



Sheffield

Forging steel and embracing tech

PART 1

A city case study for how businesses assist mobility by providing jobs and training

by Nick Tyrone

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About the author: Nick Tyrone is a journalist, author, researcher and Senior Policy Adviser at the Jobs Foundation. He has published several books, both fiction and non-fiction, as well as having written for most mainstream news outlets in the UK, most frequently and prominently in *The Spectator*. He was also the Executive Director of CentreForum, the liberal think tank most noted for publishing the Orange Book, as well as Director General of the Red Tape Initiative.

Foreword

The origins of the Jobs Foundation go back to a conversation in 2020, when the two of us talked about the crucial role that businesses play in giving people a step up in life, through jobs and training. We kept circling back to this subject, and in 2022, we realised that there was a need for a charity that distilled the best practice from companies who excel at getting people from disadvantaged backgrounds into work, so companies who wish to introduce dedicated schemes to do this, can do so without going through the process of trial and error. The Jobs Foundation was granted charitable status in 2023 and launched later that year. This report is the first instalment of our foundational research, which will be published in full later this year, and will guide us as we grow the charity over the coming years.

When we first began working on the Jobs Foundation, very few people were aware of the crucial need for a charity that helps get people into work. Fast forward to 2024, and it is front and centre of the policy debate. But missing so far has been the crucial role of business to make this happen, by creating and providing jobs, which is why Nick Tyrone’s report, which looks at the role that businesses play in their local communities, is so groundbreaking.

Sheffield: forging steel and embracing tech is the first in a series of reports that will examine how businesses assist social mobility by providing jobs and training. It takes a deep dive into a British city – Sheffield – through the lens of jobs and business.

This report delves into the positive things going on in the city in terms of entrepreneurship and employment, but also examines the challenges faced by the area. While Sheffield has an impressive level of business activity going on within its boundaries, so too does it have a lot of deprivation – and, of course, the problems that come with that. What we have attempted to do here is demonstrate how those problems are being overcome by the best hiring practices of many of the businesses within the city, as well as how those best practices can be used to ameliorate the challenges that Sheffield faces.

We also examine the key role played by the city’s institutions in creating jobs and eliminating poverty through employment. The two universities are central to this, but just as important are programmes like Ascend, projects directly designed to lead the most socio-economically deprived individuals into work and out of poverty. While business is at the forefront of this process, these institutions are of immeasurable help.

Our next report will focus on a town (Loughborough), followed by a report on a coastal community (Hartlepool). After that, we will look into the rural economy of a county (Pembrokeshire), leading to the final report which will bring together the lessons learned from this cross-section of the country. Our core belief is that successful societies require successful businesses, and this foundational research will assist us in our journey to support businesses to do even more good for their local communities in future.

Lord Elliott of Mickle Fell
President of the Jobs Foundation

Georgiana Bristol
CEO of the Jobs Foundation

About Sheffield

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- A city in the north of England, 167 miles from London, 38 miles east of Manchester, 36 miles south of Leeds. Part of the county of South Yorkshire.
- Population, city proper: 602,000, metropolitan area: 746,000 (both as of the end of 2023)
- It is the ninth largest city in England by metropolitan area.
- Sheffield has two large, historic football clubs in Sheffield United and Sheffield Wednesday, who have five top flight championships between them and seven FA Cups.
- The city is still famous for its massive steelworks, which dominated the economy of the city from the middle of the 19th century until the late 20th century (and remains influential in the city to this day).
- Sheffield's largest employer is the Teaching Hospitals NHS Foundation Trust, employing around 16,000.¹ The largest private employer is SIG UK, a supplier of insulation and interiors, with 10,000 employees in the city.²
- In terms of ethnic diversity, the city is 84% white (81% white British), 8% Asian and 3.6% black.³ This compares with 80.6% white (74.4% white British), 9.3% Asian and 4% black as figures for the UK as a whole (London, which is heavily ethnically diverse, tends to skew these figures nationally).⁴



Barry Bloomer, Group CEO, Evolution Power Tools

1. <https://successatschool.org/advice/applying-for-jobs/starting-your-career-in-sheffield/1208> (accessed 18/03/24)
2. <https://www.insidermedia.com/news/yorkshire/113630-#:~:text=Construction%20giant%20SIG%20UK%20continues,the%20first%20time%20this%20year.> (accessed 18/03/24)
3. <https://worldpopulationreview.com/world-cities/sheffield-population> (accessed 19/03/24)
4. <https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/national-and-regional-populations/population-of-england-and-wales/latest/> (accessed 18/03/24)

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- Gross median weekly pay is £541 in the city, which compares to £682 median across Great Britain.⁵
- According to the Joseph Roundtree Trust, 33% of children in Sheffield are growing up in poverty.⁶ This compares to 29% nationally. 4.4% of people between 16 and 64 claim out of work benefits in Sheffield, compared with 4% nationally.⁷
- 38% of the Sheffield workforce have a degree, which ranks the city 4th amongst core cities.⁸
- As of the time of writing, Sheffield City Council is run by a Labour-Lib Dem-Green coalition, made up of 30 Labour councillors, 28 Lib Dems and 14 Greens, facing an opposition of 10 independents and one Tory councillor.
- The council has bounced between being Labour controlled to Lib Dem-led to no overall control back and forth for the last 50 years.
- Despite this, most of the Westminster constituencies are solid Labour seats, the exception being Sheffield Hallam which was Tory through most of the 20th century before being lost to the Liberal Democrats in 1997 (Richard Allan was the MP, until Nick Clegg took over in 2005), finally becoming a Labour seat in 2017.

5. <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/subnationalindicatorexplorer/2022-01-06#E08000019> (accessed 18/03/24)
6. JRRT Annual 2024 Poverty Report (<https://www.jrft.org.uk/uk-poverty-2024-the-essential-guide-to-understanding-poverty-in-the-uk>) (accessed 09/04/24)
7. <https://www.ons.gov.uk/visualisations/labourmarketlocal/E08000019/#> (accessed 12/04/24)
8. <https://www.welcometosheffield.co.uk/business/move-your-business-here/why-here/#:~:text=A%20significant%20workforce&text=900%20C000%20are%20aged%20between%202016,highest%20amongst%20the%20core%20cities.> (accessed 18/03/24)

Brian's story

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“We’ve seen it all. A number of recessions, we’ve had to cut back now and again. But we’re still here.”

When Brian Reece was 27 years of age, he was made redundant from his job. This was in 1980, when there was a recession raging across Britain that hit places like Sheffield particularly hard. He was left with what looked to be a bleak future, judging from the landscape around him. Brian decided to be positive instead - he and some of his friends became entrepreneurs.

“We rescued a small, six-employee strong, cutting tool manufacturer that was dead on its knees. Over the next fifteen years, we turned that business, which had around twenty clients when we bought it, into a business that had over 800. We ran that business for thirty years.”

The manufacturer in question made cutting tools for aircrafts for the first decade of its existence. Then in 1990, the First Gulf War happened. While on one hand it created demand for the product they were making, the market became flooded with competitors, which perversely crowded them out of their own patch.



Aneesa



Brian Reece, on the right, with a member of his team

“I discovered this business that was making medical instruments and it seemed worth looking into. We figured there was a partnership available there for what was a new product for us.

“That’s when I first saw the hip replacements we would end up making. It had twelve parts at the time and over the next few weeks, we figured out a way to make it only six for the same functionality. We got what was pretty much an immediate £300k worth of business as a result.”

Soon enough, manufacturing precision medical equipment became the overwhelming bulk of Brian’s business. With that in mind, he started Sheffield Precision Medical in 2010, an outfit that strictly deals in those kinds of products. Like it had been in 1980, this was another buyout of a business that wasn’t doing well at the time.



Nick Tyrone

Since then, Brian has been through a lot of ups and downs. “We’ve seen it all. A number of recessions, we’ve had to cut back now and again. But we’re still here.” Sheffield Precision Medical currently employs over twenty staff in an office in Brightside, a largely industrial area just northeast of Sheffield city centre. “Hiring a bunch of guys really quickly is very difficult because there is a shortage of high-end skills. We are always training new people with an eye to the future. You’ve really got to train your own. You’ve got to grow your own.”

There are many people on apprenticeships working on Brian’s factory floor. Such as Aneesa, who grew up locally and had been on the job for four months when I met her. She was studying at the UTC Academy Trust, a vocational college in Sheffield, before coming to Sheffield Precision Medical as an apprentice.

“I started in laser marking, then I moved onto other machines. I’ve learned a lot in a short period of time,” she told me. Comparing what she was doing at the college with her work on the job, Aneesa described it as “much more technical, much more in-depth. That’s what I wanted it to be before I started here.”

There are people working for Brian who are now in their 40s and 50s, having been with him since they were in their teens. There are people coming to work for firms like Sheffield Precision Medical not only as their first job, but often as the first job someone in their immediate family has had for decades - or in some cases, the first job in the family at all. Apprenticeships can take people out of both extreme poverty and generations of being part of a non-working class.

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Viewed from Brightside, one can see that things are changing in Sheffield in the 2020s, as they are in all British cities, as fresh economic opportunities and perils transform the business landscape. In Sheffield, this involves tremendous crossover between the new and old; the way in which modern technology can help more traditional parts of the economy stay competitive. Sheffield Precision Medical is a prime example.

“The way to stave off being outdone for customers from places like China is to stay ahead of the game technology wise,” Brian told me. “If you can stay up to date, there’s your advantage.”

That’s the crux of this story: the way that the older portions of the economy, like manufacturing, gain from being in proximity to and even taking things from newer, tech-oriented companies. Also, the way those two worlds collide in the best imaginable fashion, creating and protecting jobs along the way, helping to take people out of poverty and into the workforce.

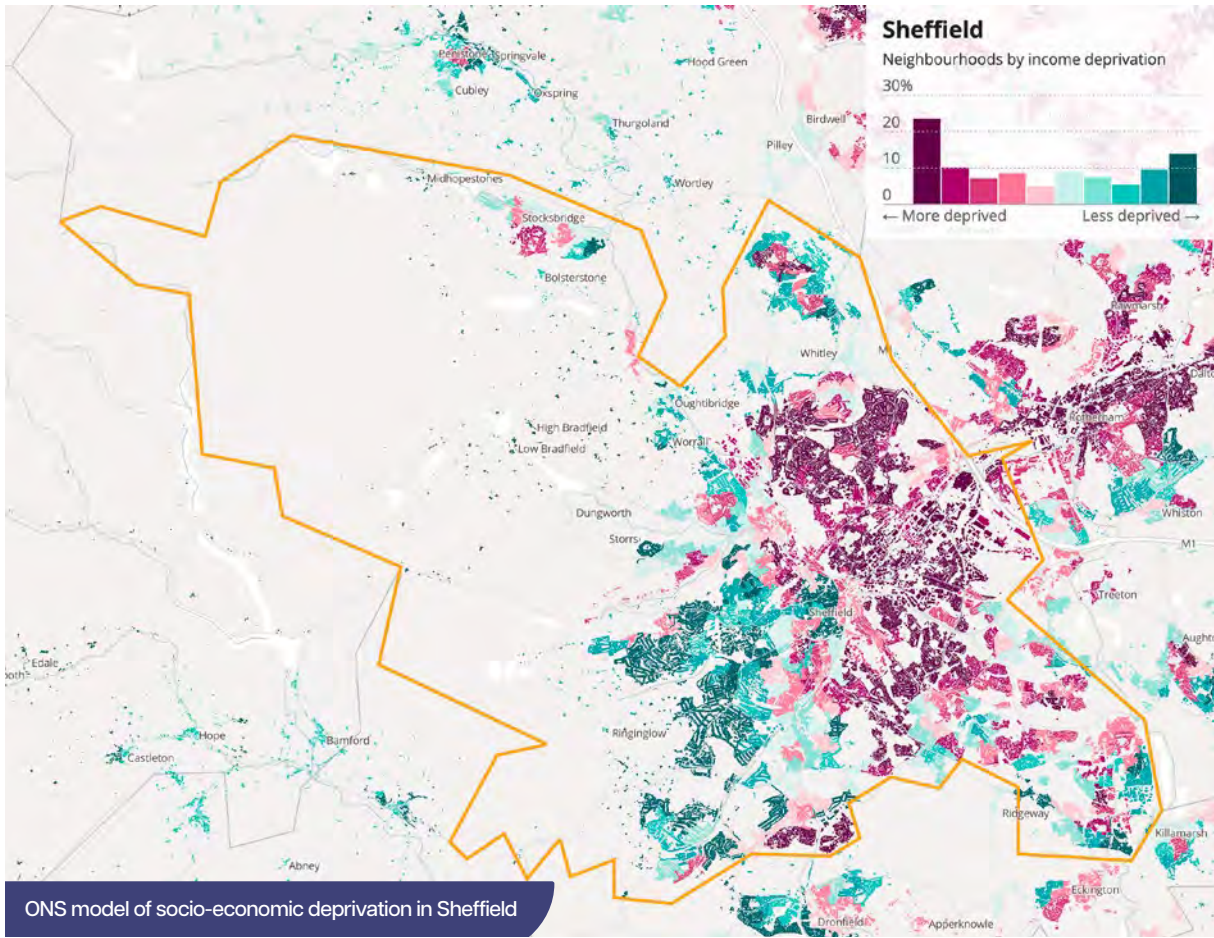
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Public sector v private enterprise

There are currently few British cities which economically rely on the public sector to the degree that Sheffield does. Healthcare, education and public administration collectively account for around 89,500 jobs across the city - equivalent to around a third of Sheffield's economy.⁹ As a comparison, Birmingham has only 21% of its working population employed in the public sector.¹⁰

As of the end of 2021, private sector employment as a percentage of national employment was 82.5% across Great Britain.¹¹

As one would expect given its oversized public sector, Sheffield's private sector was significantly smaller than the national average. Between 1995 and 2008, the number of jobs in Sheffield increased by 22%.¹² However, of these new jobs, more than half were government funded. Looked at from afar, this might be a trend that looks set to continue, the continued large-scale creation of public sector jobs in Sheffield, probably at the expense of private sector growth.¹³ Yet the trajectory of the city seems very different when viewed at close quarters.



ONS model of socio-economic deprivation in Sheffield

9. KADA Research and ekosgen (2022) – accessed 26/02/24
10. Birmingham City Council (2023) – accessed 23/02/24
11. Office For National Statistics (2023) – accessed 26/02/24

12. Centre for Cities (2011) – accessed 26/02/24
13. Official Census and Labour Market Statistics (2023) – accessed 22/03/24

I met with over two dozen organisations during my research, from small business owners in sectors traditional to Sheffield, to small tech start ups run by ambitious people in their 20s, to local councillors to heads of large charities.

That isn't to say that Sheffield doesn't face poverty related issues. 15,795 people were on out of work benefits in the city as of the end of 2023.¹⁴ Further, the city is socio-economically split, with the western portion of the city being remarkably well-off – while the eastern parts of Sheffield contain large pockets of poverty. In the chart on the preceding page, blue areas are the wealthy regions of the city (the darker the blue, the greater the wealth), with the orange/beige portions being of median prosperity – and the red areas are economically deprived (the darker the red, the more seriously deprived the area). In the picture below, you can see this east-west split alarmingly easily, pretty much at first glance.¹⁵ The reason for this is mostly historical – the west of the city, close to the Peak District, has always been seen as more desirable, and that continues into today. It is interesting how much the history of a city continues to make its mark.

I met with over two dozen organisations in the city during my research, from small business owners in sectors traditional to Sheffield, to small tech start ups run by ambitious people in their 20s, to local councillors to heads of large charities.

14. ONS, Employment, unemployment and economic inactivity in Sheffield <https://www.ons.gov.uk/visualisations/labourmarketlocal/E08000019/> (accessed 15/02/24)
15. Chart courtesy of the ONS, <https://www.ons.gov.uk/visualisations/dvc1371/#/E08000019> (accessed 15/02/24)

Many of the things I heard over the course of all those interviews were contradictory, as you would expect across such a large spread of people and organisations. For instance, many complained that the council wasn't doing enough and should do more for the city, while not being particularly specific about what exactly should be done.

I found disagreement even in the way Sheffield should be sold to the world. One of the ways the city likes to present itself is as the "Outdoor City"; to sell the proximity of the Peak District and how easy it is to escape from the city and into nature in a way that isn't true of most British conurbations. Others feel this is too middle-class an image and doesn't get to the heart of what is great about the place. They feel instead Sheffield should be sold as a city of villages, trading on the fact that while urban in feel and draw, Sheffield is also an easy place to get to know everyone you need to know. While older parts of the economy and the newer portions can live together in a symbiotic relationship, sometimes it doesn't feel that way – there can be a clash of cultures.

Yet perhaps the biggest disagreement I came across during my time in Sheffield was the role of the two universities in the life and economy of the city – and with that, the role of post-secondary institutions in the future of Sheffield and Britain as a whole.

Two universities

The University of Sheffield officially began life in 1905, when it was given a royal charter to be a university by King Edward VII, although its roots go back further, at least to 1828 and the establishment of the Sheffield Medical School.¹⁶ In terms of revenue size, the University of Sheffield is about one-third as big as either Oxford or Cambridge (both of those universities take in around £2.5 to £3 billion a year – the University of Sheffield’s 2022/23 revenue was £851 million.)¹⁷ The university has a reputation for producing great engineering research; in addition to collaboration with MIT and Harvard on such things, the university also has partnerships with scores of businesses, the largest amongst them being Rolls Royce, Siemens, Boeing, Airbus and BAE.



“The kids coming through now, people who are 18-21, who’ve never had a part time job, they are real hustlers. That’s the latest generation’s thing, this kind of iterative hustle”



The emergence of the city’s other university, Sheffield Hallam University, has been slightly more piecemeal; the Sheffield School of Design started in 1843 near the current main campus, and its evolution into other things eventually flowered into Sheffield Hallam as it exists today. The university currently has the original campus in Broomhall, just west of the centre of Sheffield, and a campus right by the city’s main railway station.¹⁸ It has much smaller revenues than the University of Sheffield, with £329 million of income in 2022/23,¹⁹ so a little under half the size in revenue terms, than its inner-city rival.

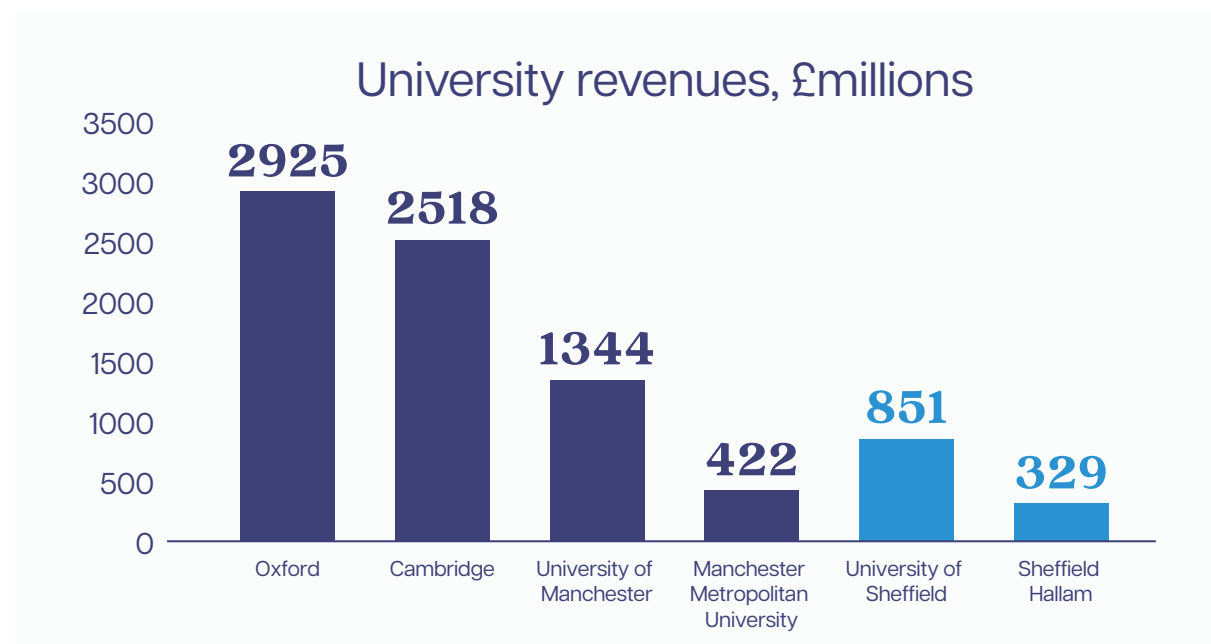
The discussions I had with businesses in the city regarding both Sheffield universities and indeed, post-secondary education in general involved two distinct takes on this subject, mirroring the national conversation. One side felt that the last five to ten years’ worth of graduates tended to be undermotivated and not ready for the world of work. I heard anecdotes of new employees spending half an hour on Facebook when they were supposed to be on a shift, or calling in first thing in the morning to say they were taking a holiday.

Other business owners told me the exact opposite. “The kids coming through now, people who are 18-21, who’ve never had a part time job, they are real hustlers,” Tom Wolfenden, CEO of Sheffield

Technology Parks, told me. “They’ll see “50% off this tin of biscuits” online, buy the tin, then put them on Amazon for £5 more per item. It’s still cheaper than normal for the consumer and the kids make £50 by doing that. That’s the latest generation’s thing, this kind of iterative hustle.”

The two sides of this dichotomy can be broken down as one group arguing that universities have become bastions of “wokeness”, more concerned with focusing on foreign students than serving the homegrown population, versus those saying universities provide an invaluable economic boost to local economies that could not easily be provided another way. In other words, more universities, please.

What I saw in Sheffield myself was how powerful a university or set of post-secondary institutions can be to a place. A big thing the two universities do for Sheffield is import talent that would otherwise be difficult if not impossible to obtain. I spoke to so many business owners who grew up elsewhere, came to Sheffield to study, and then stayed and started a business in the city. Ben Widdows is from Bristol originally; Tom Milton, who I highlight later in this report, was raised in west London. Bringing in talent and job creators is a vital function the universities clearly play in Sheffield.



¹⁶ <https://www.sheffield.ac.uk, annual report section> – accessed 16/02/24

¹⁷ <https://www.cam.ac.uk as well as https://www.ox.ac.uk, both have annual reports> – accessed 16/02/24

¹⁸ <https://www.shu.ac.uk> – accessed 16/02/24

¹⁹ <https://www.shu.ac.uk/finance-directorate/financial-statements> - accessed 16/02/24



Yes, the universities have problems they need to deal with. For instance, the issue of there being too much focus on foreign students at the expense of the needs of locals is a real one. Yet this is simply a funding issue. The universities rely heavily on foreign students for revenue, to have enough money to keep themselves going. If we want universities, not just in Sheffield but across the country, to focus much more on homegrown students, then we're going to have to find a new funding model. Post-secondary institutions will require more government funding – or failing that, a move to a much higher fee system, more like the US, which would carry huge political problems – to reprioritise.

Another huge thing that the universities do for Sheffield is help create businesses directly. Particularly in the technology sector, spin outs – in the case we're discussing here, businesses that are started on campus with direct university help which then become fully fledged businesses of their own – are a vital function that the institutions support. But they need another layer to make this transition work. As it happens, the city has the Sheffield Technology Parks, where the big companies of the future start on the next phase of their journey.

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Sheffield Cathedral



Sheffield Hallam, city campus

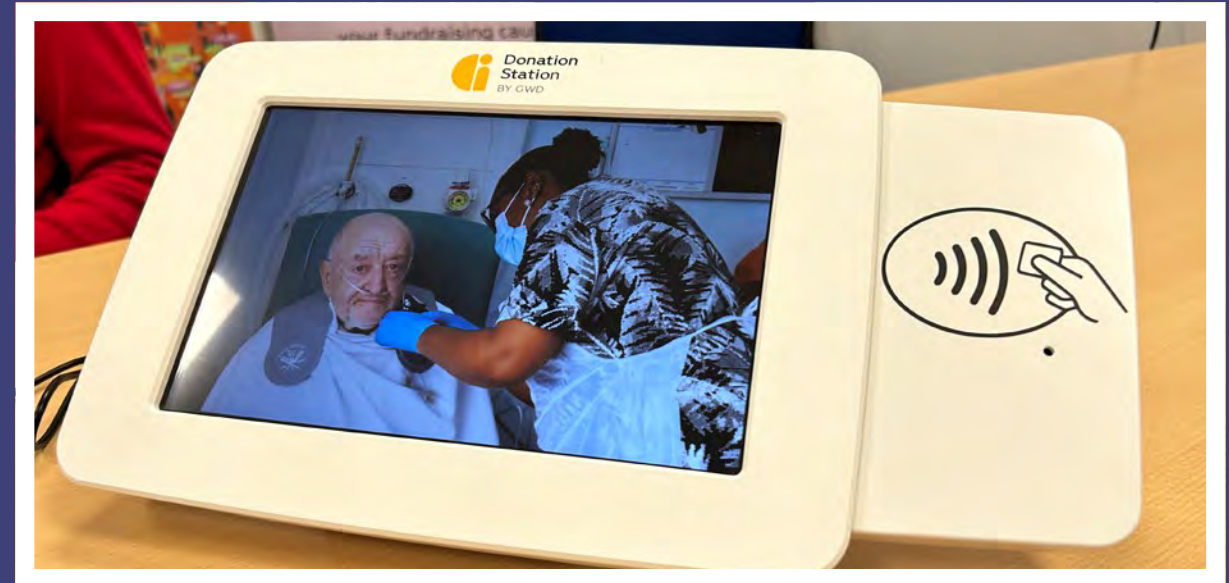
Case study: Ben Widdows and GWD

Good With Devices (GWD) is twenty years old. Ben and his business partner took it over in 2015, in a management buyout – another example of a solid Sheffield business rising from the ashes of a failing one. They spent the first few years of their existence doing mostly research and development, supported by government grants. By 2018, they had a new product, the contactless Donation Station, ready to go.

This is a digital machine that makes collecting donations easy for their clients, which are museums, churches, other charitable organisations. They have a staff of around twenty people at present.

“Our work culture is friendly, based on mutual respect and a desire to do the best for our charity customers. We celebrate the things that make us different: our talents and skills, our interests and approach to solving problems. We’re all working for a common cause.

“I think the rewards of having a good culture in places of employment aren’t talked about enough. We’re on a journey to help increase funds for good causes and the only way to do that is with a great team who are enjoying the journey as well.”



“I feel that lifelong learning is such an important thing. Particularly given the fact that our whole business revolves around socially driven projects. Diversity of thought and belief are welcome within the team and our current staff already reflect that. Our ambitions are based on healthy growth, through smart thinking, rather than harder effort. Work-life balance is so important.”

The quotes from Ben above felt like more than boilerplate DEI or PR gloss; the company does have a real family vibe to it. Speaking to employees, many of whom have been there for years and have grown up locally, it did feel like a nice place to come to work every day.

GWD is a fantastic example of a profit-making enterprise being able to provide a greater societal good. Although it exists as a business and not a charity, it creates the tools for non-profit organisations to expand on the good work that they do.

“I want GWD to be successful, but I also want it to be a great place to work,” says Ben. “I think the rewards of having a good culture in places of employment aren’t talked about enough. We’re on a journey to help increase funds for good causes and the only way to do that is with a great team who are enjoying the journey as well.”



The Ascend Programme

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Ben Woollard, a southerner, founded an initiative called Ascend in Sheffield, due to the pressing needs there. Ascend, part of the charity 'Together for Sheffield', is dedicated to lifting individuals out of extreme poverty by providing pathways to employment. In addition to this impactful work, Ben is involved in various social for good projects across the UK, ensuring communities thrive and improve.

Ben spoke about one man named Reece, someone who was living in his car when Ben first met him. Reece couldn't get a job because he couldn't wash or change his clothes, so Ascend provided him with what he needed and then got him a two week placement on a construction site. Eighteen months later, Reece is leading a whole building team. Ben describes Ascend as "hunting for gold in unlikely places in our beautiful city".

I met Ben and his partner in Ascend, Josh, at the Hope Centre on Bernard Road, just outside the city centre, a place that acts as their HQ. There we spoke to a range of people currently on the programme, all of them from severely socio-economically deprived backgrounds, about their experiences. There was Lauren, who is now in a good job doing event planning.



"We big each other up," she told me. "When one of us would get an interview, the rest of us would be like, 'Text the WhatsApp group before you do it and then after'. You had this massive level of support."

This is the major thing the Ascend Programme gives to the young people on it – a sense of community and reinforcement that had been missing in their lives to that point. So much of getting kids from deprived background into the workplace is teaching them the fundamentals. How to dress for an interview, how to navigate one once you are in front of a prospective employer – these things sound basic to someone from a background where all of that would have been obvious. It's a totally different story for a person who grew up in a family where no one has had a job for generations. If you come from a household where no one worked, understanding how to behave in the workplace can be next to impossible for many.

"We're seeing the high social value of eating together, learning when we have a need, so we create that training hub space where they are given volunteer hours to get job experience," Josh said.



Ben Woollard



Ascend works with a collection of companies in the city, and also with the Jobs Centre, the latter feeding them those who might be on their caseload as "difficult to place in employment" for whatever reason. Word of mouth is important as well – Ascend is always looking for new candidates. The programme has had about 150 people come through it, and about 75% of those who are taken on get a job. At any given time, Ascend will have up to fifty on the programme.

"It was so much about team building," Lauren said, smiling. "It was that rhythm, that change every week, was so important. We had that level of control over what we were doing that gave us confidence."



Lauren



The most important thing to understand about something like the Ascend Programme is that these are the poorest of the poorest kids. This is "Benefits Britain". If we want to turn things around, these are the people on the coalface of that effort. In fact, what Ascend does is the most perfect distillation of that mission statement I came across in my travels across Great Britain. The key is to see the link between what Ascend does and where we're about to go next – the traditional Sheffield industries (mostly steel related) and the emerging jobs of the future in the tech sector. We need to give everyone in Sheffield a hope for the future – to get them to see that if they work hard and apply themselves, the sky is the limit.



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Case study: William Cook Cast Products

Just northeast of Sheffield city centre, on Parkway Avenue, sits the Sheffield offices of William Cook, a company that's been working in the city for almost two centuries. They are a great example of how traditional steel companies in the area have had to adapt to survive to the 21st century.

"The core of the business is steel casting of safety-critical parts. The customer gives us a drawing and specification of what they want. We then make a pattern, create a mould, take scrap metal, melt it down in a furnace, then add different metals into it as required. That molten mixture is then poured into the mould we've created. After its cooled, the casting goes through finishing and testing before being ready for the customer."

The lower end parts of the steel market have moved onto China, India, elsewhere, while the remaining steel industry in the UK is built around two principle things: one is being able to maintain incredibly high standards, which partly comes from being technologically advanced; another is that things made for national defence reasons, like nuclear submarines, the UK government only wants to give to a British based contractor – like William Cook – for reasons of security.

"Our parts go into nuclear submarines. So, the specifications are incredible. The metal grades and quality control procedures are stringent and the testing requirements are exacting. There is a lot of front-end planning going into the castings, then a lot of back-end testing as well."

There are around 175 employees at any given time at the Sheffield plant, from across all areas of the city.

"We have everything from the bloke off the street with very few qualifications, up to people on degree apprenticeships. Although heavy industry can be difficult to entice degree candidates in to do."

A lot of the people who come into the company that stick around for a career's length of time will start at William Cook at a young age, learning what they need to on the job.

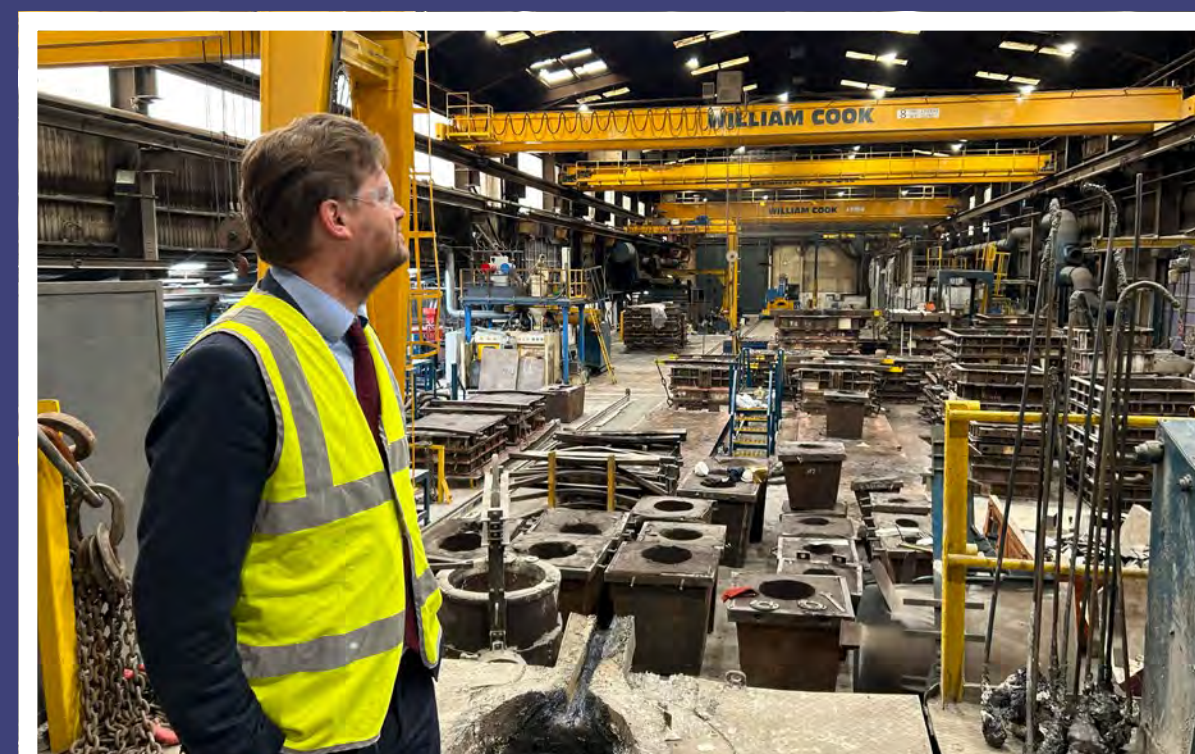
"A significant proportion are low to semi-skilled. Many shop floor jobs don't require any qualification but learn what is needed 'on the job'. There are a lot of people in that bracket of the business. Those people, with a bit of overtime, can make around £30k a year....if you haven't achieved academic qualifications having come

from a background where such qualifications aren't actively encouraged while at school, these are very good jobs."

It is in more traditional industries like steel where people who are both from socio-economically deprived backgrounds and have little in the way of qualifications can still make a living. There is, of course, worry for the future – by definition, the lower skilled jobs of today are the ones that might easily become the automated jobs of the future. For now though, these sorts of jobs are perhaps the greatest route out of poverty for people in Sheffield.

William Cook is looking to expand and are optimistic about the future. There are sites now in Leeds, Chesterfield, County Durham and elsewhere. They are spending around £8 million a year on capital investment across the group, around £4 million of that in Sheffield in the last year – they've recently built a £2 million X-Ray facility, needed to check the most high-tech jobs are perfectly up to scratch. Meanwhile, William Cook remains a gateway from poverty into a meaningful career for many in Sheffield.

"Those who show aptitude and desire, we'll always bring them up, bring them through. Plenty of opportunity for those who want to work hard."



Sheffield Technology Parks

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The city's technology firms attracted over half a billion pounds in venture capital in 2022, with the 2023 figure expected to be in a similar range. Sheffield is also home to one of the north of England's rare tech companies with a valuation over a billion dollars, ITM Power. The city is adding tech jobs quickly as well. According to CBRE's 2022 UK Tech Cities report, Sheffield has more than 14,750 people working in the tech sector, which is up 49% since 2015.²⁰ A lot of this comes down to the value added by the city's foremost tech institutions.

Tom Wolfenden is the CEO of Sheffield Technology Parks, a large building on Arundel Street, right by Sheffield Hallam's City campus. It acts as not only an office but an all-round incubator for tech start-ups in Sheffield, housing around twenty or so businesses at any given time.

Sheffield Technology Parks began life in 1988. It was part of the late-Thatcher era push to try and shift economies like Sheffield away

from what were seen at the time as the industries of the past and towards the future. Almost always, the founders of the companies involved are graduates from one of the two universities, and/or the founders are working with academics at those institutions to develop their ideas and bring them to market.

The Parks also run an inward investment programme which is designed to soft land people into the city to see if Sheffield is where they want to be. For instance, a few years ago they had an organisation move up from London and into the Technology Parks' offices called Jellyfish, a firm that does animations for Netflix programmes and feature films. They employed six to eight high-end graphic animators to work at the office in the Tech Parks. Jellyfish were able to get their start in Sheffield through this, and after finding it suited them, got some office space of their own. This kind of support directly created jobs in the creative sector in Sheffield where they otherwise wouldn't exist.

“There is still a culture, a hangover, 40 years on, from being a big, industrialised, unionised workforce – the mentality that you should keep your head down, work hard and you might get a company car in five years; if you stay in your lane, you'll be fine. You were never asked to be entrepreneurial when you were working in the coalmines, you were never asked to be entrepreneurial in the steel works.”

Both cultures involve variations on “pull yourself up by your bootstraps” – yet they are versions which are very, very different in practice. The outcome for cities like Sheffield, looking twenty years into the future, rests on resolving the tension between these two visions of work and life.

Of course, challenges remain. Tom told me the story of one of the entrepreneurs the Sheffield Technology Parks has incubated. This individual had what was obviously a scalable business, but devoting himself to it would have required leaving his stable IT job behind. “His parents, his wife, all his mates were saying, ‘What the hell are you doing? You're on 50k a year, you've got a nice house, why do you want to risk all that? Think of everything that could go wrong!’ Four years later and he's just exited his business, setting his young family up for life and creating a dozen careers for his employees.”

Tom summarised the issue at hand for me, the one perfectly illustrated by the dilemma faced by this man who took a chance by leaving his £50k a year IT job and had it pay off.

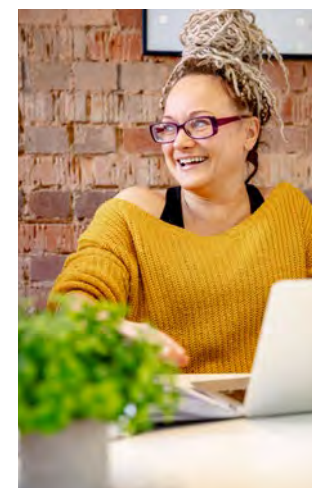
“There is still a culture, a hangover, 40 years on, from being a big, industrialised, unionised workforce – the mentality that you should keep your head down, work hard and you

might get a company car in five years; if you stay in your lane, you'll be fine. You were never asked to be entrepreneurial when you were working in the coalmines, you were never asked to be entrepreneurial in the steel works.”

It was the clearest example I encountered during my time in Sheffield of this clash of the old culture, which revolves around working hard, keeping your head down, and “good things will come”, versus the new culture of having to be entrepreneurial, do it all yourself from the ground up. If you have to go to America or wherever for seed funding, that's just what you do.

Both cultures involve variations on “pull yourself up by your bootstraps” – yet they are versions which are very, very different in practice. The outcome for cities like Sheffield, looking twenty years into the future, rests on resolving the tension between these two visions of work and life.

21



20. All figures in this section come from the “South Yorkshire Tech 100” report produced by Team Sy, <https://weareteamsy.org/wp-content/uploads/2022/11/The-South-Yorkshire-Tech-100-Nov22.pdf> (accessed 16/02/24)

Case study: Tom Milton and Amodo Design

I met Tom Milton in a café on Arundel Street called Mow's Coffee. It's a nice coffee shop; like something you might expect to find in London's Soho or New York's East Village. It's also right across the road from the Sheffield Technology Parks.

Tom runs a small start up business called Amodo Design. It won Sheffield Start Up of the year for 2023.

"Around this time last year, I decided I wanted to start my own thing. I wanted to work on biosecurity. With my co-founder Andy, we did some research into respiratory protection for pandemics such as Covid and found that the

world is still not protected enough from these risks. With that in mind, Amodo Design was started as a sector agnostic design consultancy, with us going full time in early 2023."

In the engineering world, consultancies are not like they are in management or politics, where they would mainly be providing strategy, speaking to those making things about how to navigate the media and the government. No, consultancies in the tech space are the ones creating in the real world the products which have been invented elsewhere, by academics or otherwise, with the consultancy physically making the item and transferring it to the client. As the consultant, you are essentially outsourced designers.



"We're also working with SMEs in the city to help them design products. We find they often know their customers inside out and have excellent product ideas, but struggle to attract and then manage engineering teams."



Having engineering consultancies like Amodo Design in a city like Sheffield does more than just create jobs in the tech sector, and certainly has more positive ramifications than just the jobs created for employees of the firm. Their economic impact is felt across multiple sectors. In Cambridge, the engineering design consultancies are central to the origin story of the 'Silicon Fen'. Employing thousands of engineers in the city they both attract work from international companies and create spinout companies. Evidence to a UK parliamentary review on research commercialisation suggested the top four Cambridge consultancies had produced more jobs in their spinouts than the entirety of Cambridge University. Amodo Design hopes to kickstart the same effect in Sheffield.

"We have worked with six University of Sheffield academic groups and spinouts in our first year. Many of these projects wouldn't have

happened without an engineering consultancy. The teams didn't have access to the technical engineering skills to make the products."

"We're also working with SMEs in the city to help them design products. We find they often know their customers inside out and have excellent product ideas, but struggle to attract and then manage engineering teams. They wouldn't be able to create new products without a consultancy like Amodo Design."

In other words, the tech consultancies allow other sectors of the economy to innovate. Or put another way, they help create jobs in places where poverty exists in greater numbers than in the backgrounds of those who study engineering at the University of Sheffield. Or to put it an even simpler way: for the older parts of the Sheffield economy to continue to exist, they need the newer, more technologically advanced portions of it to succeed.

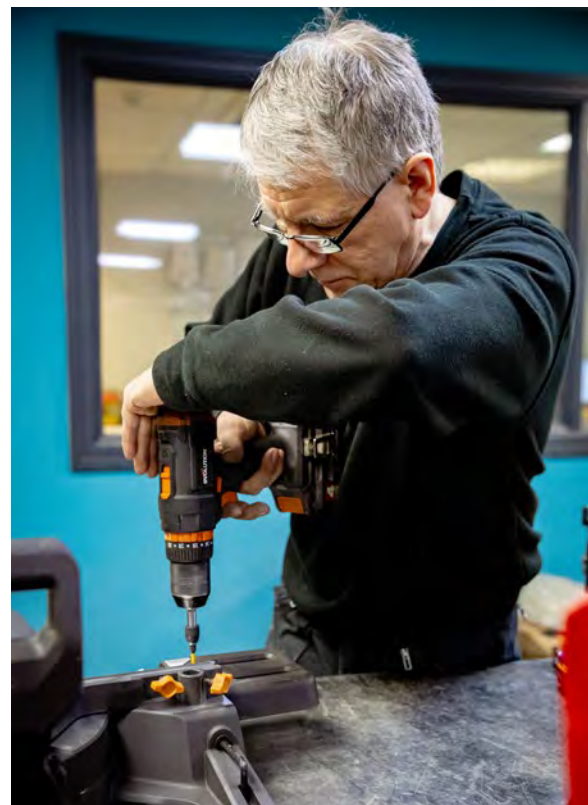
The roundtable

“We’ve been here in Sheffield for 32 years. Started the business in my mum and dad’s single garage about 300 yards away on a housing estate. About 150 people work across the business now. We have offices in Chicago, Shanghai, Poland and France. Last year, the American operation surpassed the European operations. I feel like we’re almost an American company now! But we’re very proud of Sheffield’s heritage.”

Matthew Gavins has run Evolution Power Tools since he was in his late teens. It has been his life’s work. He has watched it grow from that little hustle in his parents’ garage on an estate to being a global business.

Matthew, with the help of Ben Woollard helped to put together a roundtable on behalf of this project, at the Evolution Power Tools offices in Holbrook, a largely industrial area to the southeast of the city centre, right before the Rother Valley begins.

“Actually love them. Care for them as if they were part of your family. Businesses have a duty of care – and if more businesses understood this, they’d keep their staff through thick and thin. I remember, when I told that to our board of directors, they thought I’d gone mad. But it’s true. That’s the secret.”



The meeting brought together a dozen local business owners, a cross-section of Sheffield’s economy. There was Tribosonics, a small tech company which provides industrial sensing solutions for its clients – while also maintaining a third of its workforce at any given time as apprentices. In fact, they take on kids in the 16 to 18 age range in preference to recent university graduates, as they see that as a better long-term investment.

Other attendees were Sheffield Digital, a trade association for digital businesses in the city; Page 1 Recruitment, a specialist agency focused on the tech sector; Peak Edge Academy Trust, a set of mostly primary schools in Sheffield; Mobile Power, a company looking to replace petrol with solar power in Africa. This latter company takes engineers, mostly graduates from the University of Sheffield, and gets them designing new battery solutions to try and lift millions of Africans out of energy poverty. It’s important to note that Mobile Solutions are not a charity – they are a profit-making company, another prime example of how private enterprise can often do good in the world.

Then there was Sam Evans, the head of the S6 foodbank. He also works with teenagers who are in a bad situation, usually through being faced with extreme poverty. Throughout his stories about the kids he has helped, it was the little details that shone through, such as someone getting their driver’s license after a long struggle, that little thing opening up a host of employment opportunities for the teenager in question.

“We’ve got kids turning up who are non-verbal or who have American accents because they’ve learned to speak from Tik Tok or YouTube.”

Over the course of an hour and a half, we had a wide-ranging discussion about living and working in Sheffield, the training and apprenticeship programmes run by these companies, and what these business owners are optimistic about – and what they fear about the near future.



The main points raised were:

Apprenticeships:

- The importance of apprenticeships in terms of organisations finding the staff they require and how they can often be the best way to get and keep young talent was continually stressed by all participants. It was agreed round the table that apprenticeship schemes are best when a). the bureaucracy involved in them is kept to a minimum and b). the scheme in some way makes it easier to take on riskier hires. Being able to take risks often leads to people from deprived backgrounds being given employment they might otherwise not have received. “There are some good programmes out there, but they seem to be changed all the time, or made harder to access.”
- There was confusion around how and when the apprenticeship levy could or could not be used. Many talked about schemes they wanted to action but weren’t sure about the rules and bureaucracy in terms of using the levy to fund them. “The paperwork can sometimes make the whole thing not worth it.”

Best practice for hiring and retaining staff:

- A lot was discussed about the importance of making the workplace a great place to come to in terms of retaining talent, made more important since Covid and the work from home trend was introduced. “You have to make work a nice place to come to if you want the staff to come to the office these days.”
- I asked the roundtable participants how they keep their staff. How do you avoid losing the talent you have nurtured for so long? How do you retain someone who was born into extreme poverty who, mostly through your training, now possesses the skills they need to compete on the open market? “Love them,” Matthew told the group. “Actually love them. Care for them as if they were part of your family. Businesses have a duty of care – and if more businesses understood this, they’d keep their staff through thick and thin. I remember, when I told that to our board of directors, they thought I’d gone mad. But it’s true. That’s the secret.”
- It was stressed that you have to look beyond the basic, traditional interview to understand where people’s strengths lie. “We’ve had people come in and given terrible interviews from an old-fashioned standpoint. But then we gave them a try and saw that once in their element, they could really shine. We’ve had people who are geniuses at customer service who we would have passed on if we only took into account their ability to answer interview questions reasonably well.”

Those were the mostly optimistic ideas talked about. These were the fears:

The economy:

- There are worries around the recession and what that could bring, particularly given how hard Sheffield has been hit by economic downturns in the past. “Things are going all right at the moment. But a major shock would be tricky to navigate.”
- The ever-present decline of the manufacturing sector was discussed. A worry about competition from China. Caution about Britain’s place in the world, and Sheffield’s place in Britain. “The world is a scary place at the moment and looks to be getting more frightening by the day.”
- High numbers of unemployment, still, amongst the white working-classes (or non-working class, as the case may be) of Sheffield. This seems to have been made worse by the pandemic period. “We’ve got kids turning up who are non-verbal or who have American accents because they’ve learned to speak from Tik Tok or YouTube.”

Politics:

- The impact of the elections this year, not just in the UK or even in America, but all around the world. “It all seems so uncertain. You don’t what any combination of results might mean for your business.”

Transportation infrastructure:

- Sheffield feels very connected to London – but not the rest of the north. A Crossrail across the north of England is badly needed. Worth noting that on the current network, it takes almost as long to get to London from Sheffield, 167 miles away, by rail as it does to get from Sheffield to Manchester, a mere 38 miles away. “The next government has to make it easier to get round the country. Has to.”



What do businesses in Sheffield want?

There was a lot of annoyance expressed at the poor connectivity of Britain as a whole and then of the north of England specifically. Although at the close of the last section, I mentioned the desire for a northern Crossrail, one that preferably runs from Liverpool to Hull, hitting all the major conurbations in between, there was also a general irritation about the northern leg of HS2 being cancelled. Even in Sheffield, which would not even have been a stop, it was constantly dropped into conversation.

As one business owner, particularly inflamed about it, told me, “It could only be a completely unhinged Tory party that could go to a rail station that was shut down in the 60s, in central Manchester, and announce to the north, in the north, that they’re not building the train line to the north anymore! Did no one say, maybe that’s not the right place to do it?”

On the other hand, a lot of businesses also mentioned their biggest apprehension regarding an incoming Labour government, which is that an uptick in employment rights could become a burden on making any sort of risky hires – which again, are so often either young people without experience, or those individuals who have been unemployed for a long time. In other words, there is a fear that a change in employment rights could affect the ability of companies to take people out of poverty and into the workforce.

Businesses in Sheffield use apprenticeships widely but wish that the rules around what is applicable to the levy were a lot clearer. The city also needs to build more – although, to be fair, this is a nationwide problem. There is a scarcity of upmarket housing in or near the city centre, and many businesses feel that this hurts direct foreign investment opportunities.

Lessons on best hiring practice and bringing people out of poverty

Hiring young people can be a challenge for a lot of employers, mostly due to distinct cultural differences between them and older generations. While some younger people can struggle with work culture in general, a lot of them are both very adaptable and naturally entrepreneurial. If employers can look past surface flaws, they could unearth some gems.

This is particularly true when speaking about young persons who grew up in poverty. They can be unsure of themselves in unfamiliar social situations and underdeveloped in terms of professional behaviours, often due to not being exposed to them within their family setting. Best practice in terms of hiring young people almost certainly involves some sort of objective testing of prospective employees and/or situation trialling to get people past the difficult first impression caused by being placed in an environment they are unprepared for, such as a formal interview.

As many employers throughout this report have said already, hiring people at an early stage in their careers and training them in the company’s way of doing things, immersing them in the specific culture of an organisation, can be beneficial for businesses – and indeed, for young people looking for a break, particularly ones from impoverished backgrounds.

We do need to think from an educational standpoint about how we deal with children being increasingly raised online. Again, this tends to be at least anecdotally worse for poorer kids. Having parents who are present, particularly reading to their children on a regular basis, is of great benefit to them – this tendency is more prevalent the higher up the socio-economic ladder the parents are. Poorer children are more statistically likely to miss out on these advantages.²¹

21. The Book Trust did a study in 2023 showing that 23% of parents from low income background do not read to their children before the child’s first birthday – sadly, this number appears to decline in fairly linear way the higher the socio-economic background of the parents (<https://www.booktrust.org.uk/news-and-features/news/news-2023/almost-a-quarter-of-children-from-low-income-families-missing-out-on-the-benefits-of-reading-in-their-first-year/>)

Final thoughts

I’m glad we picked Sheffield as an area of study. While I’m sure Manchester, Leeds, Birmingham or Nottingham would have presented me with a lot of interesting stories to tell, there is something about Sheffield which lends itself well to the study of the connection between jobs and poverty alleviation, as well as the challenges and opportunities facing British cities in the 2020s and beyond.

Most reports produced by think tanks largely revolve around desk research, often done in central London. Particularly in an age of Zoom meetings, places in the UK are often written about - and having policy prescriptions created for them - without the author ever having stepped foot there. This report is different - I repeatedly went to Sheffield to speak to people on the ground, to meet with those detailed in this report face to face. We started from the idea that in order to begin to understand somewhere, you have to have been there.

There is a lot to be positive about in the city. Sheffield is a place that has a credible path towards expanding the sectors of the future, two good universities and a technical college, not to mention an impressive and burgeoning technology sector. Yes, it also has huge pockets of disparity and the social problems that come with that; like every city in Britain, Sheffield will have to innovate its way to success. The secret appears to be the way that the newer, technology-based economy can intersect with the older, more traditional parts of the market.

The people of Sheffield seem up for the challenge. As Brian Reece told me, “I’m not going to be around forever. But somebody is. The company will go on, people will be working here. And for me, it’s about people at the end of the day. The profit comes first, of course, because otherwise, you’ve got no people. But it’s still about the people who you work with, who work for you, who build the business beside you.”

Sheffield is a place that has a credible path towards expanding the sectors of the future, two good universities and a technical college, not to mention an impressive and burgeoning technology sector.

Acknowledgements

These are the Sheffield based organisations contacted for this report, without whom it would not have been possible:

Amodo Design	Page 1 Recruitment
AMT PostPro	Parexel
Ask 4	Peak Edge Academy Trust
Ascend Programme	Pricecheck
Atomising Systems	Redemption Media
BHP	S6 Food Bank
Evolution Power Tools	Sheffield City Council
Food and Community Trust	Sheffield Digital
Good Work	Sheffield Precision Medical
Gripple	Sheffield Technology Parks
GWD	Special Quality Alloys
Iceotope Technologies	Swann-Morton
Lab Logic	Together for Sheffield
Leviat	Tribosonics
Millgate	Unicorn Biotechnologies
Mobile Power	William Cook Cast Products



The Jobs Foundation is a registered charity (1202928) which champions the role of business as a force for good, particularly the crucial role companies play giving people a step up in life by providing jobs and training opportunities.

We want to have a practical impact on the ground, by helping business leaders do even more for their local communities, by providing them with the tools, knowledge, and best practice on employing and training people from less privileged backgrounds.

In parallel, we want to have a policy impact by creating a business environment which allows companies to thrive. We hope our advocacy programme will bring about a real change in the way policy makers view business and the crucial social and economic value businesses contribute to society.

To achieve this, we are building a coalition of business leaders and entrepreneurs from across the country to join our Business Council, to act as the driving force and delivery engine for our ambitions.

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“Unemployment is both a curse and a waste. There is nothing more important to both the national economy and civil society than having people in stable and rewarding jobs. Manufacturing still has a key role in providing these, and I congratulate the Jobs Foundation in recognising and promoting private enterprise as the essential element in resisting and turning the otherwise adverse tide of decline”

Sir Andrew Cook

Owner and chairman of William Cook Holdings

