The reasons behind regional unemployment differentials

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This essay will look at the reasons behind regional unemployment differentials, looking at various theoretical explanations as to why these differences may occur. The two main theoretical accounts that will be looked at are the disequilibrium theory and the equilibrium theory. Within the equilibrium theory there are two models incorporated, the amenity and the matching models, which are used to explain reasons behind unemployment differentials. I will then focus on several pieces of empirical evidence to justify these theories, and give a more realistic analysis into why and how these disparities transpire.

Unemployment rates vary across both time and area, this essay will seek to understand some of the reasons behind these varying differences between regions. Unemployment differences are affected due to various factors, these can be in the form of basic household decisions, business decisions, wage flexibility and decisions that inevitably effect migration and labour force

participation. These forces will have a positive or negative effect on the unemployment rate either increasing or decreasing disparities between regions. These two conflicting theories that will be looked at in detail can help explain why unemployment varies from region to region.

Theoretical explanations

Disequilibrium Theory

This classical theory states that regional unemployment differences are temporary; it assumes that given enough time, the unemployment rate will adjust to equalisation across space. Unemployment can then be reduced through inter-regional migration, the movement between two or more regions having an effect on a regions unemployment rates bringing them closer together. The problem however is that the theory states that these equilibrating forces are weak and the process of adjusting to equilibrium may be slow, so substantial unemployment differences between regions may persist for longer periods of time. A reason for it persisting may be due to a shock that raises unemployment locally, for example if a region experiences a factory closure. However, there are several factors that effect the speed of adjustment, one of the main reasons is the flexibility of households and firms, Household/institutional inflexibility slow down regional convergences. Where they are more flexible, the adjustment process will be faster. An example of this flexibility in relation to inter-regional migration decisions could be where an individual chooses to move to an area where the likeliness of successful employment is higher, or a firm basis its decision to set up business in an area that offers a larger pool of labour They do not

however react as quick as households as the decision to move is costly and less easy to reverse causing reluctance.

The forces that are seen to be weak that affect the speed of adjustment include migration, capital flows and the flexibility of wages, but these forces are also dependent on sub factors that could influence the speed of adjustment on both the labour demand and labour supply sides. These factors include aspects such as age, education, unemployment benefits, crime, demand and supply shocks etc. Looking at age, it is usually agreed upon that younger people are more likely to move as they have a lower opportunity cost of migrating therefore less risk. If the unemployment rate is high in one region that has very few young people, this then allows us to conclude that the fall in unemployment is unlikely to fall quickly[1]. Alternatively if we look at young adults that live with their parents at home, for them the risk and cost is much higher of moving out with the stress of finding a new home and managing costs etc. Educationally, this can have a huge effect on individuals migrating decisions and employment opportunities. Better educated workers are more likely to move in response to economic opportunities thus raising their chances of finding employment. The labour market for skilled workers is also much bigger allowing for an easier job search that may bring greater result in attaining a job. McCormick and Sheppard backed this by finding that regions with a larger proportion of less skilled workers are likely to suffer higher levels of unemployment[2].

A higher level of education also gives an individual better job information, giving him/her higher possibilities of finding jobs elsewhere. Higher educated workers are also said to have less psychological unwillingness to re-locate,

especially if it meant to pursue further studies or for career advancement (Gabriel et al).

Other factors that can affect a regions speed of adjustment can include whether living in a rural or urban setting. Living in a more rural area may mean that adjustment may be much slower to that of an urban area. If a factory was to shut down in an urban area, workers can apply the same skills to a nearby factory allowing for an easy transition from one job to another without moving. Labour mobility would be higher if the cost of moving was cheaper, but in most cases the costs are very high. These costs can be from basic transport costs from one area to another to most importantly housing market prices relative to the time of migration etc. Unemployment rates will also converge at a slower rate if unemployment benefits are generous, thus meaning that the pressure to find a new job is reduced by a great amount as there is less stress to go out and seek employment.

Disequilibrium theory offers an explanation for regional unemployment differences and how forces affect the adjustment process in relation to equalisation. The next theory offers an explanation that looks at unemployment on a more individualistic level based on preferences.

Equilibrium Theory
Equilibrium theory or equilibrium unemployment reflects the workers preferences for certain areas[3],

another way of describing this situation could be in terms of job search. This theory expects out migration from regions that experience high levels of unemployment, thus accepting the concept of free mobility. Each region is

seen to be at its natural state of unemployment where the national rate of unemployment is determined by each region compensating its attractiveness to workers, or in other words reflecting its regions favourable services or comforts. Regional unemployment disparities exist in this theory of equilibrium unemployment, thus expecting out migration in order to seek employment, however some individuals decide to stay in areas of high unemployment. This inclination to stay must be compensated in some way to induce them to stay voluntarily. The three main compensating factors are attractiveness of amenities, high wages and high unemployment benefits. The unemployed will not work for lower than expected wages, this is because the benefits of seeking for a job outweigh the low wages that are on offer. This then results in the wage rate failing to clear the market at completely full employment. Another determining factor in the search for employment is an individuals or households preference for certain living areas.

Within equilibrium regional disparities two models have emerged, the amenity and matching models. The amenity model considers regional variation in job opportunities to be essentially compensating in nature[4]. The matching model introduces costs into the framework.

The Amenity Model

This model works on the assumption that households are free to move between regions. Households will migrate to certain areas based on the attractiveness of living conditions or amenities, e. g. climate, public services, transport, education. Firms also expand business in areas that present encouraging conditions for example a solid infrastructure and a healthy

available amount of natural resources. Migration occurs up until the point where utility or profits have been eliminated from that particular area.

Firstly we consider a household that is mobile between regions. The utility function of this household can be written as U= f(w, ur, a), where utility is a function of regional wage rate (w), regional unemployment rate (ur) and regional household amenities (a). Regional wages and unemployment are linked by a wage curve that can be expressed as w= f(u). In relation to figure 1, the zero migration locus and the wage curve equally determine the equilibrium regional unemployment and wage rates as a function of the amenity level, equilibrium is when both the locus and wage curve intersect. Higher unemployment rates would have to be compensated for by a higher wage rate or better amenities, thus stopping households from moving. An increase in amenities (a) would cause a downwards shift of the locus no longer part of equilibrium, households then experience in migration until a new equilibrium is reached with higher unemployment and lower wages. Wages are flexible and workers can move between labour markets in response to better amenities on offer, which can result in permanent differences in the wage and unemployment rates. We expect wages to be lower and unemployment to be higher in areas where amenities are positive, divergence would only occur if the labour market does not clear in response to negative shocks. If the labour market did respond quickly, this would reduce labour demand reducing wages, resulting in out migration to places that offer higher wages. A reason for unemployment disparities could be due to negative demand shocks affecting particular regions. Regional unemployment differentials may persist due to differences in amenities, for

example higher unemployment in regions with better climate and infrastructure etc, but amenities change slowly over time therefore unemployment differences are also going to move slower over time.

Figure 1[5]

The Matching Model

The amenity model assumes that the migration of households and firms are a response to differences in utility or profits for firms, the matching model introduces the concept of moving costs. At each period part of the workforce are made redundant, thus having to both leave the region and face the costs of moving or search for a job. As Unemployment rates increase, the labour market becomes more and more congested, therefore increasing the cost of searching for a job leaving it more profitable to migrate. Those who choose to stay enter the unemployment pool, where the probability of finding employment is a declining function of the regional unemployment rate. For equilibrium the flow of redundant workers is equal to the flow of workers leaving the unemployment stock, shown in figure 2. Regional unemployment and migration is dependant on the rate of job destruction within a region, the higher the job destruction the higher the unemployment rate therefore higher out migration is experienced.

Figure 2[6]

A major influence on this is a regions industry mix, Regional job destruction is affected by a regions industry mix, where declining industries compete with fast growing industries. Backward regions with a poor industry mix will be seen as having high unemployment and a high rate of net out migration.

This high level of regional unemployment is due to the congestion of the labour market in these declining regions that have poor industry structures. Fast growing industries can allow for the creation of new jobs, where a firm has open places for those who seek employment. Job creation is dependent on the information that is available to the potential workers, again highlighting that those better educated may be the ones who have access to this information. Job creation can come through government spending stimulating investing in projects or new services, through legislation and monetary policy or through the creation of new industries.

These two models have very differing policy implications. For the amenity model, government regional policies may not be very effective in reducing unemployment due to population movements and capital flows restoring equilibrium disparities. On the other hand, with the matching model, government policy may be able to reduce unemployment by stimulating and promoting fast growing industries in declining regions.

Empirical Evidence

Green 1998[7]

Green looked at regional unemployment disparities in the UK to gain a better understanding as to why unemployment rates vary between different geographical areas. His study examined unemployment rates for a sample of 10, 000 areas in the U. K and used data from the census of the population. One of the main focuses was on what factors are most correlated with disparities. Greens findings were that between 50-60% of variation in unemployment rates between small areas in Great Britain can be accounted

for the following factors; high unemployment in areas that had a high proportion of people with low income within that area or lived in rented accommodation, also poorly qualified individuals that live in large cities. Green found a distinct geographical concentration of those most at risk of becoming unemployed, and suggested the need for spatially discriminating policies in order to lower unemployment.

Taylor, Bradley (1997)[8]

Taylor and Bradley set out to investigate regional unemployment in Germany, Italy and in the U. K. Their findings discovered that two factors had a huge influence on regional unemployment differences. The first was that unemployment is higher in regions that show high labour costs, this finding was consistent with numerous studies such as studies by Bean (1994) and Cameron & Muellbauer (1999). One of the main causes of persisting unemployment in the EU since early 1980's has been that real wages have been too high and fail to respond to slack labour demand, this compares to much greater responsiveness in the United States. From 1970 to 1993 employment in the U. S. A increased by 50% while real wages increased by 10%, as for the E. U., employment rose by 15% while real wages by 50%. Martin (1988) agreed that the real wage was a key variable and that wage is unresponsive to unemployment in regions that experience high unemployment rates. He found that the lack of flexibility and low migration was a response to wage and unemployment differentials key to regional unemployment in Germany. The second finding was that a regions export base is likely to have a dominant effect on economic performance. A regions demand for labour is dependent on its industry mix, if we take a region that

is dependant on declining industries for example in agriculture, these regions will suffer more than the rapidly growing service sectors.

Marston (1985)[9]

Marston wanted to empirically test both the equilibrium and disequilibrium models. If the equilibrating forces are weak, regions will then spend a long time away from equilibrium. Marston wanted to see for how long disequilibrium persisted. The model used consists with both explanations to test the length of disequilibrium. In order to test Marston assumed that the regional labour market begins in equilibrium, a negative demand shock takes place pushing unemployment up, but this should disappear over time. Due to the demand shock, this moved labour demand from region B to region A, as there is a demand for fewer workers in that area. This then declines the utility of workers in area B, so they gain from migrating to A, helping to restore equilibrium. The short run barriers to migration allow disequilibrium to exist for a while. Equilibrating forces were seen to be out migration of workers from area B into area A, wage decreases in area B and in migration of firms into area B. Results using U. S. data found evidence for equilibrium theory. It found a positive relationship between regional unemployment and wages, meaning higher unemployment tend to be in higher wage areas. It also found that higher unemployment benefits were associated with higher regional unemployment rates. As a result the study noted that, regional unemployment must be compensated by higher wages or amenities.

Carlsen (2000)[10]

Carlsen empirically tested the two models within equilibrium unemployment, the amenity and matching models. The data used was from Norway between the years of 1983 and 1992. It said that permanent unemployment rates were a function of amenities and job destruction, UR= f (amenities, job destruction), testing which one explained regional unemployment better. The results found little evidence to support the amenity model that states high unemployment must be compensated by amenities; Carlsen found the opposite, that depressed regions don't appear to have more favourable conditions. However, it showed support for the matching model, finding that employment growth is negatively correlated with regional unemployment. A decrease in employment growth results in higher job destruction and therefore higher regional unemployment.

Conclusion

Regional unemployment differences are persistent across the globe due to a vast variety of reasons. The factors that play dominance in the fluctuation of unemployment rates can range from a number of things, basic climate to wage differences and the way migration alters from a day to day basis. This is the reason why pinning down one explanation for unemployment disparities is virtually impossible. To understand these differences we must take into account all varying factors and analyse them across regions and countries. However, the findings from empirical tests lean towards wages being a key variable in regional unemployment. This may be a key issue but other uncontrollable factors such as individual decisions may have an impact on these discrepancies making the control of unemployment differences extremely hard to control.