

## Labour market profile – Worcester

### 1. Introduction

- 1.1. This profile shows how the labour market is projected to change in Worcester between 2006 and 2020<sup>1</sup>. It uses employment projections data produced by Cambridge Econometrics which are based on a public sector austerity scenario. The projections were generated in July 2009 in anticipation of the forthcoming Government spending cuts.
- 1.2. The public sector austerity scenario assumes that public spending will fall year-on-year through to 2013, with the sharpest fall in 2011 (by two percent), which will result in employment contracting. It assumes that spending will rise again in 2015/2016 but growth will be modest.
- 1.3. As well as drawing on employment projections produced by Cambridge Econometrics, the paper draws on sub-national population projections produced by the Office for National Statistics and our own projections on qualification levels<sup>2</sup>.
- 1.4. The analysis is focused around three points in time<sup>3</sup>:
  - **Pre-recession** - 2006 is taken as a snapshot of the labour market before the recession;
  - **Post-recession** - 2010 is taken as a snapshot of the labour market as the recession ended; and
  - **Long-term** - 2020 is taken as a snapshot of the labour market in the future to give an idea of longer term trends.
- 1.5. This paper uses the following indicators to measure labour market supply and demand:
  - Number of jobs in the workplace by occupation;
  - Population change and supply of working age people;
  - Residence employment and worklessness levels;
  - Job density by occupation; and
  - Residence qualification levels.

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<sup>1</sup> We will also be producing labour market profiles for Local Authorities in the West Midlands and a regional profile which draw together the key findings from these.

<sup>2</sup> There are no robust projections in place to give an indication of future qualification levels. As a proxy measure, we have projected qualification levels based on current trends. We did this by calculating the average annual rate of change from 2004 to 2009 in the number of people qualified at each NVQ level and applying this to future years. The qualification projections are the least robust as they are based on a fairly short term trend. Also the data was taken from the Annual Population Survey rather than being a count of people with each qualification.

<sup>3</sup> The time points we chose were restricted by dates that the projections were available for: 2001, 2006, 2010, 2020, 2026 and 2031.

- 1.6. There are a few caveats to bear in mind. This paper looks at *total employment* in the workplace rather than *new jobs* created. Many of the jobs in the workplace will already be filled by people so the figures don't show which occupations will offer the most new jobs in the future.
- 1.7. Also, the paper does not take into account 'replacement' demand for jobs which arises as people retire from the workforce. Some occupations have an older workforce than others so job opportunities will arise as retiring staff are replaced. Therefore, it shouldn't be assumed that occupations with the most employment will have the most new jobs or that replacement demand will be the same across all occupations.
- 1.8. For further information on the methodology used, please refer to the methodology paper.

## 2. Overview of key issues

2.1. In summary, the key labour market issues for Worcester are as follows:

- There will be slightly fewer jobs in Worcester's workplace in 2020 than in 2006 (-400 jobs). These jobs will be lost between 2006 and 2010.
- The working age population in 2020 will be slightly bigger than in 2006.
- The number of jobs per 100 working age residents in 2020 (91) will be similar to in 2006 (93). This will mean there still won't be enough jobs to keep all working age people in employment.
- Not all working age residents want to work, if you take out these residents, Worcester had enough jobs to employ all of its residents in 2006 and is projected to in 2020.
- There will be 3,800 more workless residents in Worcester in 2020 than in 2006. Worcester's employment rate will fall from 81 percent in 2006 to 74 percent in 2020. Worcester's employment rate (74 percent) in 2020 will be above the West Midlands average (70 percent).
- The occupational structure of the labour market will change. Higher skilled occupations<sup>4</sup> will account for the most employment in 2020 (rising from 43 percent in 2006 to 47 percent in 2020). Lower skilled occupations will lose jobs over 2006 and 2020.
- Skilled trade occupations will lose the most jobs between 2006 and 2020 (-2,300). Personal services will gain the most jobs over 2006 and 2020 (+1,800).

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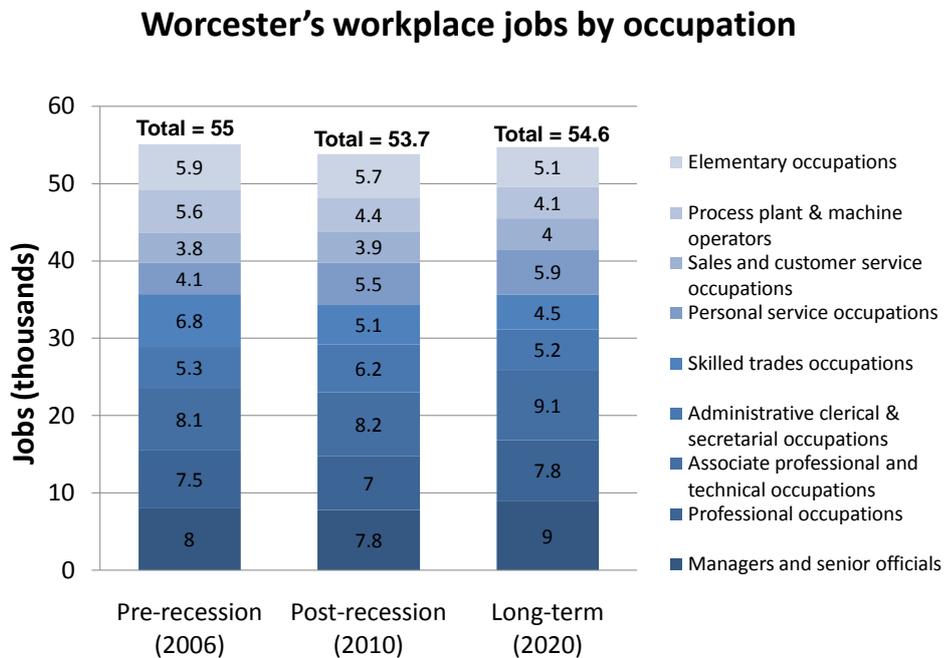
<sup>4</sup> This includes: managerial and senior professional, professional, and associate professional and technical occupations.

- There is a ‘mismatch’ between skills supply and demand. In 2006 there were 3,300 more higher skilled jobs than higher skilled residents in Worcester. By 2020, there will be 2,700 more higher skilled people than higher skilled jobs.
- There were 2,700 more unskilled 16-64 year olds in Worcester in 2006 than unskilled jobs. If current trends continue, there will be 1,200 more unskilled 16-64 year olds than unskilled jobs in 2020.

### 3. Fewer jobs in the workplace

3.1. Worcester’s economy will remain fairly stable between 2006 and 2020, losing just 400 jobs over this period. In contrast, the region will lose a number of jobs over this period. These jobs will be lost between 2006 and 2010. Worcester will gain a few jobs over 2010 and 2020.

Figure 1



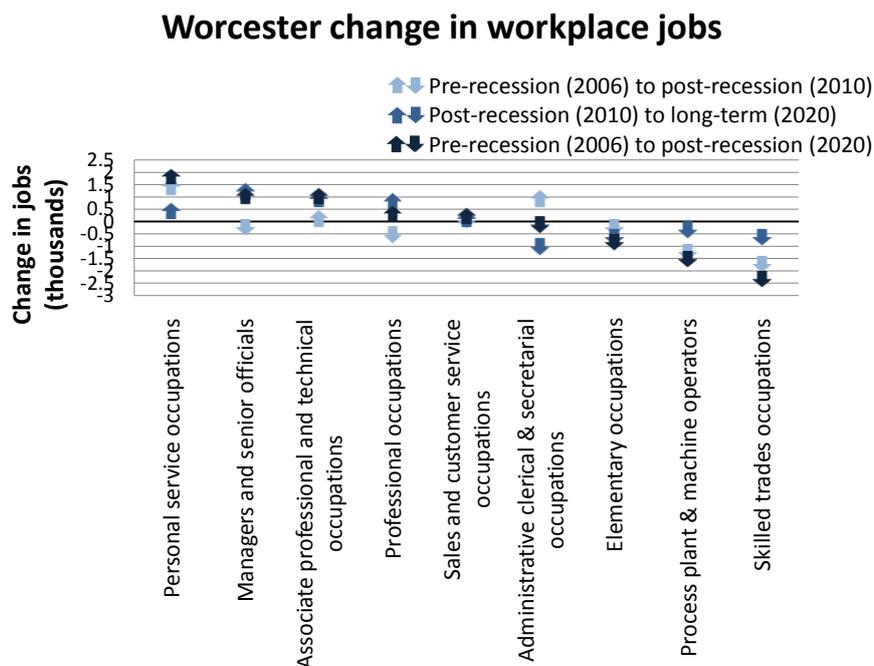
Source: Cambridge Econometrics employment projections – austerity scenario

3.2. The loss of workplace jobs between 2006 and 2020 in Worcester will be the third smallest of all West Midlands’ Local Authorities.

#### 4. Lower skilled occupations most vulnerable to job losses

4.1. As the number of workplace jobs contract, Worcester’s occupational structure will change (see Figure 2). Lower skilled occupations will contract over 2006 and 2020 whilst higher skilled, personal services and sales and customer services occupations will grow.

Figure 2



Source: Cambridge Econometrics employment projections – austerity scenario

4.2. Skilled trades occupations will be hit the hardest - losing 2,300 jobs. The following occupations will also lose jobs over 2006 and 2020: process plant and machine operators (-1,500 jobs), elementary occupations (-800 jobs) and administrative, secretarial and clerical (-100 jobs). Regionally, skilled trades will also lose the most jobs.

4.3. All of these occupations apart from administrative, clerical and secretarial occupations will lose jobs between 2006 and 2010 and again between 2010 and 2020. Administrative, clerical and secretarial occupations will gain jobs between 2006 and 2010 and lose jobs between 2010 and 2020.

4.4. In 2020, all occupations will still have fairly significant employment shares. Sales and customer services occupations will have the smallest employment share (7.3 percent). Sales and customer services also had the smallest employment share in 2006 (6.9 percent).

## **5. Higher skilled occupations more resilient to job losses**

- 5.1. Higher skilled occupations<sup>5</sup> will gain 2,300 jobs overall between 2006 and 2020. Although managerial and senior official and professional occupations will lose jobs between 2006 and 2010, they will gain jobs between 2010 and 2020 to offset these losses. Associate professional and technical occupations will gain jobs between 2006 and 2010 and again between 2010 and 2020.
- 5.2. This is similar to the regional trend, except that regionally professional occupations will offer fewer jobs in 2020 than in 2006.
- 5.3. Overall, higher skilled occupations will account for a larger share of employment in Worcester in 2020 (47 percent) than in 2006 (43 percent).

## **6. Personal services occupations will expand the most**

- 6.1. Personal services occupations<sup>6</sup> will gain the most workplace jobs over 2006 and 2020, resulting in 1,800 new jobs being created (1,400 between 2006 and 2010 and 400 between 2010 and 2020). By 2020 personal services occupations will account for 10.8 percent of Worcester's employment – over three percentage points more than in 2006. Sales and customer services occupations will also gain jobs over 2006 and 2020 (+200 jobs).
- 6.2. These trends are similar to the region except that the region will also gain jobs in administrative, secretarial and clerical occupations.

## **7. Population profile**

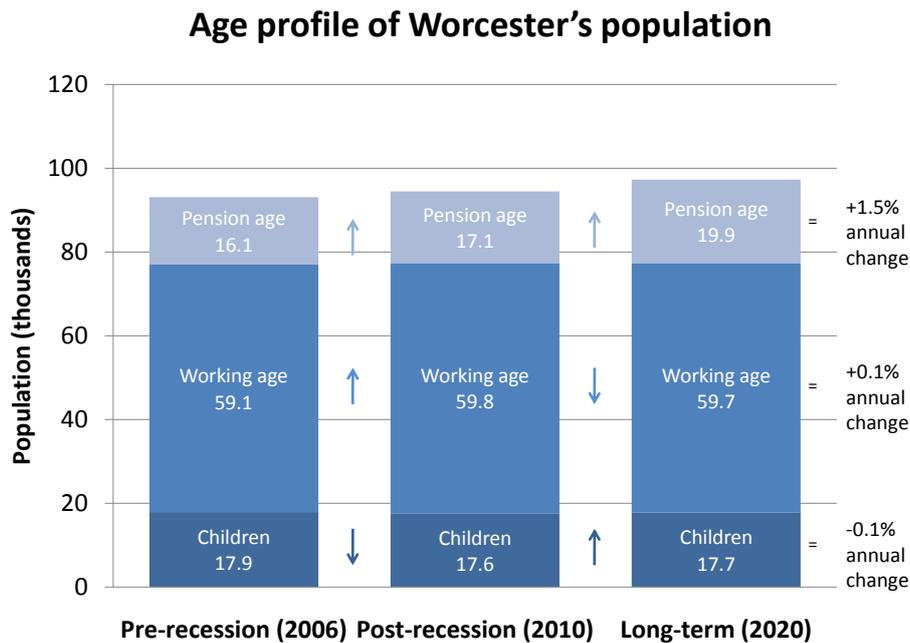
- 7.1. Worcester's population is projected to grow between 2006 and 2020 (see Figure 3). This growth will be driven by more people being born than dying. As the existing population ages, the pension age and working age population will increase. The number of children will increase as more children are born.
- 7.2. Overall, working age people will account for a smaller proportion of the population in 2020 (61 percent) than in 2006 (64 percent). Overall annual population growth between 2006 and 2020 is projected to be the fourteenth smallest of all West Midlands' authorities.

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<sup>5</sup> This includes: managers and senior officials, associate professionals and technical staff and professionals.

<sup>6</sup> Personal service occupations includes the following jobs: nursery nurses and assistants, childminders and related occupations, play workers, teaching assistants, educational support assistants, veterinary nurses, pest control officers, animal care services, nursing auxiliaries and assistants, ambulance staff, dental nurses, houseparents and residential wardens, care workers and home carers, senior care workers, care escorts, undertakers, mortuary and crematorium assistants

Figure 3



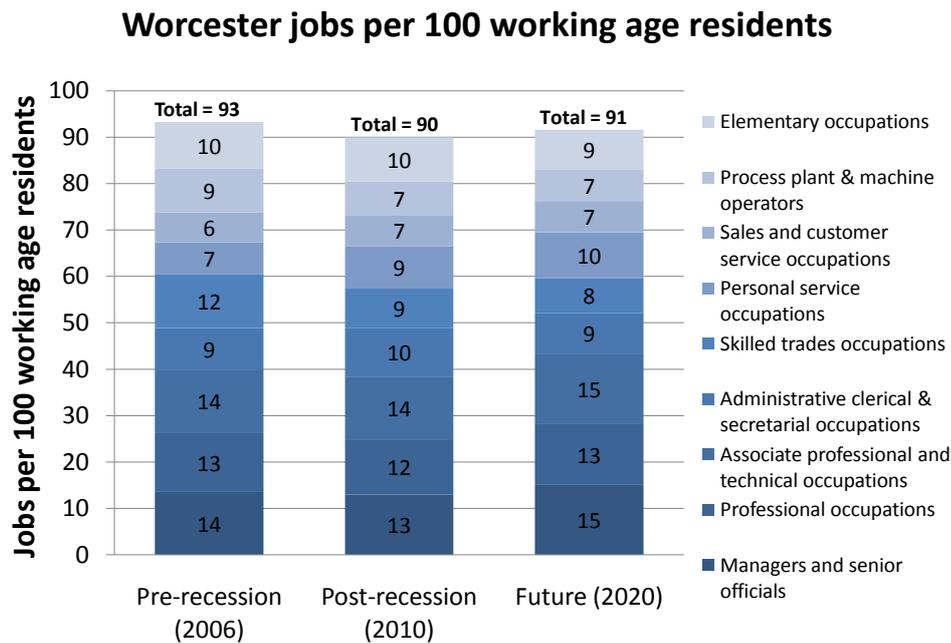
Source: ONS 2006 mid-year estimates, ONS 2008-based sub-national population projections

## 8. Enough jobs to keep people employed?

- 8.1. If the projections are correct, as Worcester's workplace employment remains fairly stable between 2006 and 2020 and working age population grows marginally, job availability will not change much.
- 8.2. Figure 4 shows there still won't be enough jobs for all working age people to enter employment in Worcester by 2020 (91 jobs per 100 working age people in 2020). This will be two jobs less per 100 working age people than in 2006. This issue will be further exacerbated by an increase in the state pension age. As people work for longer, fewer opportunities will arise from replacement demand (created when people retire).
- 8.3. Although, Worcester's residents can commute to other areas for work, the lack of available jobs is clearly a barrier to addressing economic inactivity. In 2009, 20.2 percent of Worcester's residents aged 16-64 were economically inactive<sup>7</sup>, which was slightly below the UK average (23.5 percent).

<sup>7</sup> This group includes people that are not in employment, and are either not seeking work or not available to start work.

Figure 4



8.4. This issue is further exacerbated by there not being enough jobs to keep working age people employed in the region. For example, in 2006 there were only 81 workplace jobs for every 100 working age people in the West Midlands. This means that if all working age people wanted a job in the region, they would have to work outside of the West Midlands.

8.5. Compared to other Local Authorities, Worcester’s job density per 100 working age residents will improve from seventh best in 2006 to fifth best in 2020.

### 9. Fewer jobs will be available in a number of occupations

9.1. Figure 4 shows that the following occupations will lose jobs per 100 working age people between 2006 and 2020: skilled trades (-4 jobs), process plant and machine operators (-3 jobs), and elementary occupations (-1 job). The following occupations will offer the same number of jobs in 2006 as in 2020: professional, administrative, clerical and secretarial, and sales and customer services.

9.2. All remaining occupations will gain jobs per 100 working age people over 2006 and 2020. Personal services will gain the most jobs per 100 working age (+3 jobs).

### 10. Over a third of jobs will be in higher skilled occupations

10.1. Higher skilled occupations will offer the most jobs per 100 working age people in 2020 as in 2006. These occupations (managerial and senior official, professional, and associate professional and technical) will provide 40 jobs per 100 working age people in 2006 rising to 43 jobs per 100 working age people in 2020.

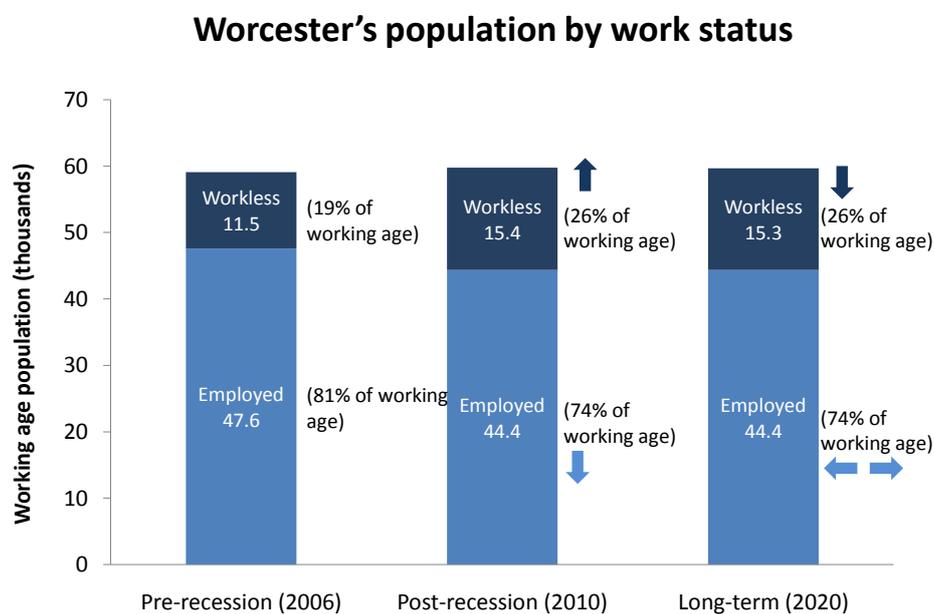
10.2. In contrast, sales and customer services and process plant and machine operator occupations will offer the least jobs per 100 working age in 2020 (7 jobs per 100 working age people each). This was similar to 2006 when sales and customer services offered the least jobs (6 jobs per 100 working age).

## 11. The employment rate will fall

11.1. As Worcester’s working age population grows and the number of workplace jobs fall over 2006 and 2020, the employment rate is projected to fall from 81 percent in 2006 to 74 percent in 2020 (see Figure 5).

11.2. The number of workless residents<sup>8</sup> in 2020 will increase from 2006.

Figure 5



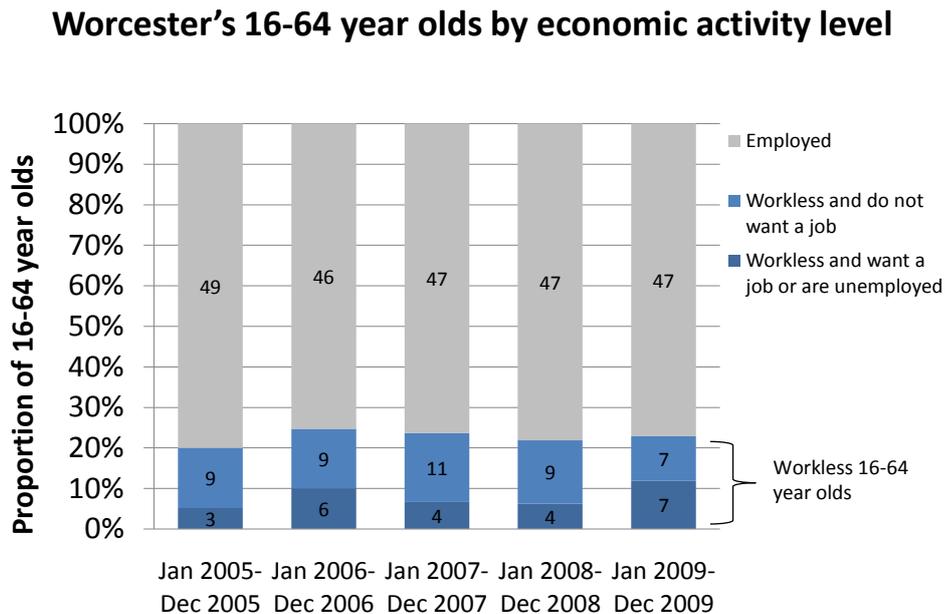
Source: Cambridge Econometrics residence based employment projections, ONS 2008 based sub-national population projections

<sup>8</sup> We have adopted the broadest definition of worklessness, which includes anyone not holding a job. This does not distinguish between those that want to work and those that don’t want to work.

## 12. Although not all those without work require a job

12.1. For context, Figure 6 distinguishes between the proportion of 16-64 year olds that were workless and wanted to work<sup>9</sup> (12 percent) in 2009 and those that were workless but didn't want to work<sup>10</sup> (11 percent). This shows that although 23 percent of 16-64 year olds were workless, only 11 percent of 16-64 year olds didn't have a job but wanted one.

Figure 6



## 13. More jobs than people that want to work

13.1. If this split between workless people in terms of those that do and don't want to work is applied to the 2020 projection, the oversupply of labour is less than first anticipated, but remains significant. This shows there were 6,000 workless people that wanted to work in 2006 rising to 8,000 in 2020.

13.2. This figure still seems high, but there were 1,500 more jobs available in Worcester than people that wanted to work in 2006<sup>11</sup>. By 2020 there are projected to be 2,300 more jobs in Worcester than people that want to work. This indicates that these jobs

<sup>9</sup> This includes people that are economically active but don't have a job, and those that are economically inactive but want a job.

<sup>10</sup> This includes people that are not seeking work, and those that are unavailable to start work and don't want to work.

<sup>11</sup> This figure doesn't take into account people filling jobs from outside of Worcester. It just compares the number of jobs available in the workplace to the number of working age people that want to work. People that want to work are defined as those that are economically active and those that are economically inactive but want a job.

were filled by people living outside of Worcester and the workless residents didn't have the right skills to fill them.

13.3. There are a number of reasons for people not wanting to enter into the labour market and people can contribute to the labour market without entering paid employment. For example, those caring for young children are raising the future workforce for the economy, but are classed as workless. Also, those in training are developing their skills to enable them to enter into the labour market in the future, but are also classed as workless. In addition, those who cannot enter work because they are: caring for elderly or disabled relatives, or are ill are classed as workless. Therefore, it is unlikely that we would ever reach a point where all working age people wanted a job.

#### **14. Qualification levels are improving**

14.1. Figure 7 shows trends in the highest qualification held by Worcester residents aged 16-64<sup>12</sup>. We deem those without qualifications to be unskilled and those qualified to NVQ level 4+ to have higher skill levels.

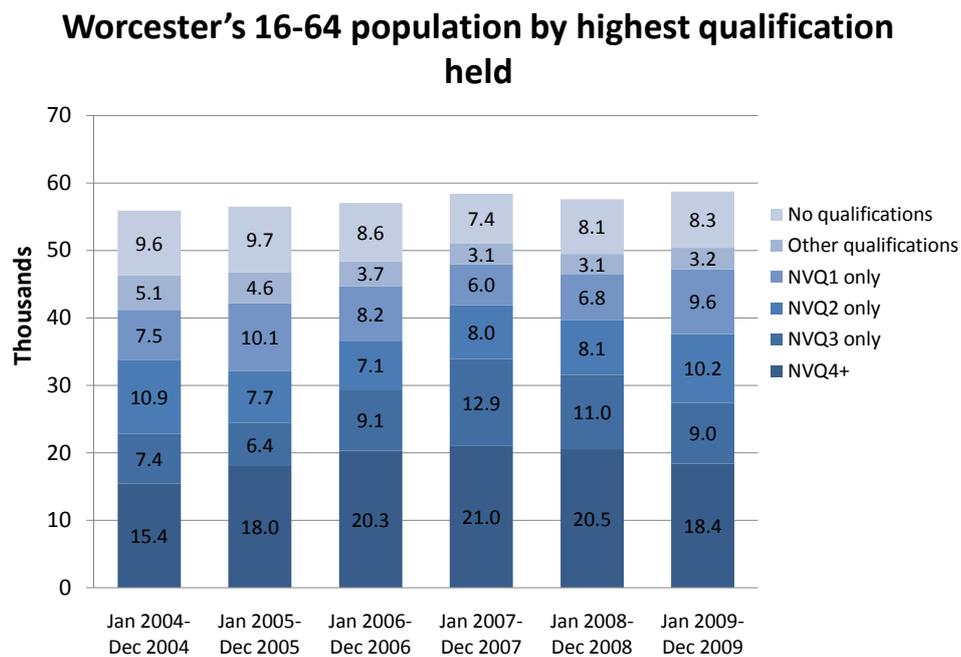
14.2. Figure 7 indicates that the number of 16-64 year olds without qualifications living in Worcester decreased slightly over 2004 to 2009. Worcester's rate of residents aged 16-64 without qualifications in 2009 (13.6 percent) was below the West Midlands average (16.2 percent).

14.3. The number of residents qualified to NVQ level 4+ increased in Worcester over this period. In 2009 the proportion of residents aged 16-64 qualified to NVQ level 4+ in Worcester (30 percent) was above the West Midlands average (24.8 percent).

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<sup>12</sup> This data is only available for the 16-64 age group. Elsewhere in the report we define working age as men aged 16-64 and women aged 16-59.

Figure 7



Source: Annual Population Survey

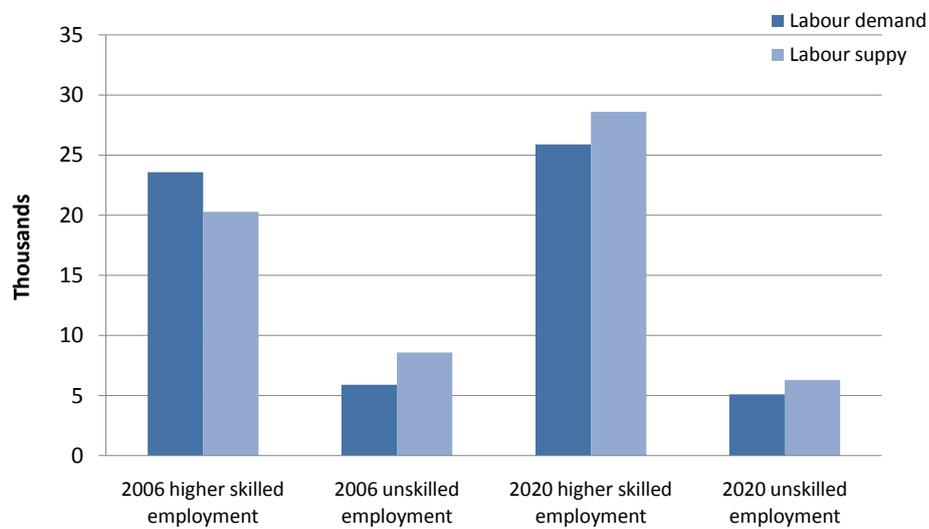
## 15. There is a 'mismatch' between skills supply and demand

15.1. Figure 8 shows the skills supply in Worcester in 2006 compared to skills demand. It also shows how skills supply and demand will compare in 2020 *if* current trends in qualification levels continue<sup>13</sup>.

<sup>13</sup> This Figure is an approximation. The data was calculated by applying the average annual rate of change at each qualification level (over 2004 to 2009) to future years. Therefore it does not take into account population projections.

Figure 8

### Mapping skill supply against labour demand



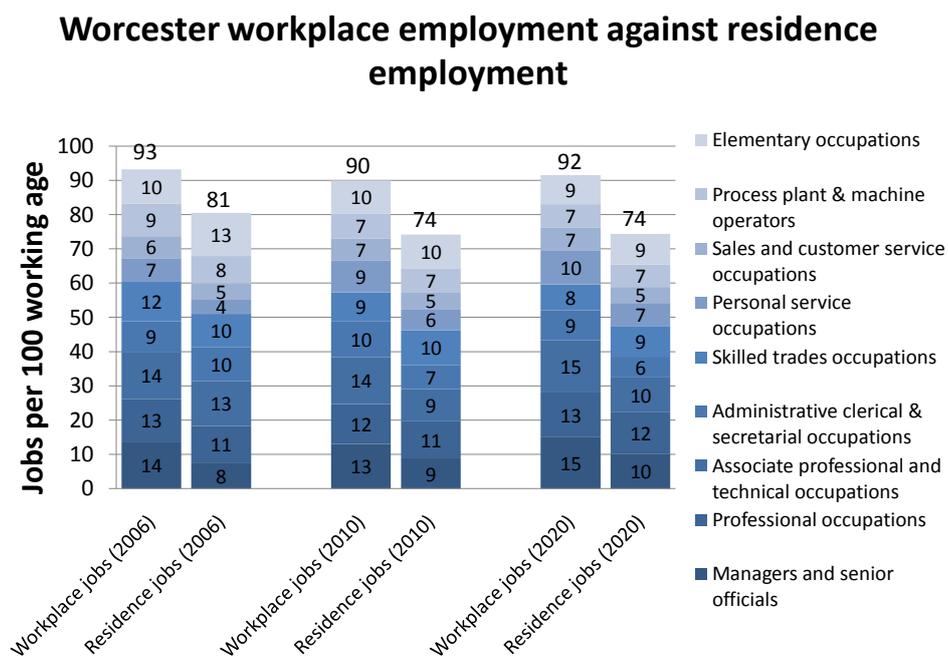
Source: Cambridge Econometrics employment projections and Annual Population Survey – residence based

- 15.2. Figure 8 shows there were more higher skilled jobs in Worcester in 2006 than higher skilled residents. This suggests that people commuted into Worcester for higher skilled work. It also shows there were more unskilled people than unskilled jobs in Worcester in 2006.
- 15.3. The number of people qualified to NVQ level 4+ is projected to increase up to 2020 so there will be more higher skilled residents than higher skilled jobs available. The number of 16-64 year olds with no qualifications will fall but there will still be slightly more unskilled people than unskilled jobs by 2020.

## 16. Skills imported from other areas

- 16.1. Figure 9 shows which jobs were on offer in the workplace in 2006 by occupation per 100 working age residents, compared to the jobs held per 100 working age residents living in Worcester. It also looks at how this will change up to 2020. This helps to indicate where skills mismatches are and will occur.
- 16.2. Figure 9 shows there were more residents employed<sup>14</sup> in the following occupations in 2006 than workplace jobs available: administrative, clerical and secretarial and elementary.
- 16.3. There were more workplace jobs available than residents employed in all other occupations. This indicates that people commuted into Worcester for work. Managerial and senior official occupations attracted the most commuters, there were 14 jobs on offer in the workplace per 100 working age residents but only 8 residents per 100 working age people employed in managerial and senior official occupations.

Figure 9



Source: Cambridge Econometrics, Office for National Statistics

- 16.4. By 2020, residents will only commute out of Worcester for work in skilled trade occupations. The number of residents employed in process plant and machine operator and elementary occupations will be equal to the number of workplace jobs available. People will commute into Worcester for all other occupations.

<sup>14</sup> It is important to note that this doesn't necessarily mean local residents filled all of the other jobs available in the local labour market. The residence based data doesn't record which area the resident is working in, just the area that they live in. Therefore, residents may still be commuting to other areas for employment.

## **17. Conclusions**

- 17.1. Overall workplace employment levels will remain fairly stable in Worcester whilst the working age population will grow slightly. This will mean that job availability in 2020 will be similar to in 2006 and there still won't be enough jobs available for all working age people.
- 17.2. The occupational structure of the labour market will shift. The following occupations will gain jobs: personal services, sales and customer services, managerial and senior official, professional and associate professional and technical. All other occupations will contract, with skilled trades losing the most jobs. Higher skilled occupations will offer the most employment.
- 17.3. There is a mismatch between the supply and demand of skills in Worcester's labour market. Worcester has more higher skilled workplace jobs than higher skilled residents and slightly more unskilled residents than unskilled jobs.
- 17.4. Over 2006 and 2020, the supply of higher skilled residents will increase so there will be more higher skilled people than jobs by 2020. The number of unskilled people is projected to decrease but there will still be slightly more unskilled people than jobs in 2020.
- 17.5. Employment levels in 2020 will be lower than in 2006, and worklessness is expected to increase.

## **18. Follow on research**

- 18.1. The West Midlands Regional Observatory (WMRO) is undertaking research to identify which skills will be needed in the future. The paper is called 'skills to support transformational change' and will be published at the end of October. This will help policy-makers understand which skills they need to develop for new jobs.
- 18.2. The skills team at Advantage West Midlands are also working towards developing skills to create new jobs in the West Midlands. This will help to address job shortages in the wider West Midlands.