

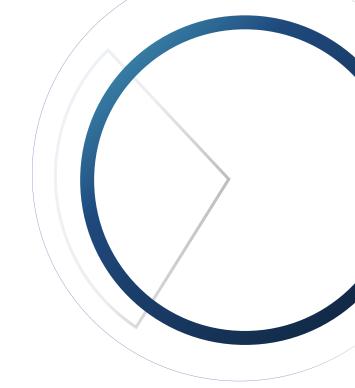
Opening opportunities: Improving employment prospects for autistic people

Rachel Gomez and Sadia Sheikh December 2023



Pro Bono Economics uses economics to empower the social sector and to increase wellbeing across the UK. We combine project work for individual charities and social enterprises with policy research that can drive systemic change. Working with 900 volunteer economists, we have supported over 500 charities since our inception in 2009.

Autistica is the UK's leading autism research and campaigning charity. It exists to enable all autistic people to live happier, healthier, longer lives. Autistica create breakthroughs by funding research, shaping policy and working with autistic people to make a difference. The charity has six ambitious 2030 goals, one of which is to double the employment rate for autistic people.



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### Summary

In every sector of the UK economy, there are skills shortages and an ongoing battle for talent. Yet there is a pool of talent, willing to work, which often goes untapped.

Only three in 10 autistic people are in employment across the UK, but three-quarters of unemployed autistic people report that they want to work. A litany of barriers reduce the chances of autistic people gaining and remaining in employment - starting in education, before they enter the job market, and present in the recruitment process, while also affecting their ability to remain in work when they do gain employment.

There are substantial benefits to be gained for autistic people who do move into employment. This analysis estimates that, on average, an autistic person on state benefits who moves from unemployment to employment would be £9,200 a year better off. They are also likely to experience improvements in their wellbeing, as being in work is associated with higher satisfaction, better social relationships and more. Of course, for autistic people who do not receive benefits at all and have nothing to forgo, the gains would be even greater.

Charities and policymakers alike are working to support greater numbers of autistic people to access, remain and thrive in work. This helps to bridge the gap between the ambition of autistic people and their weak representation in the labour market. Sir Robert Buckland MP is leading a new Autism Employment Review to further identify the barriers faced by autistic people and provide recommendations to reduce them. Meanwhile, specialist charity Autistica has launched an Employment Plan with a goal of doubling the employment rate of autistic people by 2030.

Were Autistica's campaign to be successful, the financial benefits would be significant, not just to autistic people but to government and the taxpayer too. Expenditure on Universal Credit would be lower, and tax take from employers and new employees alike would be higher. If the employment rate were to double from levels seen in 2022-23, Pro Bono Economics (PBE) estimates that it would draw an additional 100,000 autistic people into employment. This could result in an estimated total economic benefit to society of £900 million-£1.5 billion for each year that this higher employment rate is sustained.

Employers too would benefit from being able to tap into this pool of talent, particularly if they were better at making the most of those talents. Autism is a spectrum condition and autistic people are hugely diverse, but many

autistic people bring particular strengths to a workplace, such as an excellent ability to focus, diversity in thought, efficiency and loyalty. There are a growing number of employers looking to make the most of those strengths, as well as to be inclusive.

There is clear evidence from charities such as Autistica that some of the solutions are relatively simple and inexpensive. Autistic individuals have differing needs, and so require different reasonable adjustments to thrive at work – ranging from quiet spaces, to altered work schedules, and from different management styles, to screen filters. Altering recruitment processes to be more inclusive of neurodivergent people is another example of a small change that can make a big difference. The more substantial, systemic barriers, such as the education system and culture, will take longer to change.

But there is both a clear problem and clear benefits to be gained by taking these steps – big and small – to create workplaces which are welcoming to autistic people, and where everyone can thrive.

Doubling the existing rate of employment in the autistic population would add

100,000

new people to the UK labour force.

The average autistic person who is not in work would be

£9,200

better off each year if they moved into work.

This could equate to as much as a

£900mn -£1.5bn

benefit to the economy.

If the employment rate of autistic people doubled, economic benefits of

£380mn-£630mn

could be received by government and the taxpayer.

### Introduction

Autism is a spectrum condition that affects the way a substantial number of individuals see, hear and experience the world. An estimated 1% of working age adults in the UK are autistic (strictly speaking, this is the proportion that would record their "primary impairment" as autism). As there are about 41 million working age adults in the UK, an estimated 330,000 of them therefore fall on the autism spectrum.

Historically, autism has been considered a disorder and viewed in terms of its limitations and disabilities, but recent efforts led by autistic people, autism campaigning organisations and research all challenge this perception. They have attempted to bring the strengths and abilities associated with autism into the spotlight to highlight the advantages neurodivergence can bring to the workplace.<sup>2</sup> They also campaign to increase understanding among employers that, with the right tailored adjustments, all employees can thrive.

The evidence suggests that these campaigning efforts are sorely needed and that the advantages autistic people can bring are not yet being fully grasped by employers. In 2022/23, just 30% of autistic people in the UK were estimated to be in employment. Employment rates for autistic people remain far lower than those of their peers. Around half (54%) of all people, aged 16 to 64, recorded as disabled, in the UK were in employment, compared with around eight in 10 (82%) in the non-disabled population.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Department for Work and Pensions, Employment of disabled people 2023, October 2023.

<sup>&</sup>lt;sup>2</sup> <u>crae.ioe.ac.uk/research/</u>, accessed 5 October 2023.

Department for Work and Pensions, Employment of disabled people 2023, October 2023.

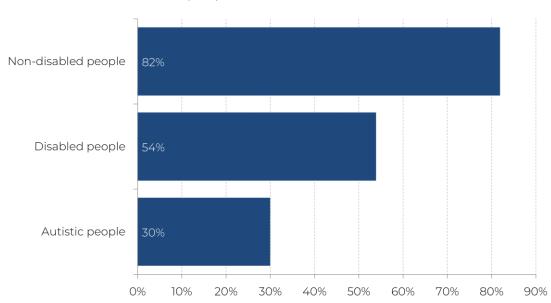


Figure 1. Autistic people face lower employment rates compared to other disabled or non-disabled people

Source: Department for Work and Pensions, Employment of disabled people 2023, October 2023.

The limited data held in the UK on employment outcomes of autistic people suggests that autistic people lag behind in relation to other labour market metrics too, with their pay and contract type falling far behind those of their peers. This is despite many autistic people wishing to be employed. Over three-quarters (77%) of unemployed autistic people surveyed report wanting to work. Meanwhile, half (50%) of autistic people said that support, understanding or acceptance would be the single biggest thing that would help them into employment.<sup>4</sup> A second study of 181 autistic workers showed that 84% of individuals perceived workplace adjustments as extremely or very important in enabling them to adequately perform their role.<sup>5</sup>

Recent research on the experiences of autistic people in the workplace provides insight into the barriers to work that lead to poor labour market outcomes.

<sup>&</sup>lt;sup>4</sup> National Autistic Society, The Autism Employment Gap: Too Much Information in the workplace, 2016.

<sup>&</sup>lt;sup>5</sup> J Davies et al., <u>Autistic adults' views and experiences of requesting and receiving workplace</u> <u>adjustments in the UK</u>, <u>August 2022</u>.

# Autistic people face significant challenges in the recruitment process itself

The barriers which autistic people face entering the workplace begin even before they begin their first application. In the first instance, barriers in education may leave autistic individuals with lower qualifications that understate their actual abilities. This can put them at an early disadvantage in the hiring process.<sup>6</sup>

There are also structural barriers in operation throughout the recruitment process. By placing an unnecessary emphasis on social skills, some job advertisements have been shown to deter some autistic jobseekers from applying for jobs in the first place.<sup>7</sup> The way that the interview process itself operates can create conditions in which autistic people underperform. Abstract questioning can be challenging, and interviews can feel like a test of social competence, in which some autistic people underperform as a result of weaker social skills and anxiety.<sup>8</sup>

Autistic people also experience a range of perception barriers in the recruitment process, which can hamper their progress. There is, for example, a propensity for neurodivergent individuals to be disadvantageously stereotyped according to the more well-known characteristics of their condition,<sup>9</sup> such as being viewed as unable to understand others or unable to carry out tasks. This is likely to contribute to the perception of 34% of employers who say that an autistic person would not fit into their team.<sup>10</sup> Research also suggests that the understanding of support that can be successfully provided in the workplace is limited.<sup>11</sup> Additionally, even when employers have experienced the benefits of hiring individuals with autism, such as increased productivity and attention to detail, there is still some reticence to hiring additional people with autism.<sup>12</sup>

Employers can also hold expectations that any adjustments required would be costly and time-consuming, which can put them off hiring autistic people, even though, in practice, the adaptations required might be minimal. Compared to managers of non-autistic workers, managers who

<sup>9</sup> J Booth, Why Does Work Not Work for Autistic People?, Sheffield Hallam University, September 2021.

<sup>&</sup>lt;sup>6</sup> J Booth, Why Does Work Not Work for Autistic People?, Sheffield Hallam University, September 2021. <sup>7</sup> In one documented case, trade union representation persuaded London Underground to remove the requirement for an 'outgoing personality' in a role to work on its stations by questioning whether this

was an essential requirement for assisting with railway station procedures.

<sup>8</sup> Autistica, Building Happier Health Longer Lives, 2019.

<sup>&</sup>lt;sup>10</sup> National Autistic Society, <u>The Autism Employment Gap: Too Much Information in the workplace</u>, 2016. <sup>11</sup> S Petty et al., <u>Supporting autistic employees: Understanding and confidence in UK workplaces.</u>

Industry and Higher Education, 37(3), 448-454, October 2022.

12 D Nicholas et al., Perspectives of employers about hiring individuals with autism spectrum disorder. Evaluating a cohort of employers engaged in a job-readiness initiative, Journal of Vocational Rehabilitation, vol. 50, no. 3, pp. 353-364, 2019.

hire autistic workers can show greater pre-hire concerns, for example, about providing the right level of support, communicating successfully and being equitable in their treatment of all employees.<sup>13</sup> In one survey, 60% of employers stated that they worried about getting support wrong for autistic employees, and similarly 60% stated they did not know where to turn for support in employing an autistic person.<sup>14</sup>

The challenges for autistic people do not end after they are offered a job.

#### In the workplace, autistic people experience ongoing barriers to remaining in employment

Autistic employees face a range of challenges in the workplace too. About 90% of autistic people are estimated to experience atypical sensory experiences. Workplaces - in particular, open-plan ones - can bombard employees with unwelcome sensory input, such as ringing phones, conversations and tapping of keyboards, that can overwhelm some autistic employees. Other reported obstacles include difficulties around interpersonal communication and relationship management. Different communication styles and unclear language in conversations can mean that autistic employees sometimes misinterpret key social cues which can make interacting with colleagues difficult.

As some autistic people find structure very important, a lack of that structure in workplaces can create additional challenges. Autistic people can face challenges applying knowledge flexibly and in planning and task management. These difficulties can be mistaken as laziness or a lack of the skills required to do the job. While not the case for all autistic people, latenotice changes to their work are recorded as a common source of distress for many autistic workers. And a lack of flexibility in working hours can also heighten distress if an autistic employee is forced to work at a time when they are going through sensory overload, or feel overwhelmed and need time to decompress.

While disclosure of their diagnosis may increase understanding from colleagues, autistic employees often fear discrimination and stigma in the workplace and do not disclose their condition. Women especially are found to successfully mask their autism – hiding or disguising their autistic traits, suppressing related behaviours in order to better fit in with social norms. Since masking can increase stress and decrease resilience, it has been linked with higher rates of anxiety and depression, as well as with a loss of

<sup>&</sup>lt;sup>13</sup> A Remington et al., <u>Experiences of autistic and non-autistic individuals participating in a corporate internship scheme</u>, <u>Autism 26(1)</u>, <u>June 2021</u>.

<sup>&</sup>lt;sup>14</sup> National Autistic Society, The Autism Employment Gap: Too Much Information in the workplace, 2016.

<sup>&</sup>lt;sup>15</sup> J Booth, Why Does Work Not Work for Autistic People?, Sheffield Hallam University, September 2021.

productive capacity - as energies are spent on masking behaviours. 16 As a result, the workplace can become an additionally difficult place for autistic people to navigate, the adjustments which may make the workplace more amenable do not materialise and autistic people can drop out of their employment.

### A better understanding of autism and a shift in ways of working can improve the employability of autistic people

Thoughtful, evidence-based interventions and reasonable adjustments can enable autistic people to attain, stay and thrive in employment.<sup>17</sup> 18 Within the workplace, such interventions could include making the sensory environment more benign, for example: by reducing specific sensory stimuli in the workplace, providing noise-cancelling headphones, a screen filter for a laptop, a desktop PC monitor, or a quiet relaxation space in the workplace. For many autistic people, taking steps like these can reduce the risk of them becoming overwhelmed and overstimulated. Simple adjustments can also be made to allow workers more control over how they work, such as including more flexibility in working hours or providing fixed rather than variable shifts, depending on the approaches which work for any one individual.

Big differences can also be made to the experiences of autistic people if managers adjust their approaches in ways which work for their autistic employees. For example, by deliberately setting clear and logical expectations, managers can improve ways of working for them. By supporting employees to focus on one task at a time, rather than multitasking, managers may be able to better set their autistic team members up for success. Additionally, by being more inclusive and considering an employee's autism when organising social occasions, managers can improve how their employee builds relationships, networks and bonds with the wider team.

Employers can also act to remove the barriers which exist in the recruitment process. For example, by removing irrelevant social criteria from job and promotion application processes, employers can take a simple step that might help to alleviate the disadvantages autistic people face while seeking employment.<sup>19</sup>

<sup>&</sup>lt;sup>16</sup> A Fox, The Economic and Emotional Costs of Autistic Masking, The Century Foundation, January 2023.

<sup>&</sup>lt;sup>17</sup> J Davies et al., <u>Autistic adults' views and experiences of requesting and receiving workplace</u> adjustments in the UK, Plos One, 17(8): e0272420, 2022.

<sup>&</sup>lt;sup>18</sup> K Beate et al., <u>Physical workplace adjustments to support neurodivergent workers: A systematic</u> review, Applied Psychology, 2022.

<sup>&</sup>lt;sup>19</sup> J Booth, Why Does Work Not Work for Autistic People?, Sheffield Hallam University, September 2021.

There are currently concerted efforts underway to reduce the social and economic inequalities that exist for autistic people. The autism research and campaigning charity Autistica launched an Employment Plan in 2020 which aims to double the employment rate of autistic people by 2030<sup>20</sup>. The Employment Plan aims to support employers to embed practices that create an inclusive, neurodiverse workforce, which is empowered to thrive. Through employment support programmes and career support profiles, the Employment Plan also seeks to empower autistic people looking for work and help them progress in their careers. Additionally, Sir Robert Buckland MP is leading a new Autism Employment Review, which will further identify the barriers faced by autistic people and provide recommendations for a range of audiences, including employers, recruiters, careers services, education providers and charities. As with Autistica's Employment Plan, the Autism Employment Review aims to suggest policy solutions to help autistic people into sustainable work and to help employers best support and retain this talent.

### Ben's story

Ben went through school knowing that he felt different, but he was bright and managed to mask it on his way to university. That's when things fell apart.

"I lost the structure I'd had at school and started to really struggle with my mental health."

In his third year of university, Ben sought a diagnosis of autism. But with no support after the diagnosis, he had to find his own. He decided to self-fund an autism work coach.

Ben applied for many jobs and had to endure rejection after rejection. It was demoralising. He had to move back home with his parents – a place where he had no space of his own, and felt he had to mask his autism every day. When he spent much needed time alone, his parents just thought he was being lazy and unsociable. He desperately wanted his independence back and began to get depressed.

After a year of applying, Ben got offered a graduate job. At first, his employer seemed supportive and gave him the reasonable adjustments that he requested.

 $<sup>^{20}</sup>$  This target was set in 2020 when the employment rate of autistic people was estimated to be 21.7%. It has since risen to 30% and it is this more recent percentage that has been used in this report.

There was pressure on him to work at their headquarters in the north of England, which Ben told them would be hard, but he wanted to keep his job so he went. The move hit him hard. He went into a full shutdown for a week and could not start the job. He manged three months there before moving home, only to receive a letter from his employer listing a range of disciplinary matters.

"The list of things I had done wrong were all communication issues or a lack of understanding of unwritten rules. They all related to being autistic."

Ben spent two months working on an appeal in a state of extreme depression. He only left the house once a week to see a lawyer to help him access some benefits.

All the accusations were discounted in the hearing, but the employer still ended the contract as they felt unable to support him. Thankfully Ben had applied for another job in the Civil Service, which days later he was offered.

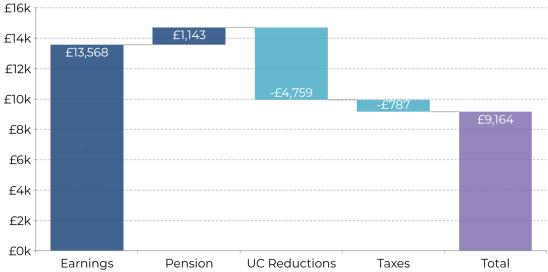
For the first time, he had asked for adjustments, such as interview questions in advance and a short break mid-interview, which allowed him to perform to his best. He has found the job structured and supportive and has been encouraged to use his initiative, which shows his broad range of skills. He is living in his own flat with space to be himself and is learning to embrace his diagnosis.

Ben hopes that there will be more support and understanding in future for people like him who want to get into work:

"I hope that in the future there's more of a level playing field for autistic people who want to work because we have a lot to offer companies."

# Benefits to be gained if twice as many autistic people were in employment

Pro Bono Economics (PBE) estimates that by moving into employment each previously unemployed autistic person who was receiving state benefits would experience a net gain of approximately £9,200 per year on average. This is calculated by taking the benefits of increased take home pay and pension that employment provides, which would amount to around £14,700 per year. From this, £5,500 is subtracted to reflect the individual foregoing £4,800 in Universal Credit, and paying approximately £800 in National Insurance contributions and income tax.<sup>21</sup>



Source: PBE analysis of data from various sources - see Annex for details.

For each autistic person who moved into employment, the government and taxpayer would benefit in a variety of ways too. The average £5,500 reduction in benefits and increase in taxation for the individual would become a benefit to the taxpayer and to government, lessening the pressure on public spending by the government. In addition to this £5,500, for each individual in employment over a year, their employer would contribute approximately £700 in National Insurance payments. This means that in total the economic benefits to the taxpayer and government

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<sup>&</sup>lt;sup>21</sup> Totals may not equal sum of components due to rounding, unrounded numbers are available in Annex A. Additionally, for autistic people not receiving state benefits, which is the case for the majority, the gains would necessarily be greater as they do not forgo any benefits.

of an unemployed autistic person moving into work would be approximately £6,300 on average.<sup>22</sup>

Taking together the benefits to the individual and the benefits to the taxpayer and government, it is estimated that the total economic benefits to society would be £15,400 for each autistic person in employment over a year.<sup>23</sup>

# If twice as many autistic people were in employment, the benefit to society could be as much as £900 million - £1.5 billion

As autistic people make up a significant proportion of our society, the benefits of doubling the employment rate of autistic people would be substantial. If the most recently recorded employment rate of autistic people – 30% - was doubled, it would mean another 100,000 autistic people in employment.<sup>24</sup>

It is important to note that if this occurred, it is possible that some non-autistic people might miss out on jobs, with autistic people taking them up instead. By following the Department for Work and Pension (DWP) guidelines on calculating this effect, PBE estimates that as many as 40,000 non-autistic people might miss out on jobs they might have otherwise had. If the employment rate of autistic people is doubled, this would still create approximately 60,000 additional people in work overall.

The extent of any displacement would depend on factors such as the tightness of the labour market at the time and the extent to which both autistic people were helped into work and employers were incentivised to create more jobs for autistic and non-autistic people, rather than simply substituting one for the other. If the labour market is quite loose and the ratio of jobseekers to vacancies is high, the substitution effect is likely to be larger. At the time of writing, this ratio has been quite low. However, it is possible that the landscape might change over the period of time it would take to achieve this goal. Due to the uncertainty introduced by the displacement rate, the main results of this report are presented in ranges, with the lower bound representing the scenario including this substitution effect, and the upper bound represents the scenario where no substitution takes place at all.

 $<sup>^{22}</sup>$  Note that the total is more than the sum of the parts due to rounding, unrounded numbers are available in Annex A.

 $<sup>^{23}</sup>$  Note that the total is more than the sum of the parts due to rounding, unrounded numbers are available in Annex A.

 $<sup>^{24}</sup>$  See Annex A for methodology and data sources used to derive quantitative estimates here.

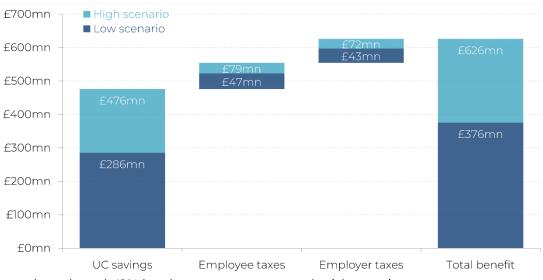
By scaling up the individual impacts estimated above, PBE therefore estimates that doubling the rate of employment for autistic people could generate benefits to those individuals of £500-£900 million over a year.

The benefits for the taxpayer and government of doubling the employment rate of autistic people are also substantial. The economic benefits of less welfare spend, increased tax revenue from new workers and increased tax revenue from employers could sum to £400-£600 million.<sup>25</sup>

Figure 3: The taxpayer and the government could experience significant economic benefits, mainly from reduced Universal Credit payments

Source: PBE analysis of data from various sources – see Annex for details.

Overall, this means that doubling the employment rate could generate as much as £900 million-£1.5 billion in economic benefits per year to society as a whole. Approximately 59% of those benefits are received by the individual



employed, and 41% by the government and wider society.

# Even if the assumptions are varied, the benefits from increasing employment of autistic people will be substantial

Even if some underlying assumptions made in this analysis are varied to account for the fact that work may not be appropriate for everyone on the autism spectrum, no matter how targeted the intervention, the benefits to society could still remain positive and significant. For example, until this point in the analysis, it has been assumed that employed autistic people, on average, work the UK median number of 37.5 hours for full-time employment and 19.3 hours for part-time employment. However, if it is

<sup>&</sup>lt;sup>25</sup> This figure represents both the gross and net economic benefits, as it has not been possible to monetise any costs to the government from this change in employment.

assumed that, on average, autistic people work the lowest 10% of the number of hours worked (i.e., 34.5 hours for full-time employment and 6.4 hours for part-time employment) and the above analysis is repeated, the benefits to society from doubling the employment rate of autistic people could be as much as £800 million.

Similarly, if the success of the intervention is lessened from a 100% increase in the employment rate of autistic people, to 50%, to allow for the fact that not all autistic people will be able to work no matter how targeted the intervention, the benefits to society would amount to £500-£800 million through the employment of an additional 50,000 autistic people.

Looking at the costs to employers of hiring an autistic employee, anecdotal evidence suggests that reasonable workplace adaptations are either free or inexpensive to make. However, published studies acknowledge that while there have been several analyses exploring financial costs from the viewpoint of the worker, taxpayer, government and society, there has been scant effort to meaningfully explore the costs from the viewpoint of the employer. This gap in understanding needs to be addressed urgently to demonstrate the likely low cost of adjustments relative to their significant benefits. However, and the significant benefits.

# There would be additional, harder-to-measure benefits to a doubling of the employment rate

The analysis above is based on measurable costs and benefits for which data is available. In addition to these tangible benefits, there are other ways in which autistic people, employers and society more broadly may benefit from a doubling in the employment rate of autistic people.

For unemployed autistic people moving into work, being in employment is likely to not only have financial benefits, but to positively impact their wellbeing. Being in employment has been shown to positively impact both an individual's sense of self-worth and their wellbeing in a variety of ways. People in work, on average, have an increased sense of purpose, are better able to achieve personal independence, and are better able to make improvements in social relationships, both with work colleagues and within families.<sup>28</sup>

Efforts to increase the employment of autistic individuals has the potential to have cascading effects through the wider neurodivergent population. If

<sup>&</sup>lt;sup>26</sup> Autism: What Next?, <u>Making the workplace work for you</u>

<sup>&</sup>lt;sup>27</sup> A Jacob et al., <u>The Costs and Benefits of Employing an Adult with Autism Spectrum Disorder: A Systematic Review</u>, October 2015.

<sup>&</sup>lt;sup>28</sup> D Hedley et al., <u>Transition to work: Perspectives from the autism spectrum</u>, July 2018.

neurodivergent individuals can see other neurodivergent individuals in roles they might enjoy, it has the potential to inspire them to seek out similar possibilities. Neurodivergent people in work can also become role models and mentors for other neurodivergent people who see that 'people like them' can contribute to the workplace and occupy responsible positions.<sup>29</sup>

There are benefits to employers and businesses too. A study to investigate the strengths autistic people have in the workplace, self-reported by autistic people themselves, highlighted cognitive advantages, such as superior creativity, focus, memory, increased efficiency and personal qualities, such as honesty and dedication, as well as the ability to offer a unique autism-specific perspective.<sup>30</sup> Autistic people also tend to perform better at locating small detail in a larger picture and in assembling designs quickly, skills which would be an asset in a range of jobs.<sup>31</sup> Some autistic people have a greater tolerance for repetitive tasks, which also presents an advantage in some types of employment.<sup>32</sup> Autistic employees can also bring a unique way of thinking and new perspectives to problem-solving, which avoids groupthink and a desire to conform within organisations. They can also crucially provide unique insight into how to better cater to neurodiversity in the provision of a company's products or services.

When an organisation successfully leverages diversity of perspectives and skills, it can lead to enhanced creativity and greater innovation.<sup>33</sup> Such advantages are recognised and harnessed by some employers. For example:<sup>34</sup>

- Microsoft has publicly made clear its intention to hire more autistic people, not as a charitable endeavour but because, as their Corporate Vice President of Business Operations Mary Ellen Smith stated, employing autistic people makes good business sense.
- Denmark-based IT consultancy Specialisterne recruits only autistic individuals. It has found that its autistic consultants discover, on

<sup>30</sup> R Cope & A Remington, <u>The Strengths and Abilities of Autistic People in the Workplace</u>, Autism in Adulthood 4(1), March 2022.

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<sup>&</sup>lt;sup>29</sup> Acas, Neurodiversity at work, September 2016.

<sup>&</sup>lt;sup>31</sup> J Booth, Why Does Work Not Work for Autistic People?, Sheffield Hallam University, September 2021. <sup>32</sup> S M Bury et al., <u>The autism advantage at work: A critical and systematic review of current evidence</u>,

Research in Developmental Disabilities, October 2020.

<sup>&</sup>lt;sup>33</sup>R D Austin & G P Pisano, <u>Neurodiversity as a Competitive Advantage: Why you should embrace it in your workforce.</u> Harvard Business Review, May 2017.

<sup>&</sup>lt;sup>34</sup> A Remington, <u>Why employing autistic people makes good business sense</u>, The Conversation, April 2015.

- average, 10% more bugs than their non-autistic colleagues when checking software code for errors.
- In recent years, Vodafone and German software firm SAP have launched recruitment drives to find more autistic employees. Both companies state that this is due to the competitive edge it gives, with SAP executives reporting increased productivity.

While these employers have been praised for their progressive stances in identifying strengths that autistic people tend to have, it is also important not to pigeonhole all autistic people based on classic 'autism traits'. Prominent autistic academic Temple Grandin cautions against this, as there are many types of autistic brains beyond the stereotypical pattern thinkers and mathematicians. Some autistic people are verbal thinkers who could be, and are, stage actors or journalists, or visual thinkers who could be, or are, artists and graphic designers, <sup>35</sup> such as those in Project Art Works. This collective of neurodiverse artists was recently nominated for the Turner Prize. Tackling these stereotypes is undoubtedly key to reducing the perception biases which prevent autistic people accessing work, as noted above.<sup>36</sup>

Finally, awareness of autism in society, though improved, remains limited to a superficial understanding of the issues involved. This means there is a greater focus on the potential challenges to employers of having autistic staff and, in turn, little understanding at present of the positive contribution they might be able to make. More autistic people in the workforce can only be a good thing in terms of increasing awareness, driving cultural changes in the workplace and encouraging neurotypical colleagues not to view autistic differences as deficits, but to learn how to work together with autistic colleagues to harness their many strengths.

### CubeLynx

CubeLynx is a financial consultancy company specialising in financial modelling data – it specialises in a range of sectors, including regulated utilities, renewables, real estate and charities. CubeLynx has been actively recruiting autistic people to bring in diverse talent since the company launched in 2019. It has recruited and trained 14 autistic people in the past three years. CubeLynx founder Mayur Gondhea is driven by a personal motivation - he has an autistic son - and wants to improve the employment prospects for autistic people. But he truly believes that his company is better because of his neurodiverse team.

"We know that autistic people can possess the focus, attention to detail and innovative thinking that we as a business need. It makes sense to do what we can to be accessible to these talents."

CubeLynx has worked with autism charities and job coaches to refine its recruitment and training processes. When recruiting for new talent, the company ensures job specifications are clear and jargon-free and offers a practical skills test first to assess capabilities, before a more formal interview.

"Taking a skills-based approach to recruitment places less focus on the interview, which we know can be challenging for autistic people – even if we make adjustments."

Internal and external coaching is provided to all staff to help with managing workloads and deliverables, and line managers meet with staff and coaches regularly so that there is a very open dialogue.

Workplace adjustments are offered to everyone, and all staff have the option to work flexibly. All staff are trained on neurodiversity, so that the culture throughout the organisation is understanding and inclusive.

Many of the autistic staff at CubeLynx are returning to work after periods of unemployment, or come with limited office experience. CubeLynx factor this in with new starters and provide extensive training. They see this as a benefit as these new employees join with fresh ideas and do not come in with habits learnt elsewhere.

"Making the workplace more inclusive for autistic and neurodivergent staff has improved working practices for the whole workforce. It has helped with recruiting the best people for the job and retaining them."

Quotes from autistic employees at CubeLynx:

"I applied for between 50 and 100 finance jobs after graduating with a degree in economics from Manchester Metropolitan University, but struggled to get a job. I was interviewing for a role in the finance department at a company and I thought it had gone well, but was rejected. The feedback was that I did not seem 'enthusiastic enough'. Employers need to learn to be more inclusive of autistic people. It's natural for me to not be as expressive as other people - my body language, my facial expressions - and to have that as the reason was a kick in the teeth. This isn't just a job, it's a career I can build upon."

"CubeLynx is truly blazing a trail for accessible recruitment. Mainstream application processes are a stumbling block to many autistic people, since all candidates (autistic and non-autistic) are somehow expected to think and act in the same way. There is no flexibility for those who, through no fault of their own, think and act differently. CubeLynx realises the tremendous skills these people possess and gives them that much-needed chance to prove themselves."

### Conclusion

The campaigns by charities and policymakers to increase the number of autistic people entering, remaining and thriving at work have the potential to reap substantial benefits.

These benefits would be felt by autistic people themselves, an additional 100,000 of whom could be drawn into employment. These individuals are likely to experience financial benefits in the region of £9,200 on average each year, as well as wellbeing benefits. Such positive outcomes include; a sense of purpose for the individual; the potential for beneficial impacts on mental health; and improvements in social relationships, both with work colleagues and outside of work.

The magnitude of potential benefits suggests there is a clear role for employers and policymakers alike to act. This will require both better education of employers and additional support for autistic people wanting to enter the labour market and retain jobs.

Autistica has developed a framework to help employers to measure and develop their neurodiversity and neuro-inclusion practices. The Neurodiversity Employers Index (NDEI®) helps a company measure its current practices against the gold standard, and develops a roadmap for change, thereby earning accreditation as a neuroinclusive employer. The charity combines this assessment tool for employers with direct support for autistic people to enable them to thrive in meaningful careers through employment readiness and graduate internship programmes, as well as third party work coaches and supported employment programmes.

However, there is still more that can be done to expand and promote this kind of support. With approximately 41% of the £900 million-£1.5 billion economic benefits of doubling the employment rate of autistic people being experienced by the government and taxpayer, there is a clear role for government too. Encouraging labour market participation is a key priority and the inclusion of 100,000 more individuals in the labour market will contribute to that goal. Overall, there is a strong case for thoughtful interventions to provide specialist support to autistic people to navigate societal and environmental barriers within and into the workplace.

### Annex A – Detailed methodology

The following steps were taken to estimate the current impact of autistic people being in employment at the present level, and what the additional impact would therefore be if the employment rate were to double.

#### Step 1: Estimate the median wage for autistic people.

According to Office for National Statistics (ONS) data on the employment outcomes of disabled people in the UK, the median wage for autistic people in 2021 was £9.33.<sup>37</sup> While there are some limitations with this data (due to the small sample size), this is still below the National Living Wage for adults aged 23 and older; therefore, this estimate is taken to be a suitable one for this analysis.

# Step 2: Estimate the mean hours worked by each autistic person in employment.

The same data suggests that 56% of autistic people in employment work full-time hours, with 44% working part-time. The number of hours worked each week by autistic people is, however, not provided. In the absence of this data, Pro Bono Economics (PBE) estimates that the full-time and part-time hours worked by autistic people approximate the median in the general population. The median full-time hours in the UK are 37.5, and the median part-time hours are 19.3.38 By taking a weighted average of these two, it is estimated that on average an autistic employee works for 29.4 hours-a-week.

#### Step 3: Estimate the current employment rate of autistic people.

According to the Department for Work and Pensions (DWP), the current rate of autistic people in employment is 30%, as of 2022/23. In total, approximately 100,000 autistic people were in employment out of 330,000 autistic people aged 16-64. Therefore, if the employment rate were to be doubled, assuming the total population does not grow, then an additional 100,000 autistic people would be in employment.

# Step 4: Estimate the gross annual pay of part- and full-time autistic employees.

To calculate the gross annual pay, PBE multiplies the hourly pay rate (£9.33) for autistic people by the estimated hours worked per week (29.4), which is then multiplied by 52. The result is £14,282 in gross pay for the average autistic worker. When substituting the part- and full-time hours into the

<sup>&</sup>lt;sup>37</sup> Office for National Statistics, <u>Disability and employment</u>, 2022.

<sup>&</sup>lt;sup>38</sup> Office for National Statistics, <u>Earnings and hours worked</u>, all <u>employees</u>: <u>ASHE Table 1</u>, 2022.

calculation above instead, the results suggest part-time employees have a gross pay of £9,364, and full-time counterparts have a gross pay of £18,194.

#### Step 5: Estimate the pension contributions.

Minimum pensions contributions of 5% for the employee and 3% for the employer are applied in this model, as the contributions are gains for the individual and costs for the employer.<sup>39</sup> To the nearest pound, the average part-time employee is estimated to contribute £468 to their pension, and their employer gives £281. The corresponding contributions for each full-time employee are £910 and £546 respectively. By taking a weighted average (according to the 56:44 ratio of full-time to part-time autistic employees) of these, the average autistic worker (full-time or part-time) is estimated to contribute £714 to their pension and their employer contributes £428. Therefore, the individual benefits from pension contributions of £1,143 each year.

#### Step 6: Estimate the Universal credit payments.

PBE submitted a Freedom of Information request to understand the mean Universal Credit payments in the UK for those who are unemployed. This is taken as the mean payment for unemployed autistic people. Given that every £1 earned in income reduces the Universal credit monthly payment by 55p, this allowed an estimate of £4,759 lost by the individual in foregone Universal Credit payments by moving from unemployment to employment, which was also counted as a benefit for government (as a reduction in costs). $^{40}$ 

## Step 7: Estimate the National Insurance contributions (NICs) and income tax.

From 6 January 2024 NICs rates will be 10% for the employee and 13.8% from the employer. These were applied to the average gross pay (after pension contributions, and conditional on this being above the annual equivalent of the primary and secondary threshold for paying NICs respectively) to estimate the contributions that would benefit government. For part-time employees, this suggests no contributions from the employee, as their annual pay, minus pension contributions, lies below the primary threshold (£242 per week, equivalent to roughly £12,584 per year). However, average pay lies above the secondary threshold (£175

<sup>&</sup>lt;sup>39</sup> www.thepensionsregulator.gov.uk/en/employers/managing-a-scheme/contributions-and-funding, accessed 3 October 2023.

<sup>40</sup> www.citizensadvice.org.uk/benefits/universal-credit/on-universal-credit/check-how-much-universal-credit-youll-get/, accessed 3 October 2023.

<sup>&</sup>lt;sup>41</sup> www.gov.uk/government/publications/rates-and-allowances-national-insurance-contributions/rates-and-allowances-national-insurance-contributions, accessed 3 October 2023.

per week, equivalent to £9,100 per year), resulting in average NICs paid by employers of £36 per year. For full-time employees, the contributions are estimated as £470 from the employee and £1,255 from the employer. Taken as weighted averages, this means that the expected value of NICs is £262 from the employee and £715 from the employer for each autistic person in a job.

#### Step 8: Estimate income tax.

Additionally, the income tax benefitting government was determined by applying the income tax threshold rates to the median estimated income for those working full-time and part-time respectively.<sup>42</sup> Part-time average gross pay falls below the personal allowance level and so means that on average a part-time autistic employee is exempt; full-time employees are, however, estimated to pay £943 in income tax. The weighted average income tax paid per employee per year would be £525.

## Step 9: Estimate the benefits and costs to the individual of moving from employment to unemployment.

For each person working full-time or part-time, the costs to the individual of moving from unemployment were calculated by summing the income tax increase and loss in Universal credit, totalling £5,546. Benefits were estimated by combining the median estimated gross income and pension increase, totalling £14,710. By subtracting the government payments from the increased earnings, the resulting economic benefits to the individual amounted to £9,164.

# Step 10: Estimate the benefits and costs to government and taxpayers of an autistic person moving from employment to unemployment.

For each person working full-time or part-time, the benefits arising from an autistic individual entering employment were estimated by combining Universal Credit reduction with the NICs and income tax revenue. As there are no estimated costs to the government or taxpayers in this model, this resulted in the benefits to government and taxpayers summing to £6,261 per autistic individual that enters employment.

#### Step 11: Aggregate the above benefits and costs.

The results above were multiplied by the estimated 100,000 additional people that would be in employment if the employment rate were increased. Figure A1 summarises these findings as the "high" scenario (with no substitution effect).

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<sup>42</sup> www.gov.uk/income-tax-rates, accessed 2 October 2023.

#### Step 12: Account for substitution effects.

To account for the possibility that some non-autistic people would miss out on jobs that they might otherwise have held due to the Employment Plan, PBE accounts for a substitution effect by reducing the estimates from step 11 by the most pessimistic rate of substitution of 40% – see Annex C for more detail. The results form the low scenario (with substitution effect) and are presented in Figure A1.

Figure A1. Doubling the employment rate of autistic people could generate a benefit to society of up to £1.5bn a year

Impact	Low scenario	High scenario
Individual earnings (£)	766,797,691	1,277,996,152
Individual pension (£)	68,548,076	114,246,794
Reductions in UC (£)	285,524,266	475,873,776
Taxes paid employee (£)	47,210,716	78,684,527
Taxes paid employer (£)	42,902,706	71,504,510
Benefits to individual (£)	549,821,502	916,369,170
Benefits to government (£)	375,637,688	626,062,814
Total economic benefit to society (£)	925,459,190	1,542,431,984

# Annex B – Methodology assumptions and limitations

Due to evidence gaps, the following assumptions were made in the estimate of the impact of increasing employment for autistic people:

- Doubling the employment rate is feasible, i.e., it is realistic for another 100,000 autistic people to enter work as based on their additional needs.
- The Office for National Statistics (ONS) data on the employment outcomes are representative of the reported population of working age autistic people.
- The median real wage for autistic people will remain the same as current levels.
- The working pattern for autistic people will remain unchanged.
- The pension contributions, Universal Credit, National Insurance contributios (NICs) and income tax rates all remain the same in the future scenario.
- It has not been possible, given current existing evidence, to quantify the knock-on effect to other colleagues, family members, etc., of an autistic person entering employment. Instead, Pro Bono Economics (PBE) has drawn on existing evidence of indirect effects from employment elsewhere in the report's qualitative findings.
- It has not been possible to measure the cost to employers of employing and adapting to the needs of autistic people in the workplace, given the existing data on this subject. Again, however, this report includes some qualitative evidence of this impact to employers.
- It is not clear to what extent the Employment Plan will cause a substitution effect between autistic and non-autistic workers, i.e., to what extent the campaign to get more autistic people into jobs will cause non-autistic people to lose out on those jobs that they may have got otherwise. The Employment Plan is both a supply and demand intervention, however, and Autistica state that the aims of the work with employers is to encourage them to choose the best person for the job, which includes those who are autistic. In this way, they advise that they foresee the substitution effect to be minimal. However, as with any labour market intervention, PBE has mitigated

- this uncertainty and modelled conservative scenarios in the main results to understand what the overall benefits to society could be if this substitution effect were to occur.
- While the employment rate of autistic people has been updated to 2022/23 estimates, the pay and working pattern estimates have not. This is because the update in the underlying Annual Population Survey took place just before this publication, hindering the ability for PBE to analyse the updated data for autistic people's employment. It is assumed that hourly pay and working pattern estimates have not changed substantially in the last one to two years.

### Annex C – Scenario analysis

To test assumptions made in the analysis regarding the feasibility of the employment rate being doubled, the following scenarios were modelled:

- The employment rate increases by 25%.
- The employment rate increases by 50%.

The results are summarised in the table below and compared to the main scenario.

Figure A2. Even in the more conservative scenarios, a boost in employment could generate significant benefits to society

Employment rate increase (£)	25%	50%	100%
Additional autistic			
people employed	24,998	49,997	99,993
Individual earnings			
	319,499,038	638,998,076	1,277,996,152
Individual pension			
	28,561,699	57,123,397	114,246,794
Reductions in UC			
	118,968,444	237,936,888	475,873,776
Taxes paid employee			
	19,671,132	39,342,264	78,684,527
Taxes paid employer			
	17,876,128	35,752,255	71,504,510
Benefits to individual	229,092,292	458,184,585	916,369,170
Benefits to			
government	156,515,704	313,031,407	626,062,814
Total economic benefit			
to society	385,607,996	771,215,992	<u>1,542,431,984</u>

Additionally, there is a chance that increasing the number of autistic people in employment creates a substitution effect as they displace other non-autistic people in employment, or enter into jobs that non-autistic people might otherwise have had. While the Department for Work and Pensions (DWP) guidance suggests that it is sufficient to dampen benefits to account for the substitution effect in sensitivity analyses only, in this paper it has been included in our main results to minimise the risk of overstating the benefits to society.

Evidence of the magnitude of this substitution effect in the labour market is sparse. However, the DWP suggests that the substitution effect can be

estimated to be 20% of the impact in the case of a supply side intervention, or 40% in the case of a demand side intervention. $^{43}$ 

Autistica's Employment Plan aims for a two-pronged intervention that supports autistic people into work and employers to include autistic employees. Therefore, in line with DWP guidance, a range of this substitution effect, and the consequent impact on the benefit to society, have been estimated. The range represents the assumption that the actual substitution effect may vary as the plan has both a supply and demand element.

Figure A3. Varying the employment rate and the substitution level produces a broad range of benefit estimates

Employment rate increase		25%		50%		100%
Substitution level	Low	High	Low	High	Low	High
Non-autistic people						
substituted	5000	9999	9999	19999	19999	39997
Net change in						
employees	19999	14999	39997	29998	79994	59996
Additional benefit to	700 / 06 707	271.76 / 500	C1C 072 707	/ 62 720 505	10770/5507	025 / 50 100
society (£)	308,486,397	231,364,798	616,972,793	462,729,595	1,233,945,587	925,459,190

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<sup>&</sup>lt;sup>43</sup> www.gov.uk/government/publications/the-dwp-social-cost-benefit-analysis-framework-wp86, accessed 3 October 2023.









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