From Containment to Recovery

Covid-19's Local Economic Impact on Nottingham - an initial assessment

CONTENTS

Key Findings 2

Extended Summary 4

1. Introduction 7
2. Overall Economic Impact 8
3. Impact on Business Performance 11
4. Impact on Economic Output 13
5. Impact on Employment 21
6. Impact on Occupations and Skills 24
7. Impact on Unemployment and Inactivity 29
8. Groups Most Affected 32
9. The Outlook 34
10. Building City Resilience 36

Appendices

A: Industrial Structure Compared - Nottingham and Derby 43

B: Near-term Impact on Labour Demand 45

C: Standard Occupational Groups 48

D: Low Carbon Economy Initiatives in Nottingham 49

Key Findings

The overall economic impact will be severe and unprecedented in peace time

The Coronavirus pandemic and the public health measures adopted in response is impacting the national, regional and local economy in three important ways: disruption to the supply of goods and services; demand shocks; and increased uncertainty.

Growth in the local economy has not stalled, it's gone into reverse

The recession brought on by the coronavirus pandemic has led to the biggest fall in quarterly GDP on record. GDP fell by 20.4% in the three months to June 2020 for the UK as a whole, following a fall of 18.7% in the three months to May, as Government restrictions on movement dramatically reduced economic activity. After this severe contraction in economic output GVA is forecast to recover slightly albeit it will remain negative (-5.7%) for 2020. Economic growth is expected to be 3.3% in 2021, slightly above the UK average (2.8%).

City sectors which are being most affected are Tourism and Hospitality (Accommodation, Food and Beverage Services); Creative Industries (Creative Arts and Entertainment; Film and TV Production); Leisure Services (eg Sports and Recreational activities); Land, Water and (especially) Air Transport; Manufacture of Textiles and Apparel; and Manufacture of capital goods like Machinery and Transport Equipment. Taken as a whole the Wholesale and Retail sector will be moderately affected over this year as the lockdown is beginning to be eased at the present time.

The GVA forecast for 2021 suggests Nottingham's GVA growth (3.3%) will be above that for the UK (2.8%) but below the regional average (4.0%). The number of high risk sectors is expected to fall from 12 in 2020 to 5 in 2021 with GVA associated with this group falling by 27.4%. The number of low risk sectors is forecast to rise from 24 in 2020 to 28 in 2021.

The lockdown will have a major impact on employment with some sectors especially hard hit

It seems very likely that we will see significant variations in the recovery paths of different sectors in the economy at local and national levels. Nottingham City could lose in the order of 15,000 (-9.1%) *private sector* jobs by the end of Q4 2020 which is currently expected to be the trough of the employment effect of the pandemic. The biggest impacts on jobs in Nottingham are expected to be in customer-focused service sectors such as Wholesale and Retail (-3,500) and Accommodation and Food services (-2,850).

Potentially 16% (33,000) of all Nottingham jobs are at high risk of being affected by pandemic containment measures over the medium term - these are occupations that are non-essential and non-teleworkable (ie unsuited to homeworking) at the same time. While many of these jobs are at risk of redundancy others may be affected fewer hours, changes to employment contracts and lower pay.

The concentration of at-risk jobs is generally in lower-paid and lower skilled occupations

The occupational groups with the largest numbers of at risk jobs are Skilled Trades (8,900); Elementary (8,900); and Process, Plant and Machine Operatives (2,600). Two other lower skilled occupational groups (Caring, Leisure and Other Service; and Sales and Customer Service) account for 2,100 jobs. A sizeable number of these jobs are relatively low paid and lower skilled (NVQ2 or below).

The recession will have medium to long term impacts on unemployment and worklessness

The latest official unemployment figures for June 2020 show a small monthly increase of 130 people claiming unemployment benefits, giving a total of 18,900 (8.2%).

Most commentators expect a significant increase in the number of people out of work over the latter part of 2020 on the assumption that we will see a steady increase as the furlough schemes reduce in generosity and wind down completely.

The estimated unemployment rate for Nottingham at the end of Q2 2020 is 17.0%. A 'spike' in the virus in the winter months would of course have negative implications for employment and unemployment numbers and rates.

There were 68,700 economically inactive people living in Nottingham in March 2020. Students are by far the largest group (48.2%). Overseas student numbers are expected to fall in the coming year and perhaps longer which would reverse the trend of two decades or more. The number of domestic student numbers is more difficult to gauge (although there are signs that it is relatively strong); so too is the overall impact of the pandemic on overall economic inactivity.

The most vulnerable workers are amongst the most at risk

Workers who are from a BAME background, women, young workers, older (over 50's) workers, lower paid workers and disabled workers, have been most negatively economically impacted by the coronavirus outbreak to date and are most likely to be so in the coming months and years. People with mental health challenges may also be at risk. The latest ONS employment data indicates that the groups of people most affected are younger workers aged under 25, older workers over 50 and those in more routine or less skilled jobs.

The strategic emphasis is moving swiftly from containment to recovery and renewal

Even when the short-term economic shock does eventually dissipate, there is a great deal of uncertainty as to whether this crisis will have caused lasting damage to the economy through 'scarring' which will have consequences for the economy's longer-term prospects.

Covid-19 (especially when combined with Brexit, climate change and other strategic drivers) will present long-term economic challenges of a kind never witnessed in modern times. But the economy will recover, the labour market will improve and prospects will brighten eventually. It is important to emphasise that the long-term challenges faced by Nottingham have not gone away, especially in relation to the need to close the productivity gap and so raise living standards. What we do to address them may need to change as the long term impacts of the pandemic becomes clearer.

Looking ahead, the strategic emphasis is shifting from containment to recovery with key economic development priorities being to reactivate, regenerate and renew the City's economy. Nottingham City Council has been developing an Economic Recovery and Renewal Plan in collaboration with the Nottingham Growth Board - a partnership of some of Nottingham's key public and private sector organisations.

We are setting out to reimagine the City (from its centre through to the wider sub-region) and reshape the local economy, creatively building an inclusive, green, digital future. This is underpinned by the ambition to become:

- An internationally renowned city of culture, creativity and innovation.
- The UK's first Carbon Zero City.
- A City which offers opportunities for everyone.

This report concludes with several ideas and proposals in support of these ambitions and which reflect the particular challenges identified in this report.

Extended Summary

The overall economic impact will be severe and unprecedented in peace time

The available evidence strongly indicates that we are in the midst of a large negative shock to Nottingham's local economy and labour market. We are, of course, not in a unique situation.

The Coronavirus pandemic and the public health measures adopted in response is impacting the national, regional and local economy in three important ways: disruption to the supply of goods and services; demand shocks; and increased uncertainty. These three effects have combined to lower productivity and hours of work of those in employment; lower economic activity due to establishments being locked down; lower desired consumer spending; a collapse in business investment; lower demand and supply from other countries fighting Covid-19; and lower demand for risky assets due to lower confidence and less risk appetite. Combined, these effects present potentially very significant and detrimental effects on future productivity and competitiveness.

Businesses of all sizes are already experiencing real challenges to their viability and growth

Specific impacts of the pandemic on business performance include falling sales and bookings and cash flow pressures in particular; while around one-third of D2N2-based businesses also cite concerns over staff isolation and reduced opportunities to visit and interact with clients/ customers face to face.

Growth in the local economy has not stalled, it's gone into reverse

The recession brought on by the coronavirus pandemic has led to the biggest fall in quarterly GDP on record. GDP fell by 20.4% in the three months to June 2020, following a fall of 18.7% in the three months to May, as Government restrictions on movement dramatically reduced economic activity. Nottingham's GVA is expected to fall significantly in 2020 as a whole (-5.7%) which is actually below that forecast for the East Midlands (-7.8%) and the UK (-7.2%).

It seems very likely that we will see significant variations in the recovery paths of different sectors in the economy. City sectors which are being most affected are Tourism and Hospitality (Accommodation, Food and Beverage Services); Creative Industries (Creative Arts and Entertainment; Film and TV Production); Leisure Services (eg Sports and Recreational activities); Land, Water and (especially) Air Transport; Manufacture of Textiles and Apparel; and Manufacture of capital goods like Machinery and Transport Equipment. The effect on the Wholesale and Retail sector has been moderate because it has been partially offset by an increase in essential retail activity.

The least impacted sectors (which are expected to see output fall by less than 10%) account for 62.9% of total GVA in Nottingham which is below the UK (64.6%) but above the regional (57.2%) average. The City has a relatively high concentration (29.1%) of sectors which are expected to be moderately impacted (and expect to see a fall in output of between 10% and 20%).

The GVA forecast for 2021 suggests Nottingham's GVA growth (3.3%) will be above that for the UK (2.8%) but below the regional average (4.0%). The number of high risk sectors is expected to fall from 12 in 2020 to 5 in 2021 with GVA associated with this group falling by 27.4%. The number of low risk sectors is forecast to rise from 24 in 2020 to 28 in 2021.

The lockdown will have a major impact on employment with some sectors especially hard hit

The knock-on consequences of the lockdown are anticipated to result in significant job losses down the road - especially later this year and perhaps well into 2021. Our projections suggest that Nottingham City could lose in the order of 15,000 (-9.1%) *private sector* jobs by the end of Q4 2020 which is currently expected to be the trough of the employment effect of the pandemic. This compares with a fall of -9.6% for Great Britain.

The biggest impacts on jobs in Nottingham are expected to be in customer-focused service sectors such as Wholesale and Retail (-3,500) and Accommodation and Food services (-2,850). Other sectors not immediately impacted by the lockdown but which may nonetheless face significant job losses (of over 1,000 in each case) are forecast to be Human Health (perhaps surprisingly); Professional, Scientific and Technical Services; Other Services and Office Administration and Support Services. The impact on Manufacturing employment is forecast to be almost 900 jobs.

The concentration of at-risk jobs is generally in lower-paid and lower skilled occupations

Around 16% (33,000) of *all* Nottingham jobs are at high risk of being affected by pandemic containment measures over the medium term - these are occupations that are non-essential and non-teleworkable (ie unsuited to homeworking) at the same time. While many of these jobs are at risk of redundancy others may be affected fewer hours, changes to employment contracts and lower pay. Although substantial in number, this actually the lowest percentage of all seventeen local authorities in the D2N2 sub-region (the highest is Derbyshire Dales at 25%; Derby 19%). This in part reflects the City's relatively diverse sectoral and occupational structure.

Occupational groups with the largest numbers of at risk jobs are Skilled Trades (8,900); Elementary (8,900); and Process, Plant and Machine Operatives (2,600). Two other lower skilled occupational groups (Caring, Leisure and Other Service; and Sales and Customer Service) account for 2,100 jobs.

A sizeable number of these jobs are relatively low paid and lower skilled (NVQ2 or below). At risk jobs with a median wage below £20,000 account for 13,700 (41.5%) of all Covid-19 at risk jobs. Workers in atypical forms of work (eg zero-hour contracts, temporary contracts, more than one paid job, working for an agency) are more likely to have lost work or been furloughed due to the crisis.

The recession will have medium to long term impacts on unemployment and worklessness

48,000 people in Nottingham were furloughed from work in June 2020; this is 20.7% of the City's working age population which is lower than both regional (21.9%) and England (21.6%) average. Nottingham's rate is likely to be artificially lowered by the high proportion of students in the City who are unlikely to be affected by these schemes.

The total number of people who are either unemployed or looking for work or furloughed from their current job is estimated to be 66,000 which is 28.9% of the City's working age population. We expect the size of both groups to increase in the coming months with the likelihood that significant numbers of people coming off furloughed schemes will register as unemployed although, overall, the majority are will resume work with their employer, at least in the short term.

The latest official unemployment figures for June 2020 show a small increase of 130 people claiming unemployment benefits in June, giving a total of 18,900 (8.2%). A recent estimate for Nottingham's unemployment rate at the end of Q2 2020 puts this at 17.0% making it by far the highest of any local authority area within Nottinghamshire or Derbyshire. That rate would involve an increase of 30,700 to give a total of 41,700 unemployed people. Beyond Q2 we expect there to be a steady and significant increase (with potential spikes) in the number of people out of work as furlough schemes are wound down which is scheduled to be in October 2020.

There were 68,700 economically inactive people living in Nottingham in March 2020. Students are by far the largest group (48.2%). Overseas student numbers are expected to fall in the coming year and perhaps longer which would reverse the trend of two decades or more. The future number of domestic student numbers is more difficult to gauge although both universities report that domestic applications have been relatively strong.

The most vulnerable workers are amongst the most at risk

Workers in the sectors and occupations most affected by the pandemic are more likely than average to have been at a disadvantage in the labour market before the outbreak. The risks are highly skewed, with people and places with the lowest incomes most vulnerable to job loss and falling incomes.

Workers who are from a BAME (Black, Asian, Ethnic Minority) background, women, young workers, older (over 50's) workers, lower paid workers and disabled workers, have been most negatively economically impacted by the coronavirus outbreak to date and are most likely to be so in the coming months and years. The latest ONS employment data indicates that the groups of people most affected are younger workers aged under 25, older workers over 50 and those in more routine or less skilled jobs. Those young people and adults who leave education (school, sixth form, college or university) can face lifelong penalties because the likelihood of finding and keeping a job declines and there is also an adverse effect on how much they can earn and save.

The outlook is uncertain and challenging, but not completely bleak

The economic and social experience of the past three months has been unprecedented in peace time. The outlook for the economy is profoundly different than it was in the New Year. Looking ahead, economic activity will recover as lockdown restrictions are lifted, but the speeds and patterns are highly uncertain and will vary be sector and locality, including across the City's neighbourhoods as well as the conurbation as a whole. The most significant near-term challenges are likely to come now that the lockdown is being eased and the Government's supportive measures are subject to a phased withdrawal.

Even when the short-term economic shock does eventually dissipate, there is a great deal of uncertainty as to whether this crisis will have caused lasting damage to the economy through scarring which will have consequences for the economy's longer-term prospects. Over the long term, higher investment levels, new forms of innovation, a stronger education and skills base and improved adoption of existing technologies can all help Nottingham to close the productivity gap with some other core cities and other leading City-based economies abroad. Unfortunately, Covid-19 (especially when combined with Brexit, climate change and other strategic drivers) may well present long-term economic challenges of a kind never witnessed in modern times.

The strategic emphasis is shifting quickly from containment to recovery and renewal

A major challenge for Nottingham City Council has been to mitigate the impact of COVID-19 on our local economy and labour market, so that businesses can once again thrive and provide employment opportunities and vibrancy to all local communities and citizens. For Nottingham City Council and our partners, the short-term priorities and actions have rightly been focused on avoiding permanent job losses and minimizing failures among otherwise viable businesses.

The strategic emphasis is now shifting from containment to recovery with key economic development priorities being to reactivate, regenerate and renew the City's economy. Nottingham City Council has been developing an Economic Recovery and Renewal Plan in collaboration with the Nottingham Growth Board. We are setting out to reimagine the City (from its centre through to the wider sub-region) and reshape the local economy, creatively building an inclusive, green, digital future. This is underpinned by the ambition to become:

- An internationally renowned city of culture, creativity and innovation.
- The UK's first Carbon Zero City.
- A City which offers opportunities for everyone.

This report concludes with several ideas and proposals in support of these ambitions and which reflect the particular challenges identified in this report.

1. Introduction

Covid-19 (coronavirus) - especially when combined with Brexit, climate change and other strategic drivers) - will present long-term economic challenges of a kind never witnessed in modern times.

This research paper investigates economic impacts of the Covid-19 pandemic on the local economy of Nottingham City with particular reference to three main economic variables: economic output; employment and skills; and unemployment and economic inactivity.

Much of the analysis has been derived from research conducted by D2N2's Economic Recovery Analytical Group, of which I am a member. I have added additional data and analysis in order to focus specifically on Nottingham.

It's worth bearing in mind that:

- Forecasts about the economic impact of the pandemic (especially at a local level) are clearly speculative given the uniqueness of the situation we face and uncertainty about future developments in the pandemic itself as well as in the economy and labour market.
- The analysis is based on the latest available data but at a local level this has sometimes had to be derived from national statistics and so estimates should be treated with some caution.
- This is a fast-moving crisis, so please be aware that some information may have changed since the date of publication.

Many thanks to my colleague Geoff Oxendale, to members of the D2N2 Analytical Group and to Yael Selfin, Chief Economist, KPMG in the UK.

Clive La Court

Economic Research and Evaluation Officer, Economic Development Team, Nottingham City Council

Member of D2N2 Economic Recovery Analytical Group

clive.lacourt@nottinghamcitycouncil.gov.uk

2. Overall Economic Impact[1]

In response to the coronavirus pandemic, public health restrictions and social distancing measures were put in place in the UK, leading to a widespread disruption to economic activity. These measures have impacted upon the spending behaviours of consumers as well as how businesses and their employees operate. It has also affected the provision of services provided by Government, including Health and Education.

ONS data released on 30th June[2] provides insight into recent economic trends at a macro-economy level; looking back at Q1 of 2020 it reveals that:

- The Services, Production and Construction sectors provided a negative contribution to growth in economic output with Services output falling by a record 2.3% in the latest quarter.
- Household consumption declined by 2.9%; this is now the largest decline in household consumption since Q3 1979.
- The households saving ratio increased to 8.6% compared with 6.6% in Q4 2019.

The Coronavirus pandemic and the public health measures adopted in response is impacting the national, regional and local economy in three important ways: supply shocks; demand shocks; and uncertainty[3].

Supply Shocks

There are three key ways the coronavirus outbreak and the public health measures taken to respond to it are affecting the capacity of the economy:

- Supply chain disruption - the globalised and complex nature of some businesses' supply chains means that it has been difficult for some of them to source the parts or inventories they need.
- Workers being off sick - a number of workers have needed to take time off work, or have been advised to, if they or their family members show symptoms of Covid-19. This limits the amount of work businesses are able to conduct.
- Closing schools - the enforced closure of schools for most pupils means that many parents have been faced with additional childcare responsibilities and costs.

Demand Shocks

The coronavirus outbreak is also affecting the demand for goods and services in the economy. Many businesses are seeing a big decline in revenues, but still have fixed costs such as rents and staff wages. Even if the disruption is temporary and demand will rapidly return once the outbreak is over (something looking increasingly unlikely), firms still face severe cash flow issues. Some businesses may have a sufficiently large amount of cash reserves to make these payments, or the ability to borrow what is necessary. While others will not. This means some companies risk going out of business and others will lay off staff. A rise in unemployment and the associated fall in incomes will further reduce consumer demand in the economy.

[1] Coronovirus: Effect on the economy and public finances. Harari, Keep and Brien. Briefing Paper. House of Commons. June 2020

[2] GDP quarterly national accounts, UK: January - March 2020. ONS. June 2020

[3] The pandemic is also having a major impact on the financial standing of local authorities as set out in this recent report: The financial risk and resilience of English local authorities in the coronavirus crisis. Institute for Fiscal Studies. June 2020

Mounting Uncertainty

Businesses are grappling with two types of uncertainty. In the short-term they need to cope without knowing how long and how far the restrictions imposed to contain the pandemic will be in place. This makes it hard to count on established supply chains and to anticipate customers' demand. Added to that, most businesses recognise that the crisis is likely to unleash longer-lasting changes and some will be reluctant to invest until the future direction becomes clearer. Uncertainty around Brexit is also increasingly weighing on businesses' minds. The combination of all these factors, together with the need of many businesses to conserve cash while revenues are low, could see investment falling during 2020 and recovering only marginally as it grows next year.

There is a huge amount of uncertainty over how long this crisis may last. From an economic perspective, will the damage already done be temporary, leading to a full recovery maybe later in 2020 or early in 2021? How and when will investment recover? Will there be permanent damage ('scarring') to the economy and labour market? These are all presently unknowns.

We don't yet know how social distancing will impact on the viability of previous business models. It may be that increased unit costs in consequence of social distancing (resulting in lower throughput) will make some business models not viable. If social distancing must be maintained over the long term, it could have major productivity consequences.

The uncertainty in and of itself is affecting consumer, business and investor confidence and behaviour. Consumers will likely be more cautious in their spending, perhaps holding off on making larger discretionary purchases. Businesses will cut back on, or at least postpone, their plans for investment. Investors are already reassessing risk in a more cautious way.

Combined Effects

The combination of these three sets of factors (supply and demand shocks and uncertainty) make this an unprecedented economic shock in modern times. In addition, this is a shock common to the entire world economy, exacerbating its impact.

These combined effects are affecting the economy in several important ways[4], notably:

- Lower productivity and hours of work of those in employment. This supply-side effect comes about as people reduce their working hours as they become ill, self-isolate or care for their children who are unable to attend school.
- Lower economic activity due to establishments being locked down. This applies particularly to pubs, restaurants, non-essential retail, sports facilities, tourist attractions and theatres that have not been allowed to trade normally in recent months (although relaxations are imminent). It applies to some extent to schools, universities and places of worship, for example, where buildings are closed but some activity is continuing offsite. It also applies to other areas, such as construction and manufacturing establishments where it is not possible to practise social distancing. This is both a shock to supply and effective demand that has repercussions throughout supply chains as alluded to earlier.
- Lower desired consumer spending. This demand-side effect comes about because of heightened uncertainty as households aim to build precautionary saving balances and businesses defer investment until there is greater clarity about the course of the virus and its effects.
- Lower demand and supply from other countries affected by Covid-19. This includes the effect on the supply of essential parts to UK producers from lower production in other countries. It also includes the effects of less tourism visits and spend into the UK.

[4] Prospects for the UK Economy. Lenoel and Young. National Institute Economic Review. May 2020.

- A collapse in business investment with potentially significant detrimental effects on future productivity and competitiveness
- Lower demand for risky assets due to lower confidence and less risk appetite. This affects the cost of capital to businesses through lower asset prices and higher corporate bond spreads. It also reduces the willingness of banks to lend without loan guarantee schemes.

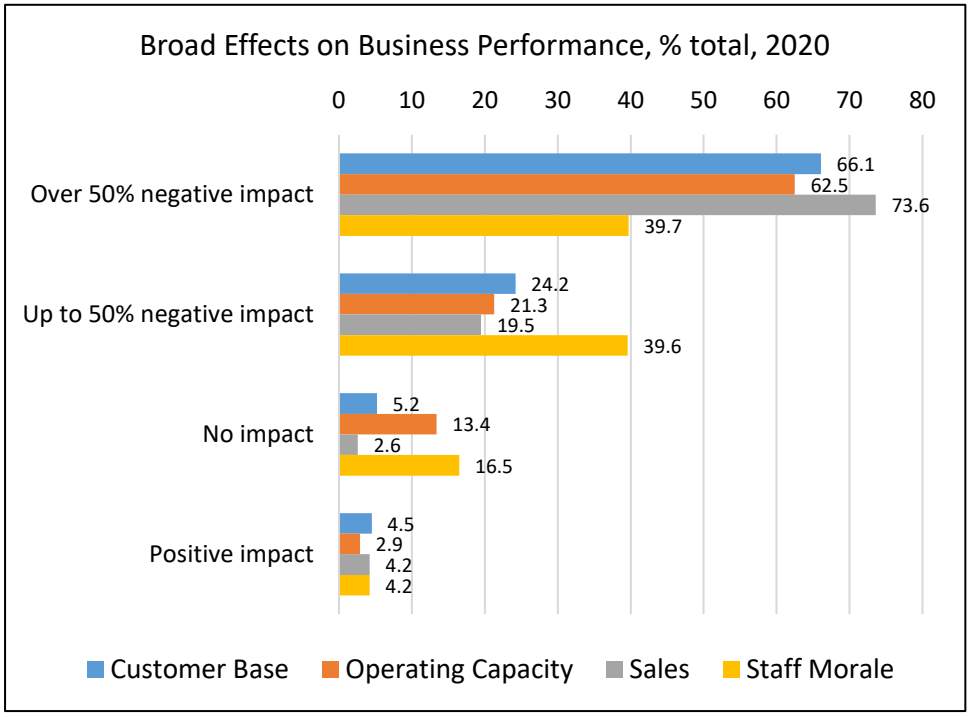
These different direct channels are likely to interact and to some extent counteract each other in ways that need to be taken into account in working out their overall effect.

We should expect that the negative shock to the economy from the pandemic will be alleviated somewhat by the response from the Government and the Bank of England that involves a significant increase in public spending and further loosening of monetary policy. The same is true at a local level where local authorities, universities, D2N2, the Chamber of Commerce and other agencies and institutions are all playing a part in helping businesses and individual to respond to and recovery from the negative impacts of the pandemic.

3. Impact on Business Performance

The latest D2N2 Growth Hub Covid-19 Business Survey[5] reports on the effects Covid-19 is having on the business community. As Figure 1 shows these effects are broadly very negative, particularly in terms of falling sales, shrinking customer base and reduced operating capacity. Staff morale is also a concern for some businesses although only around 40%.

Figure 1 - Broad Effects of Covid-19 on Business Performance

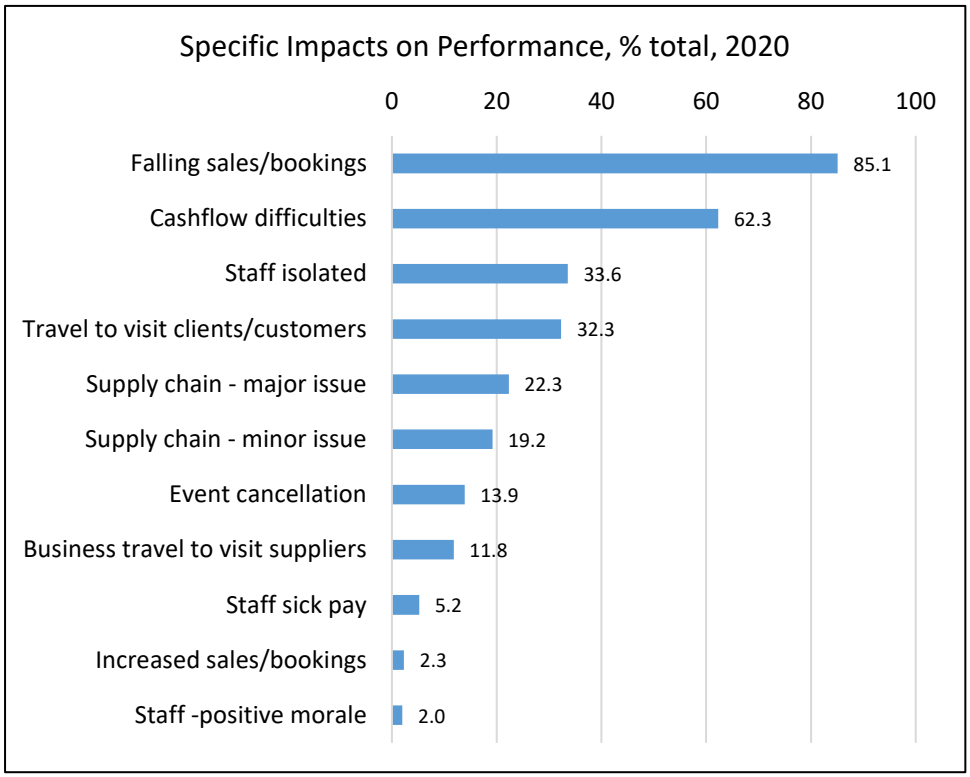


Source: D2N2. Nottingham City Council

More specific impacts on business performance include falling sales and bookings (85.1%) and cash flow pressures (62.3%) with around one-third of firms also citing concerns over staff isolation and reduced opportunities to visit and interact with clients/ customers face to face (Figure 2).

[5] This quarterly survey relates to April-July 2020 and is based on 687 responses across Derbyshire and Nottinghamshire. This is a very small sample which increases the possibility that the findings are skewed towards businesses most affected by the lockdown.

Figure 2 - Specific Impacts on Business Performance and Activity



Source: D2N2. Nottingham City Council

4. Impact on Economic Output

UK Context

The recession brought on by the coronavirus pandemic has led to the biggest fall in quarterly GDP on record. GDP fell by 20.4% in the three months to June 2020, following a fall of 18.7% in the three months to May, as Government restrictions on movement dramatically reduced economic activity.

All the headline sectors provided a negative contribution to GDP growth in the three months to June 2020. The services sector fell by 19.9%, production by 16.9% and construction by 35.0%. The impacts of the coronavirus (COVID-19) continued to be seen right across the economy, with nearly all sub-sectors falling in the three months to June.

The economy began to bounce back in June with shops reopening, factories beginning to ramp up production and housebuilding continuing to recover. Despite this, GDP in June still remains a sixth below its level in February, before the virus struck.

Nottingham's Local Economy[6]

At a sub-regional level we measure the value of economic output in terms of Gross Value Added (GVA £); changes in GVA over time provide us with a reliable measure of economic growth[7]. We can usefully distinguish between the likely short-term shock associated with lockdown in April 2020 and the following two months (Q2 of 2020) and the medium-term outlook up to 2021.

Short-term Outlook (Quarter 2: April to June 2020)

GVA in Nottingham is estimated to be £10,800 million (£10.8 billion) in Q1 2020. The (OBR/CPP) projections of the impact of Covid-19 on the City's economic output in Q2 2020 therefore imply a decline in the order of £3,402 million (£3.4 billion). This would, of course, be unprecedented and we should perhaps take this to be a worst case scenario.

As Figure 3 shows, in these circumstances the City's rate of decline in Q2 GVA could be as high as -31.5% but is expected to be below the UK average (-35.1%). The wider Nottinghamshire economy (excluding City) is forecast to decline by -38.7%, Derby by -35.3%, Derbyshire (excluding Derby) by -41.3% and D2N2 (Derbyshire and Nottinghamshire as a whole) by -37.5%.

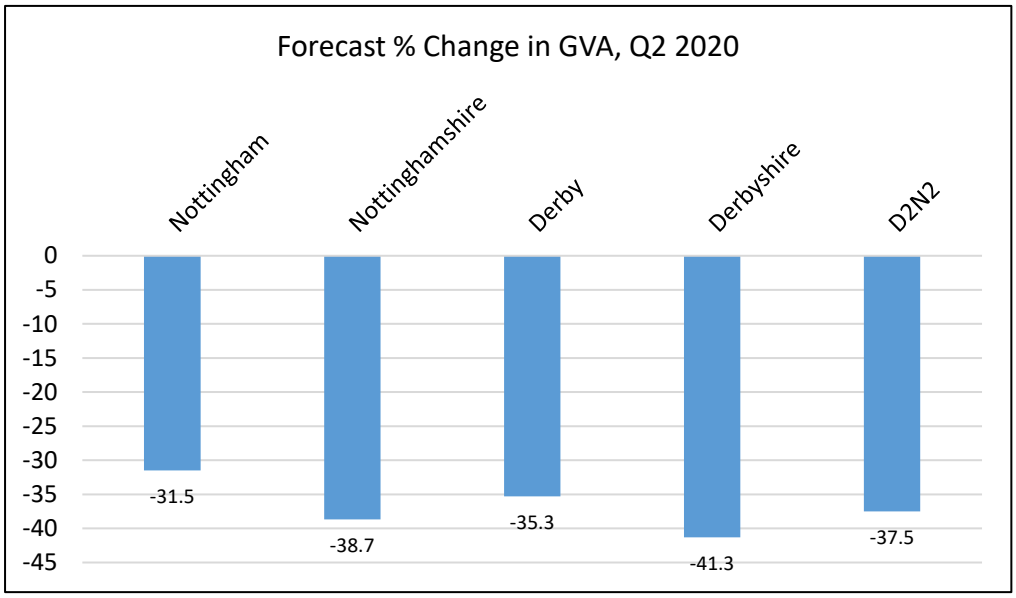
Of all fifteen District and Borough local authority areas across Derbyshire and Nottinghamshire Nottingham City is forecast to have the lowest relative decline in overall GVA.

Nottingham's GVA may not fall in relative terms as quickly, at least in the short term, as these other areas within the sub-region because the City has a relatively broad economic base which is also relatively less exposed to the most 'at risk' sectors from the pandemic.

[6] Covid-19 Employment and Output Risks - analysis of local employment, output and business risk exposure to lockdown. Konstantinos Karagounis (Nottingham Trent University), Paul Mizen (University of Nottingham) and Will Rossiter (Nottingham Trent University). June 2020.

[7] Using methodology developed by the Office for Budget Responsibility (OBR) and the Centre for Progressive Policy (CPP) we can provide projected GVA changes (losses) for local authorities. The data relates to forecast changes in Q2 (July - September) 2020.

Figure 3 - Forecast Percentage Change in GVA, Q2 (April - June) 2020



Source: OBR. CPP

Nottingham's Relative Exposure to Covid-19 'High Risk' Sectors

Figure 4 shows the near-term forecast GVA losses arising from Covid-19 in real terms for Nottingham City in Q2 2020. The sectors expected to be affected most are Education (-£710 million); Wholesale and Retail (-£650 million); Information and Communication[8] (-£360 million); and Administration and Support Services[9] (-£300 million)[10]. The latter two sectors are highly reliant on, and inter-dependent with, other sectors in the local and wider economy. Health and Social Care is the only major sector expected to grow in value, by £600 million.

Figure 4 - Forecast Impact on GVA by Broad Sector, Nottingham, Q2 2020

	GVA Impact £ million
Agriculture, Mining & Utilities (elec., gas, water & waste)	-80
Manufacturing	-230
Construction	-280
Wholesale & Retail	-650
Transportation & Storage	-80
Accommodation & Food Services	-210
Information & Communications	-360
Finance & Insurance Services	-25
Real Estate	-190
Professional, Scientific & Technical Services	-250
Administration & Support Services	-300
Public Administration & Defence	-115

[8] Includes: Publishing; Film, Video and TV production; Broadcasting; Telecommunications; Computer Programming and Consultancy; and Information Services activities.
[9] Includes: Office Administrative and Other Support; Business Support activities; Public Administration and Defence.
[10] For the D2N2 sub-region as a whole, the majority of projected output losses are concentrated in Manufacturing; Wholesale and Retail; Education; and Construction.

Education	-710
Health & Social Care	640
Arts, Entertainment & Recreation	-110
Other Services	-90
Total	**-3,040**

Source: OBR. CPP

Figure 5 shows the forecast percentage change (over Q2 2020) in GVA by the (primary) sector which contributes the most to local GVA losses and the next (secondary) most influential sector.

In the case of Nottingham, 23.3% of overall GVA loss is forecast in Education[11] (primary) and 21.5% is in Wholesale and Retail (secondary). These two sectors therefore jointly account for 44.8% of overall expected GVA losses.

But, contrast this with Derby where 35.3% of expected GVA decline is in Manufacturing (primary) and 15.9% is in Education (secondary). These two sectors combined therefore account for 51.2% of overall expected GVA losses.

Combined primary and secondary sector GVA losses are therefore projected to be higher in Derby (51.2%) when compared to Nottingham (44.8%).

Nottingham's forecast GVA losses in these combined sectors are below Derbyshire (excluding Derby) as well as for Derby City. As expected, given the City's size, Nottingham's forecast GVA losses in these combined sectors are above those for the rest of the Nottinghamshire. Losses for D2N2 as a whole are 41.8%.

Figure 5 - Projected GVA Changes/losses by Locality and Primary and Secondary Sectors, Q2 2020

	GVA % change/ loss	Primary Sector Affected	% contribution to GVA loss	Secondary Sector Affected	% contribution to GVA losses	Primary and Secondary Sectors: combined contribution
Nottingham City	-31.5%	Education	23.3%	Wholesale & Retail	21.5%	44.8%
Nottinghamshire (excl. City)	-38.7%	Manufacturing	25.0%	Wholesale & Retail	17.2%	42.2%
Derby City	-35.3%	Manufacturing	35.3%	Education	15.9%	51.2%
Derbyshire (excl. City)	-41.3%	Manufacturing	27.8%	Wholesale & Retail	17.3%	45.1%
D2N2	-37.5%	Manufacturing	24.4%	Wholesale & Retail	17.4%	41.8%

Source: OBR. CPP

Medium Term Outlook (to end of 2020/ 2021)

April of 2020 (the first full month of lockdown) is almost certain to be the point of deepest contraction in output. Economic activity is likely to show improvement from May onwards as early signs of business recovery and trading activity might suggest. So what is the medium term outlook to the end of 2020 and of 2021?

Local economies with a narrow concentration of certain industries are most at risk from the pandemic and this is a key factor when assessing relative strengths and vulnerabilities.

[11] Education includes universities, further education colleges and sixth forms.

If we compare the industrial structure of Nottingham and Derby (Appendix A) we can clearly see that in terms of GVA Derby's comparative advantage clearly lies in Manufacturing whereas Nottingham's has a larger Services sector. The two cities are on a par in terms of Construction output.

Looking at Services sub-sectors Nottingham has a larger share of its GVA across most sub-sectors compared to Derby for example, especially Information and Communication Services; Wholesale and (especially) Retail; Public Administration; Financial and Insurance Services; and Education. By contrast, Derby has a relatively larger share of its total GVA in only one Services sub-sector which is Professional, Scientific and Technical Services/Activities when compared to Nottingham.

We can see the relatively broad economic base that Nottingham has in comparison to its near neighbour. The same is true, in fact even more so, when either city (but especially Nottingham) is compared with other local authority areas across the two counties (Derbyshire and Nottinghamshire) with most of these being either sub-urban or rural in character.

In terms of Covid-19 impacts:

- Areas with a high concentration of Public sector employment (like Nottingham) could, in principle, better weather the pandemic. This may have been the case to date perhaps but it is unlikely to remain so going forward given the imminent severe cutbacks in local Government spending and employment which authorities like ours are facing.
- Pharmaceuticals and Food Manufacturing are likely to be amongst the least impacted sectors.
- Nottingham's reliance on its Visitor economy (and possibly also the Retail sector) may be a source of vulnerability.
- Parts of the sub-region, like Derby (and to a lesser extent Ashfield), where there is a high concentration of Automotive and Other Transport Manufacturing industries, are likely to be highly exposed to the economic fallout of the pandemic.

KPMG forecasts (Figure 6) suggest that Nottingham's economic output will fall by -5.7% in 2020 but resume growth the following year to 3.3%. Nottingham's forecast growth rate is the slowest of the 17 local authorities which comprise the D2N2 sub-region. It is also well below the 4.0% growth for the region although above the forecast growth in GDP for the UK 2.8%.

Figure 6 - Gross Value Added, Local Authority Forecasts for 2020 and 2021

Local Authority	GVA £m (2018)	2019 % change	2020 % change	2021 % change
Nottingham	**11,300**	**1.7**	**-5.7**	**3.3**
Ashfield	2,700	1.0	-7.5	4.2
Bassetlaw	2,600	1.3	-6.8	3.8
Broxtowe	2,000	1.4	-6.7	3.7
Gedling	1,600	1.1	-9.2	4.5
Mansfield	1,900	1.6	-9.3	4.2
Newark and Sherwood	2,500	1.0	-8.6	4.3
Rushcliffe	2,200	2.2	-6.8	4.2
Derby	7,200	0.2	-11.4	4.8
Amber Valley	2,700	1.1	-7.9	4.1
Bolsover	1,400	1.0	-8.8	4.9
Chesterfield	2,500	1.1	-9.4	4.3
Derbyshire Dales	1,800	1.2	-8.2	3.7
Erewash	2,000	1.1	-9.4	4.9
High Peak	1,700	0.9	-9.1	4.3
North East Derbyshire	1,500	1.1	-7.6	4.4

South Derbyshire	1,700	0.5	-11.8	5.0
Leicester	8,200	1.6	-6.4	3.6
East Midlands	109,000	1.3	-7.8	4.0

Source: KPMG (UK Economic Outlook, June 2020)

KPMG have undertaken an analysis of Covid-19 GVA risk affecting impacted sectors which are classified as either severe, moderate or low:

- The most severely impacted sectors are defined as those that should see output fall by over 20% this year.
- Sectors which are expected to be moderately impacted expect to see a fall in output of between 10% and 20%.
- The least impacted sectors are expected to see output fall by less than 10%.

Figure 7 shows forecast GVA growth for 2020 and the spread of sectors across the three risk bands for Nottingham forecast for 2020 and also for 2021.

Figure 7 - GVA Forecasts and Sectoral Concentration, 2020 and 2021

2020	Forecast % GVA Growth, 2020	Impacted Sectors		
		Severe	Moderate	Low
Nottingham	-5.7%	8.0%	29.1%	62.9%
East Midlands	-7.8%	16.4%	26.4%	57.2%
United Kingdom	-7.2%	14.2%	21.2%	64.6%

2021	Forecast % GVA Growth, 2021	Impacted Sectors		
		Severe	Moderate	Low
Nottingham	3.3%	5.8%	11.7%	82.5%
East Midlands	4.0%	7.1%	11.7%	81.2%
United Kingdom	2.8%	7.6%	12.0%	80.4%

Source: KPMG. Nottingham City Council

Forecast for 2020

Over 2020, Nottingham GVA is expected to fall significantly (-5.7%) but lower compared with the East Midlands (-7.8%) and the UK (-7.2%). Our analysis (Figure 8) suggests:

- The City has a lower concentration of the most severely impacted sectors (8.0%) when compared to the region (16.4%) and to the UK (14.2%). In the City, 12 High Impact sectors collectively account for £804 million of GVA (8.0% of the total). Sectors with a significant GVA value which are at high risk are Food and Beverage Services (£192m); Land, Water and Air Transport (£150m); Publishing, Film and TV Production (£90m); Other Personal Services (£90m); and Sports and Recreation, Gambling (£81m). So, the City's Tourism, Hospitality and Creative Industries are being especially hard hit, as one might expect.
- The City has a relatively high concentration (29.1%) of sectors which are expected to be moderately impacted. Six Moderately impacted sectors account for £2,917m (29.1%) with Wholesale and Retail Trade (£1,334) being by far the largest.

- The least impacted sectors account for 62.9% of total GVA in Nottingham which is below the UK (64.6%) but above the regional (57.2%) average. In the City, there are 24 Essential/ Low Impacted Sectors account for £6,314 million (62.9%) of total GVA. Sectors with a significant GVA value which are at relatively low risk are Human Health (£1,034m); Real Estate (£986m); and Telecommunications and IT (£795m).

Figure 8 - Sectoral Concentration by Risk Banding, Nottingham City in 2020[12]

High Impact	GVA £m	% Total
Agriculture, Forestry & Fishing; Mining & Quarrying	0	
Manu. Textiles, Apparel & Leather Products	31	
Manufacture of machinery and transport equipment	24	
Land, Water & Air Transport	150	
Accommodation	62	
Food & Beverage Services	192	
Publishing; film and TV production and broadcasting	90	
Services to Buildings & Landscape Activities	37	
Creative, arts, entertainment and cultural activities	33	
Sports and recreation activities; Gambling and betting	81	
Other Personal Services	90	
Domestic Personnel - Households	14	
High Impact	**804**	**8.0%**

Low Impact	GVA £m	% Total
Manufacture of Food Products, Beverages & Tobacco	74	
Manufacture of petroleum, chemicals and other minerals	28	
Basic Metals & Metal Products	6	
Manufacture of electronic, optical and electrical products	53	
Other Manufacturing & Repair	131	
Electricity, gas, water; sewerage and waste management	553	
Construction & Civil Engineering	408	
Warehousing & Support Activities for Transportation	30	
Postal & Courier Activities	53	
Telecommunications & IT	795	
Financial Services except Insurance & Pensions	97	
Insurance, pension funding and auxiliary financial activities	390	
Real Estate	986	
Legal & Accounting Services	284	
Activities of Head Offices & Management Consultancy	67	
Architectural & Engineering Activities	93	
Vetenary Activities	12	
Renting & Leasing Activities	58	
Office Admin., Office Support & Other Business Support	193	
Public Admin., Defence & Social Security	603	
Human Health	1,034	

[12] The GVA data shown is the latest available and relates to 2018 (ONS).

Residential Care & Social Work	315	
Activities of Membership Organisations	47	
Repair of Computers & Personal Household Goods	4	
Low Impact	**6,314**	**62.9%**

Moderate Impact	**GVA £m**	**% Total**
Manu. of Wood & Paper Products	56	
Wholesale & Retail Trade incl. Repair of Vehicles	1,334	
Research and development; advertising and market research	155	
Other Professional, Scientific & Technical	26	
Employment activities; tourism and security services	518	
Education	828	
Moderate Impact	**2,917**	**29.1%**

TOTAL GVA £m	**10,035**	**100%**

Source: KPMG. ONS. Nottingham City Council

Forecast for 2021

The GVA forecast for 2021 suggests Nottingham's GVA growth (3.3%) will be above that for the UK (2.8%) but below the regional average (4.0%). As Figure 9 shows:

- The number of high risk sectors is expected to fall from 12 in 2020 to 5 in 2021 with GVA associated with this group falling by 27.4% or 2.2 percentage points (-£220 million). Sectors with a significant GVA value which are at high risk are Food and Beverage Services (£192m) and Land, Water and (especially) Air Transport (£150m). These were also high risk in 2020.
- Moderately impacted sectors account for £1,170m (11.7%) with the number in this group having risen from six to nine over the year.
- Essential/ Low Impacted Sectors account for £8,281 million (82.5%) of total GVA. The number of low risk sectors is forecast to rise from 24 in 2020 to 28 in 2021 with GVA for this group increasing by 31.1% or 19.6 percentage points (£1,967 million). The Wholesale and Retail sector is expected to be moderately exposed over this year as lockdown measures are now starting to be eased. Low Risk Sectors with a significant GVA value now includes Wholesale and Retail (£1,334 million) which was previously classified as being moderate risk. Other sectors in this category include Human Health (£1,034m); Real Estate (£986m); and Telecommunications & IT (£795m).

Figure 9 - Sectoral Concentration by Risk Banding, Nottingham City in 2021

High Impact	**GVA £m**	**% Total**
Land, Water & Air Transport	150	
Accommodation	62	
Food & Beverage Services	192	
Publishing; film and TV production and broadcasting	90	
Other Personal Services	90	
High Impact	**584**	**5.8%**

Low Impact	GVA £m	% Total
Manufacture of Food Products, Beverages & Tobacco	74	
Manufacture of petroleum, chemicals and other minerals	28	
Basic Metals & Metal Products	6	
Manufacture of electronic, optical and electrical products	53	
Other Manufacturing & Repair	131	
Electricity, gas, water; sewerage and waste management	553	
Construction & Civil Engineering	408	
Wholesale & Retail Trade incl. Repair of Vehicles	1,334	
Warehousing & Support Activities for Transportation	30	
Postal & Courier Activities	53	
Telecommunications & IT	795	
Financial Services except Insurance & Pensions	97	
Real Estate	986	
Legal & Accounting Services	284	
Activities of Head Offices & Management Consultancy	67	
Architectural & Engineering Activities	93	
Research and development; advertising and market research	155	
Other Professional, Scientific & Technical	26	
Vetenary Activities	12	
Renting & Leasing Activities	58	
Office Admin., Office Support & Other Business Support	193	
Public Admin., Defence & Social Security	603	
Education	828	
Human Health	1,034	
Residential Care & Social Work	315	
Activities of Membership Organisations	47	
Repair of Computers & Personal Household Goods	4	
Domestic Personnel - Households	14	
Low Impact	**8,281**	**82.5%**

Moderate Impact	GVA £m	% Total
Agriculture, Forestry & Fishing; Mining & Quarrying	0	
Manu. Textiles, Apparel & Leather Products	31	
Manu. of Wood & Paper Products	56	
Manufacture of machinery and transport equipment	24	
Insurance, pension funding and auxiliary financial activities	390	
Services to Buildings & Landscape Activities	37	
Creative, arts, entertainment and cultural activities	33	
Sports and recreation activities; Gambling and betting;	81	
Employment activities; tourism and security services	518	
Moderate Impact	**1,170**	**11.7%**

TOTAL GVA £m	**10,035**	**100%**

Source: KPMG. ONS. Nottingham City Council

5. Impact on Employment

UK Context

The latest official UK data[13] for April to June 2020 show 32.9 million people aged 16 years and over in employment, 113,000 more than a year earlier but 220,000 fewer than the previous quarter. The estimated employment rate for all people was 76.4%; this is 0.3 percentage points up on the year but 0.2 percentage points down on the quarter. Looking more closely at the decreases in employment over the quarter by age, those aged 16 to 24 years decreased by 100,000 to 3.7 million, while those aged 65 years and over decreased by a record 161,000 to 1.26 million.

The number of self-employed has shown a sharp fall, which is not reflected in employees data.

Nottingham's Local Economy - Outlook for Jobs

Forecasting the localised effects of the pandemic on employment is problematic given the uniqueness of the situation we are in, huge uncertainty about the future, data limitations and methodological challenges. Nevertheless, we thought it would be helpful to tentatively estimate possible near-term impacts on employment.

A recent paper[14] has based projections on data accessed from the latest (May) Bank of England Decision Makes Panel (DMP) survey[15] reveals that businesses expected their sales in Q2 2020 to be 42% lower than they would otherwise have been, employment to be 6% lower and investment to be 43% lower. The Q2 sales and investment impacts were similar to the April survey, but the employment impact was materially smaller than the 18% expected in April, probably reflecting the extension of the furlough scheme. Employment is of course a lagging indicator compared to other measures such as investment and sales. Only private sector employees are included in the DMP data. Public sector employees and the self-employed are therefore not included in the analysis. Using this methodology we can estimate the possible employment effects of Covid-19 for Nottingham City (and other spatial areas) by Q4 2020 (ie end of March 2021)[16]. These are shown in Figure 10.

Figure 10 - Forecast Change in Private Sector Employment by Q4 2020

	Est. no. of Employees (2018)[17]	Forecast no. of Employees (2020 Q4)	Numeric Change in no. of Employees (by 2020 Q4)	% Change in no. of Employees (by 2020 Q4)
Nottingham City	163,000	148,100	-14,900	-9.1%
Nottinghamshire (excl. City)	266,000	240,500	-25,500	-9.6%
Derby City	120,500	109,200	-11,300	-9.4%
Derbyshire (excl. City)	258,000	232,500	-25,500	-9.9%
D2N2	805,500	728,400	-77,100	-9.6%
Great Britain	24,317,000	23,416,000	-901,000	-9.5%

Source: DMP. Bank of England. BRES

[13] Labour Market Overview, UK. ONS. August 2020

[14] Covid-19 Employment and Output Risks - analysis of local employment, output and business risk exposure to lockdown. Konstantinos Karagounis (Nottingham Trent University), Paul Mizen (University of Nottingham) and Will Rossiter (Nottingham Trent University). June 2020.

[15] One way in which the Bank of England monitor developments in the economy and track business activity is via a monthly Decision Makers Panel which is a survey of Chief Financial Officers for small, medium and large businesses. The analysis of employment effects is based on data provided by the May 2020 DMP Survey.

[16] It is worth emphasising that this is best seen as a scenario-based projection based on the DMP data.

The projections suggest that Nottingham City could lose in the order of private sector 15,000 (-9.1%) jobs by the end of Q4 2020 which is currently expected to be the trough of the employment effect of the pandemic. This compares with a fall of 11,300 (-9.4%) for Derby City. The estimated rate of decline in employees for D2N2 as a whole (-9.6%) is on a par with that forecast for Great Britain (-9.5%).

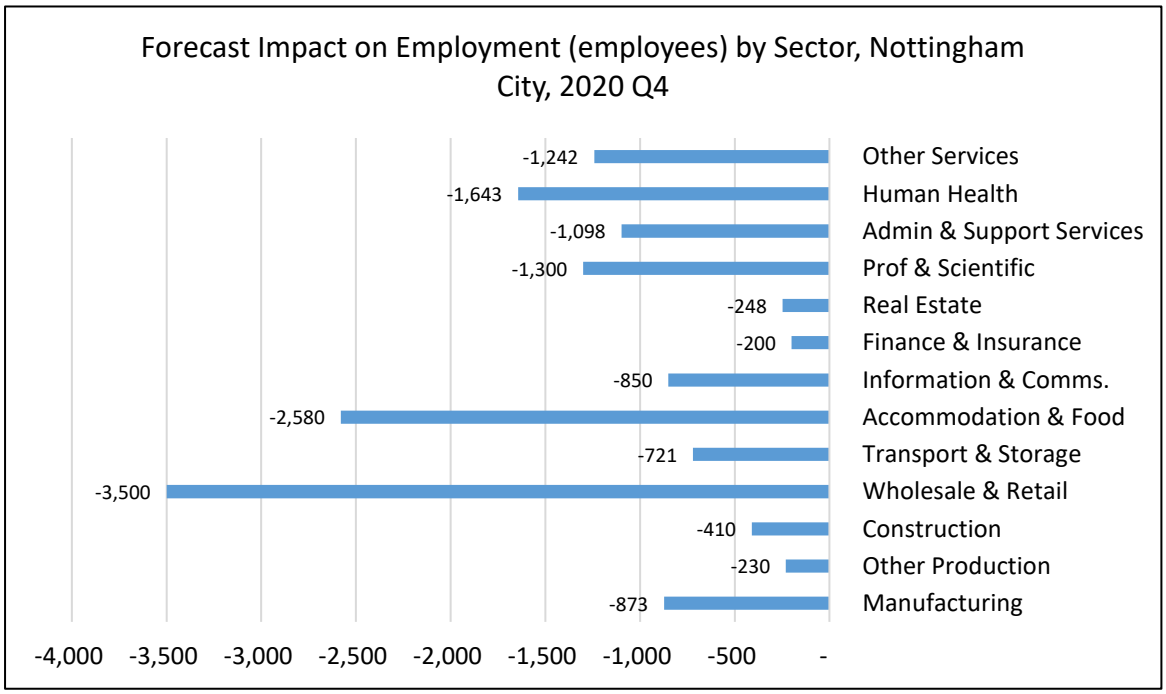
Projected Sectoral Change

Turning to forecast sectoral impacts for Nottingham City (Figure 11) we can see that the biggest impacts on jobs is expected to be in customer-focused service sectors such as Wholesale and Retail[18] (-3,500) and Accommodation and Food services[19] (-2,850). The bleak outlook for Retail and Food Services is a key concern because these sectors have tended to serve a useful intermediate labour market function in Nottingham i.e. providing a good route into employment for new entrants to the labour market and the economically inactive.

Other sectors not immediately impacted by the lockdown but which may nonetheless face significant job losses (of over 1,000 in each case) are forecast to be Human Health (perhaps surprisingly); Professional, Scientific and Technical Services; Other Services[20] and Office Administration and Support Services[21].

The impact on Manufacturing employment is forecast to be almost 900 jobs. The forecast fall in Construction sector jobs is relatively modest (-410) with the same being the case for Real Estate; Other Production activities; and Finance and Insurance.

Figure 11 - Forecast Sectoral Change in Employment by Q4 2020



Source: DMP. Bank of England. BRES

[18] We should note that retail is experiencing significant longer-term structural challenges in addition to the cyclical effects of Covid-19.

[19] Includes: Hotels and Guest Houses; Restaurants and Mobile Food Services; Event Catering and Other Food Services; and Beverage Serving activities (including pubs, bars and clubs).

[20] Includes: Hair-dressing; Physical well-being; Funerals; and Wash/Dry-cleaning.

[21] Includes: Call Centres; Event Organisers; Credit Agencies; Packaging; and other Business Support activities.

Labour Demand

Data relating to 'job postings' (vacancies) in Nottingham is available from Labour Insight. We have undertaken an analysis of the 11,600 vacancies for Nottingham City which were identified between February and May 2020. This provides a useful insight into the more immediate impact on labour demand but clearly the impact of lockdown measures will be felt more profoundly beyond this period.

The key findings are as follows:

- Occupations most in demand: Programmers and software development; Nurses; Care and home workers; Sales-related; Secondary education teaching staff; other administrative; Teaching assistants.
- Sectors generating most vacancies : Human health; education; public administration; Retail; Social work; Residential care.
- Employers with highest demand: NHS; University of Nottingham; DWP; Boots; Experian; NTU.
- Skills clusters most in demand: Education and training - Teaching; Customer Support; Sales; IT - Microsoft Office; IT - software development; Budget management; Financial management.
- Skills sets most in demand: Teaching; Teamwork and collaboration; Customer care; Sales; Budgeting; Childcare and patient care.

Appendix B sets out details.

6. Impact on Occupations and Skills

In this section we present an assessment of the impact of the COVID-19 on occupations and skills[22].

UK Context

The latest ONS data relating to annual employment change by occupation shows higher managerial and professional, lower managerial and professional, and intermediate occupations have increased steadily. Meanwhile, small employers, own account workers, lower supervisory occupations, technical occupations, semi-routine occupations and routine occupations decreased. The largest decrease was in routine occupations, down 11.3% on the year, indicating these occupations have been most affected by the coronavirus (COVID-19) lockdown measures introduced in March 2020.

Nottingham's Local Labour Market - Jobs at Risk

There is a strong correlation between the likelihood of a worker being furloughed or laid off and them having previously been on a low income. This is already apparent from the sector analysis described in the previous section. As well as the lowest earners, those in atypical forms of work (eg zero-hour contracts, temporary contracts, more than one paid job, working for an agency) are also more likely to have lost work or been furloughed due to the crisis.

As the analysis set out in the remainder of this section shows, jobs most at risk from the pandemic tend to be lower-skilled and lower paid and more likely to be filled by people with few or no qualifications. Appendix C shows the ONS standard classification of occupational groups we refer to and provides useful examples of job types within each category referred to in the analysis below.

In terms of the impacts on different occupational groups (and sectors) we need to take account of two key factors regarding any occupation, namely:

- Exposure to the disease - the vulnerability of certain occupations to contracting (through exposure) and spreading (through interaction) the virus makes them likely to be most affected by containment measures (quarantine/lockdown and social distancing).

  We can provide a proxy by looking at the 'key worker' status of different types of occupations as defined by the ONS.[23] Key workers are those whose work is critical to the Covid-19 response and are therefore eligible for childcare support and access to educational provision. Key workers are effectively taken to mean 'essential jobs' in the current context and not surprisingly the majority of these are in the Health and Social Care sector.

- Teleworkability (remote-working) - given the major impact of virus containment measures on the local employment, it is important to determine to what extent the affected occupations can still be feasibly done from home (are teleworkable) and what skills are needed to facilitate this. Here we can draw on estimates of the 'teleworkability' of different jobs.

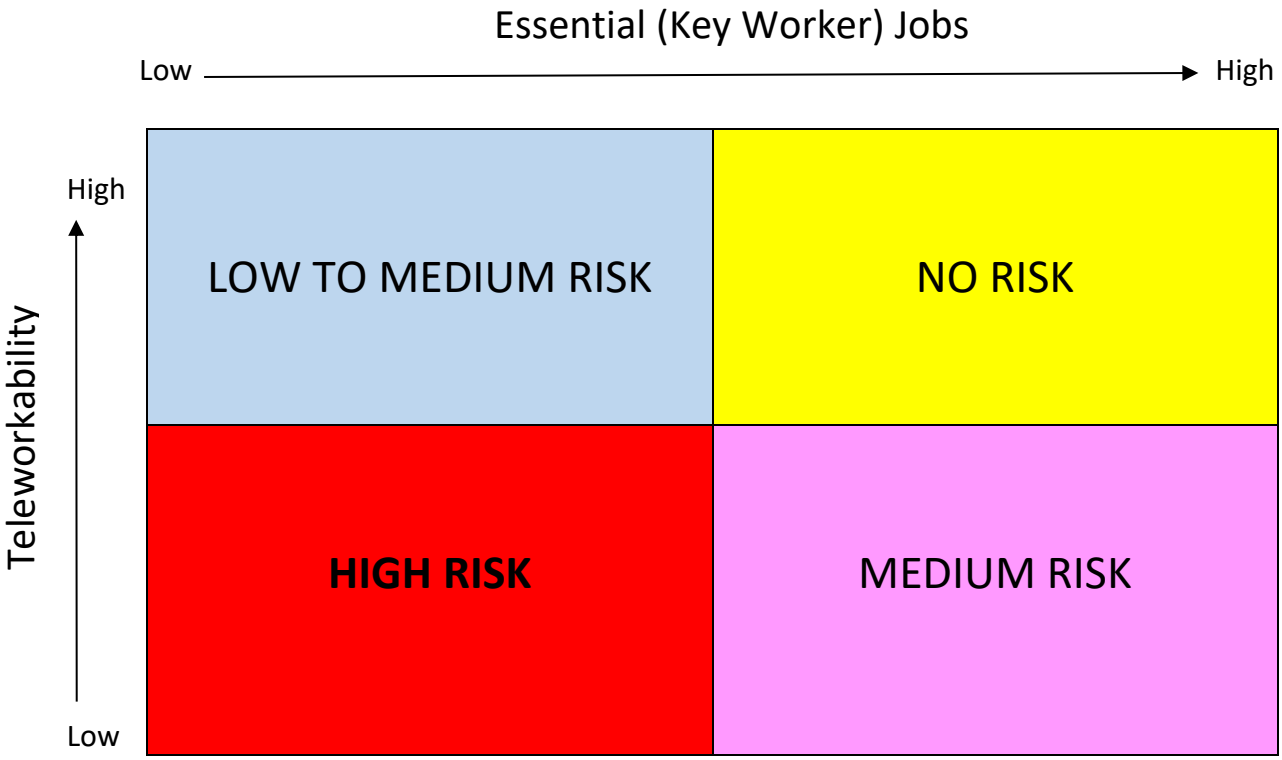
If we combine these two factors (key worker status and teleworkability) we can gain some insight into which types of jobs (occupational groups) are most or least likely to be affected by the Covid-19 containment/ lockdown measures.

We define four categories of occupational vulnerability (or risk) to Covid-19:

- No Risk: essential and teleworkable jobs - which are unlikely to be affected by pandemic containment measures.

[22] Covid-19 - Analysis of impact on local occupations and skills. Dr Eugene Michaels (University of Derby) and Vladimir Epuri (D2N2). June 2020. Supplementary analysis: Clive La Court, Nottingham City Council.
[23] ONS estimates of the numbers and characteristics of those who could be considered as potential "key workers" in the response to the coronavirus (COVID-19) can be found here.

- Low-to-Medium Risk: non-essential but teleworkable jobs - these may be affected by possible pandemic containment measures.
- Medium Risk: essential but non-teleworkable jobs at risk of contracting and spreading the infection but not affected by lockdown/containment measures.
- **High Risk**: non-essential (non-key worker) and non-teleworkable jobs - at high risk of being affected by pandemic containment measures.



Source: Nottingham Trent University

Teleworkable Status

We estimate that 47% of Nottingham occupations (97,300 jobs) can potentially be done from home (ie are teleworkable). Of all the local authorities across D2N2, only one Rushcliffe (51%) has a higher share of teleworkable jobs compared to Nottingham (Derby has 41%).

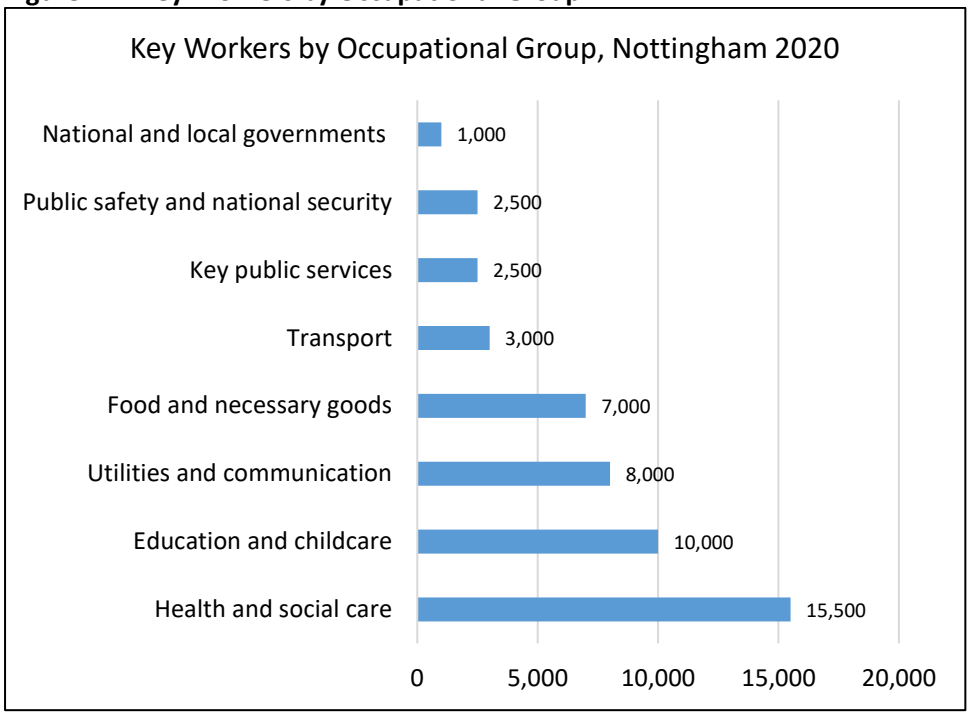
Occupational groups with the highest 'teleworkability' in the City are: Professional (44,000 jobs); Associate Professional and Technical (29,000); Administrative and Secretarial (28,000); Managers and Directors (20,000); and Caring and Leisure (17,000).

However, we also find that 36% of Nottingham occupations (46,600) are in occupational groups with little or no capability to be done from home. Occupations with relatively low 'teleworkability' (most requiring skill levels below NVQ Level 2) are: Process, Plant and Machine Operatives (10,000 jobs); Elementary (24,000); and Skilled Trades (12,600).

Key Worker Status

The ONS has estimated that there are 50,000 key workers employed within Nottingham City which amounts to 34.9% of the employed workforce. In recent Government guidance[24] eight key worker occupation groups were defined. Our estimates (Figure 12) for Nottingham show that the largest groups of those employed in key worker occupations worked in Health and Social Care (31%), Education and Childcare (20%), and Food and Necessary Goods (14%).

Figure 12 - Key Workers by Occupational Group



Source: ONS. Nottingham City Council

High Risk Jobs

Applying the above methodology to the relevant data sets for Nottingham City has enabled us to estimate the number and types of jobs that are at the highest risk from the pandemic. We estimate that of Nottingham's 207,000 employees 47% (97,300) occupy teleworkable jobs and 67% (139,000) occupy key worker occupations[25].

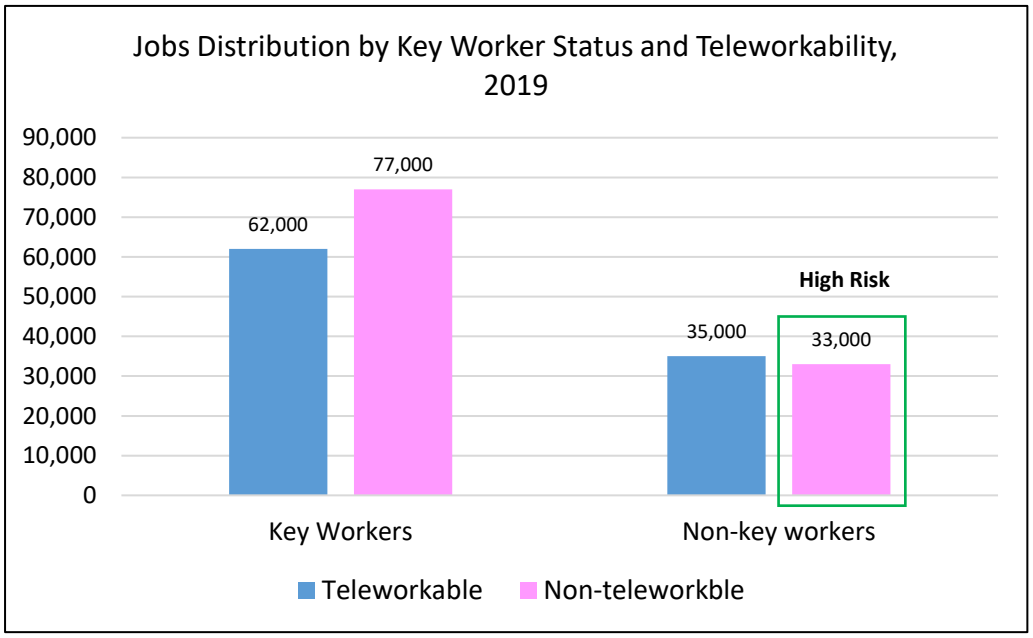
Combing the teleworkability and the key worker datasets enables us to estimate that at least 16% (33,000) of all Nottingham jobs are at high risk of being affected by pandemic containment measures - occupations that are non-essential (ie non-key worker jobs) and non-teleworkable at the same time (Figure 13). While many of these jobs are at risk of redundancy others may remain but be affected by fewer hours and lower pay.

Although substantial in number, the 16% share of all Nottingham jobs which are high risk is actually the lowest percentage of all seventeen (District/Borough) local authorities in the D2N2 sub-region (the highest is Derbyshire Dales at 25%; Derby 19%). As mentioned earlier this probably reflects the City's relatively diverse sectoral and occupational structure, at least in part.

[24] Critical Workers who can access schools or educational settings. Dept. for Education/ Cabinet Office. June 2020.

[25] The estimates of 'key workers' were derived using EMSI data and the ONS's 'key worker' definitions. The figures overestimate the number of key workers due to the inclusion of entire occupational categories compared to the ONS analysis (quoted on p.26), which makes adjustments based on industry.

Figure 13 - At Risk Job Distribution by Key Worker Status and Teleworkability



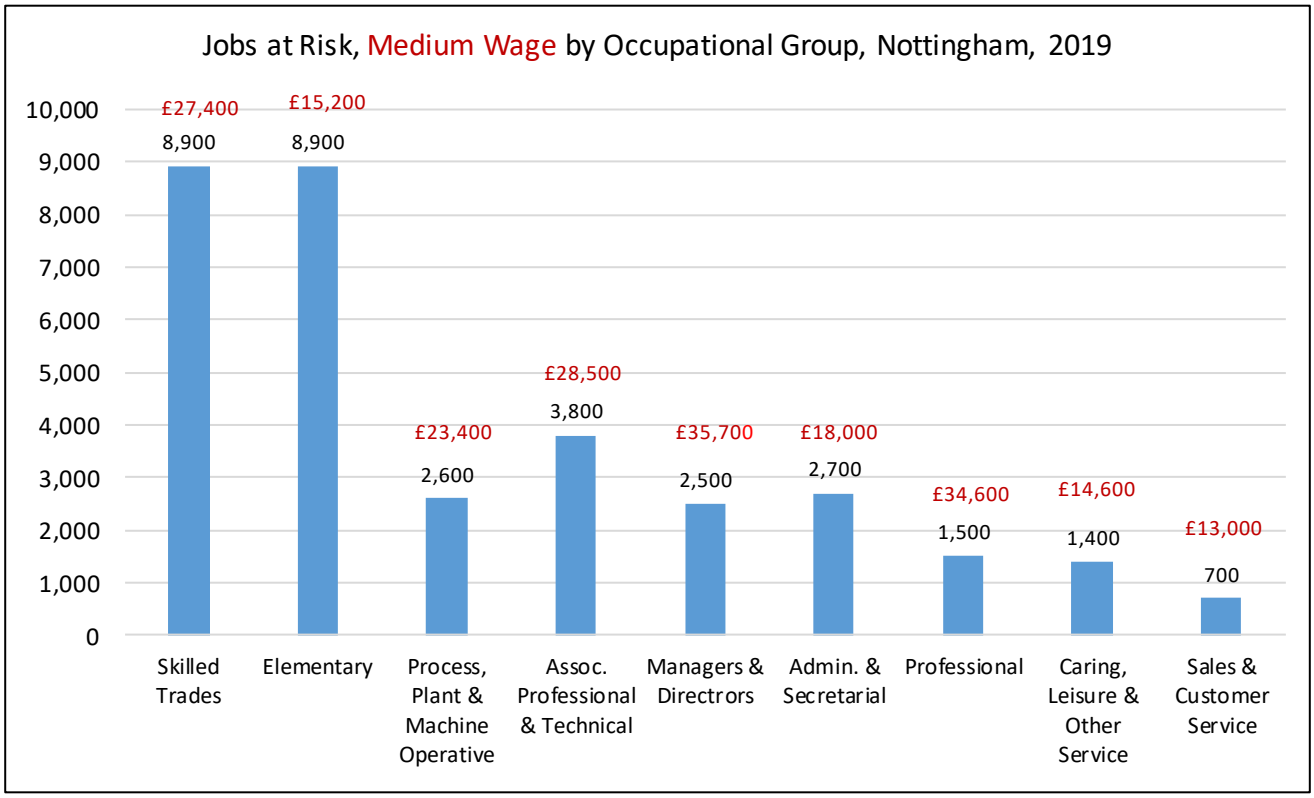
Source: University of Derby. Nottingham City Council

The occupational groups with the largest numbers of at risk jobs are Skilled Trades (8,900); Elementary[26] (8,900); and Process, Plant and Machine Operatives (2,600). Two other lower skilled occupational groups (Caring, Leisure and Other Service; and Sales and Customer Service) account for 2,100 jobs (Figure 14).

A sizeable number of these jobs are relatively low paid and lower skilled (NVQ2 or below). At risk jobs with an annual median wage below £20,000 account for 13,700 (41.5%) of all Covid-19 at risk jobs.

[26] Elementary occupations consist mainly of simple and routine tasks which mainly require the use of hand-held tools and often some physical effort. Examples include domestic helpers and cleaners; caretakers and window cleaners; messengers, porters, doorkeepers, security; street vendors; and lower skilled agricultural, construction and process plant occupations.

Figure 14 - Jobs at Risk and Median Wage by Major Standard Occupational Group



Source: Annual Survey of Hours and Earnings. Annual Population Survey

7. Impact on Unemployment and Inactivity

UK Context

UK estimates for April to June 2020 show an estimated 1.34 million people were unemployed, 9,000 more than a year earlier but 10,000 fewer than the previous quarter. The estimated UK unemployment rate for all people was 3.9%; this is largely unchanged on both the year and the quarter. Despite the lack of overall increase in the number of unemployed people, the estimated number of people unemployed aged 16 to 24 years increased by 41,000 on the year, to 543,000. Other age groups saw falls or very little change over the year. It is those unemployed for up to six months who are seeing the largest increases, up 150,000 over the year to 943,000. The decrease in longer-term unemployment means that overall, the unemployment remains unchanged.

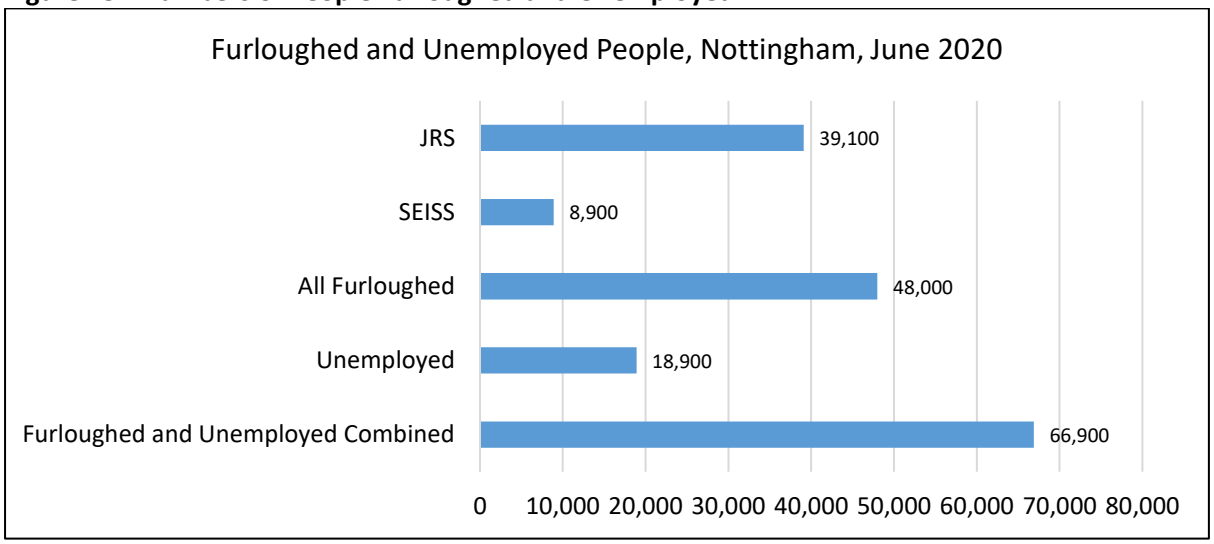
Nottingham's Local Labour Market - Unemployment

HMRC have produced figures for local authorities on the numbers of people who have received support from the Government's Job Retention Scheme or Self Employment Income Support Scheme (introduced in March 2020). The figures show jobs registered for the schemes, so it is possible for the same person appear multiple times in the figures if they have been furloughed from more than one job. As such the figures may slightly overestimate the number of different individuals on the schemes and should be interpreted as the maximum number of people on these schemes.

Figure 15 shows that 48,000 people in Nottingham were furloughed from work in June 2020; this is 20.7% of the City's working age population which is lower than both regional (21.9%) and national/England (21.6%) average. Nottingham's rate is likely to be artificially lowered by the high proportion of students in the City who are unlikely to be affected by these schemes.

The total number of people who are either unemployed and looking for work, or furloughed from their current job, is estimated to be 66,000 which is 28.9% of the City's working age population[27]. We expect the size of both groups to increase in the coming months with the likelihood that significant numbers of people coming off furloughed schemes will register as unemployed although, overall, the majority are expected to resume work with their employer, at least in the short term. The latest figures for June 2020 show a small monthly increase of 130 people claiming unemployment benefits, giving a total of 18,879 (8.2%).

Figure 15 - Numbers of People Furloughed and Unemployed



Source: HMRC. DWP. Nottingham City Council

[27] Unemployment Claimant Count Update. Nottingham City Council. August 2020.

Forecasting future (national, let alone local) trends in unemployment in the current and emerging context is clearly highly problematic.

A recent estimate of the unemployment rate for local authority districts within D2N2 has been made based on the OBR and CPP methodology.[28] The estimated rate for Nottingham at the end of Q2 2020 is 17.0% making it by far the highest of any local authority area within Nottinghamshire or Derbyshire.

That rate would involve an increase of 30,700 (given Nottingham's working population of 231,600) to give a total of 41,700 unemployed people.

Most commentators expect a significant increase in the number of people out of work over the latter part of 2020 on the assumption that we will see a steady increase as the furlough schemes reduce in generosity and wind down completely.

Beyond Q2 we expect there to be a steady and significant increase (with potential spikes) in the number of people out of work as furlough schemes are wound down which is scheduled to be in October 2020.

There are clearly uncertainties about the extent and longevity of any upturn in consumer spending and its impact on employment in the Retail, Leisure and Visitor Economy sectors in particular. Businesses in sectors that are particularly affected by continued social distancing measures, such as Hospitality and Travel, may continue operating at severely reduced levels after the lockdown. Some may decide to shut altogether, letting go of all their staff, which will increase the unemployment rate. Then of course there is the possibility of localised lockdowns if there is a second wave of infections later in the year.

Increased unemployment creates significant anxiety for those directly affected but also among those who retain their jobs but fear losing them in the future or who live in households where other family members have lost their job. Individuals, both key workers and non-key workers, are increasingly concerned about health and safety at work[29].

Economic Inactivity

The economically inactive population[30] refers to people of working age (16 to 64 years) who are neither in employment nor actively looking for work. People who are economically inactive include those looking after the home or family, retirees, those unable to work because of a disability or long-term sickness and students.

Economic inactivity reflects the complex interplay of a number of supply-side, demand-side and institutional barriers. In terms of supply-side barriers, lack of skills may be a constraint for some people with few qualifications or with little work experience. Mental and/or physical health issues may also be a problem for some people.

On the demand-side, lack of employer flexibility is often the biggest constraint for the economically inactive, particularly relating to disability and/or childcare responsibilities. Job quality (especially pay, hours and prospects) rather than job quantity is also a commonly identified barrier to work. These factors are in turn underpinned by institutional barriers of which the 'benefits trap' and the cost of childcare are the most pressing.

[28] Analysis of local employment, output and business risk exposure due to lockdown. K. Karagounis, P. Mizen. and W. Rossiter. University of Nottingham/ Nottingham Trent University. June 2020

[29] Impact of Covid-19 on working lives. CIPD. June 2020

[30] Defined as a person without a job but who are not classed as unemployed because they have not been actively seeking work within the last four weeks and/or they are unable to start work within the next two weeks.

There were 68,700 economically inactive people living in Nottingham in March 2020 giving a rate of 30.8% (Figure 16); this compares with 20.6% for England.

Recent years have seen a steady fall in economic inactivity in Nottingham, especially amongst women, where changes to Income Support and Universal Credit mean lone parents have to actively look for work once their youngest child is two years old, at which point they are more likely to be counted as unemployed and not inactive. By reducing employment opportunities and putting downward pressure on wages, Covid-19 could lead to an increase in the number of discouraged workers dropping out of the labour force. The size of this group (which is self-determined) has been very small for some time but this could change quite rapidly.

Figure 16 - Numbers of People who are Economically Inactive, Nottingham. March 2020

% who are economically inactive - aged 16-64	30.8
% of economically inactive who want a job	22.5
% of economically inactive who do not want a job	77.5
% of males who are economically inactive - aged 16-64	27.2
% of economically inactive males who want a job	24.6
% of economically inactive males who do not want a job	75.4
% of females who are economically inactive - aged 16-64	34.1
% of economically inactive females who want a job	21.0
% of economically inactive females who do not want a job	79.0

Source: Annual Population Survey

Students represent almost half of all people who are economically inactive at 33,100 (Figure 17).

Overseas student numbers are expected to fall in the coming year and perhaps longer which would reverse the trend of three decades. The number of domestic student numbers is more difficult to gauge since some sixth form college leavers may choose to enter and stay in higher education due to poor job prospects while others may be less inclined or able to incur the costs, especially given that graduate job opportunities may be harder to come by. However, both Nottingham, Trent University and the University of Nottingham report that domestic applications have been relatively strong.

Although the number of economically inactive people who are discouraged in their job seeking is very low, this tends to rise during recessionary periods.

Figure 17 - Economically Inactive by Reason, Nottingham, March 2020

	No.	%
% of economically inactive student	33,100	48.2
% of economically inactive looking after family/home	12,700	18.5
% of economically inactive temporary sick	1,300	1.9
% of economically inactive long-term sick	14,200	20.6
% of economically inactive discouraged	!	!
% of economically inactive retired	2,100	3.1
% of economically inactive other*	5,200	7.6

Source: Annual Population Survey

! Estimate and confidence interval not available since the group sample size is zero or disclosive (0-2).

* Other reasons include people who: are waiting the results of a job application; have not yet started looking for work; do not need or want employment.

8. Groups Most Affected[31]

Employed Workforce

Workers in the sectors and occupations most affected by the pandemic are more likely than average to have been at a disadvantage in the labour market before the outbreak. The risks are highly skewed, with people and places with the lowest incomes most vulnerable to job loss and falling incomes.

Workers who are from a BAME background, women, young workers, older (over 50's) workers, lower paid workers and disabled workers, have been most negatively economically impacted by the coronavirus outbreak to date and are most likely to be so in the coming months and years.

- **BAME workers**: shutdown sectors have a higher than average proportion of workers from a BAME ethnic background (15%) compared to 12% of all workers.
- **Women**: 57% of employees in shutdown sectors are women, compared to a workforce average of 48%. Women were about one third more likely to work in a sector that is now shutdown than men. Young women in particular score the highest on jobs at risk of all age and gender groups, partly because of their high representation in jobs (in many instances part-time) such as sales and retail assistants, receptionists, cleaners, and waiters. On the whole, women tend to hold jobs that are not teleworkable and that earn less than the national average.
- **Young workers**: of the workers in the shutdown sectors, nearly half are under the age of 35. Employees aged under 25 are about two and a half times as likely to work in a sector that is now shutdown as other employees. Younger workers are overwhelmingly more likely to be furloughed - nearly twice as likely as middle-aged workers.[32]
- **Older workers**: those aged 50 and over are also losing their jobs and being placed on furlough. Older workers are significantly represented in those sectors which we expect to be most affected by a recession. Workers in their 50s and 60s face distinctive and significant challenges. They are more likely to struggle with returning to work than other workers and haven't seen the same benefits from previous employment support programmes as younger workers. There is a risk of a 'second wave' of job losses for older workers as the furlough scheme comes to an end in October 2020[33].
- **Lower paid workers**: median weekly wages in the most vulnerable sectors are among the lowest in the economy. One third of employees in the bottom 10% of earners work in shutdown sectors, compared to 5% in the top 10%.
- **Disabled workers**: before the coronavirus outbreak, disabled people had an employment rate 28.6 percentage points lower than that of people without disabilities. This difference is often referred to as the disability employment gap. 15% of workers in shutdown sectors are disabled (as defined by the Equality Act 2010), about the same as the total workforce average of 14%.

The most recent national data shows that, to date, the groups of people most affected are younger workers aged under 25, older workers over 50 and those in more routine or less skilled jobs[34].

---

[31] Coronavirus: Which workers are economically impacted? Library Insight. House of Commons. June 2020. Sector shutdowns during the coronavirus crisis: which workers are most exposed? Institute for Fiscal Studies. April 2020. *Figures quoted refer to the UK as a whole.*
Risky business; Economic impacts of the coronavirus crisis on different groups of workers. Resolution Foundation. April 2020.

[32] Covid-19 in the UK: the impact on people and jobs at risk. McKinsey & Company. May 2020.

[33] A mid-life employment crisis: how Covid-19 will affect the job prospects of older workers. Centre for Ageing Better. Learning and Work Institute. August 2020.

[34] Labour Market Overview. UK. August 2020.

Younger Adults

Young adults are worthy of a special mention.

Young people who are hit by recession and unemployment early in their working lives often suffer particularly long-lasting economic consequences. Past experience tells us that while recessions drive up unemployment across the labour market, the effects are larger for those who have only recently left full-time education, in particular those with lower-level qualifications. While recent leavers may be hit hardest, lower-qualified young people more generally are likely to suffer negative employment effects as well.

Those (adults and young people) who leave education (school, sixth form, college or university) in such a period as is currently unfolding can face lifelong penalties because the likelihood of finding and keeping a job declines and there is also an adverse effect on how much they can earn and save. The effect is not just on labour market status either - there are also knock-on effects, for example on mental health.

Nottingham has a very sizeable student population. The University of Nottingham and Nottingham Trent University have student populations of 33,500 and 33,300 respectively (HESA 2018/19). Nottingham College has around 40,000 full and part-time students.

Experience from previous recessions tells us that graduates will be less likely to find work and will start off in lower-paying occupations than they might have expected. Given the scale of the downturn into which they will be graduating it is likely to take at least five, and perhaps ten, years for these effects to wear off.

The longer that the current slump in economic activity lasts, the more severe its consequences are likely to be for the generation of graduates and non-graduates leaving full-time education at schools, colleges and universities. The effects of entering the labour market during a recession extend over the long run, affecting economic outcomes over a period of many years, as well as many other aspects of life, including family formation, health and even longevity. Non-graduate school leavers will suffer the greater losses, but the outlook is not benign even for graduates, who may face low wage growth over many years. There may also be an exacerbation of socio-economic inequalities.

Estimates have recently been made of the effect of the current recession on the employment and average hourly wage of different groups of full-time education leavers[35]. The simulations show that two years after leaving full-time education, both graduate and non-graduate leavers will be 20% less likely to be in employment than their immediate and more fortunate predecessors. But four years down the line, a huge gap emerges: graduate employment will be lower by 8%, while the employment rate of school leavers with intermediate or low qualifications could be almost 30% or 40% lower, respectively. Average wages for those young people in work will also fall. The analysis predicts that two years since entering the labour market, graduates will see their wages cut by 8%, while low qualified non-graduates could see a reduction of about 13%.

[35] Class of 2020: education leavers in the current crisis. Henehan. Resolution Foundation. May 2020.

9. The Outlook

The likely overall economic impact of COVID-19 on Nottingham's economy and labour market going forward is unknowable at this point in time.

What we do know is that the economic outlook in the past three months has changed beyond recognition. Economic activity in terms of output is beginning to recover as lockdown restrictions are lifted, but the speeds and patterns are highly uncertain and will vary by sector and locality, even across the City's neighbourhoods as well as the conurbation (the City, Broxtowe, Gedling and Rushcliffe) as a whole. The impact on the City centre is a key concern.

The scale of the economic cost will be affected by how long the strict social distancing measures are in place for. This, in turn, will be largely determined by public health considerations and whether there are any additional waves of Covid-19 cases later in 2020 or 2021 requiring new periods of lockdown.

As we have demonstrated in this paper, the recent rapid and substantial fall in economic output has significant implications for future employment, working practices and unemployment. A sizeable number of jobs are at risk and most vulnerable to permanent layoffs both in the short term (as Government support schemes are wound down) and over the medium term due to the cyclical downturn in economic activity (the size and length of the recession is highly uncertain) and also due to longer term structural changes in the economy.

What we can be more confident about is that at a high level the future path of the UK and local economy will be affected by several key factors:

- The spread of COVID-19 to this point and beyond as well as the effectiveness of government control measures (including lockdown) and how they have impacted economic activity.
- The trajectory of the virus and what it means for health outcomes, infection rates and the timing of the peak and ebb of the epidemic - plus the associated political and medical objectives - for example, herd immunity, timetable for vaccine development and distribution.
- The type, nature and effectiveness of Government policy responses, including lockdown exit plans and proposals.
- How quickly different sectors are able to 'reset' and resume production and service delivery.
- Consumer confidence and expectations about the risks posed by easing lockdown measures and, crucially, their own employment prospects and future earnings.

The most significant near-term challenges will become more apparent as the lockdown is eased and the Government's supportive measures are subject to a phased withdrawal. Even when the short-term economic shock does eventually dissipate, there is a great deal of uncertainty as to whether this crisis will have caused lasting damage to the economy. There is a growing concern about how much 'scarring' the coronavirus-related recession will have on the economy's longer-term prospects and how long will it take to rebuild this and at what cost? These are clearly unknowns at the present time.

The outlook for the UK and local economy is closely intertwined with progress in combating the pandemic. The main source of uncertainty concerns the timing of the vaccine, or failing that, a range of effective treatments for Covid-19 infection. Timing of a vaccine, or effective treatments for COVID-19, could see GDP in 2021 vary from just under 1% to just under 5.5%[36].

[36] UK Economic Outlook. KPMG. June 2020.

As was the case before the pandemic struck, the path of potential economic future growth in Nottingham's economy over the long term largely reflects the following: growth in the population; the fraction of those people in work; the average number of hours they work; and the average amount they produce in each hour worked. But it is the last of these - labour productivity (GVA per hour) - that is the main driver of living standards over the long run. In Nottingham, labour productivity has consistently lagged behind the national average and when compared to most other Core Cities in England. Higher investment levels, new forms of innovation, a stronger education and skills base and improved adoption of existing technologies could all help Nottingham to close the productivity gap over time.

The economic impact of Covid-19 will eventually wane and dissipate but the critical importance of labour productivity to long term economic growth and prosperity and higher living standards will not. Recent evidence suggests that workplace skills and physical connectivity have significant impacts on relative local productivity.[37] Climate action as well as economic growth offers a compelling opportunity given the City Council's aspirations and targets to reduce emissions.

[37] The Productivity Puzzle revisited: why has UK productivity lagged behind other advanced economies? UK Economic Outlook. Pwc. November 2019.

10. Building City Resilience

Nottingham's Economic Recovery and Renewal Plan

Nottingham City Council has been developing an Economic Recovery and Renewal Plan in collaboration with the Nottingham Growth Board - a partnership of some of Nottingham's key public and private sector organisations.

We are setting out to reimagine the City (from its centre through to the wider sub-region) and reshape the local economy, creatively building an inclusive, green, digital future. This is underpinned by the ambition to become:

- An internationally renowned city of culture, creativity and innovation.
- The UK's first Carbon Zero City.
- A City which offers opportunities for everyone.

We will deliver our ambitions through six key strategic priorities:

1. **Reimagining the City Centre.** We will use the Southside Regeneration as a catalyst for creating a more sustainable city centre, adapted for a post-Covid world.
2. **Digital Enterprise**. We will establish Nottingham as a significant national centre for digital technologies and enterprise, underpinned by a programme of upskilling across our communities.
3. **Carbon Zero City**. Through transformational green investment at scale, we will build on our reputation and track record – on public transport, on housing, on energy - to become the UK's first carbon zero city by 2028.
4. **City of Creativity and Culture**. We will build on the Creative Quarter and our Unesco City of Literature status to become an in internationally renowned centre of creativity.
5. **Entrepreneurship and Innovation.** We will support existing businesses to survive and thrive, target growth in key sectors and develop our innovation ecosystem.
6. **Skills and Employment.** We will prevent long-term mass employment by supporting a culture of enterprise and offering inclusive reskilling/upskilling programmes for citizens to take advantage of new opportunities.

The City Council's Initial Response to Covid-19

A major challenge for Nottingham City Council has been to mitigate the impact of COVID-19 on our local economy and labour market, so that businesses can once again thrive and provide employment opportunities and vibrancy to all local communities and citizens. For Nottingham City Council and our partners, the short-term priorities and actions have rightly been focused on avoiding permanent job losses and minimizing failures among otherwise viable businesses.

Nottingham City Council is providing, and facilitating the provision of, a range of services to support local economic development. Measures include those targeted at employers and the self-employed on the one hand and those who are unemployed or at risk of being made redundant or who have been furloughed.

The City Council has been helping workers and employers to navigate national programmes, including wage subsidies, emergency income support programmes and support for local businesses, including SMEs and the self-employed.

The City Council's strategy to support local economic development to date has therefore had two main strands:

- The **Nottingham Growth Hub** team have been promoting and delivering a range of support to assist local businesses cope with the challenges associated with Covid-19; these have included: Coronavirus Job Retention Scheme; Business Support Grants; Self-employment Income Support Scheme; Bounce Back Loan scheme; Business Interruption Loan Scheme; Redeployment Triage scheme; and Nottingham Small Business Fund (now closed). The Government has pledged to fund local authorities to deliver the Reopening High Streets Safely Fund which will help introduce a range of safety measures in a move to get people back to work and customers back to the shops.
- Supporting individuals to find work, claim benefits and get practical help with intensive careers support, job search and managing personal finances. The **Nottingham Jobs** Team have been delivering an integrated package of employment support programmes comprising: Way2Work; Nottingham Works; and the Welfare Rights Service.

Looking Ahead

Although many of the actions being taken so far have focused on short-term crisis management Nottingham City Council and our partners are already looking beyond the crisis to the recovery efforts that will be required as the COVID-19 pandemic recedes and, hopefully, is eliminated altogether.

Looking ahead, the strategic emphasis is shifting from containment to recovery with the latter having three distinct phases:

- **Reactivate** - focusing on activity which can immediately seek to address the worst impacts of the COVID-19 crisis and support our local economy as it emerges from lockdown, whether around reopening and reorienting businesses; supporting displaced employees to access work and/or training and education; providing initial assistance for sectors, businesses and places to reopen; and communicating with businesses, investors, students and visitors that Nottingham is 'back on track'.
- **Regenerate** - bringing forward actions, and accessing resources (including genuinely additional funding), which will allow business and communities to regrow, addressing both economic challenges and supporting wider efforts to close the gap between Nottingham's economy and the wider regional and national economy.

  This includes efforts to modernise and diversify our business community, our workforce and our approach to our environment; improve our places and quality of life offer; and set the foundation for future growth.
- **Renew** - actions to change and enhance the trajectory of Nottingham's economy, seeking to build on priority sectors and business capabilities, enhance workforce capacity and improve environmental strengths. Renewing efforts to improve long-term and sustained improvements in productivity will be a vital ingredient to long-term economic success but we recognise there is an opportunity to direct more resources and action to sustainable growth and economic and social inclusion.

The City Council are seeking to build on actions, activities and partnerships to create locally-tailored solutions that will deliver more economic support, social benefits and resilience if they are tailored to the local context. Our chief overall aim is to rebuild the resilience for which Nottingham is rightly proud.

We are prioritising those solutions by taking into account four overlapping principles:



Source: Arup. Nottingham City Council

Ideas and Recommendations from this Report

1. Supporting Business

SMEs and Scale-Ups

Access to consulting support on both a one to one and group basis. This could take the form of specialist briefings, seminars and workshops for Nottingham/D2N2 businesses facilitated by key industry experts as well as SME owner-managers themselves. Rather than being highly generic these should be tailored to local circumstances and realities.

Ensuring good support for businesses ready to scale up. These 'scale-ups' are a very valuable asset to the local economy, but they are also vulnerable. The Intereg UpScaler programme should be encouraged and enabled to specifically investigate and share examples of good practice in relation to supporting these kinds of businesses to cope with and recover from the challenges posed by coronavirus on their types of businesses in particular. Nottingham Trent University can play a key facilitating role in this regard given their role as programme managers.

The City Centre (Experience)

We must seriously consider the possibility that the unique and profound socio-economic changes presented by Covid-19 may make any form of future retail-led, City centre-based regeneration highly problematic. Alongside the probable change in demand for offices and retail and leisure space in Nottingham City centre locations, we may need to fundamentally rethink land use and regeneration initiatives, public transport provision and how we market and promote the City going forward - a challenge shared by many cities and towns across the UK and beyond.

This report, along with several others, lends weight to the argument that profound changes in town and City Centre retail and office use is imminent if not already underway.

The trend towards online shopping has hugely accelerated and is unlikely to revert; this will further impact on high streets with some obvious exceptions. The Nottingham Retail Consortium should be invited to consider and respond to the key findings and conclusions of this report which, we hope, will provide them with some useful data and other information to help with their strategic planning.

Innovation

Innovation is the key to long-term productivity growth in the local economy and to business success more broadly. In some cases, innovation has been taking place already in terms of the organisation, delivery and promotion of new measures to support start-ups and SMEs find solutions to the Covid-19 outbreak. In other cases, support is still needed over the medium to long-term to strengthen SME innovation and competitiveness and to help them better withstand the impact of the crisis. This suggests that a priority going forward should be about further enabling and fostering collaboration by developing existing and new networks and clusters of local enterprises, entrepreneur/ innovators, professional and sector-led intermediaries and universities and specialist facilities.

Innovation business clusters and catalysts need to extend and accelerate existing partnerships and networking arrangements to support the growth and resilience of SMEs in high growth sectors. Examples include Nottingham Science Park; Nottingham Enterprise Zone; Accelerate Nottingham; BioCity; MediCity; Creative Quarter; Southglade Food Park; Blenheim Lane Energy Park; and Nottingham Food and Drink Forum. The Intereg UpScaler programme also has a crucial role to play.

Exports

We need to explore further opportunities to support SMEs in recovering overseas markets or finding new or alternative markets. There may be opportunities to work with private sector institutions to develop new financial instruments for SMEs (such as an SME export growth subsidy) which enable them to research and find alternative overseas markets, particularly where supply chains are impacted. There is also an opportunity for large enterprises and institutions (including the City Council, universities, NHS and others) to cooperate more with SMEs by increasing their support in supply chains, in terms of loan recovery, raw material supply, and project outsourcing. We should also be able to learn from other Core Cities and other countries (such as Belgium and Germany) which have recently intensified export support measures for SMEs.

Support Teleworking and Digitalisation

Many micro-enterprises and SMEs find it harder to adopt teleworking, new sales channels and other digital solutions that may help mitigate the impact of the outbreak and containment measures. It would be helpful to develop and introduce new measures to support SMEs adopt teleworking which may also bring longer-term advantages in terms of adoption of technology and new practices. Sharing good practice and understanding the potential risks and downsides of remote/home-working also needs consideration.

There may also be scope for the Nottingham Growth Hub to improve support to SMEs through the development of a SME Teleworking Toolkit on teleworking and advice to businesses.

More broadly, the continued rise in demand for teleworking and the use of accompanying tools may generate a need and an opportunity for the City Council to re-assess land use, planning, transportation and housing strategies and programmes in light of this trend.

Low Carbon Economy

Through the Nottingham 2028 Carbon Neutral Charter we have an opportunity to develop and pursue a low carbon pathway to boost growth in a way that will help the City to unlock lasting environmental, social and economic benefits. This report indicates that targeted policies and programmes could help businesses operating in sectors with potential to grow in sustainable ways. Examples include: Wholesale and Retail; Construction; Tourism and the Visitor Economy; Other Manufacturing and Repair; and Health and Social Care. Further sector-based research could be undertaken to help with the development of appropriate action plans in conjunction with the Nottingham Growth Hub team.

The City Council and our partners have amassed a wealth of expertise, experience and resources which we can draw on in achieving wider aspirations to develop our low carbon economy (Appendix D).

Environmental Technology and Clean Growth

Nottingham's environment attracts both new businesses and visitors to the area every year. There is an opportunity to build on previous success stories to grow the Environmental Technology and Clean Growth sectors by positioning Nottingham as a clean, green, healthy City in which to live and work, while saving many businesses money through lower long-term water, energy, and waste costs. Nottingham's carbon emissions may have been reduced by over one-quarter during lockdown. There is opportunity to strengthen sector sustainability through collaboration of the construction and clean tech sectors to deliver commercial and domestic retrofit energy efficiency solutions.

Transformative Health Care

The City has a large, expanding and innovative Health and Social Care sector, which contributes significantly to the local economy in terms of economic output and jobs. The sector demonstrates high levels of innovation and expertise and significant scientific and production strengths across the sector as well as linkages with the pharmaceutical and higher education sectors. The opportunity linked to Health and Social Care is twofold: to maximise our existing assets in science, technology (especially medical instruments and devices) and research, but also seek to build on a changed health environment for our own residents, with a shift from an approach based around 'care settings' to 'places and communities'. There are also comparative strengths and commercial opportunities to be realised in the growing Life Sciences sector which includes biopharmaceuticals, medical technology, genomics, diagnostics and digital health.

Start-ups in the Time of Covid-19

Notwithstanding the significant economic disruption caused by the COVID-19 crisis, long-term effects on employment and innovation may be mitigated by taking steps now to support existing start-ups and the creation of new firms, limiting the negative effects. In fact, even as the number of new business registrations generally drops during recessions, many successful innovative start-ups or businesses emerged from periods of crisis.

Further research is required to identify interventions relevant to the Nottingham context which aim to provide the right conditions and incentives for innovative start-ups and potential entrepreneurs, and boost their potential and capabilities to grasp them. Reducing barriers to entrepreneurship, such as administrative burdens, providing incentives for start-ups and entrepreneurs, ensuring that funding remains available, and boosting entrepreneurial potential and training could limit the detrimental employment and innovation effects of a missing generation of new firms and help speed up the recovery. Proposed interventions might focus on how to: tackle short-term challenges; reduce barriers to entrepreneurship and provide relevant incentives; and boost entrepreneurial potential amongst different socio-economic groups and communities.

2. Supporting Individuals and Communities

Vulnerable Groups

Local action is particularly important for helping the disadvantaged groups who will bear the brunt of the crisis today and going forward. This report has demonstrated that workers who are from a BAME (Black, Asian, Ethnic Minority) background, women, young workers, older (over 50's) workers, lower paid workers and disabled workers, have been most negatively economically impacted by the coronavirus outbreak to date and are most likely to be so in the coming months and years.

This report has particularly highlighted the plight of young people. Within education and training, all learners across the City have faced a period of extended disruption during 2020. For young people the impact of this disruption has been stark, with a loss of routine, educational time, pastoral support and huge uncertainty around next steps on learning and transition. When coupled with existing challenges around progression routes into higher education and a likely reduction in Apprenticeship places from September, and reduced employment options in both growth and foundation sectors alike, young people face a potential opportunity cliff edge into 2021. The City Council Economic Development and Education Departments (in conjunction with other partners) could develop an integrated strategy and action plan to respond to these and related challenges, for example, in regard to mental health.

On-line Delivery

As education and training providers have had to adapt rapidly to online delivery, such methods are likely to become more common over the long term. This could help overcome challenges related to economies of scale in delivering these services to a greater number of people and to more inaccessible places. However, face-to-face local education and training will still be important, as many low-skilled adults lack digital skills, and general work-readiness and other soft skills cannot be developed from online courses alone. Other services, such as those provided by public employment services (including Nottingham City Council, Employment Service, Futures, DWP) may increasingly move online as has increasingly been the case in recent years and especially lately.

Overall, this increased reliance on digital tools will place additional pressure on the City's digital infrastructure in coming years and decades. The City Council and our partners in the business and training and education sectors should continue to review and assess the recent and ongoing experience of moving more delivery on line to assess strengths, weaknesses, opportunities and limitations.

Lifelong Learning and Vocational Training and Upskilling

To get people back to productive work as soon as possible, retraining and reskilling of unemployed people needs to be scaled-up. The continuation and enhancement of the City Council's employment support and redeployment schemes to get people back into work are crucial, including retraining and reskilling.

Cities like Nottingham must continue to focus on providing more flexible forms of skills development to respond to the accelerated reallocation of labour in local economies, including greater access to e-learning opportunities that focus on the needs of employees (especially those working in at risk occupations and sectors) while working with employers to promote workforce innovation and better human resources management practices. This tailoring and proximity to firms and workers will be an essential asset for the City's recovery.

For those not in work, economic uncertainty and personal financial instability can have negative effects for their health and wellbeing. Using this time to empower workers to upskill, and re-train for the types of jobs that will be in demand following the economic shock, will set them up for a better forward path.

We should ensure that all our key partners (including Futures, Nottingham College and training providers) and colleagues make the most of the Government's Skills Toolkit This is a collection of training resources to help people use their time in lockdown to gain new skills for when more businesses reopen.

It includes courses from The Open University, Futurelearn, Google and digital-inclusion charity the Good Things Foundation. These courses could provide a foundation for building up a more tailored skills programme based on local employer needs and local further and higher educational offer.

Students

A large drop in overseas student numbers seems probable and this will have serious consequences for university finances locally as elsewhere. To make-up for the shortfall in revenues, we expect a drive by our two universities to attract more domestic students. The City Council should offer to support the production of action plans with this goal in mind (and any relating to overseas students) and, where possible, offer practical and logistical help to the University of Nottingham and Nottingham Trent University by, for example, tailoring marketing messages about the City in the context of Covid-19 to reassure and incentivise prospective students to attend our universities.

A similar offer should be made to Nottingham College and the Nottingham Skills Hub.

3. Working Collaboratively

Neighbouring Authorities and Partners

Effective communication, transparency and co-ordination across levels of government and clarity of respective roles. We will continue to meet with neighbouring District and Borough Council's to share good practice and coordinate responses to Covid-19. A virtual workshop could be convened to further facilitate this process.

The City Council will also continue to work with Derby/Nottingham METRO partners to improve strategic coordination and more effective communication and networking. Continue to shape strategic thinking and action-planning with Covid-19 economic impacts in mind.

'Stock-take' on Service Integration

Consideration should be given to combining physical and mental health support and advice on drug and alcohol problems with skills, education and housing. This is already being done (quite successfully) but a strategic review might be worthwhile at this time in the light of rapidly changing circumstances to the labour force and public funding availability.

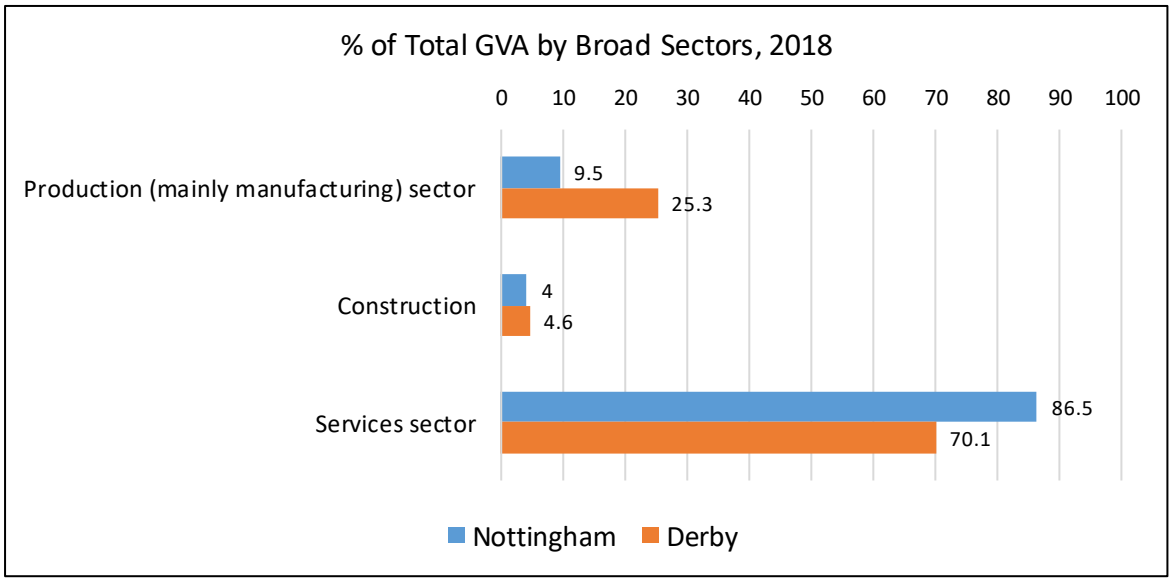
Social Economy

Social economy organisations could be enabled to play an even more important role in the local response to COVID-19. The social economy is a driver of job creation and economic activity with social impact, and is a powerful tool for local development to respond to Covid-19 consequences. A virtual seminar could be held to share experience, identify good practice and explore opportunities for helping to realise the full potential of 'third sector' partners as we move into the recovery phase of Covid-19 across the City and its assortment of local communities. Invitations should be extended to a range of civil society organisations and firms, which typically includes associations, cooperatives, foundations, mutuals and social enterprises. While some may be national or international in scope, most have a strong local orientation across Nottingham.

Appendix A: Industrial Structure Compared - Nottingham and Derby

If we compare the industrial structure of Nottingham and Derby we can clearly see that in terms of GVA Derby's comparative advantage clearly lies in Manufacturing whereas Nottingham's has a larger Services sector. The two cities are on a par in terms of Construction output (Figure 18).

Figure 18 - Percentage of GVA by Broad Industrial Sectors

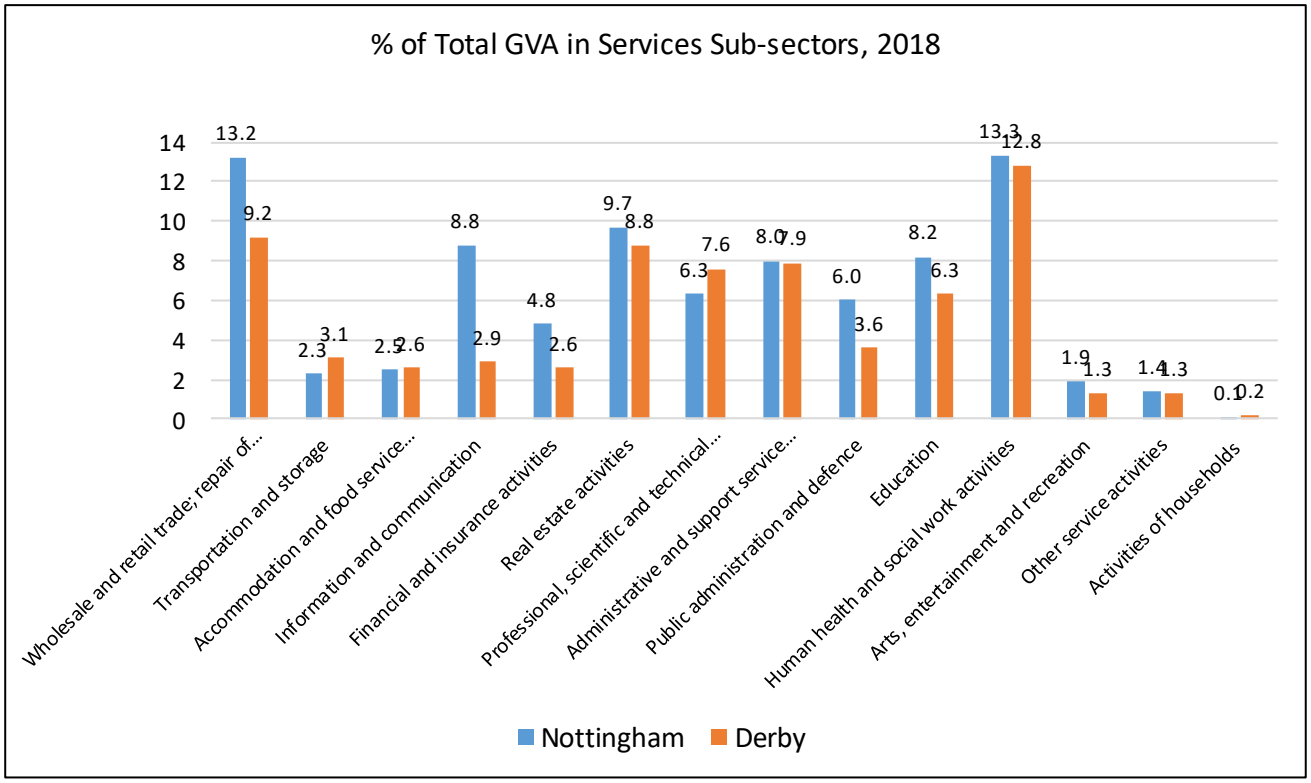


Source: ONS

Looking at Services sub-sectors (Figure 19) we can see that Nottingham has a larger share of its GVA across most sub-sectors, especially Information and Communication Services; Wholesale and (especially) Retail; Public Administration; Financial and Insurance Services; and Education.
By contrast, Derby has a relatively larger share of its total GDP in only one Services sub-sector which is Professional, Scientific and Technical Services/Activities when compared to Nottingham.

We can see the relatively broad economic base that Nottingham has in comparison to its near neighbour. The same is true, in fact even more so, when either city (but especially Nottingham) is compared with other local authority areas across the two counties (Derbyshire and Nottinghamshire) with most of these being either sub-urban or rural in character.

Figure 19 - Percentage of GVA across the Services Sector



Source: ONS

Appendix B: Near-term Impact on Labour Demand

Data relating to 'job postings' (vacancies) in Nottingham is available from Labour Insight. We have undertaken an analysis of the 11,600 vacancies for Nottingham City which were identified between February and May 2020. This provides a useful insight into the more immediate impact on labour demand but clearly the impact of lockdown measures will be felt more profoundly beyond this period.

Key Findings

Occupations most in demand: Programmers and software development; Nurses; Care and home workers; Sales-related; Secondary education teaching staff; other administrative; Teaching assistants.

Sectors generating most vacancies : Human health; education; public administration; Retail; Social work; Residential care.

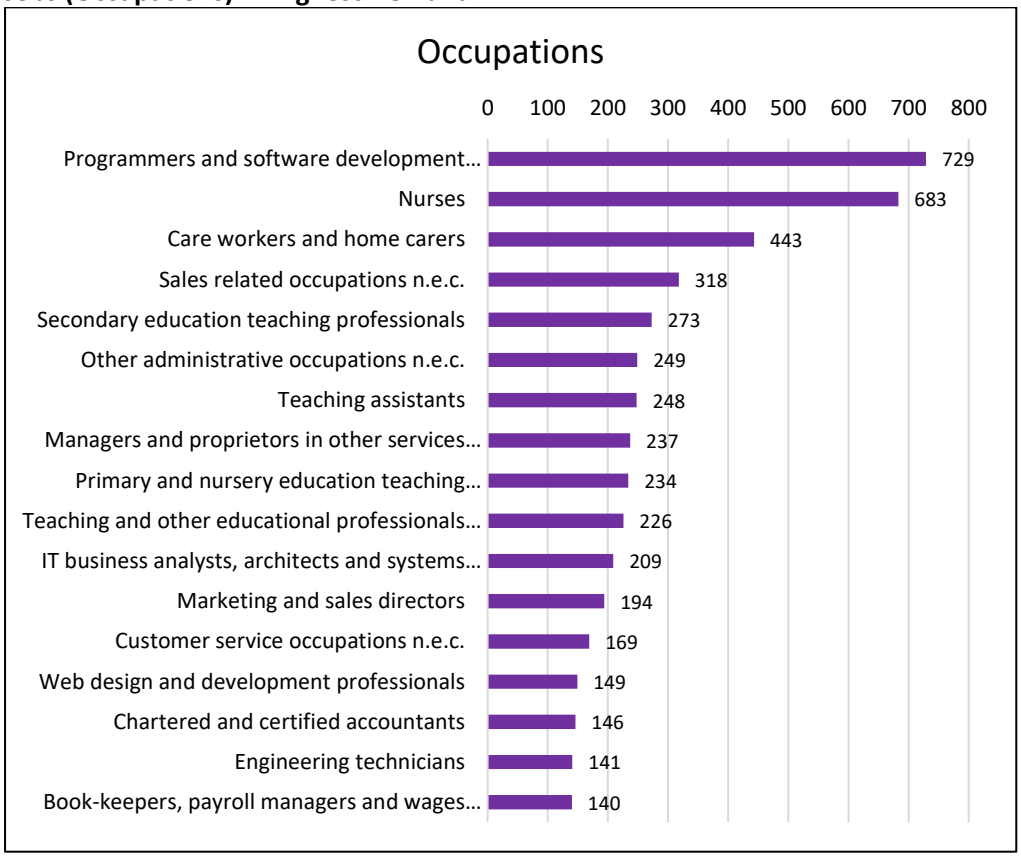
Employers with highest demand: NHS; University of Nottingham; DWP; Boots; Experian; NTU.

Skills clusters most in demand: Education and training - Teaching; Customer Support; Sales; IT - Microsoft Office; IT - software development; Budget management; Financial management.

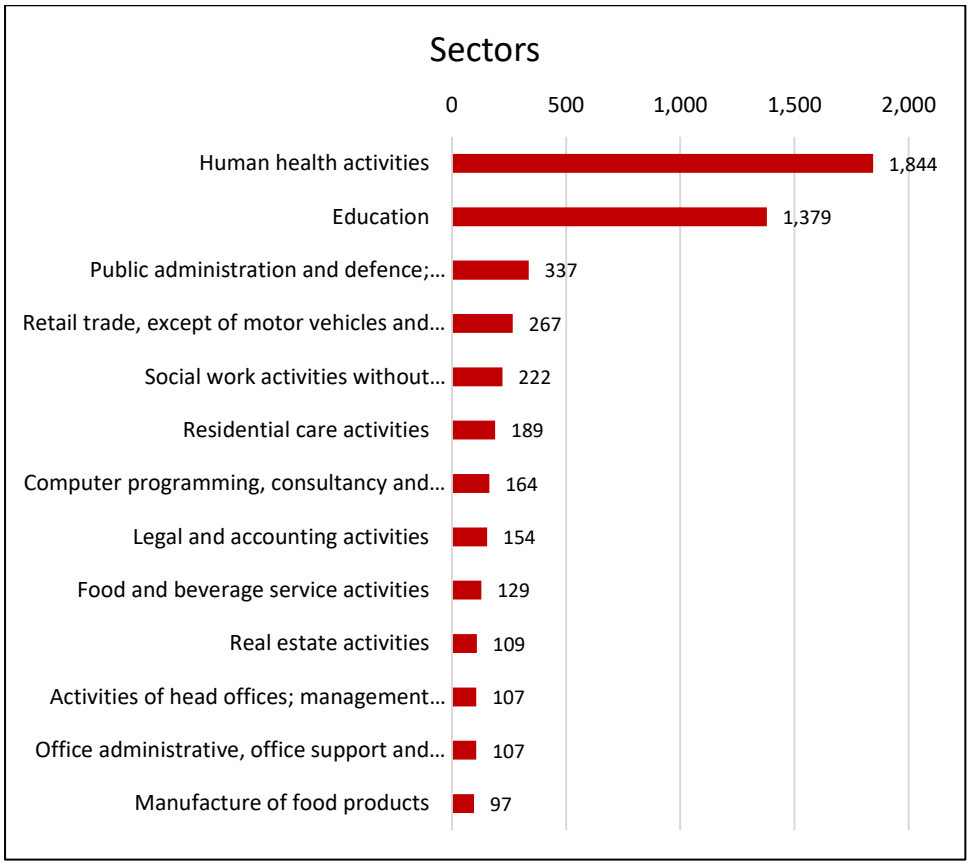
Skills sets most in demand: Teaching; Teamwork and collaboration; Customer care; Sales; Budgeting; Childcare and patient care.

Detailed Analysis

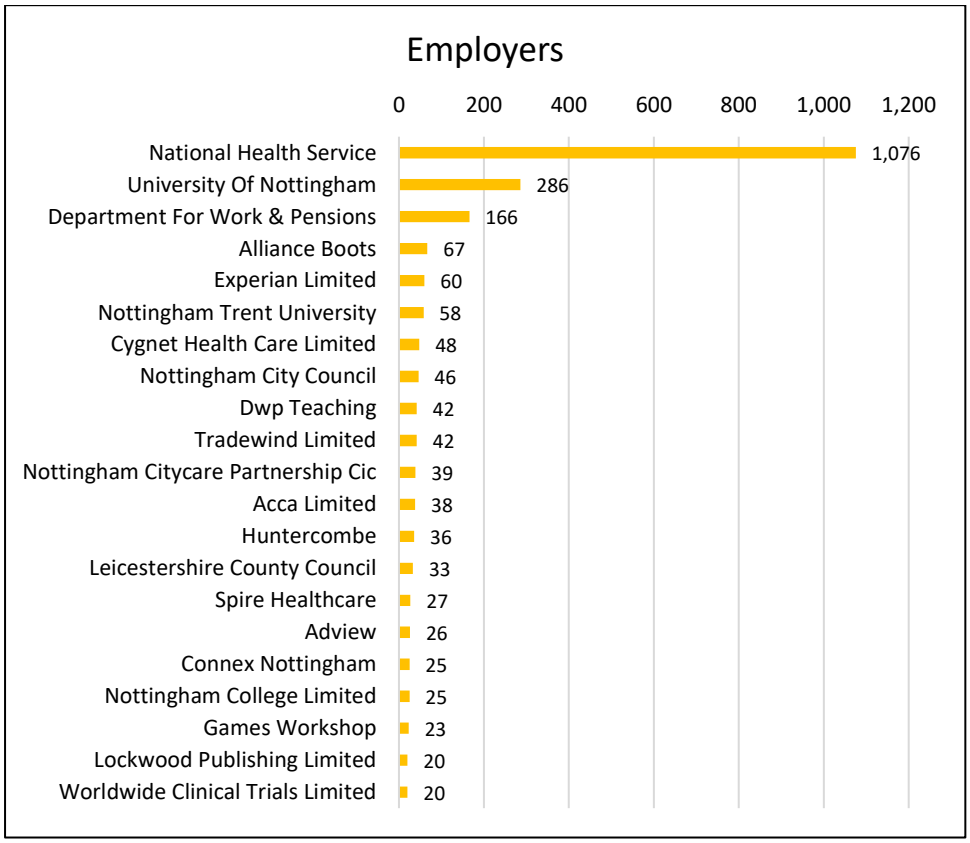
Jobs (Occupations) in Highest Demand



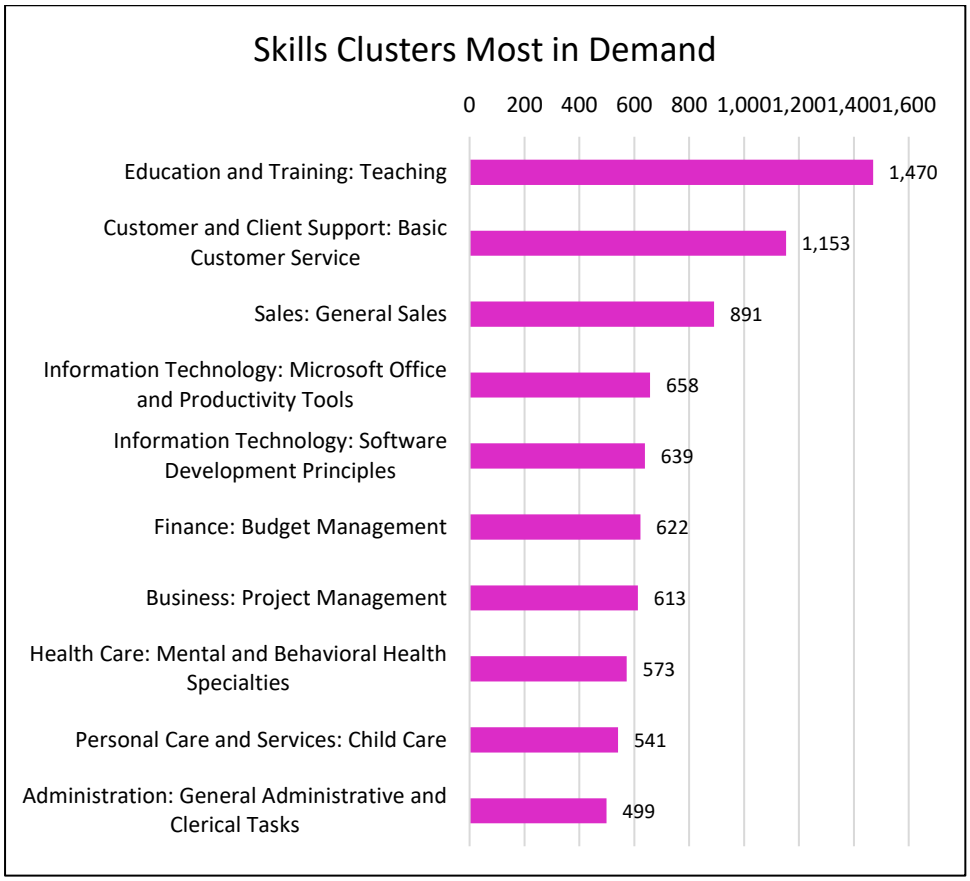
Sectors Most Affected



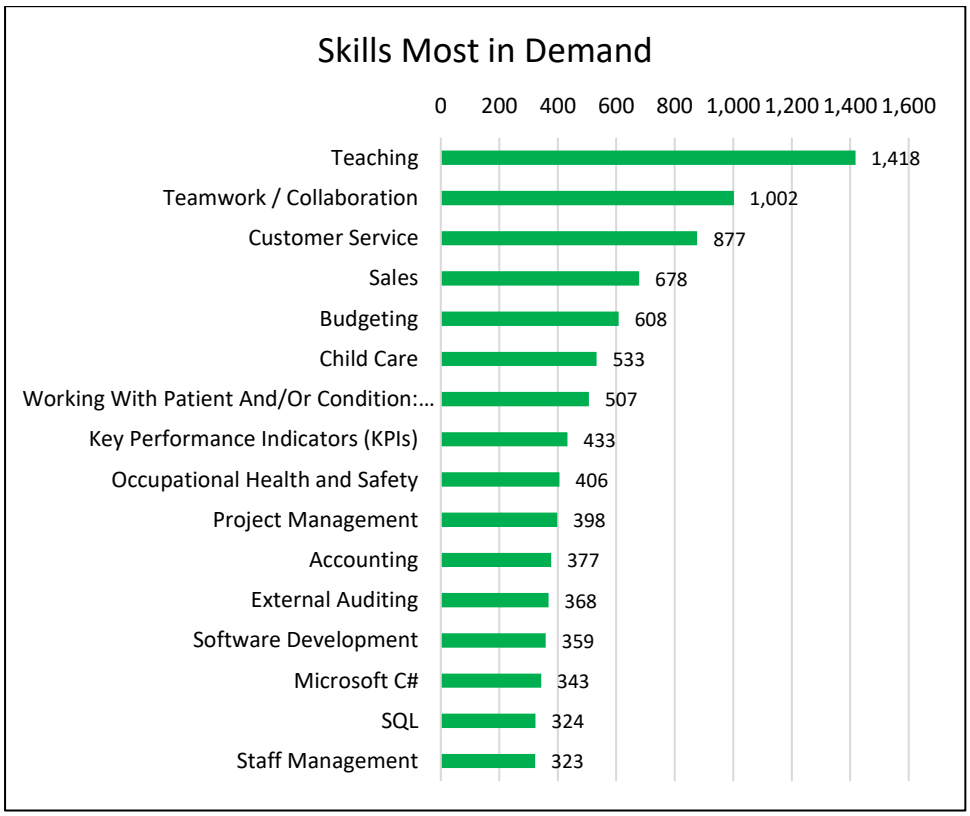
Employers with Highest Demand



Skills Clusters Most in Demand (Clusters)



Skills Sets Most in Demand



Appendix C: Standard Occupational Groups

Major Groups

- 1 Managers, directors and senior officials
- 2 Professional occupations
- 3 Associate professional and technical occupations
- 4 Administrative and secretarial occupations
- 5 Skilled trades occupations
- 6 Caring, leisure and other service occupations
- 7 Sales and customer service occupations
- 8 Process, plant and machine operatives
- 9 Elementary occupations

Sub-Major Groups

- 11 Corporate managers and directors
- 12 Other managers and proprietors
- 21 Science, research, engineering and technology professionals
- 22 Health professionals
- 23 Teaching and educational professionals
- 24 Business, media and public service professionals
- 31 Science, engineering and technology associate professionals
- 32 Health and social care associate professionals
- 33 Protective service occupations
- 34 Culture, media and sports occupations
- 35 Business and public service associate professionals
- 41 Administrative occupations
- 42 Secretarial and related occupations
- 51 Skilled agricultural and related trades
- 52 Skilled metal, electrical and electronic trades
- 53 Skilled construction and building trades
- 54 Textiles, printing and other skilled trades
- 61 Caring personal service occupations
- 62 Leisure, travel and related personal service occupations
- 71 Sales occupations
- 72 Customer service occupations
- 81 Process, plant and machine operatives
- 82 Transport and mobile machine drivers and operatives
- 91 Elementary trades and related occupations
- 92 Elementary administration and service occupations

Appendix D: Low Carbon Economy Initiatives in Nottingham

Remourban and DREeM projects

These are EU funded projects supporting an intensive retrofitting programme in the Sneinton area in order to achieve a low energy district. Remourban was an EU pilot, DREeM is an ERDF funded rollout to more properties. Nottingham was the first UK city to pilot Energiesprong ultra-low energy homes.

EnviroEnergy's District Energy Network

68km of insulated pipework carrying pressurised hot water around Nottingham City Centre and St. Anns, satisfying the heating and hot water requirements for 5,000 dwellings and over 100 commercial premises. Heat energy comes from incineration of 170,000 tonnes of municipal waste at the Eastcroft Incinerator, which is used to create a supply of super-heated high-pressure steam, pumped directly into our Heat Station.

As a Combined Heat and Power (CHP) Plant, steam is also run through generating turbines producing 60,000MWh of electricity per annum. Electricity is supplied to commercial customers through a private wire network with excess power feeding into the National Grid.

Decarbonising Transport

The Council owned Nottingham City Transport Introduced one of the UK's largest electric bus fleets and the world's largest biogas bus fleet, alongside our 20-mile electric tram network. This was supported by the introduction of the Workplace Parking Levy, which discourages driving to work where possible, and has helped finance more sustainable transport options.

Nottingham Green Partnership

The Nottingham Green Partnership recognises the environmental issues that affect Nottingham and its citizens, and aims to deliver actions that will reduce our reliance on fossil fuels, increase resilience and improve quality of life.

CleanMobilEnergy

This is a three year, European funded project which involves many partners across North West Europe working together to develop a Smart Energy Management System, integrating Renewable Energy and Electric Vehicles. The demonstrator aims to maximise the use of locally generated renewable generation to cut the carbon emissions and costs associated with charging electric fleet vehicles, as well as reducing peak demand by using vehicles for short-term storage.

University of Nottingham Environmental Technology Centre

Founded in 2000 at the University of Nottingham, specifically to help small and medium sized businesses to make improvements through the adoption of more efficient use of resources, environmentally friendly working practises and the use of cleaner and more sustainable technologies.

'Bus Rapid Transit' Corridors

Since 2014, Nottingham City Council has been delivering ambitious plans to provide a wide range of 'Bus Rapid Transit' features to each corridor under two distinct projects: Eco-Expressway to the east of the City and the Clean Air Ways to the west. Ecolink (East) and Centrelink (West) are the branded bus service names along these two separate corridors.

© Nottingham City Council 12th August 2020