CEO

» Richard Bayley

Atkins Global, Strategic Advisor

Glen Smith

DriveWorks Ltd, CEO

>> John Patterson

Sellafield Ltd, Head of Resourcing and Development

Stephen Fitzsimons

Warrington Chamber of Commerce, CEO

>> Laurence Pullan

Warrington Borough Council, Head of Communications

Xirstie Simpson

University of Chester, Associate Professor & Deputy Dean

Sary Jenkins

No Brainer Creative Intelligence, Managing Director

Damian Richards-Clarke

WBC, Communications Manager

Ehsan Akram

AMA Property Group, CEO

Andy Moorcroft & James Gresty,

The Challenge Academy Trust (TCAT), CEO, & Principal of Priestly College'

A special thank you to our expert witnesses and hosts of our organisational site visits, for their support of the Warrington Skills Commission and providing invaluable evidence and information to support our findings:

Dave Thompson

Warrington Disability Partnership

Pat Jackson

Warrington LEP

Caroline Rowley

Consultant

Trevor Langston

The Pledge

» Rachel Sutton

Hynet

Sarah Longlands

CLES

» Rebecca Anderson-Moss

Warrington & Vale Royal College

Xieran O'Connell

Amazon, Omega Site

Cllr Nathan Sudworth

WBC Representative - Supporting the Local Economy Policy committee

FOREWORD

FOREWORD

Welcome to the official Warrington Skills Commission report 2023, which sets out the vision for a successful future for our workforce and economy.

It was in 2013 that we carried out our last review of skills in Warrington, and it has been pleasing to see a number of the recommendations of that report evolve into practice – for example, through the establishment of the Pledge, connecting businesses with over 20 schools and supporting the transition of our younger generation into the world of work.

However, much has changed in the last decade, and this refreshed look at our strategic needs comes at the right time.

Our 2023 report reflects on the progress made since our last review, before looking at the evolution needed to ensure the continued growth of Warrington's economy. It explores the challenges and opportunities ahead of us and sets out the framework for ensuring local people are equipped with future-fit employment skills and training.

This report provides us with a clear way forward, with a strong focus on collaboration, preparing for net zero, responding to rapid technological progress and an ageing population and delivering skills training which aligns with the employment needs of the future.

As such, it will be an invaluable tool, as we continue our work together to deliver future economic sustainability and growth for Warrington, and ensure that this is something that local people can participate fully in.

As Chair of the Warrington Skills Commission, I would like to express my thanks to our commission members, expert witnesses, our consultant Autonomy, Warrington employers and employees, and our residents, for your support and participation.

Together, we have created an important document which I believe will leave a lasting legacy, helping to shape local and national policy, and guiding investment in skills and training for many years to come.

Professor Steven Broomhead MBE

Chief Executive of Warrington Borough Council and Chair of the Warrington Skills Commission

CONTENTS

4

Executive summary

-11

Introduction

18

Economic context

46

Skills in Warrington

52

Perspectives on the ground

60

Surveys

72

Futures to prepare for

92

Recommendations

108

Annex 1

124

Annex 2

126

Annex 3

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The 2023 Warrington School Commission was established 'by Warrington Borough Council' with the intent of reviewing employment skills in Warrington, in order to lead the public debate on skills, and help to secure the economic success of the borough. Since the 2013 report set out its ambitious and pragmatic vision for skills in Warrington, there has been significant progress in bringing this vision to life. In 2023, however, we live in a very different world - one that requires an analysis of skills that can meet the interlocking challenges of the climate crisis, the cost of living crisis, digitisation and care provision. These challenges pose significant risks and opportunities to skills provision in Warrington. It is with these challenges in mind, as well as existing conditions, that the following report has been written.

To offer a precise skills analysis of Warrington's labour market, an innovative methodology has been used that incorporates workshops and surveys as well as ASPECTT, a data tool designed by Autonomy that offers granular portraits of every occupation in the UK. Specifically, ASPECTT allows for a number of insights around the automation of jobs, the suitability of the workforce for 'green' work and the skills packages demanded by employers. It is this capacity to dig a little deeper that this piece of research will contribute to future-proofing Warrington's economy and workforce.

SKILLS ANALYSIS

Drawing on ASPECTT and employment market data for Warrington, we have derived four main 'skills profiles' (which group workers by similar sets of skills required for their work). These describe sets of skills commonly found together in the local labour market and are as follows:

- 'Management and Health'
- "Operative and Craftsmanship"
- 'Science and Technology'
- 'Care and Service'

Of these four, the two profiles that require the highest level of skill competency are 'Science and Technology' and 'Management and Health'.

HIRING AND APPLYING FOR WORK IN WARRINGTON

During the Brexit negotiations period and prior to the COVID-19 pandemic in 2019, the demand for workers in Warrington was lower than the wider region of North West England and the country as a whole. However, in the post-pandemic period, Warrington's job market surpassed the growth rate observed in both England and the North West, indicating a positive shift in the local labour market.

The industries with the highest number of job advertisements - indicating the highest level of demand - in Warrington between 2019 and 2023 were Health and Social Work, Wholesale and Retail, and Professional Scientific, much the same as the North-West and England as a whole.

Warrington is, on average, the fourth highest paying locality in the North-West. Of the town's four main skills profiles, 'Science and Technology' and 'Operative and Craftsmanship' offer the highest wages.

SKILLS IN WARRINGTON

Across the top 10 job categories in Warrington - which includes Health Care & Nursing, Engineering, Logistics and Warehouse, IT, Trade and Construction, Accounting & Finance, Sales, Social Work, Admin and Teaching - the most common skill demanded by employers was 'communication', which is the tip of the iceberg of emphasis on soft skills. Accounting & Finance, Healthcare & Nursing and Social Work Jobs tend to have the highest soft-skill score levels, while Logistics & Warehouse and Trade & Construction tend to have the lowest soft-skill score levels.

In terms of skills profiles, Science & Technology and Management & Health require higher levels of competency in soft skills than 'Care & Services' and 'Operative & Craftsmanship'.

There has been significant progress made on alignment in skills provision since the vision set out in the 2013 report. Twenty schools in Warrington are now signed up to The Pledge initiative, run by the Careers and Enterprise Company; this includes all mainstream secondary schools, both colleges and most SEND/AP schools.

PERSPECTIVES ON THE GROUND

Workshops and surveys were conducted with a variety of stakeholder groups in Warrington, allowing them to contribute their perspectives to the Commission and raise issues that they felt important..

In our workshops, participants consistently raised a number of key themes, issues and proposals:

- Opportunities to improve workplace inclusivity
- Improving approach to securing and distributing funding
- Building collaboration and co-production
- Impact of the pandemic and building soft skills
- Warrington has a strong economy
- Place-based focus on Warrington
- Building school support that students want
- Supporting mid-career workers
- Supporting SMEs
- Managing the apprenticeship levy
- Mismatches between aspirations and availability
- Digital skills as life skills
- Supporting the care sector
- Future career and skills awareness

Key findings from the 'Warrington Resident Skills Survey' include:

- Many of the main tasks involved in participant's jobs involve computers
- 3 51% of commutes in Warrington are car journeys despite 40% of commutes being under 15 minutes
- Green jobs such as 'Retrofit engineer' and 'Solar PV installer' were among the least familiar job titles to participants, which suggests why they were also considered to be the least desirable jobs.

FUTURES TO PREPARE FOR

The report also makes some forecasts about long-term industry and specific occupational growth, as well as considering the kinds of social and socioeconomic changes Warrington should be prepared for: an ageing population, the climate crisis and the ongoing development of digital technologies. We consider some of the potential impacts these 'futures' will have on skills in Warrington.

Over the next 10 years, skill profiles that require a higher level of skill such as 'Science & Technology' and 'Management & Health' will represent an increasingly significant proportion of the skills among Warrington's labour force. 'Care & Service' and 'Operative & Craftsmanship' are expected to grow on a far smaller scale, a worrying development given that these two skills profiles are essential to combating the worsening crises of care and the climate.

Our projections suggest that in the coming decade there is a substantial risk of imbalance between the supply and demand of labour in the care sector. This is largely due to the fact that the pace of growth of the elderly population is not mirrored by an equivalent expansion in health and care provisions. This crisis is set to become critical in the early years of the coming decade.

The number of retrofit jobs in Warrington is advancing too slowly, given that around 40% of Warrington's housing stock is currently below EPC D rating and over 11% of households are currently in fuel poverty. Transitioning more local workers into retrofit jobs very quickly is eminently achievable - and could be a huge opportunity to make sure the 'Green Industrial Revolution' is powered by Warrington workers. Warrington's labour market contains a number of occupations whose range of skills resemble those required for retrofit jobs, in particular Electrical and Electronic Trades, Construction Operatives, and Engineering Professionals; this bodes well for quick adaption should the demand spike as expected.

Recent developments in artificial intelligence (AI)rtificial Intelligence (AI) such as Large Language Models (LLMs) could affect up to 22% of the currently employed workforce. While many of these jobs would not be entirely automated, they would be significantly disrupted. Accounting and Finance jobs, and IT jobs are likely to be the most affected by these advances.

Needless to say, new technologies such as AI in the workplace can also be a huge boost to productivity and can facilitate greater staff wellbeing & work-life balance, whilst improving overall performance.

RECOMMENDATIONS

Warrington has responded to the challenges of the twenty-first century with resilience and, in many cases, has fared better than other places in the UK. If the town wants to respond as well to future challenges as it has to those of the recent past, it needs an agile skills policy, built for the growing challenges of our time. With this in mind, our recommendations are divided into three key categories: collaboration, alignment and preparation.

COLLABORATION

- Work with partners across the sub-region to seek a new regional devolved skills settlement from national government
- Enable a 'place based' focus and expand coordination between stakeholders via a new strategy skills body for Warrington
- Consolidate a single online skills portal
- >> Improve learner engagement in skills information
- Conduct representative polling for future skills reviews via a polling agency and collect comprehensive destination data for learners leaving Warrington
- Help employers to take advantage of and collaborate on the apprenticeship levy
- Enable a 'place based' focus and expand coordination between key stakeholders via a new strategy skills body for Warrington

ALIGNMENT

- Maintain a vision of skills training aligned with employer needs
- Target key growth areas for skills provision, specifically information technology, logistics and e-commerce, green industries, retrofit work and care work.
- Replenish skills that are ageing out of the labour market
- Offer soft skills training to all learners and support learners in demonstrating them to employers and support learners in demonstrating these skills to employers
- Celebrate fair employment practices via a fair employment charter

- Promote Equality, Diversity and Inclusion (EDI) in Warrington
- Begin breaking down barriers to training before KS2
- Conduct more regular skills reviews and analysis

PREPARATION

Net Zero

- Adopt a forecast-led skills strategy
- Create a retrofit-ready workforce
- Improve access to skills training through public transport and innovative use of digital technologies
- Offer green training provision across education

Care Economy

- Support 'Warrington Together' partnership model.
- Address the cause of recruitment and retention difficulties such as low pay and poor working conditions in the sector
- Offer Provide regular training opportunities for workers and promote greater awareness of these

Digital Futures

- Offer core-led digital skills training for all school age leavers
- Make digital skills readily accessible to adult learners and the employed
- Establish digital training-led initiatives for the economically inactive and unemployed
- Build automation resilience into Warrington's skills provision

INTRODUCTION

INTRODUCTION

The 2023 Warrington School Commission was established 'by Warrington Borough Council' with the intent of reviewing employment skills in Warrington, in order to lead the public debate on skills, and help to secure the economic success of the borough. Following on from the last Commission, which published its report in 2013, this commission is committed to involving key stakeholders, including employers, educators, learners and employees, from across Warrington, as well as distilling the important local, national and international evidence.

As such, the commission has been established with a remit to:

- Review the progress made since the last Skills Commission carried out in Warrington, which was carried out in 2013.
- Review the nature of Warrington's economy currently and into the future.
- Explore the policy framework around education and skills.
- Review the current approach of education and skills providers in Warrington, the associated resourcing and national policy drivers, and the local skills outputs/outcomes.
- Determine the skills and qualifications requirements of Warrington's economy and businesses to ensure that:
 - the local economy remains competitive
 - the local economy grows to its true potential
 - the current and future workforce needs of local businesses and organisations are met
 - local people can participate fully in Warrington's economic growth

This commission represents an opportunity for reflection on the last decade of education, training and work in Warrington. As described by Cllr Tom Jennings, ten years after the 2013 commission, this commission and report aspire to, "help set the framework for further economic success by increasing opportunities for our people to get future-fit employment skills and training."

Key themes have emerged in the process of consulting key stakeholders for this report. It is clear, over what has been a difficult and resource-limited decade, that collaboration has got us further than competition in many areas. Working together represents the best opportunity for bringing resources into Warrington and creating shared prosperity. At the same time, many key observations of the last report remain present in the minds of employers, educators and learners: in particular the need to align training to demand from the labour market.

In addition to reviewing the past, we must look towards the future. In one way or another, all of our key stakeholders expressed an awareness of the amount of change we have and will continue to experience, and the need to be prepared for the future. Again, as we looked to the future key themes emerged through consultation:

- The spectre of 'the digital' still looms large, and while we now have a good grip on the digital technologies of recent decades, a new set of innovations threaten to shake up work again, in particular large language models (LLMs) and generative Al (artificial intelligence).
- The question of care, how we look after each other from cradle to grave, is becoming one of the defining political issues of our age. In Warrington, which has a population both older and ageing quicker than that of England, this is a particularly present issue. We need to understand what effect age is having on our workforce, and prepare to look after those entering the later years of life.
- Finally, climate change and net-zero ambitions are forcing us to rethink how we live and work. Practically, this is going to involve a transition in the economy between some kinds of work and others, with greener jobs taking precedence. Whether this is a smooth transition or a rocky one depends entirely on how well we prepare for it. A green transition will also require education, general education for sustainable living and specific education to retrain workers for this new economy.

https://www.warrington.gov.uk/news/skills-commission-help-boost-employment-skills-and-economy

THE 2013 COMMISSION & REPORT

The current Warrington Skills Commission (2023) is the successor of a 2012/2013 Commission which published its findings in January 2013.² One of the primary purposes of the current Commission and report is to review and update the findings of the previous Commission, which was established with a remit to:

- Review the nature of Warrington's economy
- Determine the skills and qualification requirements to meet the needs of local businesses, realise growth in the local economy and enable Warrington's residents to fully participate in that growth
- Determine if education and skills providers meet the requirements of the local economy and what, if any, barriers were preventing this
- Produce recommendations to achieve its vision of skills in the borough

In terms of method: the report drew on a desktop review of national and local skills literature and feedback from two workshops, one with local skills providers and a second with employers. In addition to these it was guided by a full day commission featuring presentations from stakeholders including businesses, skills providers, young people and representatives of the community.

The report identified retail, education, human health, food and beverage, employment, public administration, defence and wholesale trade as the biggest employers in the town, which more or less mirrored the picture for towns nationally. However, it argued that Warrington also contains significant industries which differentiate its economy: industries related to the built environment, especially architectural and engineering services, logistics, telecommunications and computer programming were all identified as significant employers.

Warrington Skills Commission, "Report of the Commission" (January 2013), https://www.warrington.gov.uk/sites/default/files/2023-04/Skills%20commission%20meeting%20minutes%2024%20January.pdf

Three sectors were defined by the report as future economic growth areas: ICT, Business Services and Energy and Construction. These sectors were all major employers in Warrington which had been projected for growth by the Department for Business, Innovation and Skills. To take advantage of these growth areas, the report also identified the following specific skills areas for development:

- ICT skills amongst managers (especially in computing)
- STEM related skills in technology and pharmaceuticals
- Management skills
- Technical roles
- Managers and professionals in health and social care
- Employability/ generic skills, including the use of digital media
- Entrepreneurial skills

Employability and basic skills were identified as in demand across the economy (not just in target sectors or industries), especially for SMEs which employ a large portion of the Warrington workforce.

While the report described a "significant number" of employers as happy with their ability to recruit, certain key sectors faced challenges. In particular, there were concerns about the risks an ageing population represented to engineering professions, especially in the mechanical and nuclear sectors. Warrington's ageing population, the report argued, was compounded by the town's status as a "new town", with many who arrived in the 1970s and 80s now approaching retirement. The specific technical skills held by these workers were proving difficult to replace.

Despite high qualification levels compared to the national average, the report determined the skills provision sector to be "crowded, highly competitive and somewhat confusing for both employers and learners." The report also identified significant areas of deprivation in the inner wards of Warrington, which were not benefitting from the general employment opportunities or prosperity of the town. Inequalities in school results between different areas was raised as a related concern.

From the findings contained in its report, the 2013 Commission produced a vision in which skills development is focussed on meeting the growth needs of key business sectors. It made six recommendations to achieve this vision, paraphrased here:

- That skills providers, businesses and partners should focus on provision of skills needs identified in the report.
- That stakeholders should focus further on providing general employability skills (including digital skills), as well as entrepreneurial skills. Businesses should take in those looking for work as part of Corporate Social Responsibility programmes.
- To establish contact between employers and potential employees. For instance, via information packs, employer presence in schools and colleges, a proposed Warrington jobs fair, work experience opportunities, proposed matching service for apprenticeships, digital technology and social media outreach.
- That the Chamber of Commerce should develop an active forum for skills providers and businesses, focused on establishing and building communication to help skills providers meet employer needs.
- That the forum proposed in recommendation four should develop a close relationship with Cheshire & Warrington LEP and the Warrington & Co investment and regeneration agency.
- To establish a steering group for borough-wide strategy for skills development, aiming to align in three areas: local labour market need in the future, supply of skills provision, and demand from individuals and employers.
- The expectation of the Commission was that significant progress would be made on implementing these recommendations by the summer of 2013.

METHODS

The current commission has been established with a remit to review the current employment skills and education landscape of Warrington, and to produce recommendations for key stakeholders going forward. This report is the primary expression of the commission's work, and its production has involved the following:

- The commission has met four times between January 2023 and July 2023 to view presentations from experts in relevant fields and local stakeholders, report on progress made in the drafting of the report and feedback on its findings and recommendations.
- Six workshop sessions were held across April and May 2023. Each gave a platform to a different key stakeholder group in Warrington, allowing them to contribute their perspectives to the commission: education providers, employers, those facing barriers to employment, young people aged 11-15 and young people aged 16-18+. An additional general session sought the views of a range of stakeholders, including representatives from a recruitment company, the Trade Union Congress, the local council, support services for disabled people and a member of the public.
- Analyses of key local economic and demographic data, drawing on data collected by the ONS (The Office for National Statistics), the Department for Education and the job vacancy site Adzuna.
- A retrofit analysis, assessing the prevalence of skills necessary for housing retrofit already present among Warrington's workers.
- An automation risk analysis for Warrington's labourforce in light of recent developments in AI (artificial intelligence).
- A skills survey, filled out on a voluntary basis by those who live and work in Warrington, as well as analysis and visualisation of key results, included in this report. Additionally, results from The Plegde's 2023 Future Skills Questionnaire have been included in this report.
- Forecasting of key emerging future scenarios, and an analysis of Warrington's future preparedness.
- A desk review of existing literature on skills in Warrington, and the local economy, undertaken as a part of the Economic Context of this report, and to support the Recommendations.

ECONOMIC CONTEXT

ECONOMIC CONTEXT

UNDERSTANDING THE LOCAL LABOUR MARKET

The wider Cheshire and Warrington economy is worth £32 billion, of which Warrington represents a significant portion.³ Much of the research undertaken on Warrington's local economy and labour market is commissioned by the Cheshire and Warrington Local Enterprise Partnership (LEP), and therefore covers a larger sub-region than Warrington alone. While Warrington and Cheshire clearly have interlinked economies, with many residents commuting between both and some overlapping skills provision, the two areas contain diverse industrial clusters (for instance Alderley Park in Cheshire, which is the UK's largest life science campus, or Warrington's industrial and trading estates). Where available, we have drawn on evidence describing Warrington specifically, and where the best available data describes the Cheshire and Warrington sub-region, we've taken care not to draw on information which primarily describes areas beyond Warrington.

As of June 2022, 437,000 people are employed in Cheshire and Warrington, 75.7% of the working age adult population living in the area.⁴ The employment rate in Warrington is higher, at 77.7% (December 2022). Warrington is situated between two large cities (Liverpool and Manchester), and we know many people commute in/out of Warrington to/from these areas, as well as from nearby Cheshire, Wigan Borough, Trafford and Salford, Halton and St Helens.⁵ Having such large neighbours with strong orbits can bring some difficulties, but also represents opportunities: Warrington's placement nearby to the M56, M62, M6, M62 and West Coast Mainline gives the town's industry and its residents good access to the wider North West and West coast Mainline.

³ Metro-Dynamics, "Cheshire & Warrington Economic Evidence Base" (September 2022)

⁴ Sarah Emes-Young, "Cheshire & Warrington Local Skills Improvement Plan: Emerging Priorities" (March 2023)

⁵ Warrington Borough Council, "Warrington EDNA Refresh" (2021)

Warrington has an age profile which is older than England, and the town is also expected to age at a faster rate in both the 60-69 and 80+ categories through to 2030.6 As a whole, the Cheshire and Warrington sub-region's total population is growing faster than that of England, with the 16-18 year old population set to grow 14% by 2032. However, Warrington's population growth is much slower, with the 16-18 year old population set to grow only 8% by 2032. When combined with record levels of economic inactivity among over-50s following the COVID-19 pandemic, over the next decade this is expected to lead to replacement demand exceeding the number of young people entering into the labour market. Forecasts suggest this could reach between 22-42% for the period between 2017 and 2027.7

Of course, as well as impacting the supply of labour, an ageing population will also affect demand, specifically in health & social care, which will need to care for those no longer able to work. This rise in demand is compounded by poor health outcomes in some neighbourhoods in Warrington, centred around Warrington town centre. 30% of neighbourhoods fall into the lowest two deciles for health deprivation in England.⁸ Seven neighbourhoods in Warrington have a Healthy Life Expectancy (HLE) of less than 60 years, suggesting most residents will be forced to exit the labour market before the current State Pension age of 66.

There are several currently planned or proposed green infrastructure projects which represent opportunities for growth in Warrington. The most significant of these is HyNet, the North West hydrogen pipeline and decarbonisation project. The Fiddler's Ferry regeneration project also plans to establish four new industrial buildings and service yards. Warrington is already home to a large, well positioned manufacturing base, with very high productivity levels, which puts it in a good position to capitalise on these opportunities. However, any of these opportunities require a forward thinking skills policy if Warrington's residents are to benefit from them.

⁶ Brennan Wilson Ltd., "Cheshire and Warrington Labour Market Assessment" (2022)

⁷ ibid

⁸ Metro-Dynamics, "Cheshire & Warrington Economic Evidence Base" (September 2022)

As a manufacturing hub, Warrington has a sizable carbon footprint. CO² emissions for Cheshire and Warrington are 1.2kg per km², more than double the average for both England and the North West; and this has been more or less constant for the past four years.9 In Warrington, these emissions mainly originate in a few key industrial clusters: Grange Industrial Estate, Stretton Trading Estate and Barleycastle Trading Estate. Warrington has comparatively low domestic energy consumption compared to the rest of the sub-region, but there is also work to be done here. While not all residences have EPC (energy performance certificate) ratings, as of 2021, Warrington had only seven houses with an EPC A rating, with 1905 houses rated at EPC D or below, which represented 40.3% of houses with EPC ratings.10 The government's Clean Growth Strategy aims to get as many homes as possible to EPC C rating by 2030.11 Retrofitting existing housing in Warrington represents a green jobs opportunity, but the workforce will require additional skills training to deliver this. The CITB (Construction Industry Training Board) has suggested skills policy in this area needs to be forecast-led, rather than demand-led, in order for net-zero to be reached efficiently.12

⁹ Metro-Dynamics, "Cheshire & Warrington Economic Evidence Base" (September 2022)

¹⁰ Metro-Dynamics, "Cheshire & Warrington Economic Evidence Base" (September 2022)

¹¹ HM Government, "The Clean Growth Strategy: leading the way to a low carbon future" (October 2017), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf

¹² CITB, "Building Skills for Net Zero" (March 2021)

ALIGNMENT IN SKILLS PROVISION

At the core of the 2013 Report was a vision of further aligning skills provision with the growth needs of key business sectors.¹³ Existing literature for Cheshire and Warrington suggests that we can expect to see 20,000 vacancies in the period from 2017 to 2027, filling these will require 71,000 more adults qualified to L3+ and 75,000 to L4+ across the period.¹⁴ If Warrington is to capitalise on its potential growth areas in the coming years, especially on green growth areas, skills alignment is vital.

Since the last Commission, material progress has been made on delivering skills training awareness and alignment. Twenty schools in Warrington are now signed up to The Pledge initiative, run by the Careers and Enterprise Company; this includes all mainstream secondary schools, all FE colleges and most SEND/AP schools. 15 The Pledge organises careers fairs, conferences, runs Employment Readiness Programmes, runs a Future Skills Questionnaire (FSQ) of young people with 4000 respondents and engages with skill provider senior leadership to develop skills provision and alignment. A Cheshire and Warrington LEP Institute of Technology has been established to help stimulate demand for L2 to L4+ qualifications. An Advanced Construction & Civil Engineering (ACCE) training centre and a Digital Enterprise Hub are being delivered as part of Warrington's Town Deal. 16 The LEP has also invested £5 million in specialist equipment for STEM-related training.¹⁷ Many teaching activities at the University of Chester that were taking place at Fearnhead have recently been relocated to Warrington Town Centre, which might offer opportunities for greater collaboration between the university and local businesses.¹⁸

Warrington Skills Commission, "Report of the Commission" (January 2013), https://www.warrington.gov.uk/sites/default/files/2023-04/Skills%20commission%20meeting%20minutes%2024%20 January.pdf

¹⁴ Brennan Wilson Ltd., "Cheshire and Warrington Labour Market Assessment" (January 2023)

¹⁵ The Careers and Enterprise Company "Warrington - Pledge Partnership & Careers Hub Update" (Autumn 2022)

¹⁶ Warrington & Co., "Annual Property Review" (2022)

¹⁷ Cheshire & Warrington LEP, "Cheshire and Warrington Skills Report 2021/2022"

¹⁸ Warrington & Co, "Annual Property Review" (2022)

When available, funding has facilitated best practice in skills training. Town Deal funding has been used, for instance, at Warrington & Vale Royal College to launch two new specialist training academies at the college's Warrington campus in priority sectors: Health & Social Care and Construction & Civil Engineering. The centres have been designed and launched in collaboration with Warrington Borough Council, employers and other stakeholders, drawing on feedback about current and future sector challenges and skills gaps to shape the education and training on offer. The Health & Social Care Academy was officially launched in October 2022 and the Advanced Construction & Civil Engineering Centre is due for official launch in 2024. Partnerships at both centres span a broad range of local employers from the public and private sectors, with a dedicated staff member and stakeholder steering groups for coordinating collaborative opportunities and ensuring exchange of industry needs and knowledge. These are also used to facilitate key discussions around sector updates and challenges, and enables collective problem solving and sharing of good practice between employers. Partnerships at both centres span a broad range of local employers from the public and private sectors.

However, some work remains to be done to realise the last report's vision. The Cheshire and Warrington LEP Skills Report (2021/22) argued that Warrington continues to have a mismatch between the skills learners are requiring and those employers need. Eskogen have published an "Employer Skills Engagement" report for the South Cheshire Chamber of Commerce & Industry, which surveyed employers across Cheshire and Warrington for their skills needs. Over half of respondents had experienced recruitment challenges in recent months, mainly attributed to shortages of young people entering the labour market with relevant skills. In particular, this affected caring and clinical roles, engineering, skilled trades and technical roles. In another survey, by the Cheshire and Warrington Growth Hub, 42% of businesses ranked recruiting/retaining staff and 21% lack of skills/training as a top-three anticipated difficulty for the next year. These responses certainly suggest that a skills gap, between the skills learners are acquiring and those employers need, remains a present issue for Warrington.

¹⁹ Cheshire & Warrington LEP, "Cheshire and Warrington Skills Report 2021/2022"

²⁰ Eskogen, "Employer Skills Engagement Analysis and Findings for South Cheshire Chamber of Commerce & Industry" (March 2023)

²¹ Cheshire and Warrington Growth Hub, "Business Confidence Survey February 2023"

The largest stated cause of recruitment challenges in Eskogen's report was a shortage of young people entering the labour market with relevant skills. In particular this was an issue in highly vocational roles, such as caring and clinical roles, engineering, skilled trades and technical roles. The Future Skills Questionnaire (FSQ), which asks students to rate their own understanding and experience of careers, employment and skills, offers a direct comparison between students in Cheshire and Warrington and the rest of England.²² Compared to England at the post-16 level, students in Cheshire and Warrington are 5% more likely to be aware of the kinds of business in the area, at least 6% more likely to understand the options available at 18 for apprenticeships at all levels and 11% more likely to have already made contact with jobs that interest them.

These are all significant areas of strength of strength to be built upon. Further, the report does not identify Warrington as behind either the sub-region or the country when it comes to linking curriculum learning to careers. This suggests that access to information may not be the primary barrier to skills development and alignment for young people in Warrington. If progress has been made on the availability of skills and careers information since 2013, work might also now be focused on the quality of that information. Additionally, with specific areas of employment reporting much larger skills deficits than others (e.g. caring and clinical roles, engineering, skilled trades and technical roles), this perhaps suggests the need for a more targeted approach in skills information.

Key sectors have been identified in the existing literature as in need of additional skills provision or strategy, either due to high replacement demand, a deficit those coming into the workforce with appropriate qualifications/ experience, or anticipated industrial expansion in the coming years:²³

Manufacturing is a very productive sector for Cheshire and Warrington, representing 17.5% of all Gross Value Added (GVA) for the sub-region.²⁴ Demand for manufacturing skills, across all three engineering pathways defined by the Institute for Apprenticeships and Technical Education (Design and Development; Manufacturing, Process and Control; and Maintenance, Installation and Repair) is higher in Warrington than the rest of the sub-region.²⁵

²² The Careers & Enterprise Company, "Cheshire and Warrington: FSQ Results Summer 2022"

Manufacturing, Health & Social Care, and Digital are all identified areas for growth in the Cheshire and Warrington Local Skills Improvement plan; Logistics is highlighted in the Warrington EDNA Refresh report as a growth opportunity.

²⁴ Sarah Emes-Young, "Cheshire & Warrington Local Skills Improvement Plan: Emerging Priorities" (March 2023)

Brennan Wilson Ltd., "Profile of the IFATE Engineering, manufacturing, process and control pathway occupations in Cheshire and Warrington" (2023); Brennan Wilson Ltd., "Profile of the IFATE Engineering, design and development pathway occupations in Cheshire and Warrington" (2023); Brennan Wilson Ltd., "Profile of the IFATE Engineering, maintenance and installation pathway occupations in Cheshire and Warrington" (2023)

Manufacturing is mainly split between four sub-sectors: manufacture of motor vehicles, manufacture of food products, manufacture of fabricated metal materials and manufacture of basic pharmaceutical products. In fact, 95% of all UK car production is within a three hour drive. The age profile of workers in particular is affecting supply of labour across manufacturing, and is having a greater impact than in other sectors. This problem was observed in the 2013 Commission, but remains the case today.²⁶

Health & Social Care employed 58,000 people in Cheshire and Warrington as of 2022. Demand has risen for the sector across the UK following the COVID-19 pandemic, but this is amplified by Warrington's ageing population. Employers in Cheshire and Warrington experience greater levels of recruitment difficulty than is the case nationally (and this is in the context of a national shortage), with higher staff turnover rates (30%). Car ownership, access to driver's licences and unsociable hours are all cited as contributing to these recruitment issues. Male candidates are also underrepresented in training, artificially narrowing the candidate pool.

A generational gap in digital skills is seen as a present issue in the sector, more general skills requirements relate to temperaments and attitudes of candidates who will be carrying out care work.

Logistics and E-commerce have been identified as key areas for growth in Warrington's economy, especially due to its advantageous location near three major motorways, the M56, M62 and M6.²⁸ After the pandemic, part of the retail market has moved online, and this boost in e-commerce corresponds to more demand for logistics nationally. Logistics now represent 4.1% of all jobs nationally, with 190,000 more employees since 2019 alone.²⁹ Provided Warrington can find an adequate supply of land it is well placed to capitalise on this growth, but any expansion of logistics will also require a corresponding skills strategy.³⁰

Warrington Skills Commission, "Report of the Commission" (January 2013), https://www.warrington.gov.uk/sites/default/files/2023-04/Skills%20commission%20meeting%20minutes%2024%20January.pdf

²⁷ ibid.

²⁸ Warrington Borough Council, "Warrington EDNA Refresh: Final Report" (August 2021)

²⁹ Amazon, "Response to the BEIS Select Committee inquiry into the UK Labour Market" (January 2023)

Five members of the commission visited an Amazon facility to get an insight into logistics and Amazon's role in Warrington. They noted the variety of employment types visible at the facility, from low skilled packaging jobs, to engineers and management roles. The scale of investment in the technology on display was staggering to all who attended, but it was seen that more work could be done in terms of the inclusivity of the workplace.

Information and Communication employed 19,000 people in Cheshire and Warrington as of 2022.³¹ This is a significant portion of the economy, contributing 4% of the sub-regions GVA, although it represents a smaller portion of the local workforce than is the national average. Unlike some other sectors, information and communication in Warrington has continued to become more productive over time.³² The LSIP (Local Skills Improvement Plan) has identified information and communication as an area for potential growth, but also noted that digital skills are now in demand across the local economy. Delivering both requires an expansion of appropriate skills training. Within the Information and Communication sector specifically, employers in Cheshire and Warrington have found relevant sector experience difficult to find in applicants. Female participation in digital skills training has also been found to be low.³³

Alongside some obvious benefits, the ongoing development of information technologies (in particular Artificial Intelligence) is likely to have a direct effect on work. In a recent report, Open.Al characterised Large Language Models (LLMs) as a "general purpose technology", indicating its pervasiveness, ongoing development and potential to stimulate related innovations.³⁴ This suggests that it will have broad social, cultural, economic and policy implications. In 2018 PwC predicted up to 30% of jobs globally could be at risk of automation by the mid 2030s.³⁵ And, according to a more recent report by Goldman Sachs, 24% of work tasks in Europe could be exposed to automation by Al. 36 This will especially affect roles traditionally thought to be safe from automation; Goldman Sachs' report identifies legal work, office work, architecture, engineering and the sciences as particularly at risk of automation. Computer and mathematical work is not far behind, with 29% of work tasks at risk of automation. Counterintuitively, work in computing and information technology is among those fields most at risk of automation. At the other end of the scale, work requiring physical labour is likely to be particularly resilient to automation by Al. This includes, for instance, installation, maintenance and repair where only 4% of tasks are at risk of automation. This situation is likely to develop in the coming years, and Warrington's skills policy needs to be able to adapt to it.

³¹ Sarah Emes-Young, "Cheshire & Warrington Local Skills Improvement Plan: Emerging Priorities" (March 2023)

³² Brennan Wilson Ltd. "Cheshire and Warrington Labour Market Assessment" (January 2023)

³³ ibid.

Tyna Eloundou, et al., "GPTs are GPTs: An early look at the labor market impact potential of large language models" (March 2023), https://openai.com/research/gpts-are-gpts

PwC, "Will robots really steal our jobs? An international analysis of potential long term impact of automation" (February 2018), https://www.pwc.co.uk/economic-services/assets/international-impact-of-automation-feb-2018.pdf

³⁶ Goldman Sachs, "The Potentially Large Effects of Artificial Intelligence on Global Economic Growth (March 2023)

ACCESS TO SKILLS

One of the aspirations of the 2013 Report was to help all Warrington's residents regardless of background participate in the town's strong economy. This is an admirable goal which we should hold on to; as well as considering the skills needs of employers, we need to look more closely at the present situation for potential learners, be they young people, students, workers, or the economically inactive.

The North West Net Zero Youth Steering Group has demonstrated clear demand, for instance, from young people for training in green skills - which represents a significant potential growth area for Warrington.³⁷ This included enthusiasm for specific industrial skills training, such as renewable energy or green transport, but also for the desire to weave green skills throughout the curriculum. Another issue raised by the steering group was transport. For the young people involved in these workshops, effective public transport provision was seen as both a necessary part of a green transition and an important factor in their ability to access education, skills training and employment opportunities. In particular, affordability and reliability of public transport services, as well as improvement of cycling infrastructure, were brought up as key issues for young people. Atkins' "Talking Bout My Generation" report into regional imbalance and young people mirrored these findings, suggesting that poor transport infrastructure and provision was a key factor driving young people out of the North of England.³⁸

NEET (Not in Employment, Education or Training) levels for 16-17 year olds are lower in Warrington than in England, at around 3% compared to just below 5% for England. There is, however, a clear attainment gap in Cheshire and Warrington, between those who receive Free School Meals and those who do not at L2, L3 and L4 qualification levels.³⁹ This is also highly dependent on geography, with areas that have fewer students on Free School Meals generally seeing worse attainment for those students.⁴⁰ The attainment gap in Warrington is larger than that of England at each of these levels.

³⁷ North West Net Zero Steering Group, "NWNZ Youth Conference Report" (October 2022)

³⁸ Atkins, "Talking Bout My Generation" (2023)

³⁹ Brennan Wilson Ltd., "Cheshire and Warrington Labour Market Assessment" (January 2023)

⁴⁰ ibid.

There are also some significant gender disparities in Further Education in Warrington, as well as in apprenticeship uptake.⁴¹ Uptake of training is low in ICT, Engineering and Construction for female candidates, and Health and Social care for male candidates. Female participation in digital skills provision is also low. Besides demonstrating inequalities in access, this effectively restricts the pools of candidates that these industries are able to recruit from.⁴²

In addition to gender based disparities, the wider sub-region of Cheshire and Warrington displays some concerning results when it comes to SEND (Special Educational Needs & Disabilities) access to skills provision and careers guidance. Positive indicators in the 2022 Cheshire and Warrington Future Skills Questionnaire (FSQ) results for students in mainstream education are unfortunately mirrored by lower SEND participation compared to England.⁴³ SEND students in Cheshire and Warrington are 5% less likely to expect to go to college than their counterparts in England, 8% more likely not to know what their next steps will be and 7% less likely to know who to ask for support with education and careers choices.

Related to this is the question of access to digital connectivity and literacy. A report commissioned by the Cheshire and Warrington LEP has found the economically inactive, particularly those who are long-term sick or disabled, are most likely to be non-internet users. 44 Some parts of Warrington have very low levels of digital uptake; 41.7% of LSOAs (Local Layer Super Output Areas) are between 7 and 10 on the IUC (Internet User Classification) scale, representing interaction with the internet only once per week or less. The report determines that since Warrington has generally good infrastructure (including the 2019 Virgin Media Gigabit cable expansion) it is unlikely that coverage is posing a significant barrier to connectivity. Instead, it suggests, barriers to digital inclusion are demand-side. Skill gaps, affordability, attitude barriers, frustration with the availability of digital services, frustration with lack of phone support, experience of local services which were not effectively joined up and users finding the number of digital services overwhelming were all identified as factors pushing residents away from the internet.

⁴¹ ibid.

⁴² Brennan Wilson Ltd., "Young People and Skills in Cheshire and Warrington" (2023)

⁴³ ibid.

Plum Consulting, "Understanding the barriers to digital connectivity in Cheshier and Warrington: Position Paper" (March 2023)

WHAT DOES THE DATA TELL US ABOUT SKILLS IN THE WARRINGTON LABOUR MARKET?

In order to produce a precise skills analysis we utilise ASPECTT, a database developed by Autonomy to offer granular portraits of every occupation in the UK. For any Standard Occupational Classification (SOC) occupation code, ASPECTT offers a detailed breakdown of the abilities, skills, expertise, technologies and tasks required for the role.

WARRINGTON'S SPECIFIC SKILLS PROFILES

Drawing on ASPECTT and analysing the labour market data for Warrington, we have derived four main skills profiles demanded in the local employment market.⁴⁵ Skills profiles group workers not by industry or sector, nor by specific job titles, but by the mix of skills required for their work.⁴⁶ In short, this method groups kinds of work together, based on the skills utilised on the job, rather than the usual labels used.⁴⁷ It allows us to describe Warrington's labour market in terms of its skill requirements, and foregrounds skills compositions which more closely reflect those used in work.

As such, these profiles describe specific distributions of skills that are generally demanded within the Warrington labour market. These skills profiles are unique to the Warrington labour market, and analysis of a different region would produce different skills profiles. Warrington's four main skills profiles are:

Management & Health: The most common competencies for these occupations include communication, problem solving, time management, organisational skills, teamwork, leadership, interpersonal skills. 'Management & health' covers a wide range of senior decision-making occupations across various sectors, including customer service, finance, hospitality, leisure, healthcare, legal, education, welfare, therapy, housing, business, media, and transport.

Warrington job market data is from a 12 month period across 2022, and drawn from Adzuna's dataset.

These skills profiles are derived by applying dimensionality reduction and clustering techniques derived from Principal Component Analysis via Autonomy's ASPECTT tool.

⁴⁷ For a list of which occupations fall under the skills groupings, please see Annex 2.

- Operative & Craftsmanship: This skills profile covers a wide range of roles and skills, largely in sectors involving physical labour, from supervision and assistance to more skilled trades. It includes occupations like Construction and Building Trades, Process Operatives, Vehicle Trades, Metal Machining, Fitting and Instrument Making Trades, Electrical and Electronic Trades.
- Science & Technology: This skills profile is often demanded by research and development in Architecture, IT, Engineering for instance. Common competencies among these occupations include problem solving, critical thinking, communication, organisation, interpersonal skills, and technical expertise.
- Care & Service: This could be 'care' of clients in the retail sector, for instance, or patients in the healthcare sector. A diverse set of roles fit into 'Care & Service', such as food preparation and hospitality, road transport driving, health associate professions, administration, retail sales, animal care and control, housekeeping and related services, leisure and travel services, hairdressing, cleaning, protective services. The skills which unite these roles include being helpful, having a friendly manner, providing information and assistance, and resolving customer complaints.

In the following heatmap (Figure 1), the top 50 skills are visualised according to their significance within each skills profile. These are ranked on a scale of skill level from high (dark red) to low (dark blue). Across these skills, we see that the 'Science & Technology' and 'Management & Health' skills profiles tend to be reliant on a higher level of skill across a greater number of skills. However, for certain specific tasks such as "Handling and Moving Objects" or "Monitor Process, Materials, or Surroundings", the significance is higher for the 'Operative & Craftsmanship' and 'Care & Service' Profiles.



Figure 1 - Relative skill level required (top 50 skills) for each skills profile. Autonomy calculations with ASPECTT and ONS data.

Analysing the ONS data on current jobs in Warrington, we have found that the majority of occupations are either Professionals and Associate Professionals, Elementary Occupations and Administrative occupations. This dominance of Managerial and Elementary occupations is reflected in our skills profile analysis (introduced above), with the majority of the existing jobs in the labour market requiring skills competencies related to 'Management & Health' and 'Care & Service'.

In Figure 2, we show the distribution of current employment in Warrington, aggregated into job categories and our four key skills profiles.⁴⁸

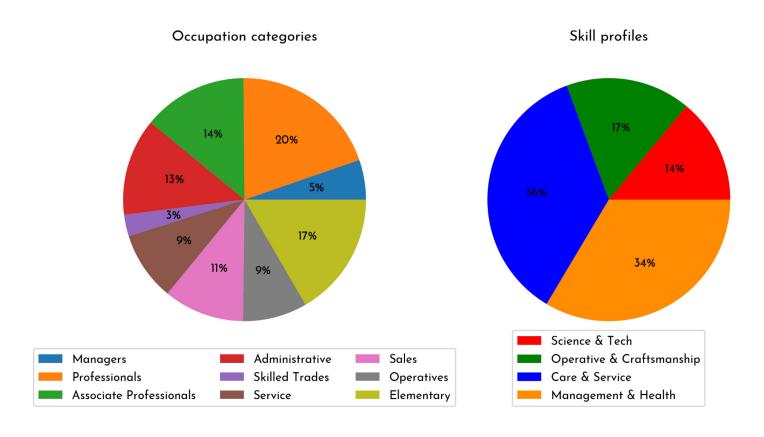


Figure 2 - Warrington 2022 labour force composition, occupation categories vs skill profiles. Autonomy calculations using Annual Population Survey⁴⁹ and Local Enterprise Partnerships areas projections.⁵⁰

The Jobs categories here are taken from Standard Occupational Classification 1 (SOC-1) codes, the highest level of the ONS (Office for National Statistics) jobs taxonomy

⁴⁹ Office for National Statistics. (2023). Annual Population Survey [Data file]. Retrieved from https://www.ons.gov.uk/surveys/informationforhouseholdsandindividuals/householdandindividualsurveys/annualpopulationsurvey.

Department for Education (DfE). (2023, March 21). Labour market and skills projections: 2020 to 2035. Retrieved from https://www.gov.uk/government/publications/labour-market-and-skills-projections-2020-to-2035.

However, the demand for labour in Warrington differs from the distribution of the labour force. As shown in Figure 3, Professionals and associate professionals are in high demand, while the 'Operative & Craftsmanship' and 'Science & Technology' skills profiles have a slightly higher proportion of overall demand compared to other profiles. This will, in part, be a consequence of the different ways in which jobs with different skill sets are advertised. Some jobs are more likely to be advertised through word of mouth and leaflets, whereas other jobs are more likely to be posted online, and be captured in Adzuna's dataset.

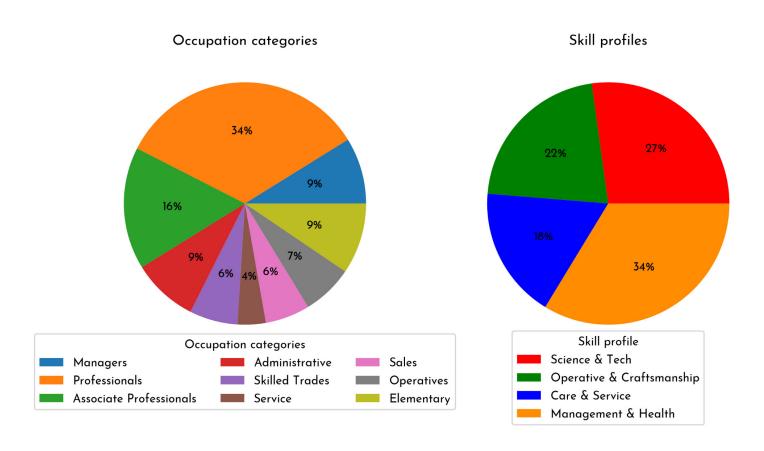


Figure 3 - Warrington 2022 labour demand composition, occupation categories vs skills profiles. Autonomy calculations with Adzuna.

If we track the evolution of Warrington's Labour market over the past decade, we can see its distribution has remained somewhat stable. The labour force was at its largest shortly before the Covid pandemic in 2019 and has remained relatively steady in the last ten years. As Figure 4 shows below, Professionals and Associate Professionals have remained the most prevalent occupation categories throughout this period, while 'Care & Service' and 'Management & Health' have remained the most prevalent skills profiles.

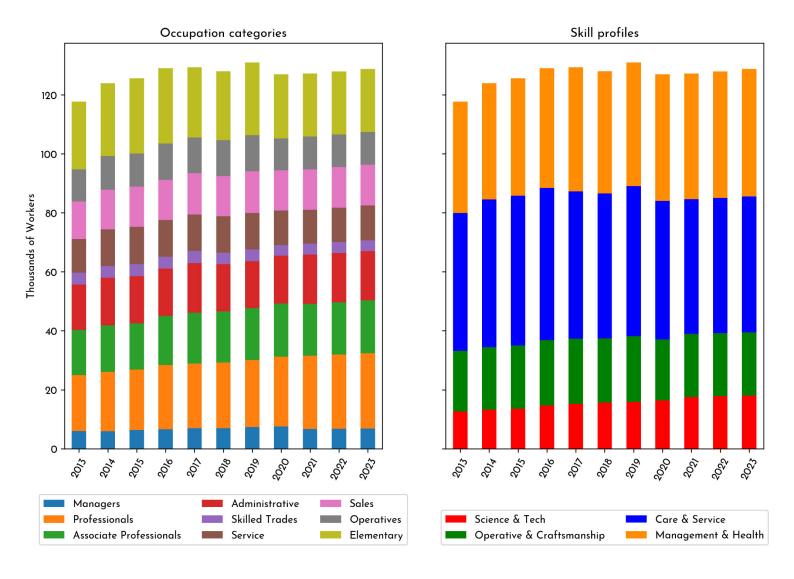


Figure 4 - Warrington labour force composition, 2013-2023. Occupation categories vs. skills profiles. Autonomy calculations with Annual Population Survey, Local Enterprise Partnerships areas projections.

An examination of the age distribution across skills profiles, seen in Figure 5, reveals that 'Care & Service' and 'Operative & Craftsmanship'-related competencies are predominantly prevalent among lower and more advanced age brackets. For the intermediate age groups, the most significant skills profiles are 'Science & Technology' and 'Management & Health'. However, the average age interval for each skills profile falls between 40-50, suggesting this is the largest cohort in the local labour market. For 'Science and Technology', the largest cohort is age 40 to 44, which accounts for 15% of those within the skills profile. For 'Operative & Craftsmanship' this is 45 to 49, representing 13% of the skills profile. In 'Care & Service' the average age falls into the 45 to 49 band, comprising 13% of the skills profile. Finally, for 'Management & Health' the largest age band is 45 to 49, at 15% of the skills profile.

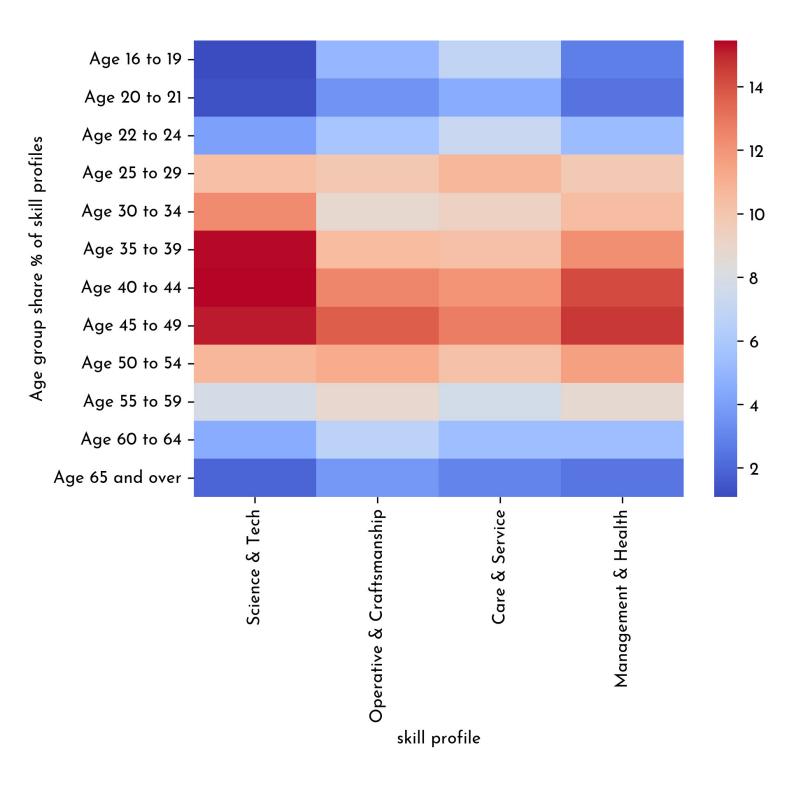


Figure 5 - Age distribution of skills profiles. Source: Autonomy calculations with Nomis, Warrington occupations by age data.⁵¹

NOMIS. (2011). Occupation by Sex by Age. Table ID: DC6112EW. Retrieved from https://www.nomisweb.co.uk/census/2011/dc6112ew

HIRING AND APPLYING FOR WORK IN WARRINGTON

The Adzuna online job search engine offers a rich pool of data on online job advertisements, applications and hiring across the UK. Drawing on the Adzuna dataset, we are able to construct an analysis of hiring and applying for work in Warrington, and contrast this with the wider North West and England.

As Figure 6 demonstrates, during the Brexit negotiations period and prior to the pandemic, the demand for workers in Warrington was lower than the wider region of North West England and the country as a whole. However, following the post-Brexit and post-pandemic period, the job market in Warrington experienced a significant turnaround. It surpassed the growth rate observed in both England and the North West, indicating a positive shift in the local labour market.

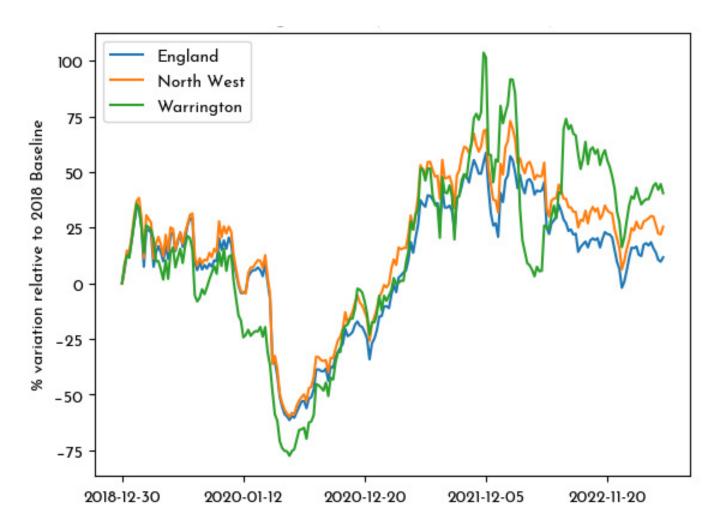


Figure 6 - Hiring demand. Autonomy calculations with 2019-2023 national, regional and subregional Adzuna Data.

Figure 7 breaks down online job advertisements in Warrington, the North West and England by industry for the period from 2019 to 2023. It shows Health and Social Work, Wholesale and Retail, and Professional Scientific account for a significant portion of local demand. These industries demonstrate strong hiring intentions in both the local context of Warrington, as well as in the wider North West region. Notably, the Construction industry has exhibited significant importance to Warrington's labour market during this period, but not in the wider North West or England.

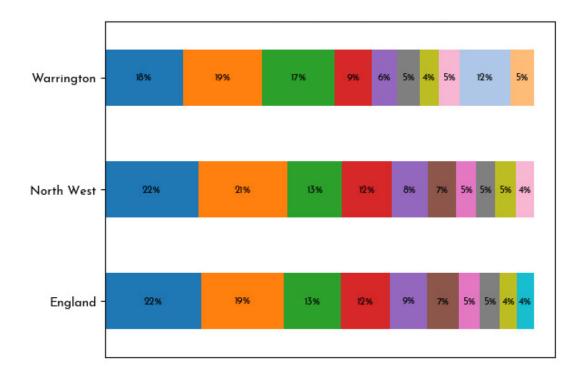




Figure 7 - Percentage of jobs ads per industry (2019-2023). Autonomy calculations with 2019-2023 national, regional and subregional Adzuna data.

Wages in Warrington follow an overall similar distribution to both the wider North West and England as a whole, as shown in Figure 8. The annual wage interval of GBP 20,000 to 30,000 is prevalent across all regions. Larger portions of the population, however, are constantly placed at higher wage intervals in the North West and England.

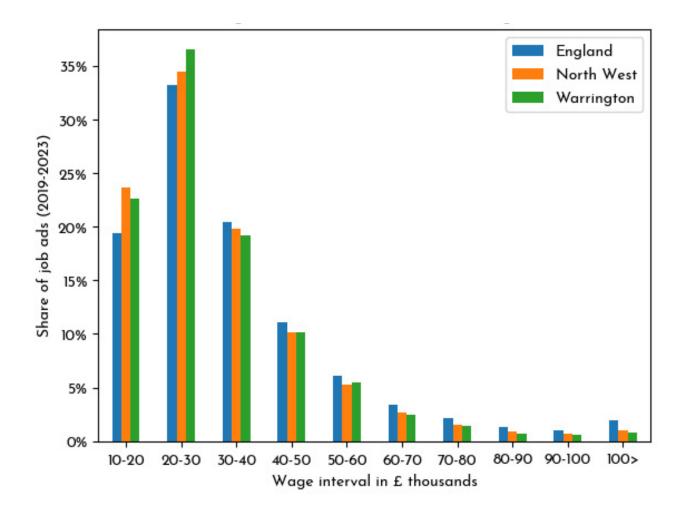


Figure 8 - Wage offered distribution across regions. Autonomy calculations with 2019-2023 national, regional and subregional data from Adzuna.

The organisations (and the kinds of organisations) posting job advertisements in Warrington differ from those posting in England and the North West. Figure 9 shows the ten organisations who post the most advertisements in each of these regions: we see that in the larger regions, Retail and Healthcare companies are particularly prevalent. Meanwhile, in Warrington, the construction industry leads in frequent hiring.

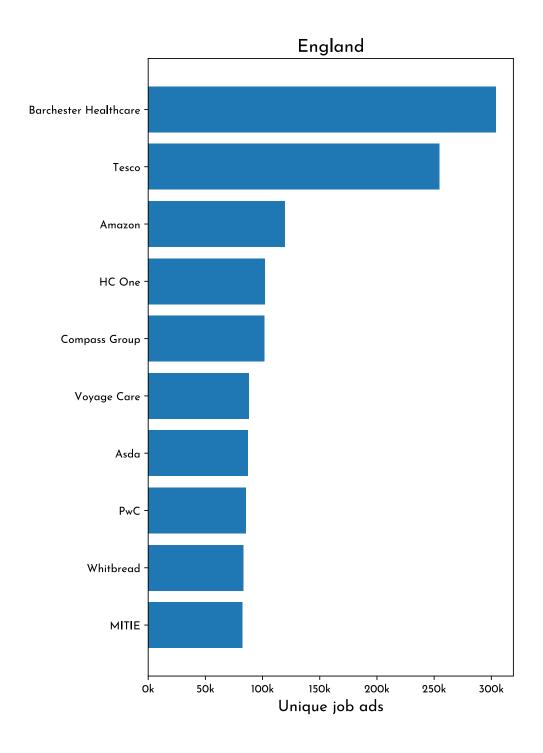


Figure 9a - Top 10 companies posting job ads, per region (2019-2023). Data from Adzuna.

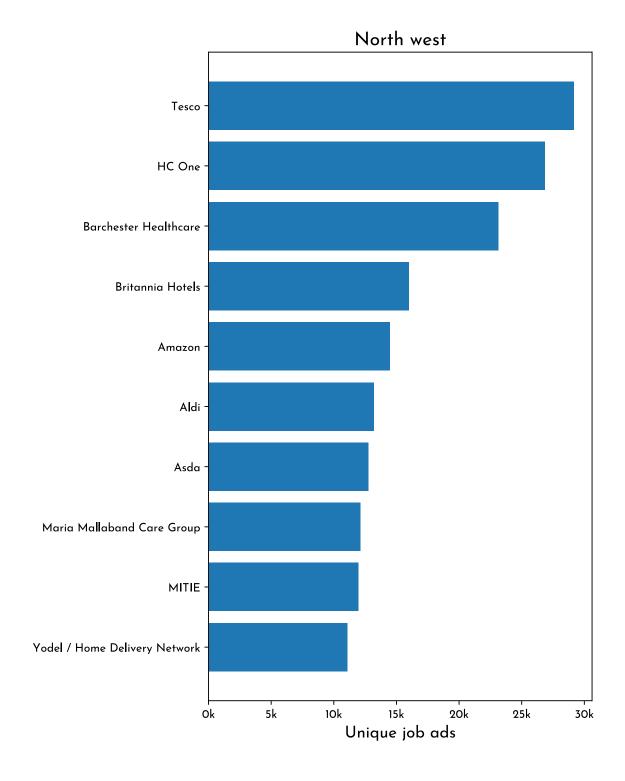


Figure 9b - Top 10 companies posting job ads, per region (2019-2023). Data from Adzuna.

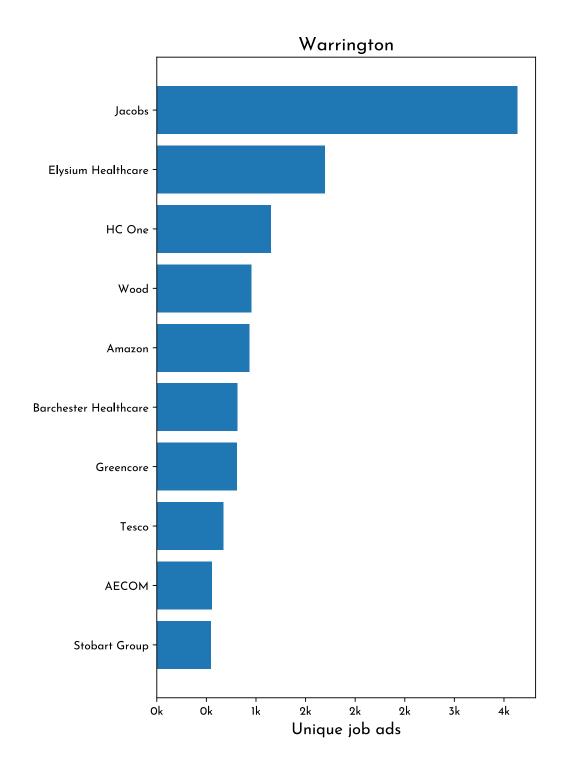


Figure 9c - Top 10 companies posting job ads, per region (2019-2023). Data from Adzuna.

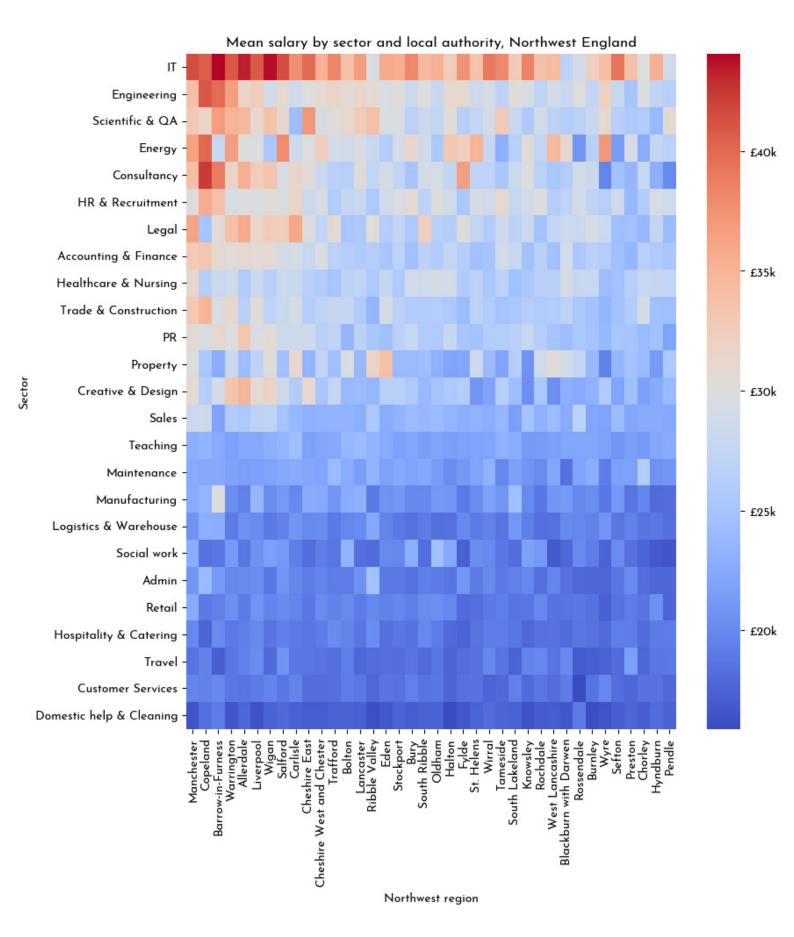


Figure 10 - Mean salary by sector and local authority, Northwest England. Autonomy calculations with Adzuna job ads database.

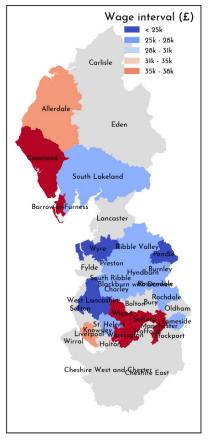
Figure 11 is a heatmap of wages across different sectors in Warrington to the wider North West. The heatmap offers a cool-warm scale comparison of salaries across various sectors in Warrington versus the broader North West. Darker blue represents annual wages below GBP 20,000, while darker red signifies high annual salaries above £40k. Across the whole of this region, we generally see higher wages in the IT and Engineering sectors. Cities such as Manchester, Barrow-in-Furness, and Liverpool tend to offer better-paying job opportunities. Despite this Warrington is, on average, the fourth highest paying locality in the North West.

When comparing wages being offered for jobs within each of Warrington's four skills profiles to those of the wider North West, as in Figure 12, we find that employers in Warrington, in line with other localities such as Wigan, Salford, Manchester, Barrow-in-Furness, and Copeland, are offering higher wages to roles within the 'Science & Technology' and 'Operative & Craftsmanship' skills profiles. For the other profiles, however, Warrington's wages align with the median values in the region. The wards with the highest frequency of job ads are Latchford East, Fairfield and Howley, Rixton and Woolston, Birchwood, and Bewsey and Whitecross.

Within Warrington, the occupation categories of IT, Engineering, and Consultancy Jobs tend to offer higher wages. Figure 12 compares salaries across Warrington's wards.⁵²

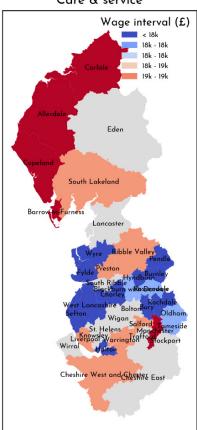
Four wards, Great Sankey North and Whittle Hall, Latchford West, Lymm South and Orford, had no job advertisements and so are not included in this heatmap

Predicted wages of skill profiles, across North West Science & tech Operative & craftsmanship





Care & service



Management & health

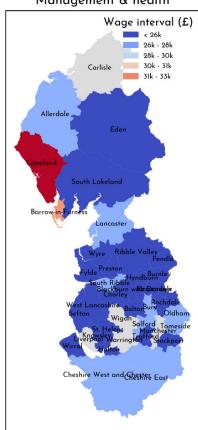


Figure 11 - Average offered salaries of different skills profiles across the North West. Autonomy calculations with Adzuna job ads database.

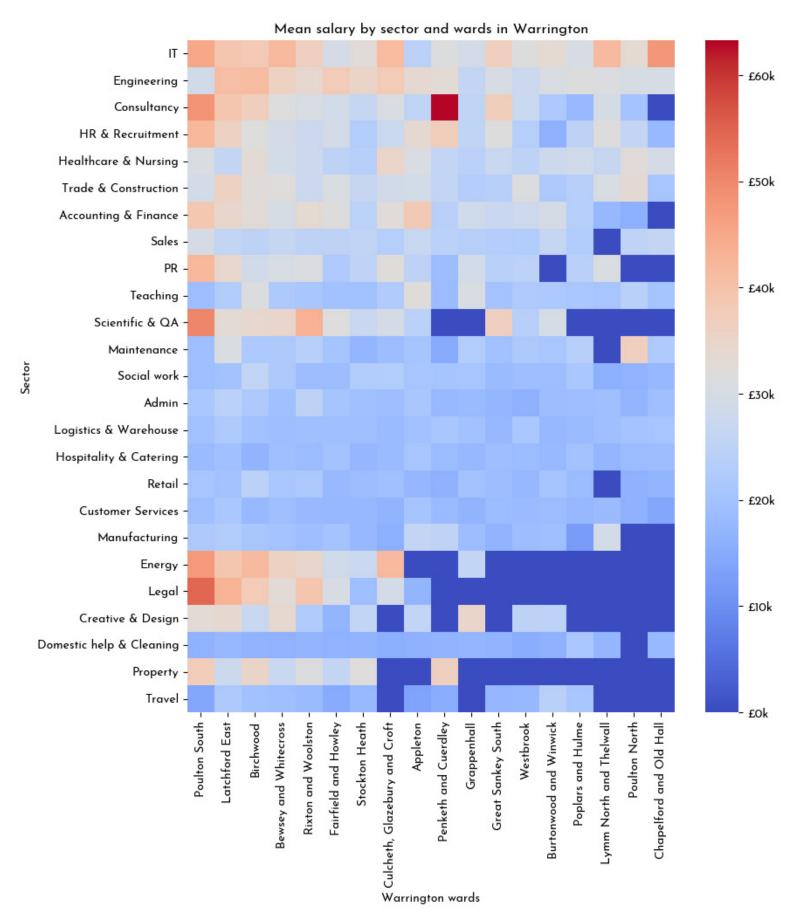


Figure 12 - Mean salary by sector and wards in Warrington. Autonomy calculations with Adzuna job ads database. The latitude and longitude of hiring companies was utilised to determine ward location.

SKILLS IN WARRINGTON

SKILLS IN WARRINGTON

Displaying our evaluation of job descriptions across the top 10 fulltime job sectors, Figure 13 shows that communication is consistently the most prevalent, sought after skill on the part of employers - taking Healthcare & Nursing and Engineering sectors as diverse examples.⁵³ Depending on the job sector, other skills are also regularly mentioned.

For healthcare & nursing and social work jobs, employers commonly mention compassionate and personal care as desirable skills; for Engineering, Trade and Construction and Logistics jobs, health and safety knowledge is commonly mentioned; and for IT jobs, employers commonly request that applicants demonstrate skills in understanding and software development.

In 2022, these job sectors accounted for 75% of full-time job listings in Warrington on the Adzuna website.

MOST DEMANDED SOFT SKILLS IN HEALTHCARE & NURSING



MOST DEMANDED SOFT SKILLS IN ENGINEERING



Figure 13 - Skills most frequently mentioned in job description across two sectors: Healthcare & Nursing and Engineering. Autonomy calculations with Adzuna unique job ads database.

SOFT SKILLS ACROSS WARRINGTON'S SECTORS

It is clear from this data, and from Workshops with key stakeholders, that soft skills have become important to employability across all sectors of Warrington's economy. Equally, soft skills have, during the pandemic years, represented a challenge area for various jobseekers (including students). Using ASPECTT, we can analyse job vacancy data and determine which soft skills are most in demand in Warrington.

The following two Figures (14 & 15) reveal various aspects of soft skills in Warrington's labour market. They demonstrate which soft skills are in demand in specific sectors and across a range of skills profiles. The 'level' - on the y-axis - relates to the level of skill required for that particular soft skill (listed on the x axis). The different coloured dots relate to different job categories. For example, you can see that 'Social work' (the light blue dot) requires a much higher skill level for 'assisting and caring for others' than other job categories.

Figure 15 offers a detailed portrait of soft skills across the top 10 job categories in Warrington, and demonstrates that Accounting and Finance, Healthcare & Nursing and Social Work Jobs tend to have the highest soft-skill score levels, while Logistics and Warehouse and Trade & Construction tend to have the lowest soft-skill score levels.

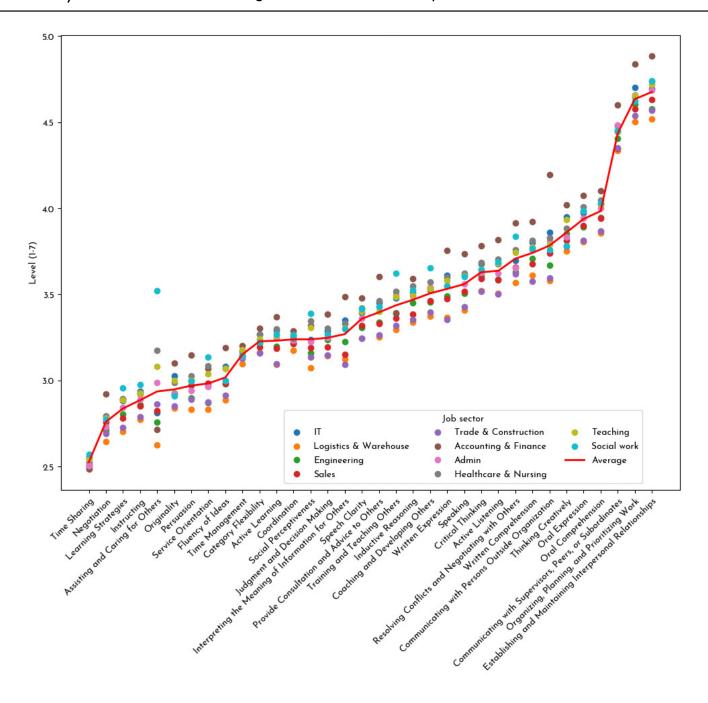


Figure 14 - Soft skill demand level per job sector. Autonomy calculations with ASPECTT and Adzuna data.

SOFT SKILLS BASED ON WARRINGTON'S SKILLS PROFILES

Figure 15 looks at the core skills profiles of Warrington identified in this study. It reveals a consistent pattern: skills profiles such as 'Science & Technology' and 'Management & Health' have a higher level of soft skills than other skills profiles such as 'Care & Service'. This trend persists across all soft skills categories with a single exception – Assisting and Caring for Others, for which the 'Care & Service' profile exhibits the greatest significance.

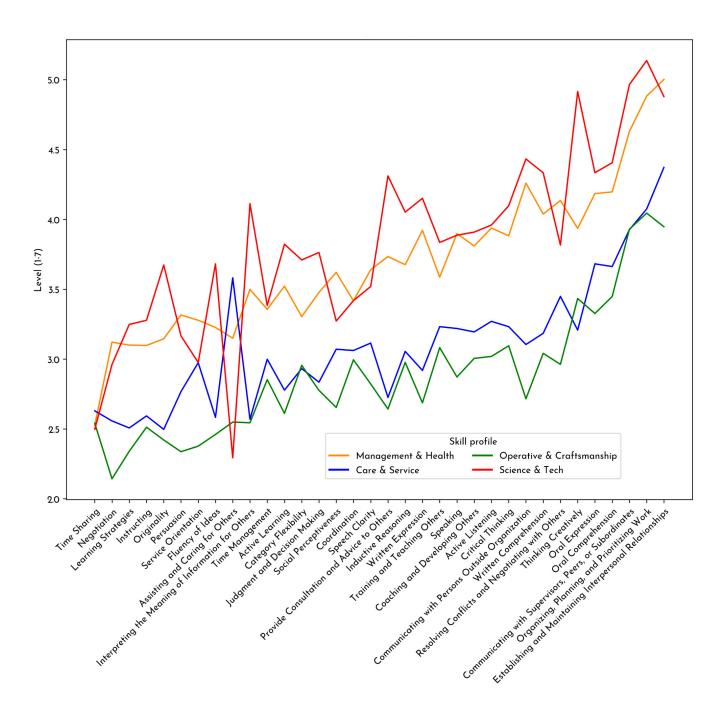


Figure 15 - Soft skills per skills profile. Autonomy calculations using ASPECTT and Adzuna data.

PERSPECTIVES ON THE GROUND

PERSPECTIVES ON THE GROUND

WORKSHOPS

Six workshop sessions were held in April and May 2023. Each gave a platform to a different key stakeholder group in Warrington, allowing them to contribute their perspectives to the commission: education providers, employers, those facing barriers to employment, young people aged 11-15 and young people aged 16-18+. An additional general session sought the views of a range of stakeholders, including representatives from a recruitment company, the Trade Union Congress, the local council, support services for disabled people and a member of the public.

Below are key themes drawn from across these sessions; more complete summaries of each session can be found in Annex 1.

KEY THEMES

OPPORTUNITIES TO IMPROVE WORKPLACE INCLUSIVITY

Employers in Warrington are working harder to be better places of work, acting as ethical employers and investing in their staff. Strong peer support systems, via organisations such as the Warrington Disability Partnership, exist in the area. However, although positive progress has been made towards making workplaces more accessible, such as in the construction, nuclear and health sectors, more could be done across Warrington. For example, in the recruitment process, application tools are often exclusionary; neurodivergent and disabled people can be excluded from job applications involving psychometric testing, and when requests are made to accommodate additional needs many employers say no. Increasing the number of 'Disability Confident' employers would support progress in this area.

Improving approach to winning and distributing funding

Complex procurement processes for national and local funding can result in smaller providers losing out, particularly due to local competition and money not being routed to organisations based locally. Funding also varies across postcodes in Warrington, due to their inclusion or exclusion from the Greater Manchester and Liverpool City Region combined authorities, and employers often do not know what funding or programmes are available relating to skills and training provisions for their workforce.

In addition to this, the lead time on funded programmes and their evaluation period is often too short to show impact, increasing the risk of losing funding (this was cited particularly for projects supporting disabled people, who may need 1-2 years to build employability skills rather than 3-5 months).

It is difficult for organisations to manage the competitive nature of the funding environment, but collaborating on funding bids and avoiding duplication could help to expand and improve service delivery. The devolution of skills and adult education budgets would also support local responses to changing skills demands.

BUILDING COLLABORATION AND CO-PRODUCTION

There is a willingness to collaborate between education providers, rather than compete. Between organisations within further education, higher education and civil society (such as Youth Zone), communication and the sharing of information is strong. There are also useful partnerships between education providers, local government and employers. Building a stronger ecosystem would support the organisations providing skills and training to better collaborate and share knowledge more effectively.

Establishing a post-16 skills network among education providers in the area, with semi-regular meetings to discuss what is happening and areas for support, was recommended. The local further education and higher education providers should be placed centrally in all work on skills and training in Warrington.

To facilitate conversations about upskilling and reskilling, an organisation or team should be established, particularly in the context of a just green transition and general industrial change, to connect stakeholders and flexibly facilitate adaptations to training programmes and advice. This team must be empowered with funding and the authority to identify needs and make changes.

Creating a 'Warrington Portal' was also suggested - a central point of information for skills and employment provision for learners, job seekers, employers and service providers.

IMPACT OF THE PANDEMIC AND BUILDING SOFT SKILLS

Lockdowns and remote working limited social interaction, especially particularly among younger and older people, leading to a loss in confidence and resilience, and struggles with mental health. Young learners are consequently presenting with a "developmental gap". NHS mental health provision is very stretched, and it is taking education providers much more effort to prepare learners for the workplace. Providers are now having to think more explicitly about their soft skills provision, and demonstrating their delivery of it. In addition, the loss of soft skills due to the pandemic lockdowns, and limited face-to-face contact is leading to high turnover and poor performance in some sectors.

WARRINGTON HAS A STRONG ECONOMY

There are lots of opportunities in the local area: Warrington has a mixed, buoyant economy, with a variety of businesses and sectors, and routes into employment from university, college, apprenticeships and further education courses. This is creating opportunities and jobs - there are more vacancies than candidates. At the Warrington & Vale Royal College, they have around 350 apprenticeships available per year but they often can't fill the spaces. The most popular apprenticeships are construction trades, particularly electricians, but roles such as business administration are harder to fill. This is creating issues around counter offers and 'ghosting', as candidates have the pick of job roles and apprenticeships.

PLACE-BASED FOCUS ON WARRINGTON

Warrington has very good travel connections in and out to other major conurbations, making it an attractive place to live and work. However, internal transport connections, between estates, suburbs and central Warrington, are time consuming and unreliable. In addition, being well placed for travel to and from large urban conurbations, local businesses face competition with those in Manchester and Liverpool (particularly around salaries).

Place is not a priority in public procurement, leading to contracts being awarded to national or non-local organisations. Workshop attendees called for local providers - with local investment and knowledge - to be given weighting in funding provision.

The Skills Commission should produce iterative local skills plans, building understanding of what is needed to equip and prepare Warrington's workforce.

BUILDING SCHOOL SUPPORT THAT STUDENTS WANT

From one college, learners indicated that the majority of them found the regular careers and soft skills development sessions boring, and usually avoided attending. Some students felt that there could be more careers advisors, and they could get to know the students better. They also said there weren't enough quiet spaces; computers are always full and there's not enough areas to get your head down to work within the college. Building better careers and advisory support, based on the interests and commitment from students, may improve engagement.

SUPPORTING MID-CAREER WORKERS

Most training and skills programmes are targeted at 16-24 year olds, not for people in their mid-careers. Independent careers advice and guidance services should be established, particularly for people older than 25, as other organisations such as the job centre doesn't provide that sort of advice.

SUPPORTING SMES

SMEs face particular barriers when trying to upskill staff, due to the restricted apprenticeship levy and their limited access to training; skills bootcamps for example are not accessible enough. Some participants suggested that the local authority should provide more support for SMEs across the growth sectors.

MANAGING THE APPRENTICESHIP LEVY

The apprenticeship levy is not always used productively or in full; any money that is not spent goes back to the national government. A process should be established to allocate the eligible 25% that businesses can give to other organisations strategically around Warrington.

MISMATCHES BETWEEN ASPIRATIONS AND AVAILABILITY

The 16-18 year olds we spoke to had a wide range of jobs they wanted to go into after college, including counselling, digital marketing, engineering, politics, midwifery and law. When asked why they wanted to go into these areas of work, they mentioned pay, good locations, finding the subjects interesting and options for flexible or hybrid working. Most of the students applying for university were intending to leave the area, but those apprenticeship offers were staying local. From the 11-15 cohort, around 90% of these young people said they wanted to leave Warrington in the future, and around 50% wanted to leave the North West altogether. It seemed that most of the young people were drawn to Manchester, Liverpool, London and international places.

In engagement with primary and secondary school pupils, a gender divide in attitudes towards careers and education emerged:

- 95% of boys agreed with the statement "I feel supported in taking the next steps in my education with the view to getting a career in the future.", whilst only 60% of girls agreed;
- 80% of boys agreed with the statement "I feel comfortable in taking the next steps in my education with the view to getting a career in the future", compared to only 40% of girls
- When responding to the statement "I might face obstacles when seeking employment in the future", 77% of boys agreed, compared with 33% of girls.

This represents a division in the perceptions of preparedness and available support among boys and girls in the local area, with boys feeling more confident. However, boys expressed greater concern towards obstacles they may face in the future when it comes to careers, relating to distractions, competition and job security.

The career aspirations of young job seekers can be mismatched with the job market. For example, beauty is currently quite oversubscribed but there aren't that many jobs in the sector locally; on the flip-side Warrington used to have a lot of Construction Skills Certificate Scheme (CSCS) and Forklift Truck (FLT) training but a lack of jobs, and now have lots of vacancies in this area through logistics and warehousing but not the training provision. There was also a gender divide between boys and girls with regards to future aspirations: when responding to the statement "I have a good idea of where I want to be in five years' time", boys were three times more likely to strongly agree than girls.

Although there are skill gaps among their learners and in Warrington, the further education colleges are aware of these and have clear lines of development to tackle them. For example, the Warrington Town Fund has enabled the establishment of two advanced centres: the Health and Social Care Academy, and the Advanced Construction and Civil Engineering Centre, as well as an employer based Digital Hub for SME growth and networking.

There is a need for improved communication and awareness-raising of local job opportunities, and across the borough training provision must be matched to what is needed locally rather than what is attractive to students. There's a lack of an 'integrated skills eco-system' in Warrington, meaning learners, job-seekers and practitioners don't know what's out there. Careers guidance, from Year 9 up, should be led by labour market information - focusing on what jobs are actually available in various geographies when leaving education.

DIGITAL SKILLS AS LIFE SKILLS

Digital skills are important for connecting people across all areas of their lives, not just in employment. Digital was a growth area 10 years ago, and still is.

It is challenging to ensure that people have sufficient IT and digital skills for the current job market. Even the application process for employment can be challenging and pose obstacles for those who lack digital and certain soft skills. Digital tools (e.g. laptops, phones) are often the first things being dropped due to the cost of living crisis, creating more barriers. People without digital skills are excluded from participating in the workforce, and funded programmes are often too rigid to tie digital into existing projects (such as Multiply). As a first step, the local curriculum should focus on upskilling young people in digital skills.

SUPPORTING THE CARE SECTOR

Covid led to a huge boost in applications to join health and social care, but applications have since fallen to lower than pre-covid. There are lots of available postings but the pay is too low to attract people - Amazon pays higher than care in the area.

With the cost of living crisis, the number of adult career changes have also dropped off - people don't have the time or money to spend 3 years training to move into the sector. Staff are treated poorly, and this puts people off. The NHS and local authorities have recruitment and retention issues, but SME social care providers are also struggling. Solutions are needed in SME social care to prevent blockages in discharge from hospital - several participants mentioned the importance of running an integrated care system. As needs grow, the positive side of care service jobs should be promoted, and local authorities could move into the social care market to support tackling issues (e.g. Halton local authority now owns 5 nursing homes).

FUTURE CAREER AND SKILLS AWARENESS

Preparing service providers and businesses with an understanding of green jobs and trends in the area would be beneficial. Essential digital skills should be integrated into all training courses, and digital training should be tested for accessibility when providers say they're offering it. Soft skills, including communication and taking initiative, often lost through covid, should be built back up through age inclusive initiatives. Many job seekers have qualifications on paper but lack employability skills. In engagement with primary and secondary school pupils, there were varied perceptions of the impact the pandemic had on skills and education: primary school pupils, in particular, generally felt that COVID had not had a negative impact on their skills and education, whereas secondary school pupils overwhelmingly felt that it had.

The Commission's outcomes and actions should be flexible; there should be a process of regular reflection, working with stakeholders to respond to the changing labour market.

SURVEYS

SURVEYS

WARRINGTON RESIDENT SKILLS SURVEY

In order to receive indications from a wider portion of the public, the commission has conducted a voluntary survey of residents and those who work in Warrington. A link to the survey was posted on the council's website, and was publicised online and in local news. Contributions were incentivised via a lottery for a £100 voucher to spend at Warrington Market.

509 people responded to the survey, of whom 68% specified that they live in Warrington and 21% that they work in Warrington. This is not a representative sample of the population, and skews heavily towards certain demographics and localities. As the survey cannot be considered statistically valid, it should be taken as indicative rather than descriptive. Like the workshops, it represents an opportunity to voice and make clear certain trends and concerns among stakeholders (in this case those who live or work in Warrington), and feed these into the recommendations.

RESPONDENTS

Most respondents to the survey live or are employed in Warrington and are likely to live in the WA4 and WA1 postcodes, corresponding to the town centre and the south of Warrington, respectively. Other Warrington postcodes, however, are underrepresented in the sample. More than third of the respondents are full-time workers and approximately a quarter of the respondents are in full-time education.

The majority of respondents didn't specify their qualification level, however, the survey results indicate that the main qualifications held by respondents include NVQ Level 4 and above, followed by GCSEs, No Qualifications, AS/A Level or Equivalent. Also among the most popular courses studied by respondents in Warrington were English, Health & Social Care, Math/Finance and Construction.

The top five industries of respondents were Human Health and Social Work, Admin and Support Services, Public Admin and Defence, Education, and Information and Communication. As Figure 16 illustrates, most Warrington residents who responded to the survey were employed in Professional Occupations, Administrative/Secretarial Occupations, or Managerial/Director/Senior Official Occupations.

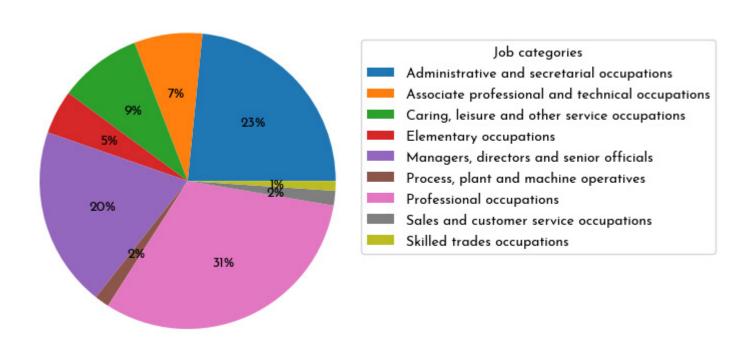


Figure 16 - Survey Question 6: Distribution of respondents occupations. Autonomy calculations with Warrington skills commission survey data.

Overall, the most common professional occupations were Teaching, Health and Engineering/ IT. In the survey, administrative and secretarial occupations were most held in government and related organisations. The most common classifications among managers, directors, and senior officials were Functional Managers and Directors. Besides non-specified, Childcare and personal services are the most common in caring, leisure, and other service occupations. The majority of associate professional and technical occupations in the survey were held by public service professionals and IT technicians. Respondents were asked to self report their job titles, which are visualised (with the most common responses being largest) in Figure 17. Among these are "Social Worker", "Customer Service Advisor", "Warehouse Operative", "Procurement Officer" and "Business Analyst".



Figure 17 - Respondent self described job title. Source: Autonomy calculations with Warrington skills commission survey data.

INSIGHTS

The survey offers a general picture of respondents' perception of their own skills and proficiencies. Figure 18, which shows respondents' perception of their own access to skills support, demonstrates that respondents tended to agree or strongly agree that they have access to support and further learning.

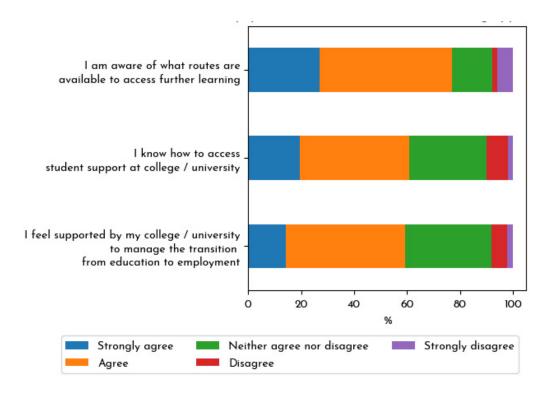


Figure 18: Access to further learning opportunities. Autonomy calculations with Warrington skills commission survey data.

More than half of respondents currently employed in Warrington had been with the same employer for over 6 years. As illustrated in Figure 31, most of those working in Warrington were also satisfied with their skill and qualification levels. However, while less common, some workers did not feel that support for upskilling was clearly signposted within their organisations. As Figure 19 shows, a significant minority of workers also reported to face some degree of barrier to progress in their career.

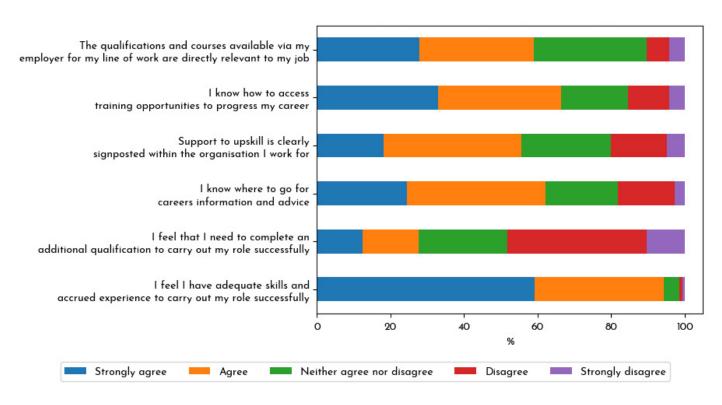


Figure 19: Upskilling needs and opportunities. Autonomy calculations with Warrington skills commission survey data.

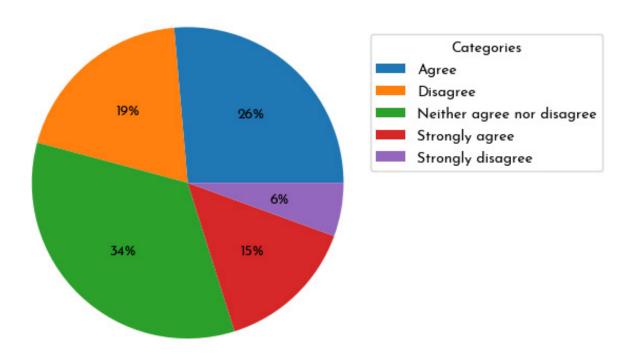


Figure 20: How strongly do you agree or disagree: "I have Encountered Barriers when looking to progress in my career." Autonomy calculations with Warrington skills commission survey data.

Respondents were asked to rank occupations by their desirability, as shown in Figure 21. Administrator, Software Programmer, and Nurse were the most desired occupations, while Solar PV Installer and Retrofit Engineer were the least desirable. However, these less desired roles were also the least familiar, suggesting greater awareness and understanding could help to make them more desirable.

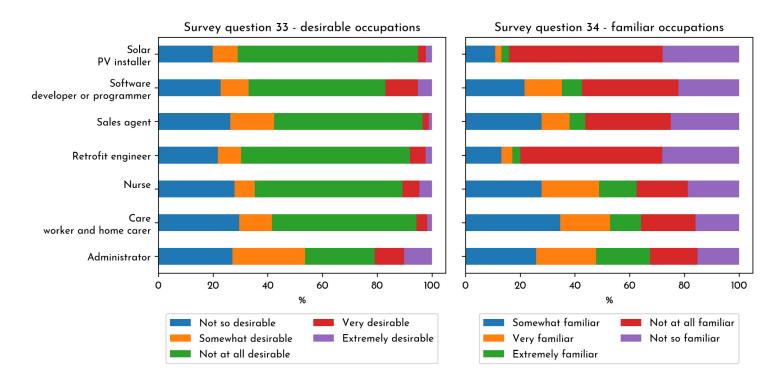


Figure 21 - Survey Question 33 and 34: Desire Occupations and Familiar Occupations. Autonomy calculations with Warrington skills commission survey data.

The survey also collected information on how people travel to work. As shown in Figure 22, around three-quarters of Warrington respondents use a car for their commute, with the remaining quarter using foot, bicycle, or bus. The majority of respondents have a commute which is less than 30 minutes.

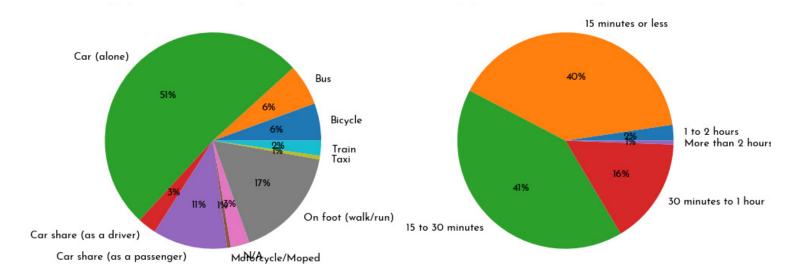
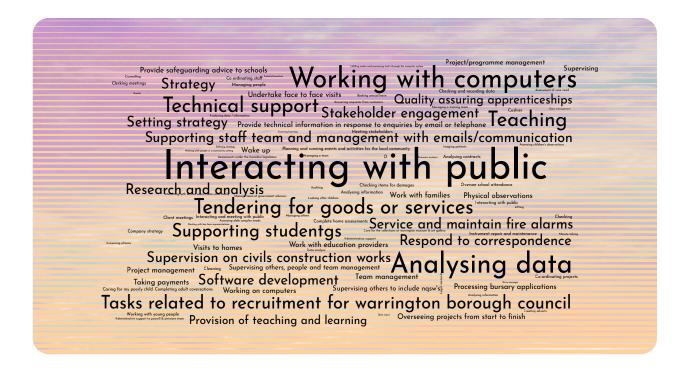
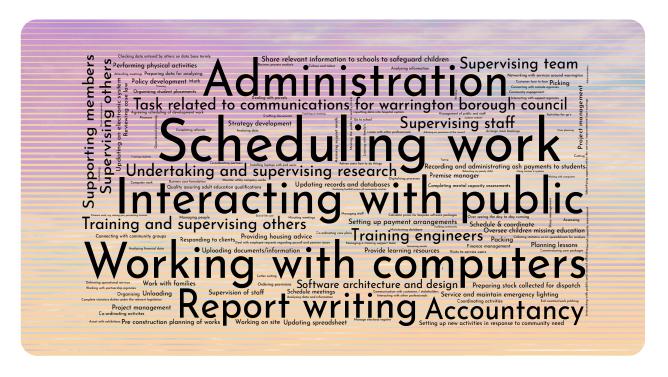


Figure 22: Primary commute to work and How long is commute time? Autonomy calculations with Warrington skills commission survey data.

The labour market survey asked respondents to indicate the top 5 main tasks that they undertake at work. Chief among these were: "Interacting with the Public, Working with Computers, Analysing Data/Information, Project Management, Processing Bursary Applications, Liaising with Care Providers."

These have been visualised in two word clouds, with the most commonly responded tasks appearing largest. The first, Figure 23A, shows those tasks which respondents ranked highest. In the second, Figure 23B, tasks 2 to 5 are aggregated into a single word cloud.





Figures 23A and Figure 23B: highest ranked tasks across survey respondents. Autonomy calculations with Warrington skills commission survey data. (edited)

THE PLEDGE FUTURE SKILLS QUESTIONNAIRE (SUMMER 2022)

The Cheshire and Warrington Pledge Partnership established a Future Skills Questionnaire (FSQ) for Cheshire and Warrington in September 2021. In order to assess work preparedness, the FSQ asks young people in secondary education to describe their own access to careers materials and opportunities, as well as their own perception of their skills and competencies. Currently every mainstream school in Warrington, and most SEND/AP schools have agreed to be part of the questionnaire.

The Careers and Enterprise Company, of which the Warrington Pledge is part, carries out similar surveys across the country, and therefore it is possible to directly compare results from Warrington and Cheshire with other regions and the country as a whole. To date there have been over 6,000 responses; around the first 4,000 of these (those collected between September 2021 and July 2022) have been collated and published as "Cheshire and Warrington: FSQ Results Summer 2022".54

Data for 2023 (including all 6,000+ respondents) shows that, overall, students' access to skills information and support is quite similar to the picture nationally. As would be expected, students' awareness of careers tends to grow throughout school and is, at times, a few percentage points above or below the average (up to 5% in year 11). This pattern is repeated in students' perspectives of their essential skills.

The top level comparison between the Cheshire and Warrington Hub and England up to 2023 can be seen below:

	YEAR GROUP	OVERALL SCORE	
		Career Knowledge & Skills	Essential Skills
Starting Secondary	Y7 Hub	45%	72%
	Y7 National	46%	70%
Transition form KS3	Y8 Hub	46%	55%
	Y8 National	48%	59%
	Y9 Hub	49%	59%
	Y9 National	52%	61%
GCSE Years (KS4)	Y10 Hub	56%	65%
	Y10 National	54%	63%
	Y11 Hub	71%	73%
	Y11 National	66%	69%
Post-16 Study (KS5)	Y12 Hub	66%	73%
	Y12 National	67%	70%
	Y13 Hub	74%	73%
	Y13 National	76%	74%
SEND	All year groups Hub	70%	
	All year groups National	63%	

Source: Pledge Partnership

The Pledge also tracks schools in Warrington for their performance in reference to Gatsby Benchmarks, which assess school's performance across eight measures: A stable careers programme, Learning from career and LMI, Addressing the needs of each pupil, Linking curriculum to careers, Encounters with employers, Experience of workplaces, Encounters with FE and HE, and Personal guidance.

The subregion is ahead of England on six of these benchmarks, which stands as a testament to progress made since the 2013 report. However, it is behind on two: A stable careers programme, and Personal guidance. This should be taken as an indication of areas in which careers preparation is falling short, and an indication of where future policy might focus.

FUTURES TO PREPARE FOR

FUTURES TO PREPARE FOR

We are living through a moment of serious challenges and significant opportunities. The climate crisis, rapid technological development and an ageing population pose challenges unprecedented in human history. But they also offer a chance to change society for the better. Transforming the economy into one where sustainability, care and technological efficiency are central need not be disruptive. But for such enormous changes to take place smoothly will require significant planning and investment in the kinds of skills that support this new economy.

The good news is that the skills required for much of this work are not immediately automatable. Most green and care work is, by nature, "high touch", so will prove to be less automatable than other kinds of work that involve more cognitive tasks. Amid dominant narratives of homogenous automation across the economy, it is important to stress that different sectors will experience automation differently, and areas such as green and care work are likely to be particularly resilient. It is, therefore, important to start planning for an economy that prioritises green and care work. A significant part of such planning will be making sure that workers have the skills necessary to do such work.

ECONOMIC FORECASTS

In this section, we make projections about long-term industry and specific occupational growth. We infer projections in Warrington based on a share of the data for the whole Cheshire and Warrington area. The projections for Cheshire and Warrington shown here are based on data provided by the Department of Education and calculations conducted by the Warwick Institute for Employment Research and Cambridge Econometrics in 2023.⁵⁵ They are derived from various data sources and employ a range of econometric and statistical methods.⁵⁶

Figure 35 suggests that over the next 10 years skills profiles that include higher levels of skill such as Science & Tech and Management & Health will represent an increasingly significant proportion of the skills among Warrington's labour force. 'Care & Service' and 'Operative & Craftsmanship' are expected to grow on a far smaller scale, a perhaps worrying development given that these two skills profiles are essential to combatting the worsening crises in care and climate. These crises will increase demand for work that falls under these two skills profiles, so getting ahead of the curve on these issues will not only help to avert the worst excesses of these crises but will also likely be beneficial for Warrington's local economy.

Department for Education (2023). 'Labour market and skills projections: 2020 to 2035.' Available at: https://www.gov.uk/government/publications/labour-market-and-skills-projections-2020-to-2035. See Annex 3 for the method note for this research.

Department for Education (2023). The Skills Imperative 2035: Essential skills for tomorrow's workforce: Long-run labour market and skills projections for the UK. General guidelines for using the Workbooks.'

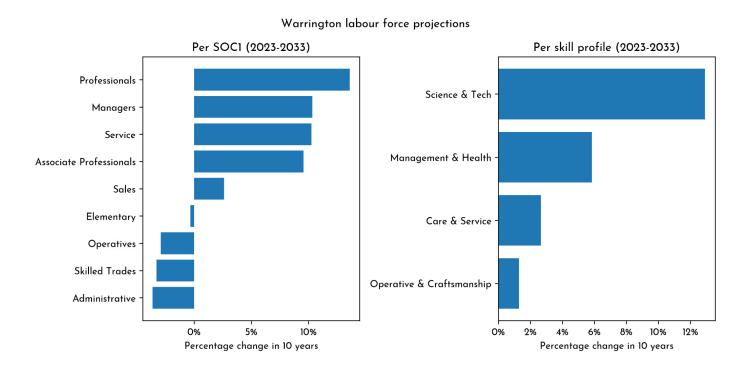


Figure 24 - Warrington labour force projection 10 years variation from 2023 per job category and per skills profiles. Autonomy calculations with Local Enterprise Partnerships areas projections (Department for Education).

Figure 25 displays the gender distribution of workers in specific industries in Warrington and the demographic changes that are likely to occur in these industries by 2035. In some industries such as 'Health and social work', 'Education', 'Accommodation and food', we can see that the labour force is heavily weighted toward female workers, while 'Transport and storage', 'Rest of manufacturing' and 'Construction' are weighted toward male workers. It is worth highlighting this gender bias because sectors that tend to employ more female workers will be at the forefront of solving the social care crisis but, without significant investment, will continue to offer poor pay and bad working conditions. Similarly, some of the sectors that disproportionately employ male workers should be seen as key vectors of transition from carbon intensive to green jobs such as retrofit work. Equally, some of the jobs in these sectors, particularly in 'Construction', often entail poor pay and precarious contracts.

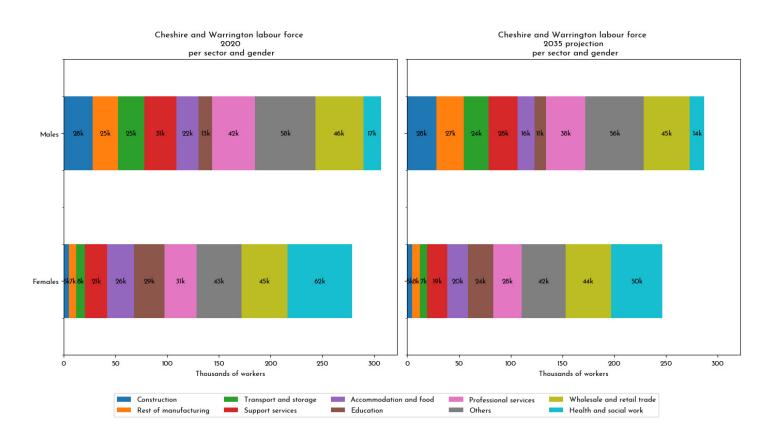


Figure 25 - 2020 vs 2035 Cheshire & Warrington labour force allocation per sector and gender. Autonomy calculations with labour market and skills projections: 2020 to 2035 - Local enterprise partnerships areas projections (Department for Education).

Figure 26 displays the size of occupational groups across all industries in 2020 and the projected size of these groups in 2035. The 'Managers, directors and senior officials occupational group will see a large increase of over 30% in 'Accommodation and food' and around 18% in 'Health and social work'. In contrast, this occupational group is predicted to decline in 'Rest of manufacturing' and 'Construction' by around 12% and 3% respectively.

Professional occupations will grow by nearly 40% in the 'Transport and storage' sector and by around 45% in the 'Accommodation and food' sector. Meanwhile, these occupations will grow by around 15% in 'Rest of manufacturing' and around 20% in 'Professional services'.

In terms of Associate professional occupations, growth of around 55% is expected in 'Accommodation and food', and 85% in 'Health and social work'. However, these occupations will decrease by around 8% in the 'Rest of manufacturing' sector and 2% in the 'Others' category (represented by 0).

Administrative and secretarial occupations will see significant growth of over 70% in 'Accommodation and Food' and around 16% in 'Transport and storage'. However, such occupations will decrease in the 'Education' sector by 33%, and in 'Health and social work' by nearly 32%.

Skilled trades occupations will see a projected increase of around 10% in 'Accommodation and food' and 20% in 'Support services'. Whereas these occupations will decrease in the 'Health and social work' by 25% and in 'Rest of manufacturing' by over 19%.

Caring, leisure and other service occupations are expected to grow in The 'Wholesale and retail trade' sector by 27%, and in the 'Accommodation and food' sector by 31%. On the other hand, the 'Construction' and 'Rest of manufacturing' sectors will decline by 12% and 7% respectively.

Sales and customer service occupations are projected to grow by over 20% in 'Support services' and by nearly 80% in 'Accommodation and food'. Conversely, these occupations will decline in the 'Wholesale and retail trade' and 'Rest of manufacturing' sectors by 7% and 3% respectively.

Process, plant and machine operatives are projected to increase by 30% in the 'Education' sector and 68% in the 'Accommodation and food' sector. However, these occupations will decline in the 'Health and social work' and 'Rest of manufacturing' sectors by over 40% and 18% respectively...

Elementary occupations will likely increase in The 'Construction' sector by more than 10% and in 'Accommodation and food' sectors by 15% .Meanwhile, these occupations are projected to decline in the 'Education' sector by around 45%, and in 'Health and social work' by over 30%.

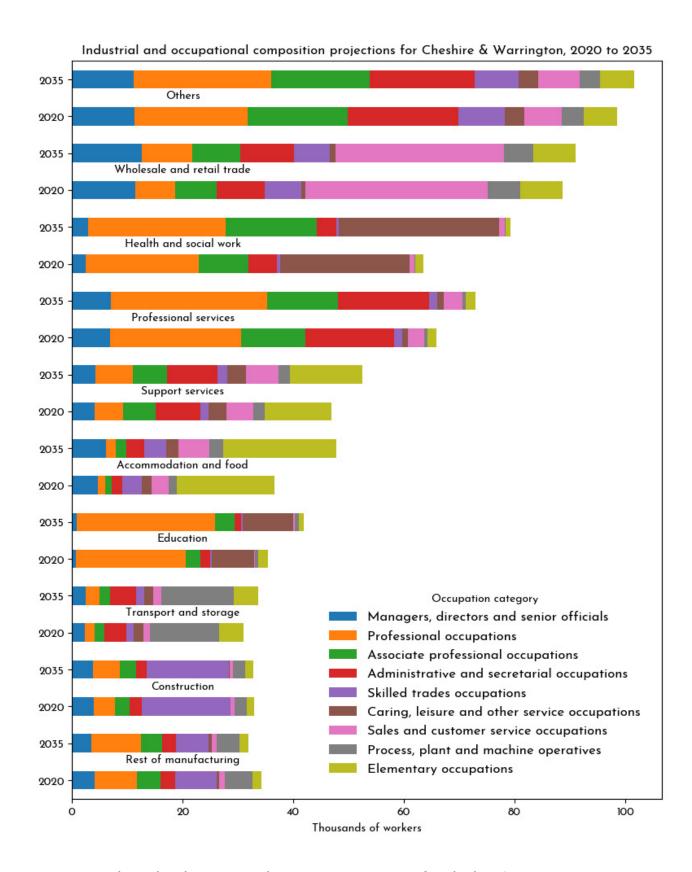


Figure 26 - Industrial and occupational composition projections for Cheshire & Warrington, 2020 to 2035. Autonomy calculations with Labour market and skills projections: 2020 to 2035; Local enterprise partnerships areas projections (Department for Education).⁵⁷

The Department for Education provides market and skills projects for Local Enterprise Partnership areas; Department for Education, "Local enterprise partnerships areas projections". Available at: https://www.gov.uk/government/publications/labour-market-and-skills-projections-2020-to-2035

AN AGEING FUTURE

The UK has an ageing population. Currently, around 18.6% of the population is aged 65 and over.⁵⁸ By 2043, nearly a quarter of the population are predicted to be over 65.⁵⁹ Warrington's ageing population is growing more rapidly than the national average. Nearly 20% of Warrington's residents are now over 65.⁶⁰ This represents an increase of 24.5% between 2011 and 2021, a figure which is well above the national average of 20%.⁶¹ On top of this, the largest proportion of Warrington's population in terms of age are over 50.

As Figure 38 demonstrates, there is a significant discrepancy between the numbers associated with Warrington's current and projected elderly population and the number of current and projected Care and Service workers. While we can expect to see some growth in the number of Care and Service workers in Warrington in the coming years, comparing these numbers to projected changes in Warrington's elderly population suggests a substantial risk of imbalance between supply and demand of labour in the sector. This is largely due to the fact that the pace of growth of the elderly population is not mirrored by an equivalent expansion in health and care provisions. This crisis is set to become critical in the early years of the coming decade.

⁵⁸ ONS (2022). 'Voices of Our Ageing Population'. Available at: <a href="https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/ageing/articles/voicesofourageingpopulation/livinglongerlives#:~:text=The%20population%20of%20England%20and,the%20previous%20census%20in%202011.

House of Commons Library (2021). Housing an ageing population: a reading list. UK Parliament. Available at: https://commonslibrary.parliament.uk/research-briefings/cbp-9239/

⁶⁰ ONS (2022). 'Population and Household Estimates, England and Wales 2021'. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationandhouseholdestimatesenglandandwalescensus2021

⁶¹ ONS (2022). 'How the population changed in Warrington - Census 2021'. Available at: https://www.ons.gov.uk/visualisations/censuspopulationchange/E06000007/

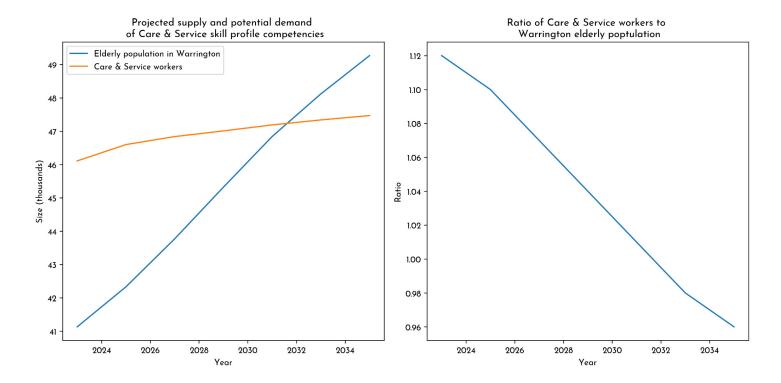


Figure 27a - Projected supply of workers with Care & Service skills in Warrington and the potential demand (with number of over 65 year olds as a proxy for demand);

Figure 27b - Ratio of Care & Service workers to Warrington's elderly population. Autonomy's calculations using UK census, National Population Projections (ONS)⁶² and Labour market and skills projections: 2020 to 2035; Local enterprise partnerships areas projections (Department for Education).⁶³

Beyond the immediate problems associated with care provision, the challenges this crisis presents to the town's local economy resemble those posed to that of the UK as a whole - only the challenges will be more acute and difficult to surmount in Warrington due to its more rapidly ageing population. There are a number of challenges ageing populations directly present to the maintenance and cultivation of skills in Warrington's labour market. One significant problem is the provision of training. New technologies emerge and develop rapidly. This will require more later life training for older workers in skills such as digital literacy.

^{62 &}lt;a href="https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/nationalpopulationprojections/2020basedinterim#uk-populationprojectio

More significantly perhaps, it raises the problem of how skills should - and whether they can - be transferred from one generation to the next. This is particularly problematic given that older people below pension age are leaving the labour market in greater numbers than ever before. In November to January 2023, 3.5 million people aged 50 to 64 were 'economically inactive' in the UK, compared to 3.3 million people of that age in January to March 2020 - a rise of 280,000 people.⁶⁴ Given that the majority of Warrington's population are over 50, we can expect that this trend has more acutely affected the town than other areas with younger populations; and because Warrington's population is ageing more rapidly than other parts of the UK, the problem is going to get worse comparatively guickly. Over 30,000 people in Cheshire and Warrington are now economically inactive due to retirement compared with less than 20,000 prior to the onset of the pandemic. 65 This represents a growing number leaving the workforce either prematurely or for pension age retirement. To make sure that skills are transferred from older generations to younger ones will require collaborative training partnerships between local employers, colleges and universities.

There are a number of ways in which decent social care provision can help older workers who wish to remain in the workforce do so for longer. It can offer proper support to those with care needs who still wish to work, be it part- or full-time. It can also help to reduce the burden of informal care. By 2030, the number of individuals with caring responsibilities in the UK will increase by 60%. A social care system that is inaccessible to a growing proportion of the population puts undue pressure on spouses, partners and relatives to provide informal domestic care. Those who provide informal domestic care are at risk of overwork and burnout, or of having to reduce their working hours or leave their jobs, putting further pressure on the local labour market.

With such problems set to ramp up in the next decade, it is imperative that the national government, local authorities and stakeholders set out strategies for investment and resource management that are capable of handling the challenges to come. A rapidly ageing population means that in the coming decades there will be ever greater demand placed on Warrington's already overburdened care system. In this regard, the town differs little from other towns and cities across the UK. The Care Quality Commission in its recent state of the nation report described the national care system as 'gridlocked, unable to operate effectively'.⁶⁷ It found a host of problems directly related to skills and staff shortages including 165,000 unfilled vacancies in adult social care, skills shortages and skills related gender disparities.

House of Commons Library (2023). 'Why have older workers left the labour market?'. Available at: https://commonslibrary.parliament.uk/why-have-older-workers-left-the-labour-market/

⁶⁵ Brennan, David (2023) 'Cheshire and Warrington Labour Market Analysis'.

⁶⁶ Autonomy (2020). 'Long Term Care Centres'. Available at: https://autonomy.work/wp-content/uploads/2020/11/LTCCv7.pdf

⁶⁷ Care Quality Commission (2022). 'The state of health care and adult social care in England'. Available at: https://www.cqc.org.uk/sites/default/files/2022-10/20221024_stateofcare2122_print.pdf

Alongside poor historical investment, bad management and insufficient resources, these problems have conspired to reduce care accessibility across the population.

Like the nation as a whole, Warrington's social care system is struggling with staff shortages and skills gaps. Some of the hardest to fill vacancies in Warrington are in low-paid caring occupations such as nursing, midwifery, care work and home care. While plugging skills gaps will go some way toward solving the problem, such solutions taken alone will prove insufficient. Staff shortages are largely the result of historical underinvestment and lack of sustained reward for the social care workforce in terms of wages and working conditions. As the responses in our workshops demonstrate, the prospect of long-term training or retraining to go into a sector where wages are low and conditions are poor is a major deterrent to potential applicants. Without proper investment in staff and resources, these problems will compound and become increasingly difficult to manage. Given that these are ultimately national problems, local authorities such as Warrington will need to continue to raise them with the national government.

A GREEN FUTURE

The UK Government has set out its strategy to meet net-zero by 2050. This will bring a major transformation of the UK economy from one still largely dependent on fossil fuels to one organised around sustainable energy. It will require massive investment in new infrastructure and jobs, and the skills and training these jobs require.

With UK economic growth remaining stagnant and intermittently entering recession, investment in green industry, particularly sustainable jobs, represents a significant opportunity to jumpstart the economy and revitalise a labour market that increasingly offers those entering the workforce little more than poorly paid service work with no career ladder. Younger generations are increasingly conscious of the climate crisis, and many want their working lives to be sustainable and impactful. National government, local authorities and industry are beginning to heed these demands for a sustainable economy and are beginning a concerted effort to foster the jobs, skills and training to make it possible.

The last few years have seen this process begin in earnest. The Government has set out its vision for a 'Green Industrial Revolution', which looks to a future of abundant green jobs, sustainable energy infrastructure and cleaner air for all.⁶⁹ A significant part of this plan is the 'Green Jobs Taskforce' which primarily focuses on reskilling for green jobs.⁷⁰

Many of the jobs in Warrington are in industries which will be significantly impacted by the transition to a low carbon economy. Currently, around 4,000 of Cheshire and Warrington's workers are employed in the Low Carbon and Renewable Energy Economy (LCREE) LCREE. The number employed in Warrington's low carbon economy is forecast by Ecuity to grow to 15,000 by 2030, but the number may be higher if Net Zero North West is fully delivered, which could include several projects in the C&W subregion, such as E-Port, HyNet, Protos and Project Vanguard. These projects promise major benefits in terms of jobs and economic growth, but they also pose major cross-sector challenges in terms of reskilling or "upskilling" the majority of the workforce and providing at scale the 'green skill' training required for a smooth transition. Such training will need to be offered as a standard part of many jobs, particularly in the construction sector.

⁶⁹ Gov.uk (2020). 'Ten Point Plan for a Green Industrial Revolution'. Available at: https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution/title

⁷⁰ Gov.uk (2020). 'Green Jobs Taskforce'. Available at: https://www.gov.uk/government/groups/green-jobs-taskforce#update-on-apprenticeship-standards-and-free-for-courses-jobs-level-3-offers-in-support-of-green-skills

⁷¹ Emes-Young, Sarah (2023). "Cheshire & Warrington Local Skills Improvement Plan: Emerging Priorities"

The proposed transformations to the local economy have the potential to be disruptive unless a comprehensive plan is delivered to reskill and train workers across a variety of sectors in preparation for these new industries.

While many of the skills required for green jobs already exist in the labour market, greater numbers of workers need to be equipped with these skills. Retrofitting existing housing and office stock represents an area of potential job growth that would both help to make Warrington's local economy greener and provide jobs to the town's residents. Retrofit work has significant potential as an area of green job growth in Warrington, not least because 40% of its housing stock is at or below EPC D rating, and over 11% of its households are currently in fuel poverty.⁷² These figures resemble those of the UK as a whole. Buildings are the second largest source of emissions in the UK.73 The UK government aims to retrofit all homes to EPC Band C standard by 2035. Despite this moderately ambitious target, there have only been gradual improvements in efficiency in the last few years. Real improvements will require a comprehensive plan that brings central government, local authorities and industry together to tackle the problem. Forward-thinking authorities such as Warrington can help to foster this change by creating the training programmes required to undertake large scale retrofit projects in the local area.

As Figure 28 demonstrates, at present, retrofit-ready occupations (that is, occupations with similar or transferrable skills) represent approximately 12% of job demand in Warrington. However, the growth projection for retrofit-related occupations appears to be advancing at a slower pace than non-retrofit related occupations. This discrepancy is a cause for concern given that current emissions targets are predicated on upgrading the energy band of all residential and commercial buildings in the UK by the end of the decade. This divergence in growth rates highlights the need for vigilant oversight so as to anticipate potential labour market imbalances that could significantly impede progress towards net zero...

⁷² NEA (2023). 'Fuel Poverty Statistics by Constituency: Warrington North'. Available at: https://www.nea.org.uk/constituencies/warrington-north/#:~:text=In%20Warrington%20North%2C%204817%20 households,%25)

⁷³ HM Government (2020). 'White Paper: Powering Our Net Zero Future'. Available at: https://www.gov. uk/government/publications/energy-white-paper-powering-our-net-zero-future

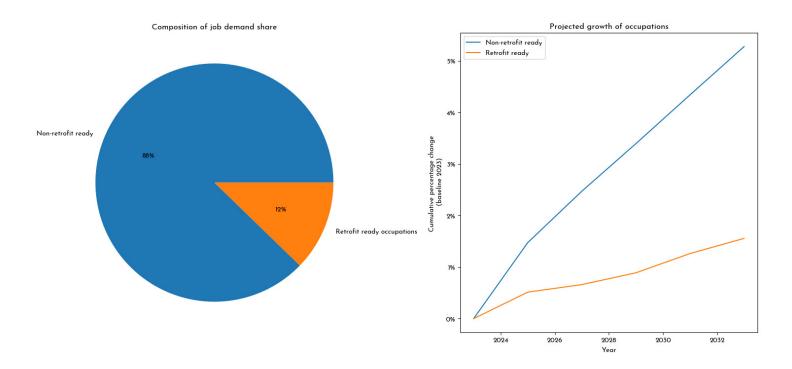


Figure 28 - Relative shares of overall job demand between 'retrofit ready' and 'non-retrofit ready' jobs and projected growth of occupations in Warrington. Autonomy calculations with ASPECTT, Adzuna data and labour market and skills projections: 2020 to 2035 - Local enterprise partnerships areas projections (Department for Education).

Despite the immediacy of this challenge, meeting the demand for retrofit work at scale is eminently achievable. There are a number of existing occupations present in Warrington's labour market that include skills that are crucial to retrofit jobs, in particular Electrical and Electronic Trades, Construction Operatives, and Engineering Professionals.

As Figure 29 demonstrates, the skills profiles of these occupations resemble those associated with retrofit jobs. Electrical and Electronic tradespeople can install energy-efficient electrical systems and integrate renewable energy sources, while Construction Operatives can implement energy-saving measures such as efficient HVAC systems and insulation. Metal Machining, Fitting and Instrument Making Trades professionals can manufacture and install custom parts for these systems. Construction and Building Trades Supervisors have the skills to oversee this work and ensure that operations are carried out effectively and in line with energy efficiency goals and standards. Plant and Machine Operatives are capable of manufacturing retrofit materials and operating related machinery. Although indirectly related, Vehicle Trades professionals also have many of the major transferable skills necessary to do retrofit jobs.

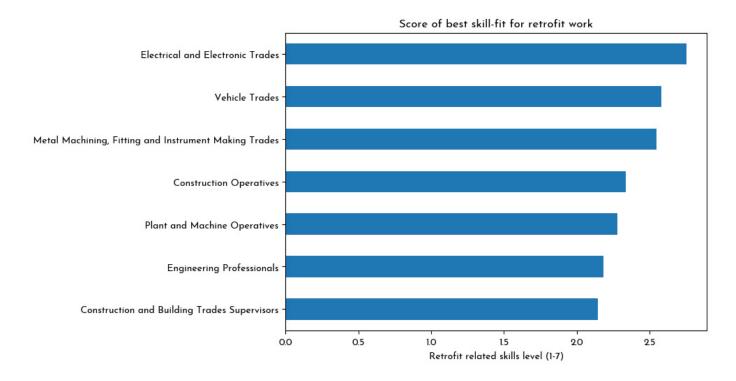


Figure 29 - Score of best skill-fit for retrofit work by occupation. Autonomy analysis using ASPECTT and ONS.

A DIGITISED FUTURE

DIGITISATION

Our age is one of profound technological change. Over the last four decades, new technologies in the workplace have transformed the UK economy. Meanwhile, the growth of digital connectivity has been rapid – between 2005 and 2020, the number of households in the UK with internet access grew from 55% to 96%. By some definitions, in 2019, the digital economy represented over 26% of gross value added. Digital technology promises to drive the labour market, improve care services, enhance customer and client experience, empower communities, and create a better connected, more efficient economy.

In labour market terms, digitisation has so far been a double-edged sword, creating both new high skill technical jobs and low skill 'gig work'. It has created new labour markets in poorly paid piece-work, while at the same time bringing about new opportunities in computing, software development, programming and engineering, as well as the manufacturing of hardware goods.

Attracting the best of the digital economy requires proper investment and training - such as the recent Institute of Technology collaboration, which back in 2021 invested £11 million in the region to arm young people with 'world-class higher technical skills' in: Computing, Engineering, Health and Life Sciences, Agri-Tech, Construction and The Built Environment, Science and Maths.⁷⁶ This initiative has created the groundwork for a new workforce that is both entrepreneurial and digitally savvy.

But, while the past decade has seen considerable local efforts to prepare workers for the new digital economy, further investment in training is imperative if the next generation are to fully exploit the opportunities available. Fostering these essential skills among the next generation will likely have important knock-on effects in the local economy, such as growing the local digital business sector through startups and small to medium sized enterprises as well as attracting larger companies to locate and expand their operations in the borough. Facilitating a thriving national hub in digital technological development could also lead to an increase of inward investment and growth.

ONS (2022). 'UK Digital Economy Research: 2019'. Available at: https://www.ons.gov.uk/economy/economicoutputandproductivity/output/methodologies/ukdigitaleconomyresearch2019.

⁷⁵ ibid

⁷⁶ Cheshire College South & West (2021). 'Cheshire and Warrington are winners in the £120m in the Institute of Technology Competition'. Available at: https://www.ccsw.ac.uk/cheshire-and-warrington-are-winners-in-the-120m-institute-of-technology-competition/.

Given that Information and Communication Technology and Business Services have been identified as key sectors with potential growth opportunities in Warrington, training for workers across all age groups in basic digital skills and literacy must continue to be prioritised. Training should continue to be a collaborative endeavour featuring employers, experts and local institutional leaders to make sure that skills are being cultivated in line with the employment opportunities available.

To make sure that these skills are applied efficiently and that Warrington remains competitive with the rest of the country requires increased digital connectivity that is gigabit capable, reliable and consistent - in particular, the rollout of 5G. The Government have set an ambitious target for everyone to have standalone 5G by the end of the decade, with the hope of deploying the technology to the majority of the country earlier. This will rely on continued cooperation between the LEP, local authorities, providers and the national government and will require sustained investment in infrastructure and careful planning to make sure that the rollout of the technology does not underserve specific communities.

The centrality of complex manufacturing and engineering to Warrington's economy means that the town already has at its disposal many of the skills that are useful in developing computational hardware, as well as skills that are eminently transferable to other kinds of digital work such as software development. Further collaborative partnerships between colleges and industry leaders should be developed to make sure that the skills in these industries do not disappear with those leaving the workforce but are passed on to those just entering it. Specifically, training initiatives should be organised that help to transfer the skills from those currently working in two of Warrington's core sectors - complex manufacturing and engineering - to younger workers.

Equally, if Warrington is to maintain its national reputation as a leader in complex manufacturing and engineering, it will also need to make sure that workers in these sectors receive training in basic digital literacy and digital skills. Computing is not only creating new kinds of work but also reshaping existing models of work in sectors across the board from manufacturing to hospitality and care work. Increasingly jobs in these sectors now require basic ICT training, a requirement that will only become more important with the growth of artificial intelligence (AI).

AI: THE PROMISES AND THREATS FOR WARRINGTON

Indeed, of all the new digital innovations, AI represents both the greatest promise and largest threat to economies the globe over. Some predictions suggest that AI will add as much as \$15.7 trillion to the global economy by 2030.77 Last year in the UK, the AI industry employed over 50,000 workers and contributed £3.7 billion to the economy.78 The UK government's recently launched white paper 'A pro-innovation approach to AI regulation' makes clear the centrality of AI to the government's plans for the UK economy in the coming decade.79 But it must be emphasised that the value produced by the industry will be unevenly distributed, and will largely benefit the regions that have the skills and know-how necessary to create the promised benefits of better conditions and higher pay for workers and enhanced productivity gains for business.

Again, it should be emphasised that the centrality of engineering and complex manufacturing to Warrington's labour market offers it a unique opportunity to exploit these benefits, and become a national leader in Al development.

The Turing AI Fellowships initiative was created as part of a skills and talent package set out by the UK government, which aims to attract and cultivate the best minds in the industry. Opportunities such as these fellowships offer an initial means to cultivate talent in local colleges and the University of Chester, and begin to initiate a local hub for AI development in the wider LEP.

Again, by providing opportunities for training in digital skills, The Institutes of Technology collaboration between employers, colleges and universities offers the opportunity for younger generations to gain the skills necessary in engineering, coding and software development that are essential to the development of Al.

As well as creating new jobs and industries, Al is already having a significant impact on the sectors that provide a large proportion of Warrington's employment: retail, hospitality, education, health care, logistics, telecommunications and computer programming. Making sure that workers are prepared for the present and approaching changes to these sectors again relies on significant investment in training programmes such as The Institutes of Technology collaboration between employers, colleges and universities.

⁷⁷ PwC (2022). 'PwC's Global Artificial Intelligence Study: Exploiting the AI Revolution'

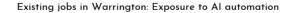
⁷⁸ Gov.UK (2023). 'A pro-innovation

⁷⁹ ibid.

⁸⁰ Gov.UK (2022). Turing Artificial Intelligence

Al presents numerous opportunities and challenges for the digital future of work. It has the potential to automate tasks, enhance decision-making, personalise experiences, augment skills, and create new job roles. Recent large language models (LLMs) and generative Al studies predict that the technology will have substantial impacts on the labour market.⁸¹ LLMs could potentially affect up to 25% of tasks across all wage brackets and sectors in the UK.⁸² At its highest level of roll out, generative Al has the capability to automate two-thirds of current jobs, possibly substituting a quarter of current work, which equates to around 300 million full-time jobs globally. These impacts hinge on Al capabilities, task complexity, the extent of automation, and the pace of Al adoption. A recent Goldman Sachs⁸³ (2023) study lists the occupations more likely to be affected. As Figure 30 shows, we build on this research to estimate that 14% of the job demand in Warrington could be disrupted by these advances in Al. Additionally, 22% of the currently employed labour force is projected to face high exposure to these technological shifts.

Job opportunities in Warrington: Exposure to Al automation



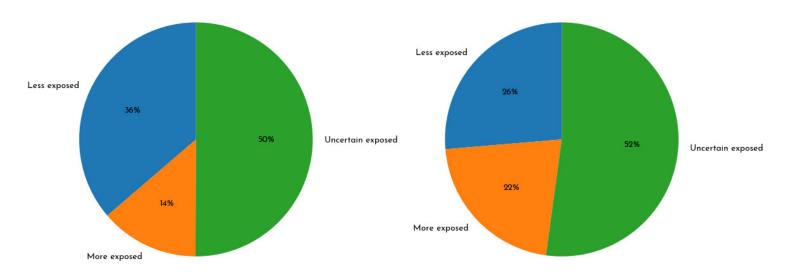


Figure 30 - Job opportunities and existing jobs in Warrington: Exposure to Al automation. Autonomy calculations with Eloundou, Tyna(2023), Adzuna and Annual Population Survey, Local Enterprise Partnerships areas projections.

⁸¹ Eloundou, Tyna, et al. (2023) 'Gpts are gpts: An early look at the labor market impact potential of large language models.'

⁸² Goldman Sachs (2023). 'The Potentially Large Effects of Artificial Intelligence on Economic Growth'.

⁸³ Goldman Sachs (2023). The Potentially Large Effects of Artificial Intelligence on Economic Growth'.

Another study listed activities and sectors that are more likely to be affected by language models like ChatGPT.⁸⁴ This study found that both Al models, such as ChatGPT, are more impactful on traditional office and managerial jobs (many of which are now done remotely). Figure 31 breaks down the automation risk associated with ChatGPT-4 by occupation. The sectors in Warrington that are projected to be most affected by the advance of Al technologies include Accounting & Finance, IT, Property, Creative & Design. These sectors, due to their dependence on data management, analytical tasks, or repetitive administrative tasks, may experience significant changes in job demand and structure as Al technologies become ever-more prevalent.

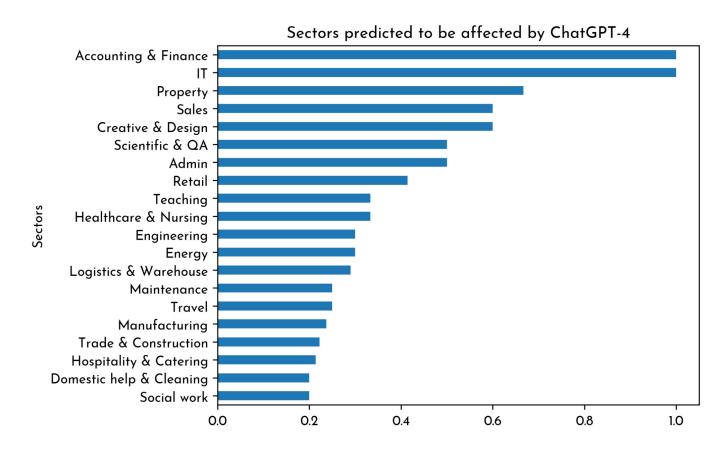


Figure 31 - Sectors predicted to be affected by ChatGPT-4. Autonomy calculations with Goldman Sachs Al-vulnerability sectors estimates.

⁸⁴ Eloundou, Tyna, et al. (2023) 'Gpts are gpts: An early look at the labor market impact potential of large language models.'



RECOMMENDATIONS

We know Warrington has a strong economy: in the years after the global financial crisis Warrington fared better than the UK as a whole (although this trend was disrupted in 2020, an unusual year for the labour market). After the pandemic, and amid the Brexit negotiations period, indications also suggest a stronger bounceback in Warrington than the North West or the UK as a whole. This is not accidental: the town has a diverse industrial base, and a history of rising to the challenge of training workers for an evolving world. This has worked best when Warrington's skills providers have worked together to cover the diverse and changing training needs of the town and its employers.

Warrington has firm ground to build upon, but the coming years will not be easy. If the town wants to respond as well to future challenges as it has to those of the recent past, it needs an agile skills policy, built for resilience. With this in mind, our recommendations are divided into three key categories: collaboration, alignment and preparation.

COLLABORATION

Good communication can help us to get the most out of our collective resources. Collaboration between stakeholders will ensure the best skills provision for all Warrington's residents and organisations.

Work with partners across the sub-region to seek a new regional devolved skills settlement from national government

One issue stands above all others in today's skills provision: funding. Under the current arrangement the council faces several issues with regards to skills funding, 1) a lack of resources to facilitate the best training and provision, 2) insecurity in funding over longer timeframes and 3) too little say over what happens to skills funding in the town. On issues like the apprenticeship levy, the council and local stakeholders have little recourse to keep funds in Warrington. Nearby Greater Manchester Combined Authority and Liverpool City Region Combined Authority have both been given devolved skills settlements, which have allowed their councils to develop distinctive skills offerings and strategies.

It is recommended that Warrington should ask the national government for greater agency over how resources are handled in the town, and this should be achieved by lobbying for a devolved settlement in the existing subregion of Cheshire and Warrington.

Enable a 'place based' focus and expand coordination between stakeholders via a new skills body for Warrington

When resources are scarce, collaboration can go further than competition in skills provision. Good communication is already happening between skills providers in Warrington, but more active coordination between skills providers, the council and employers is needed. The most coherent and effective way to deal with collaboration is through a unified body - whether that is a department within a public body, or a standalone outfit (i.e. an independent "skills body").

Such a skills body should help to facilitate communication between both key stakeholders and the public, in particular those out of work, learners and the parents of young learners. This is a particularly pressing issue in areas such as green employment, where lack of education and understanding of new types of work can cause residents to miss out on opportunities.

Consolidate a single online skills portal

Students interested in attending university have access to a central portal for finding and applying to universities: UCAS. But there is no equivalent portal for those searching for apprenticeships. The result is an uneven distribution of information, with learners often unaware of all the options available to them, and employers and skills providers struggling to fill some apprenticeship positions. Warrington should look at developing a similar single portal, which would guide learners from discovery, to application, to results.⁸⁵ The costs of developing such a service are not trivial, so investment will also need to come from the national government. Such a service would make Warrington a leader in apprenticeship provision not just in the region, but in the country.

Improve learner engagement in skills information

Surveys of current students in Warrington, as well as feedback from workshops, reveal that despite the volume of skills information being produced, engagement with that information is not always strong. Students expressed finding careers information and soft skill training sessions impersonal and even boring; some suggested they don't attend when these sessions are offered. Such issues in engagement need to be diagnosed and addressed; quantity of resources alone is not enough.

Given that The Pledge has found Warrington's schools lag behind England when it comes to personal guidance, a more robust approach might include an expanded role for careers advisors in schools, who know the students, understand their interests and their more specific skills pathways. This will require added funding and therefore, would be more achievable as part of a new devolved skills settlement.

Conduct representative polling for future skills reviews via a polling agency and collect comprehensive destination data for learners leaving Warrington

We know a significant number of college graduates currently leave Warrington at 18, but the data regarding this is partial. A new skills body should seek to gather complete leavers data for students finishing school, college or university in the town. This information can be used to better understand why and where young people are going, and inform future policy.

⁸⁵ Hypothetically, this could be developed as an extension to the existing Cheshire and Warrington LEP Opportunities Portal, https://www.candwopportunities.co.uk

Beyond non-targeted, voluntary surveys, statistically valid polling techniques - which capture representative samples of the town's population - should be used to collect this useful information. Third party polling agencies, who have the experience and resources, could be utilised to this end.

Help employers to take advantage of and collaborate on the apprenticeship levy

Workshops have revealed clear frustration from several stakeholders with the implementation of the apprenticeship levy, and a desire for greater flexibility and agency in its allocation.

Under the current rules, the council cannot directly allocate the levy or the 25% levy transfer of other organisations. However, it has already developed an effective policy for distributing its own 25% apprenticeship levy transfer to organisations who would not be able to pay for apprenticeships themselves. Greater Manchester Combined Authority, for example, has already developed a "matchmaking" scheme, which pairs local employers up to make sure as much of the levy as possible is used locally. Warrington should adopt a similar scheme, which could be operated by a committee of stakeholders, the proposed new skills body or the council.

ALIGNMENT

While plenty of progress has been made in the last decade, there is still some work to be done on aligning Warrington's skills provision to the employment needs of its local businesses and organisations.

Maintain a vision of skills training aligned with employer needs

If Warrington is to maximise its productivity, skills training needs to remain closely aligned to the demands of the labour market. The Pledge Partnership should continue to facilitate relationships between learners and employers, while skills providers should prioritise the training needs of the local economy and seek to integrate knowledge of today's skills needs into learning. Employers, meanwhile, must be open to working with skills providers and facilitating direct industry experience and placement opportunities, including apprenticeships.

A new skills body is the most effective vehicle for coordinating such an alignment, and continuing to build the relationships needed to deliver it effectively.

Target key growth areas for skills provision

It is important for skills providers to focus on creating or maintaining capacity in areas which have been determined to be important for Warrington's future growth. For skills providers, this means ensuring training is available in these areas; for employers, it means communicating actively with skills providers about their skills needs, while offering to share some resources to help train the workforce they draw from; and for a new skills body, this means coordinating stakeholders, and ensuring the evidence base for skills decision is updated regularly.

In particular, this report has identified the following growth areas which should be focused on:

- Information technology: The information and communication sector in Warrington is smaller than the average for England, but it remains more productive than many industries in the town. We cannot assume young people will have proficiency with information technology on their own, and should work early to dispel gendered impressions of such work. Of course, there is also a need for basic digital skills training for all learners, but advanced computing training for information and communications professionals should be considered an important area of provision on its own.
- Logistics and e-commerce: Warrington's location between two of the largest cities in the North West, Liverpool and Manchester, and its proximity to several important motorways, puts it in a particularly good position to act as a logistics hub in the region. Growth in this area would create demand for a variety of skills, particularly large goods vehicle (LGV) drivers, who require specific training and qualification.
- Green industries: Warrington has the opportunity to benefit from green industry initiatives in the North West in the near future, but these will require some reskilling of the existing workforce or changes to the initial skills training. Those who work with natural gas, for instance, will already have most of the skills required to work with hydrogen, but will still require a small amount of reskilling. Skills providers need to be informed about these new requirements and opportunities as they emerge, and be given the resources to properly prepare learners for this work.

- Retrofit: A significant minority (approx. 40%) of Warrington's existing housing stock has an EPC D rating or below. This means they are expensive and inefficient to heat, and less safe, comfortable and affordable for their occupiers. The retrofit work required to bring these houses up to a good standard needs to be understood as a green jobs and growth opportunity. Little of this work is being carried out now, but significant progress needs to be made if targets are to be met.
- Care: The population of Warrington skews older than England, and we expect it to age at a faster rate. This means the demand for care work is only going to grow. This presents an opportunity for job creation in the sector, but vacancies are already difficult to fill. Increasing labour supply and realising this growth will require engaging with some of the fundamental problems affecting the sector, especially working conditions, pay and gender inequalities in learners.

Replenish skills that are ageing out of the labour market

Our economic forecasts show a declining growth rate in certain sectors and skills profiles. This supports a concern that some industries in Warrington, especially manufacturing and engineering, have been voicing concern about for some time: certain skills are ageing out of the labour market, and not being replaced.

Specifically, this appears to be likely to affect the 'Operative & Craftspeople' skills profile, which would include many workers in these industries. If complex manufacturing and engineering are to remain strong in Warrington, we need to train the next generation of workers in such skills, both within the workplace and via education or training opportunities.

Offer soft skills training to all learners and support learners in demonstrating them to employers

Our analysis has shown that all workers need soft skills to carry out their jobs effectively, and that soft skills are seen as particularly important in employment across the local economy. Soft skills have already been identified by some of Warrington's skills providers as important for employment and therefore integrated into schemes of learning; this should be offered to all learners. More granular analysis shows that the necessary soft skills profiles differ between roles; the soft skills composition of particular worker profiles should be drawn upon by skills providers in their learning design.

Celebrate fair employment practices via a Fair Employment Charter

Ethical employers treat their employees fairly, protect them from health risks or injury, and support them in expanding their skills and abilities. Healthy, well supported employees are also productive and flexible ones, capable of taking on the skills our changing economy requires. Fair Employment Charters have been used by many local authorities in the UK as a means to promote and celebrate ethical practices among employers. Work has already begun on a Fair Employment Charter for Cheshire and Warrington. This should continue and include an analysis on the effects of fair employment practices on education and training, both for learners and current employees.

Workshops have also shown that skills providers sometimes

Workshops have also shown that skills providers sometimes struggle to tempt instructors from highly lucrative industries which pay much better than teaching. As part of their ethical commitment, employers should be encouraged to think long-term, and build active relationships with skills providers to help train their next generation of workers.

Promote Equality, Diversity and Inclusion (EDI) in Warrington

If Warrington is to work for everyone we need equal inclusion in the labour market. The FSQ 2023 questionnaire reveals a greater awareness of careers among SEND students in Warrington than England as a whole (a marked improvement over last year's survey results). But we need to mirror these positive indications outside of education.

As a first step to addressing this, Warrington needs more Disability Confident Employers. The Disability Confident Scheme has been shown to boost the numbers of people with disabilities and chronic conditions join or stay in the workforce. The scheme trains employers to be knowledgeable in the issues surrounding disability in the workplace and encourages them to employ workers that would usually be marginalised from the labour market. Ensuring that employers are knowledgeable and sensitive about disabilities and chronic conditions would also likely help to encourage workers aged 50+ to stay in work until retirement.

Begin breaking down barriers to training before KS2
We know some industries in Warrington have significant gender inequalities. If we want the best candidates in vital areas of skills training, we need to break down the barriers that prevent young people from considering these careers in the first place. Young people need to be introduced to the careers that might be available to them early (KS2 or earlier) to help reduce the gender inequalities in later training and employment.

In Warrington, this particularly affects girls going into manufacturing, construction and engineering and boys going into social care. In cases where industries suffer from a lack of diversity, Warrington should make sure learners can find role models in these careers who break such trends.

Conduct more regular skills reviews and analysis

Maintaining alignment in the future will require a knowledge of
the needs of employers and the make-up of the labour market
as it changes. Smaller scale, but more regular skills surveys and
reviews, ideally delivered by a dedicated skills body, should
inform policy going forward. This will become increasingly
important as future, as yet unforeseen, shocks to the labour
market ('exogenous shocks') could disrupt current strategies,
workforce expectations and private sector confidence; being able
to adjust, realign and execute updated skills provision plans will
be crucial for the Warrington's labour market resilience.

PREPARATION

Across the green economy, digital technology and social care we know the coming years will bring changes to the way we work, and to the skills Warrington needs. Demand-led skills provision needs to be balanced with forecast-led policies for a stable and prosperous future.

NET ZERO

We now know that avoiding catastrophic climate change will require changes in the way we live and work. This is a big task, but it is also an opportunity for job creation and new kinds of prosperity. If we want this to be a smooth transition, we need to plan ahead. The UK government has a strategy to decarbonize all areas of our economy by 2050. In some areas, such as housing retrofit, targets will require action in the immediate future.

» Adopt a forecast-led skills strategy

There is clear demand from our young people for training in net-zero development, however demand for this kind of labour in the market still remains low. If demand-led policy alone cannot demonstrate the need for these skills, a forecast-led policy can help to create the green industries, jobs and skills that reaching net-zero requires. A net-zero transition will need a comprehensive and well-structured policy programme that can anticipate future challenges and deliver a smooth transition. At the first stage, the local authority should work with local green employers, educational facilities and experts to design a transition map that plots how to scale training for the kinds of green jobs that are either currently available or are set to emerge and grow in the coming years - for instance, retrofit work. Secondly, Warrington will need to work with the national government to flesh out how a national plan could benefit local regions:

Educate

- Make sure that green skills are being taught throughout all levels of education
- Develop bold innovations such as 'Green Colleges'
- Provide green training across industries

Incentivise

- Consider which 'carrots' could provoke sustainable policies at the local level. E.g. tax relief and subsidies for green job creators, investors and skills providers.
- Support incubators for green businesses and organisations.86

Create a retrofit-ready workforce

Local economies need a 'green-ready' workforce. Retrofit work represents a multi-pronged opportunity: to tackle the climate crisis; to improve energy bills and reduce fuel poverty; and to create high value, high skill labour. As our previous analysis shows, there is significant need for retrofit work in Warrington given the area's high number of houses below EPC D rating. The local authority, colleges and universities, employers, unions and a range of stakeholders should come together to create a dedicated training programme for retrofit skills. Owner-occupiers and landlords need to be encouraged to improve the quality of their housing and educated as to the long term benefits. This will not only help to create a retrofit workforce, but also foster skills that are transferable to other kinds of low-carbon work.

Improve access to skills training through public transport

In our workshops with young people in Warrington, as well as in the report from the North West Net Zero Youth Steering Group's conference, it is clear that young people find expensive and unreliable public transport provision, as well as poor cycle infrastructure, to be real barriers to their ability to undertake education and training. Public transport and cycle infrastructure in Warrington need to be considered skills issues. Whilst there has been noticeable improvement over recent years, poor provision in these areas currently represents a barrier to education which disproportionately impacts the less well off, who are less likely to afford running a car. Of course, these things are also a vital step in achieving net-zero.

While there are existing offerings for some learners in Warrington (a discount on Warrington's buses for those under 21, and additional help for those forced to travel longer distances to their nearest school, up to 16), it is clear that many learners aren't finding this adequate. Older and disabled people are already able to access free bus travel in Warrington via the English National Concessionary Scheme, a similar proposal for Warrington's learners would greatly increase the availability and desirability of learning for the town's young people. Improving the safety of cycling in and around Warrington should also be considered an achievable provision which might be realised in the near future.

Offer Green training provision across education

There are a number of ways that green work can be integrated into the education system at various levels. Careers Advice Hubs should have a dedicated 'Green Jobs' list, which offers clear and intuitive advice to younger people about the opportunities available as well as the kind of training such jobs will require. This should partly be based on the national government's 'Free Training for Green Jobs' list, which details the various training courses already available. The local authority should also encourage local colleges and educational facilities to be bold and innovative in their course provision in terms of offering training for green jobs.

CARE ECONOMY

Like much of the country, Warrington has an ageing population. However, Warrington's population is ageing at a faster rate than that of England, and too many of its working age residents are being pulled from the labour market for care responsibilities. We need a strategy to train care workers, ensure old age is a happy and dignified experience, and keep those aged 50+ in the workforce for longer.

Support 'Warrington Together'

Cheshire and Warrington's Integrated Care System 'Warrington Together' represents an opportunity to gain greater management powers and better democratic oversight over the local care sector. Which in turn offers opportunities for alignment between training and the profession. Some of the specific benefits of integration include:

- Aligned and joint investment, which offers greater, combined financial resources for specific larger projects, services and facilities
- Shared commissioning
- Aligned quality surveillance, which can lead to greater oversight over service performance
- Integrated service delivery, which offers the opportunity to provide all areas of care on-site
- Joint decision making, which offers a more democratic approach to delivering services

Address the causes of recruitment and retention difficulties

As mentioned in the earlier 'Vision' section, Warrington's retention and recruitment problem reflects that of the nation as a whole. A lack of proper investment in the workforce and resources has created serious problems in the sector that make it an unattractive prospect to potential applicants. Stimulating supply, therefore, is not just about providing training, but requires confronting some fundamental problems affecting the sector as a whole: overwork, underpay and poor working conditions. Beyond greater national investment, there are a number of ways employers can address these problems that could be trialled locally, including investing in local assets , pursuing progressive procurement

- , pursuing progressive procurement and offering gold standard, attractive working conditions such as shorter working hours
- Offer regular training opportunities and promote greater awareness of these

Though lack of training is not the main problem driving retention and recruitment problems in the sector, emphasis should still be placed on making sure that workers skills remain up-to-date. All workers should be given regular free training opportunities based on their specific job requirements that keep up with developments in the sector, and are incorporated into their regular hours of work. This is as much a problem about the offer as awareness of it.

DIGITAL FUTURES

Technology will transform work in the next decade, for better and worse. If Warrington and its residents are to benefit from these changes and not be left behind, we need to ensure digital education is accessible to everyone, from the early years, to employment, to retirement.

Offer core digital skills training for all school age learners

Basic digital competencies are now required in every career. We know Warrington's employers often struggle to find core digital competencies in candidates, such as proficiency in MS Office programs like Excel. Warrington needs to offer basic digital skills training from school to the workplace, with a focus on those skills required in employment.

Make digital skills training accessible to adult learners and the employed

A collaborative initiative between the local authority, employers and local colleges and universities should be undertaken to provide regular digital training to workers at all levels to make sure that poor digital literacy does not hold back the local economy. The benefits in terms of business productivity, local wealth creation and individual career advancement will likely far outweigh the cost of provision. Local colleges might give greater attention to the Turing Al fellowships initiative, which was created as part of a skills package set out by the UK government, aiming to attract and cultivate young talent. Local colleges and the University of Chester should aim to bring in these fellowships, as a way to initiate a broader local hub for Al development.

Establish digital training initiatives for the economically inactive and unemployed

Providing basic digital training to the economically inactive and unemployed could go some way toward helping those who have been outside of the labour market for long periods of time return to work. Many of the economically inactive have been outside of the labour market for over a year with some outside for multiple years, meaning that if or when they are able to return to work their skills will require updating. This is particularly important in the digital context which tends to change more rapidly than other areas of the economy. Initiatives should be developed that include those furthest from the labour market in the opportunities of digital technology.

Expand the remit and resources of The Institute of Technology collaboration

The Institutes of Technology is a collaboration between the LEP, employers, colleges and universities which offers the opportunity for younger generations to gain the skills necessary in engineering, coding and software development that are essential to the development of Al. With greater funding from the national government, this bold and innovative project could expand its remit and resources, and help to create a local hub for Al development, as mentioned in a previous recommendation.

Build automation resilience into Warrington's skills provision

A new wave of automation, driven by AI, is set to make many once secure professions precarious, while also offering opportunities for new kinds of work and innovation. Securing local economies does not mean simply training young people in "safe" digital jobs such as computer science, coding and software development. In fact, occupations such as computer scientist and IT professional are, counterintuitively, more at risk of automation from AI than many other professions. A better approach would be to anticipate with careful planning which skills will be in more or less demand in the coming years and to adapt skills provision accordingly.

One effect of AI will be to make some currently highly valued skills less important, particularly simple cognitive skills, which are overall much easier to automate than manual tasks that require complex dexterity. This could mean significant changes to the nature of some jobs, or it could mean some jobs will be lost entirely - though we can also expect some new jobs to be created by this technology. Although we cannot accurately predict the trajectory of AI-based automation in the coming decade, we can expect a significant minority of those currently in work to need some retraining, whether in or outside work. We need to anticipate new demand for training from adult learners, employees and the economically inactive.

ANNEX 1: WORKSHOP SUMMARIES

YOUNG PEOPLE: 11-15

The young people had a wide range of job aspirations, from palaeontologists, vets and architects to psychologists, teachers, lawyers and beauticians. The reasons they gave for wanting the jobs they listed mostly related to their interests and hobbies, the possibility to positively impact people's lives and options to travel with their work. When asked, around 90% of these young people said they wanted to leave Warrington in the future, and around 50% wanted to leave the North West altogether. It seemed that most of the young people were drawn to Manchester, Liverpool, London and international places.

When defining what makes a good job, the young people said enjoyment and finding the work interesting, flexibility, opportunities for travelling and learning new things, the salary and a good working environment.

When thinking about enablers to getting the jobs they want, the following were discussed:

- Money and income to pay for university, travel and housing
- Apprenticeships for some young people getting into work via an apprenticeship seemed sensible and supportive
- Family life a supportive, stable family can help you through education and training, and find work you like. They can also help inspire you through their work.
- School careers services hosting events, supporting CV writing and personal development opportunities are all useful for young people. Having good teachers can help inspire you, and work experience is good to try out different careers.
- Connections having a network via your education provider or family can help you get ahead
- Qualifications doing the correct GCSEs to go into what you want to do later down the line is important

ANNEX1: WORKSHOP SUMMARIES

When thinking about obstacles to getting the jobs they want, the following were discussed:

- Money and income a lack of it can make education and finding opportunities much harder
- Family life having a non-supportive or unstable family can also be very detrimental
- Transport the transport system connecting Warrington with Liverpool, Manchester and London is very good, but many students said that travelling within Warrington - between suburbs, estates and the centre of town - was difficult and expensive
- Lack of opportunities in Warrington young people said that there weren't enough jobs in the area, but teachers pointed out this was mostly due to young people not being aware of what's available.

"It has to be a good paycheck but it can't just be about the money"

"A job should that gets you out of bed and you say 'ooh that's me"

"People have many opportunities in Warrington but maybe want to spread wings and leave to experience different lives"

YOUNG PEOPLE: 16-18+

The young people had a wide range of jobs they wanted to go into after college, including counselling, digital marketing, engineering, politics, midwifery and law. When asked why they wanted to go into these areas of work, they mentioned pay, good locations, finding the subjects interesting and options for flexible or hybrid working. Most of the students applying for university were intending to leave the area, but those apprenticeship offers were staying local.

When thinking about enablers to getting the jobs they want, the following were discussed:

- Money and income to pay for university, laptops
- School support encouragement from staff and careers advisors had helped lots of the students, including via mock interviews. Using UCAS and Unifrog were cited as being helpful, and learning about graduate schemes are good too
- **Family life** having a supportive family, especially who are well educated or connected, is an advantage.

When thinking about obstacles to getting the jobs they want, the following were discussed:

- **Money and income** the students talked about cycles of poverty and inequality of opportunity; they gave examples such as being able to afford a suit to an interview and making a good first impression.
- School support there was a cultural impression among the students that the pastoral sessions (PDP) were boring. There were some useful sessions sometimes, but people generally don't attend because most people think it's a waste of time. Some students felt that there could be more careers advisors, and they could get to know the students better. They also said there weren't enough/big enough library spaces or quiet spaces; computers are always full and there's not enough areas to get your head down to work within the college
- North-South divide students felt there were fewer transport and job opportunities in the North compared to the South, and felt more drawn to go to where opportunities are.

- Pandemic impact lots of the students felt their softer skills were negatively impacted by the pandemic, and mental health (and long NHS waiting lists) were damaging opportunities.
- Transport as with the younger group, the students complained that while the transport system connecting Warrington with Liverpool, Manchester and London is very good, many students said that travelling within Warrington between suburbs, estates and the centre of town was difficult and expensive
- Cost of living crisis young people felt it was too expensive to move out of living with their parents, and lack of financial literacy holds some people back

REPRESENTATIVES OF THOSE FACING BARRIERS TO EMPLOYMENT

A range of stakeholders attended this workshop, including representatives from local youth organisations, support services for disabled people, the borough council, the Department for Work and Pensions and education providers.

In the first discussion, on "what's working and what's not' in terms of skills and training for those facing barriers to employment, the following points were raised:

WHAT'S WORKING

- Wealth of opportunities: the job market in Warrington is "buoyant" at the moment, with lots of jobs, apprenticeships and training opportunities. At the Warrington & Vale Royal College, they have around 350 apprenticeships available per year but they often can't fill the spaces. The most popular apprenticeships are construction trades and engineering (30 applicants to every 1 apprenticeship), particularly electricians, but business administration roles are harder to fill (27 live vacancies 19 are business admin which they can't fill).
- Decent skills training available: there is bespoke, person-centred training provision available in the area, through programmes such as Springboard and Taurus' New Leaf programme.

- **Engagement with employers**: local businesses are working with civil society and education organisations to provide skills opportunities and connect with job seekers. Having the opportunity to sit in front of an employer, bypassing CVs and online applications, is particularly beneficial for those facing barriers.
- Availability of peer support: organisations, such as the Warrington Disability Partnership, are providing valuable peer support for those facing barriers to employment, providing confidence and a space of shared experience.
- Sood transport links: Warrington has very good travel connections in and out to other major conurbations, making it an attractive place to live and work.

CHALLENGES

- Problems with funding: With the loss of the European Stability Fund, and the limitations and changeability of the UK Shared Prosperity Fund, skills and training programmes for those facing barriers to employment are under threat. The lead time on programmes and their evaluation period is often too short to show impact or outcomes, also increasing the risk of losing funding (this was cited particularly for working with disabled people, who may need 1-2 years to build employability skills rather than 3-5 months). The traineeship levy was also cut, so these have been lost they used to provide a stepping stone for learners to apprenticeships or higher education. Funding also varies across postcodes in Warrington, due to their inclusion or exclusion from the Greater Manchester and Liverpool City Region combined authorities.
- Shortage of volunteers: Volunteer numbers are at their lowest in years. This is mainly attributed to older people not returning to roles after covid, but the reliance of support and third sector work on volunteers means there are issues delivering services.
- Issues with recruitment and retention: For support and care roles (e.g. personal assistants for job seekers with disabilities), there are lots of available postings but the pay is too low to attract people Amazon pays higher than care in the area. Care is also seen as an unattractive sector to go into. Since the pandemic, retention has been lower, making it more difficult to train and upskill staff. The bridge between Universal Credit and Minimum Wage is often see as being too risky to cross; low salaries in sectors such as care are not attractive or reliable enough for job seekers. Employers are also not always willing to train new recruits up. The Warrington Hospital has c.500 vacancies currently.

- Pandemic impact on mental health & confidence: Mental health support capacity is very stretched, and people's resilience has been worn down by the pandemic. Although hybrid working arrangements provide flexibility and support for those facing barriers to employment, it also means that many people particularly young people haven't had 'proper' workplace experience, so are lacking interpersonal skills. Generally those most vulnerable and affected by covid require additional support in these areas. Work experience opportunities have also dropped off since the pandemic.
- Transport: Internal transport connections, between estates, suburbs and central Warrington, are too costly and time consuming for lots of people. Being well placed for travel to and from large urban conurbations, local businesses face competition with those in Manchester and Liverpool (particularly around salaries).
- Digital exclusion: Alongside the benefits of hybrid working and digitisation, it is challenging to ensure that people have sufficient IT and digital skills for the current job market. Even the application process can be challenging and pose obstacles for those who lack digital and certain soft skills. Digital tools (e.g. laptops, phones) are the first things being dropped due to the cost of living crisis, creating more barriers.
- Lack of common source of information: There's a lack of an 'integrated skills eco-system' in Warrington, meaning learners, job-seekers and practitioners don't know what's out there. There isn't much sharing of knowledge, so organisations don't know what's available or where the gaps are.
- Bureaucratic barriers: The rates of qualification conversation (between countries) are low, meaning that Warrington's refugees from Ukraine and Hong Kong are unable to use their qualifications in the local area. These skills would be particularly valuable for local NHS services. In addition to this, the access to work package for disabled people has long delays employers use the package to practically support disabled people in the workplace, but a wait of up to 28 weeks is often too long for employers to be willing to wait. Short courses, ESol courses, have inflexible start dates around September, meaning that many learners are blocked from starting courses throughout the rest of the year, and their training and workforce participation is delayed.

The second discussion considered paths forward and actionable next steps:

- Building a well-connected ecosystem: The organisations providing skills and training for those facing barriers to employment can collaborate and share knowledge more effectively. It is difficult for organisations to manage the competitive nature of the funding environment, but collaborating on funding bids and avoiding duplication could help to expand and improve service delivery. Lobbying the government to lower the apprenticeship levy was raised to enable smaller organisations to deliver courses. Improving connections between businesses and skills providers was also suggested, alongside creating a 'Warrington Portal' a central point of information for skills and employment provision for learners, job seekers, employers and service providers.
- Docal 'place'-based approach: Looking internally, the skills commission and next steps should focus on what's required in the local area. Creating incentives for businesses to recruit locally, and building skills for the future with the current workforce (e.g. around retrofit) was emphasised. This includes providing funding for employers to upskill and retain employees. Enhancing active transport and improving bus networks should increase capacity, improve access to work and provide the area with green credentials.
- Reducing barriers to employment: Rigid recruitment processes in some organisations going through online portals, assessment centres, interviews, can be a negative for applicants facing barriers to employment. There is a need for more positive adjustments in application processes. Neurodivergent and disabled people are often excluded from job applications involving psychometric testing, and when requests are made to accommodate additional needs many employers say no. Increasing the number of 'Disability Confident' employers would be very valuable.
- Future career and skills awareness: Preparing services providers and businesses with an understanding of green jobs and trends in the area would be beneficial. Essential digital skills should be integrated into all training courses, and digital training should be tested for accessibility when providers say they're offering it. Soft skills, including communication skills and taking initiative, that were lost through covid should be built back up and be age inclusive. Many job seekers have qualifications on paper but lack employability skills. The commissions outcomes and actions should be flexible; there should be a process of regular reflection, working with stakeholders to respond to the changing labour market.

EDUCATION PROVIDERS

A range of stakeholders attended this workshop, including representatives from the University of Chester, the Warrington and Vale Royal College, Willow Green College, local youth organisations, the borough council, support services for disabled people and the Department for Work and Pensions.

In the first discussion, on "what's working and what's not' in terms of skills and training, the following points were raised:

WHAT'S WORKING

- **Sood mix of education providers:** There are providers to teach young people and adult learners at all levels in Warrington, with good careers support available at most of the institutions. The arrival of the University of Chester in Warrington is positive, and they are very open to collaboration.
- >>> Strong communication: There is a willingness to collaborate between education providers, rather than compete. Between further education, higher education and civil society (such as Youth Zone), communication and the sharing of information is strong. There are also useful partnerships between education providers, local government and employers.
- Responsive further education provision: Although there are skills gaps among their learners and in Warrington, the further education colleges are aware of these and have clear lines of development to tackle them. For example, the Warrington Town Fund has enabled the established of four advanced centres: health and social care, advanced construction, advanced digital centre, manufacturing and engineering.
- New opportunities arising: There should be new investment coming into Warrington via the Town Deal, providing funding for the advanced centres listed above. There are new start-ups establishing in the area, and new apprenticeship roles being created. Resources are available for learners, including the ICT suite at the Centre for Independent Living.

CHALLENGES

- Stability Fund, Connexions and traineeships has threatened and stopped some programmes. Funding isn't always routed to local education providers, and there is a lack of coherent funding strategy at the national level. Smaller funders can lose out, due to complex commissioning processes and providers competing for the same pots of money. Fragmentation and short-term funding windows disrupt long-term planning and continuity. Place is not a priority in public procurement, but local providers with local investment and knowledge should be given weighting in funding provision. Lots of services are not available outside of term-time, which creates barriers to certain learners.
- Issues with the apprenticeship levy: The levy is too narrow in terms of how it is used, and excludes smaller employers. The money is taken back by central government if it's not used, but it could be better used in other areas of training.
- Impact of the pandemic on learners: Although the pandemic brought opportunities, there has been a loss of confidence and resilience among young and vulnerable people. The emphasis of online working can also create barriers. The mental health of learners has been very negatively affected, and it is taking education providers much more effort to prepare them for the workplace.
- Mismatched aspirations and availability: New and emerging roles in the area can be too advanced for leavers in Warrington. Disability friendly employers are few and far between, and catchment areas limit further education students from accessing certain providers. The career aspirations of young job seekers can be mismatched with the job market for example lots of young people want to work in animal care so there is a need for improved communication and awareness-raising of local job opportunities.

The second discussion considered paths forward and solutions:

Greater local coordination: The group advocated for increasing communication and collaboration between education providers, on strategy, funding, and reviewing issues and growth sectors. Establishing a post-16 skills network among education providers in the area, with semi-regular meetings to discuss what is happening and areas for support, was recommended. The local further education and higher education providers should be placed centrally in all work on skills and training in Warrington. The work of the Pledge should be built on to engage more employers. Although funding is fragmented, local providers and the council should collaborate to apply for and distribute funding efficiently.

- Raising awareness around barriers to employment: Using best practice by major organisations, including the University, colleges and local council, awareness should be raised about employing and making reasonable adjustments for disabled people in the workplace improving disability positivity in Warrington. There should be a network of mental health specialists across all local education providers, meeting twice a year to speak about trends and best practice in their work. Employer sessions on SEND should be held to raise awareness, organised by the local council.
- Evidence-based programming: Careers guidance, from Year 9 up, should be led by labour market information focusing on what jobs are actually available in various geographies when leaving education. The research being completed by the Skills Commission should happen more regularly than every 10 years, creating regular labour market updates for the community and education providers to guide future careers. Education provision priorities should be mapped against future jobs, creating evidence-based education investment.

Considering the growth sectors care, digital and green, the group discussed actions that could be taken in Warrington:

- Promoting the care sector: As needs grow, the positive side of care service jobs should be promoted. Warrington should support an integrated care system.
- Digital skills are life skills: Digital skills are important for connecting people across all areas of their lives, not just in employment. Digital was a growth area 10 years ago, and still is. The local curriculum should focus on upskilling young people in digital skills. People without digital skills are excluded from participating in the workforce, and integrating or reintegrating people is very important.
- Place-centric approach: The devolution of skills budgets would support local responses to changing skills demands. There should be iterative local skills plans, building understanding of what is needed to equip and prepare Warrington's workforce.
- Inspiring and upskilling learners: To enthuse young people and make them aware of available opportunities, clear 'route maps to work' should be developed to show clear pathways from education to feeding into new and growing employment areas. Different levels of job within key growth sectors should be identified, so all learners have focuses for their aspirations and interests.

EMPLOYERS

A range of stakeholders attended this workshop, including representatives from the University of Chester, further education colleges, a recruitment company and local engineering business...

In the first discussion, on "what's working and what's not' in terms of skills and training, the following points were raised:

WHAT'S WORKING

- Multiple routes into professions: Learners can move into work via the University of Chester, apprenticeships, A-Levels and further education courses. The apprenticeship levy is used by local employers, and work-based learning placements are very effective for colleges learners often coming back to their courses with job offers.
- **Buoyant economy**: Warrington has a mixed economy, with a variety of businesses and sectors. This is creating opportunities and jobs there are more vacancies than candidates.
- Effort from employers: Employers in Warrington are working harder to be better places of work, creating career pathways for their employers, acting as ethical employers and investing in their staff. Networking between employers seems to be getting better, and many are taking up apprentices.

CHALLENGES

- Recruitment and retention difficulties: Candidates have the pick of job roles and apprenticeships, creating issues around counter offers with higher salaries. Candidate management is also challenging, with many applicants 'ghosting', dropping out of applications and not putting in the effort in interviews. Some applicants lack the softer skills for interviewing communication, problem-solving and so on. Keeping up with the salaries of neighbouring cities Manchester and Liverpool is difficult.
- >>> Struggles to deliver training: SMEs face particular barriers when trying to upskill staff, due to the restricted apprenticeship levy and their limited access to training; skills bootcamps are not accessible enough. To overcome some challenges, the local council is deploying 'development posts' to hire staff with little experience but learn on the job and are promoted within a few years. Higher education has always emphasised knowledge production, not skills; changes in administration and governmental pressure expect skills outputs, which creates challenges for the sector.

Challenges from hybrid and remote working: Lack of in-person work creates challenges with younger staff, and when trying to recruit. The lack of soft skills due to the pandemic lockdowns, and limited face-to-face contact can lead to high turnover and poor performance.

The second discussion considered paths forward and solutions:

- Managing soft skills and hybrid working: Lockdowns and remote working have limited social interaction among younger and older people, and younger learners are presenting with a "developmental gap". Education providers previously assumed that teaching soft skills wasn't necessary, but now they are having to think explicitly about delivering it. As a result, employers and education providers must balance hybrid working, and either encourage or enforce in-person attendance at events and meetings.
- **>>** Care sector focus: Covid led to a huge boost in applications to join health and social care, but since that applications have fallen to lower than pre-covid. With the cost of living crisis, the number of adult career changes have also dropped off - people don't have the time or money to spend 3 years training to move into the sector. Staff are treated poorly, and this puts people off. The NHS and local authorities have recruitment and retention issues. but SME social care providers are also struggling - solutions should be more focused on their needs too. Apprenticeship standards should be aligned to provide clear career progression overall though there is a lack of career development in the sector, no route to or away from certain roles (e.g. registered manager CQC in a care home). The biggest solutions are needed in SME social care to prevent blockages in discharge from hospital - an integrated care system is needed. Private equity are beginning to buy into dental, private healthcare, foster homes etc., but local authorities are also moving into the market - Holton local authority now owns 5 nursing homes. This could provide a solution if it's not possible to nationalise.
- Prosperity Fund will fill some gaps left by the European Stability Fund, but it will be 1/12 of the funding that was previously put into local areas. Additional funding is needed to plug these gaps. The apprenticeship levy could be unlocked to make it more flexible, and employers should be made more aware of what support and funding is available.

Introducing a growth mindset: Employers and education providers should engage with one another and the research to understand demand and supply, for example data scientists and programmers are in high demand. Investment should be made into new technologies, and skills providers can demonstrate the use of them in their training programmes. To attract and retain staff, employers can experiment with different work practices, such as a four-day week. The local authority should provide more support for SMEs across the growth sectors.

GENERAL SESSION

A range of stakeholders attended this workshop, including representatives from a recruitment company, the Trade Union Congress, the local council, support services for disabled people and a member of the public.

In the first discussion, on "what's working and what's not' in terms of skills and training, the following points were raised:

WHAT'S WORKING

- Positive examples of collaboration exist: Structures have been established in Warrington to support co-production around skills and training in the area. These include the local <u>Skills</u> <u>Development Networks</u> in the NHS (there's a Finance one in Warrington); Multiply funding; Employment Skills Action Group; Diversity Jobs Board.
- This is from recruitment to retention. Workplaces are being made more accessible for disabled people home contracts in the NHS are inclusive, the construction industry has done lots of positive work, the nuclear sector (Sellafield, Birchwood Park) are collaborating with the Warrington Disability Partnership

CHALLENGES

- Inaccessibility in recruitment/employment: Even with employers who claim to be disability inclusive often have non-accessible application tools 'archaic'
- Questions around funding and coordination: How are skills gaps for the future and the present being closed, who is funding programmes to support reskilling/upskilling and who is coordinating/running them. There isn't anyone in the local area connecting businesses with education providers with the council.
- Funding is too rigid: Programmes like Kickstart (stepping stone to get skills & experience) and Multiply work well, but they are inflexible and set at the national level the money cannot be adapted at a local level to meet needs (e.g. Multiply cannot be used for digital literacy, although that could be wrapped in with maths upskilling already being delivered)
- Lack of support for mid-career/late-career workers: Most programmes are targeted at 16-24 year olds, not for mid-career people. The DWP's 'In Work' programme should help this, but doesn't meet demand.

The second discussion considered paths forward and solutions:

- Improving the apprenticeship levy: The apprenticeship levy is not always used productively or in full; a process could be established to allocate the apprenticeship levy elsewhere to SMEs, or into other training/skills programmes to ensure it is put to use locally instead of going back to the national pot.
- Creating an intermediary process: To facilitate conversations about upskilling and reskilling, including in the context of a just transition and general industrial change, between employers, education providers, funders and the public sector. The organisation/individuals who do this need to be empowered with funding and authority to identify needs and make changes.
- Improving mid-career skills/job provision: Establish independent careers advice and guidance services, particularly for people older than 25 (the job centre doesn't provide that sort of advice), and make training programmes more inclusive for disabled people.

Match training provision to the market: Ensure there are clear channels of communication between the market/employers and education providers. Match training provision to what is needed locally rather than what is attractive to students (e.g. beauty is oversubscribed but there aren't that many jobs for it locally; used to have loads of CSCS cards and FLT training courses but no jobs available, now they have lots of vacancies in need of this training but not the provision).

ANNEX 2: OCCUPATIONS CLUSTERED UNDER THE MAIN SKILLS PROFILES

MANAGEMENT & HEALTH

'Other Administrative Occupations', 'Senior Officers in Protective Services', 'Customer Service Managers and Supervisors', 'Managers and Proprietors in Hsptlty and Leisure Services', 'Functional Managers and Directors', ' Nursing and Midwifery Professionals', 'Customer Service Occupations', 'Sales, Marketing and Related Associate Professionals', 'Administrative Occupations: Finance', 'Administrative Occupations: Records', 'Teaching and Educational Professionals', 'Welfare Professionals', 'Therapy Professionals', 'Welfare and Housing Associate Professionals', 'Artistic, Literary and Media Occupations', ' Managers and Proprietors in Other Services', 'Business, Finance and Related Associate Professionals', 'Librarians and Related Professionals', 'Financial Institution Managers and Directors', 'Sales Supervisors', 'Secretarial and Related Occupations', 'Managers and Proprietors in Health and Care Services', 'Legal Professionals', 'Legal Associate Professionals', 'Sales Related Occupations', 'Health Professionals', 'Administrative Occupations: Government and Related Orgs', 'Public Services and Other Associate Professionals', 'Chief Executives and Senior Officials', 'Media Professionals', 'Managers and Directors in Transport and Logistics'

SCIENCE & TECH

'Natural and Social Science Professionals', 'Quality and Regulatory Professionals', 'Production Managers and Directors', 'IT and Telecommunications Professionals', 'Business, Research and Administrative Professionals', 'Architects, Town Planners and Surveyors', 'Engineering Professionals', 'Information Technology Technicians', 'Design Occupations', 'Conservation and Environment Professionals', 'Draughtspersons and Related Architectural Technicians', 'Research and Development Managers'

ANNEX 2: OCCUPATION CLUSTERED UNDER THE MAIN SKILLS PROFILES

SERVICE & CARE

'Elementary Sales Occupations', 'Food Preparation and Hospitality Trades', 'Road Transport Drivers', 'Health Associate Professionals', 'Elementary Administration Occupations', 'Sales Assistants and Retail Cashiers', 'Animal Care and Control Services', 'Housekeeping and Related Services', 'Leisure and Travel Services', 'Hairdressers and Related Services', 'Cleaning and Housekeeping Managers and Supervisors', 'Transport Associate Professionals', 'Protective Service Occupations', 'Childcare and Related Personal Services'

OPERATIVE & CRAFTSMANSHIP

'Conservation and Environmental Assct Professionals', 'Elementary Cleaning Occupations', 'Elementary Process Plant Occupations', 'Electrical and Electronic Trades', 'Vehicle Trades', 'Elementary Storage Occupations', 'Mobile Machine Drivers and Operatives', 'Process Operatives', 'Assemblers and Routine Operatives', 'Construction and Building Trades', 'Other Drivers and Transport Operatives', 'Elementary Agricultural Occupations', 'Metal Forming, Welding and Related Trades', 'Construction Operatives', 'Metal Machining, Fitting and Instrument Making Trades', 'Science, Engineering and Production Technicians', 'Elementary Construction Occupations', 'Construction and Building Trades Supervisors', 'Skilled Metal, Electrical and Electronic Trds Sprvsrs', 'Building Finishing Trades', 'Plant and Machine Operatives', 'Agricultural and Related Trades', 'Textiles and Garments Trades', 'Other Skilled Trades', 'Printing Trades'

ANNEX 3: RESEARCH NOTE FOR DEPARTMENT FOR EDUCATION DATA SET

ANNEX 3: RESEARCH NOTE FOR DEPARTMENT FOR EDUCATION DATA SET

The projections are based on survey data not originally designed for precise estimates at this level of detail. The data were used to calibrate an econometric forecasting model, but forecasting involves judgement and becomes less accurate over longer time horizons. Errors in predicting the future are amplified due to inter-linkages between sectors and regions and feedback mechanisms in the model. The imprecision of the forecast base due to data limitations worsens this issue.

The projections of employment are based on best practices, but there are inherent uncertainties in both historical patterns and forecast projections. These uncertainties are especially relevant for more detailed estimates at the local level. It is important to note that these forecasts should not be used for detailed manpower planning. Instead, they serve as useful benchmarks for considering future trends at the local level.







autonomy.work

