

Employment Projections Technical Paper 4

Data issues: How data errors and corrections from Experian Business Strategies are dealt with in the GLA's employment triangulation process.

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Introduction

In the course of our work on these employment projections an error in the workforce employment data supplied to us in the summer of 2005 by Experian Business Strategies (EBS) came to light. This error has now been rectified in the EBS dataset.

The error covered employment data for London and the boroughs at the 12 broad sector level. Experian Business Strategies have acknowledged their error which related to the self-employed component of the workforce employment series and involved locating too many self-employed in Inner London and too few in Outer London and provided the GLA with corrected employment data in January 2006. However the incorrect data had been used by Volterra Consulting to generate their trend based borough employment projections, as these were produced prior to January 2006, and so potentially impacted on the results we would obtain from our triangulation methodology.

This paper assesses the implication of this data error for the borough level employment projections work and sets out how these have been dealt with in generating the projections published in Current Issues Note 9.

Analysis

In order to understand how this data error might impact on our projections we first assessed how similar / different the corrected data delivered to us in late January 2006 was from that originally supplied by EBS in Summer 2005. This is done through an analysis of graphs of the degree of similarity between these two data sets looking at:

- the trends in the level of employment in London's 33 boroughs between 1982 and 2003 and;
- the annual percentage change in employment in London's 33 boroughs between 1983 and 2003.

Annex A shows the 33 charts for the level of employment and Annex B shows the 33 charts for the annual percentage change in employment. Annex A shows any noticeable difference between the original and corrected data dates from the early 1990s onwards. It is also clear that the trends in the level of employment in the individual boroughs are very similar in the corrected data compared to the original data. Similarly, Annex B indicates that the annual growth rates in employment are generally very similar between the original and revised data sets.

However as shown in Annex C the level of employment at 2003 – the last actual data point and the 'jumping off point' for GLA projections does differ between the original

and corrected data set. The largest differences in absolute terms being Barnet, which in the corrected data is 8,000 higher at 141,000 rather than 133,000 in the original data, and Wandsworth, which in the corrected data is 9,000 lower at 132,000 rather than 140,000 in the original data. This has implications for our borough level employment projections.

Our methodology for the borough level projections combines projections made on three different bases:

- historic trends,
- transport accessibility; and
- site capacity

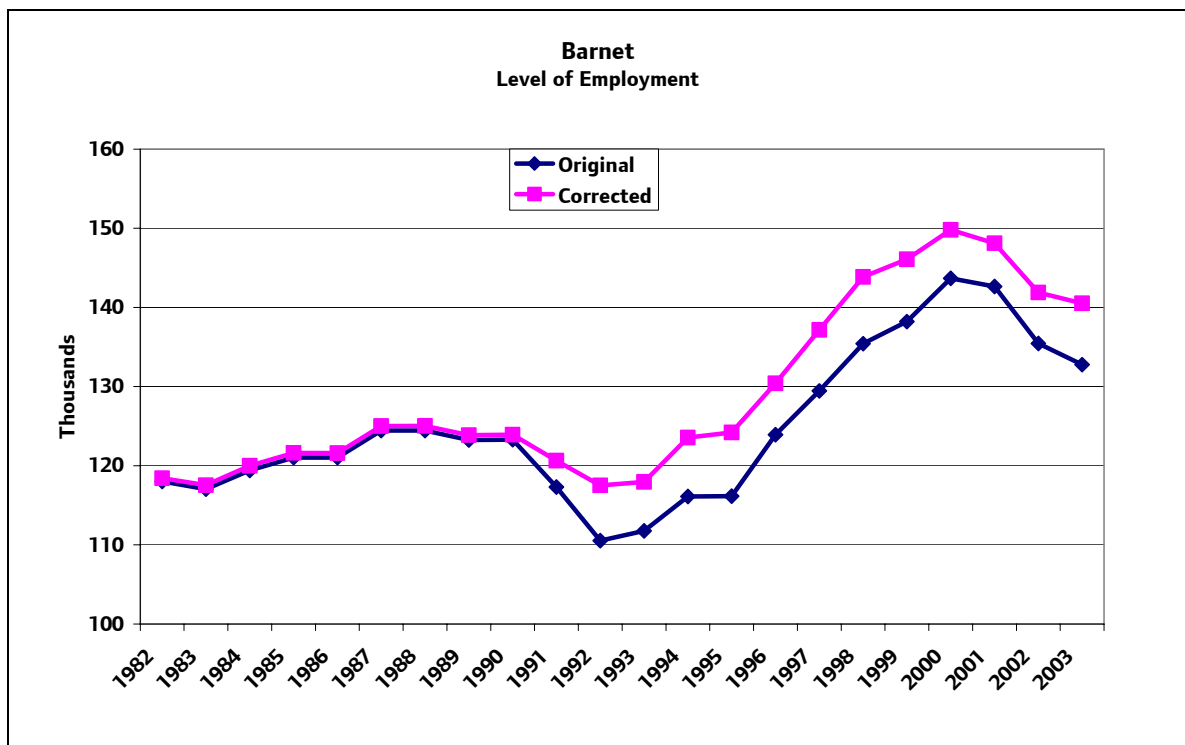
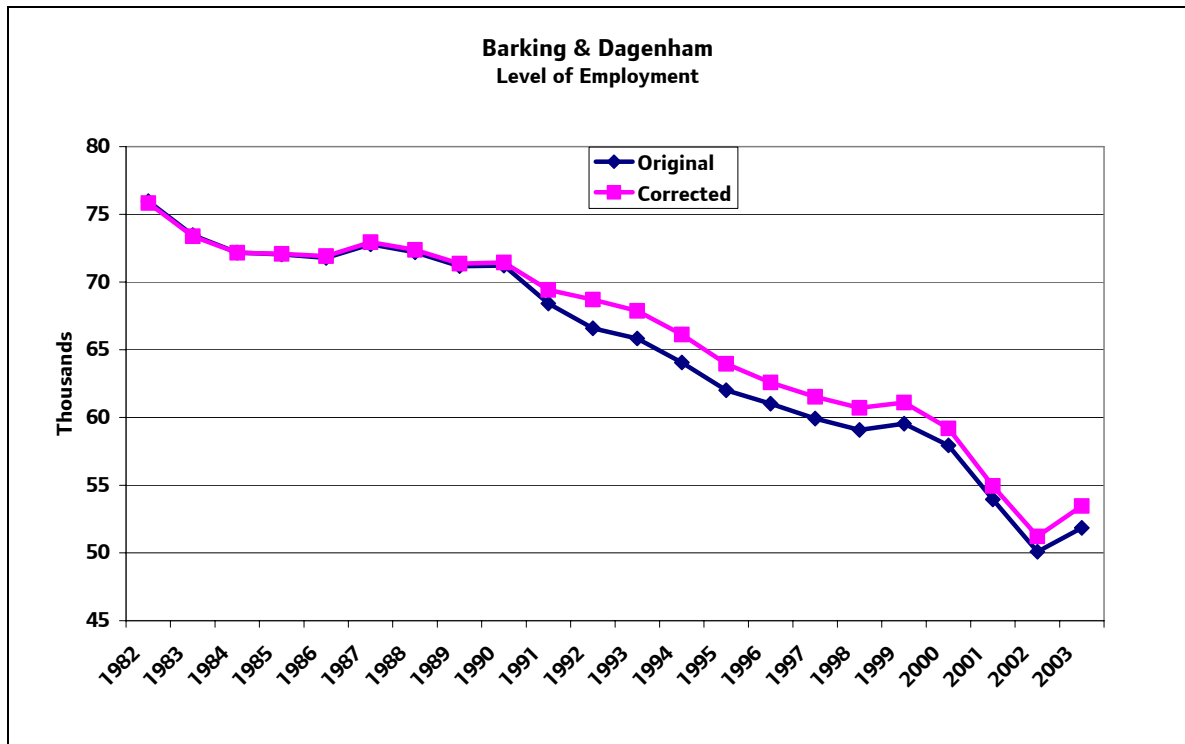
The latter two of these, based on research by Colin Buchanan and Partners (CBP) and Roger Tym and Partners (RTP) respectively, generate changes in employment by borough and these can simply be rebased at the new corrected 2003 levels. Hence the corrected employment data creates no significant problems for the projections produced on these two bases. However, the trend based projections, produced by Volterra Consulting, produce projections of the level of employment.

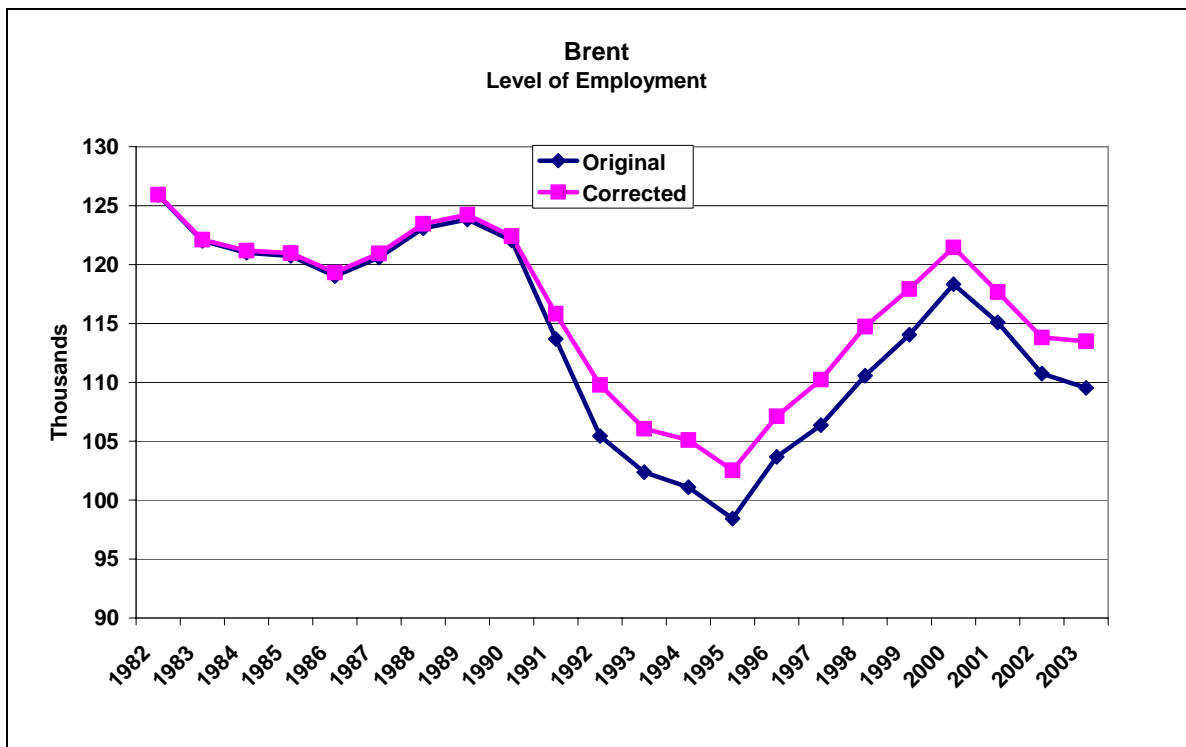
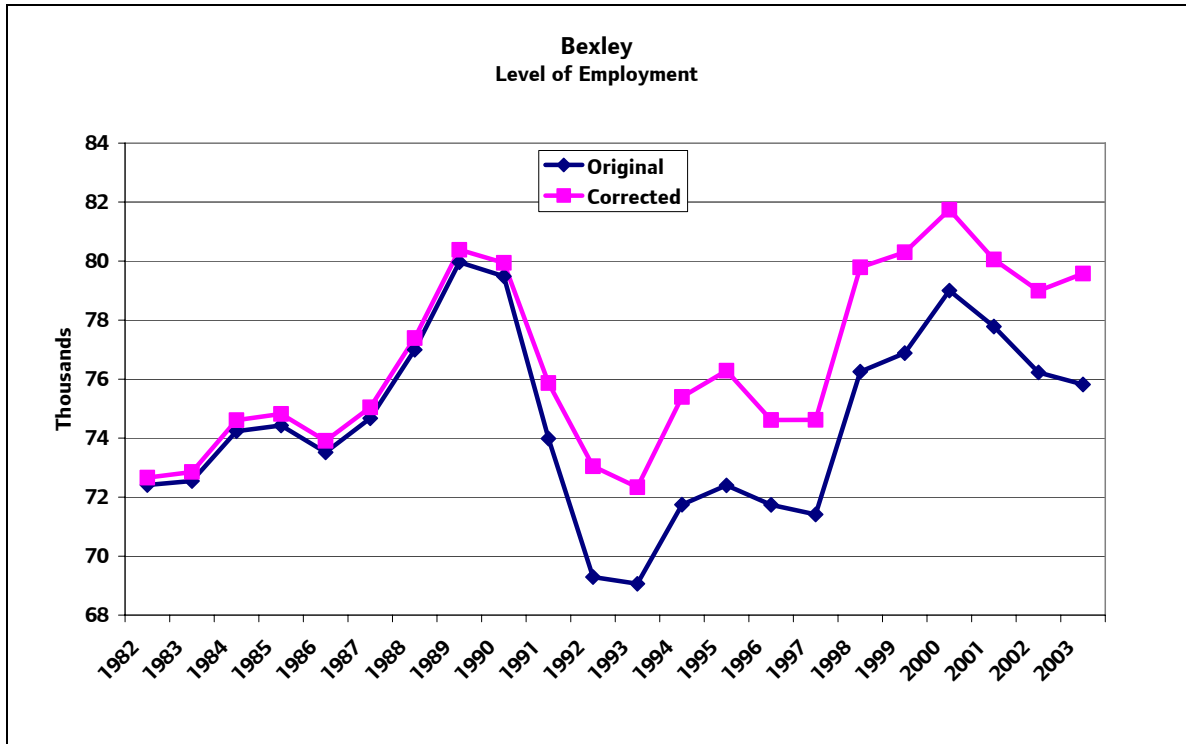
Analysis of the historic trends in the borough level employment data in Annexes A and B showed that these trends were very similar in the original and corrected data. The Volterra projections used the original data as an input. Given the high degree of similarity between the trends in the original and the corrected data this is unlikely to have materially affected the trends that are projected forward. Hence the Volterra trend based projections are simply re-based using the corrected 2003 data. This was achieved by adding on the changes these projections show between the original 2003 data and 2006, 2011 etc onto the corrected 2003 data.

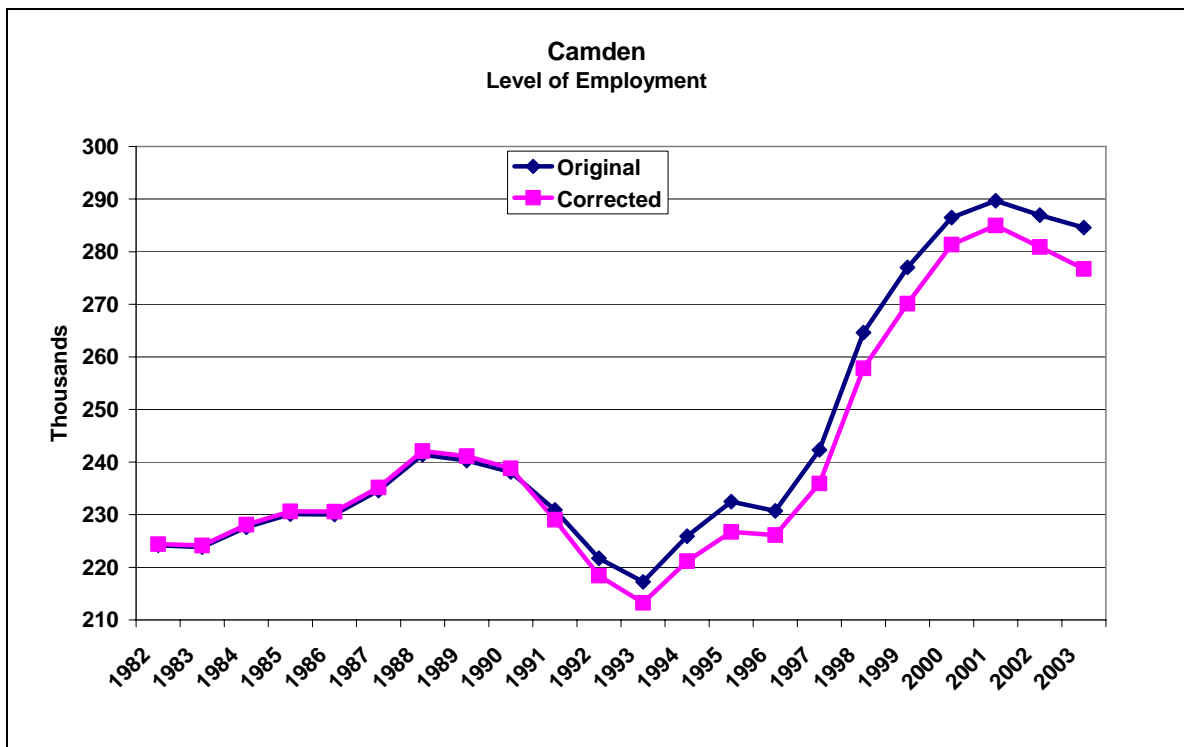
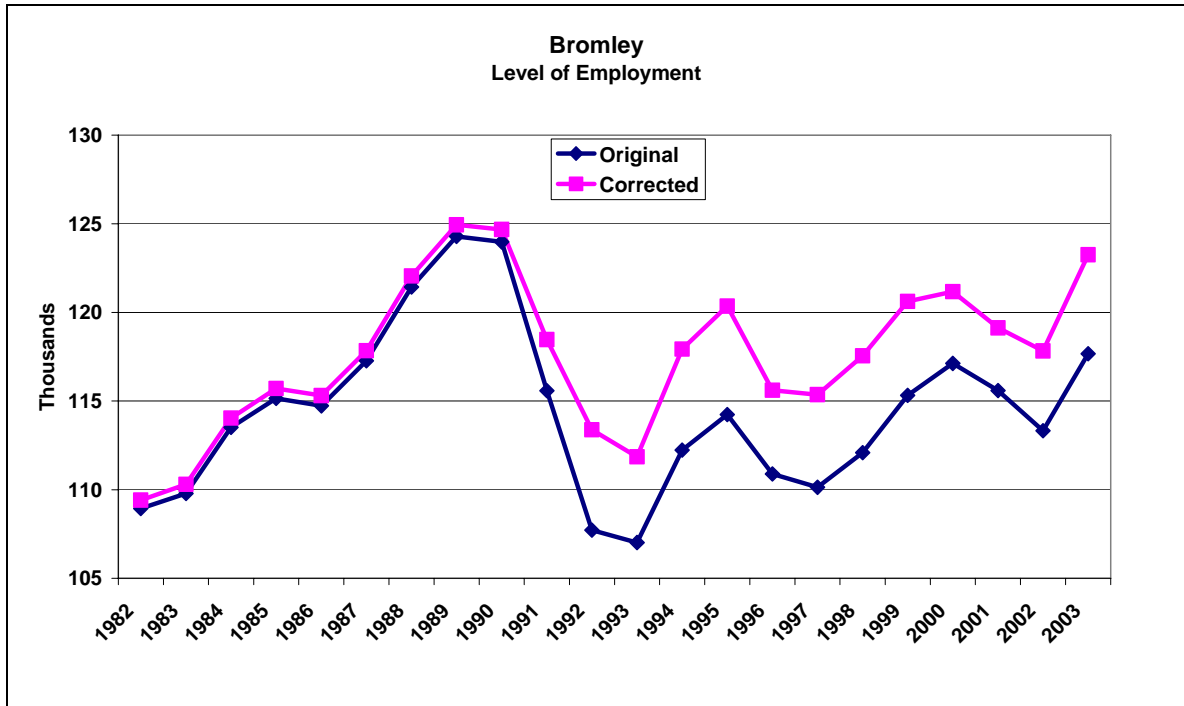
Conclusions

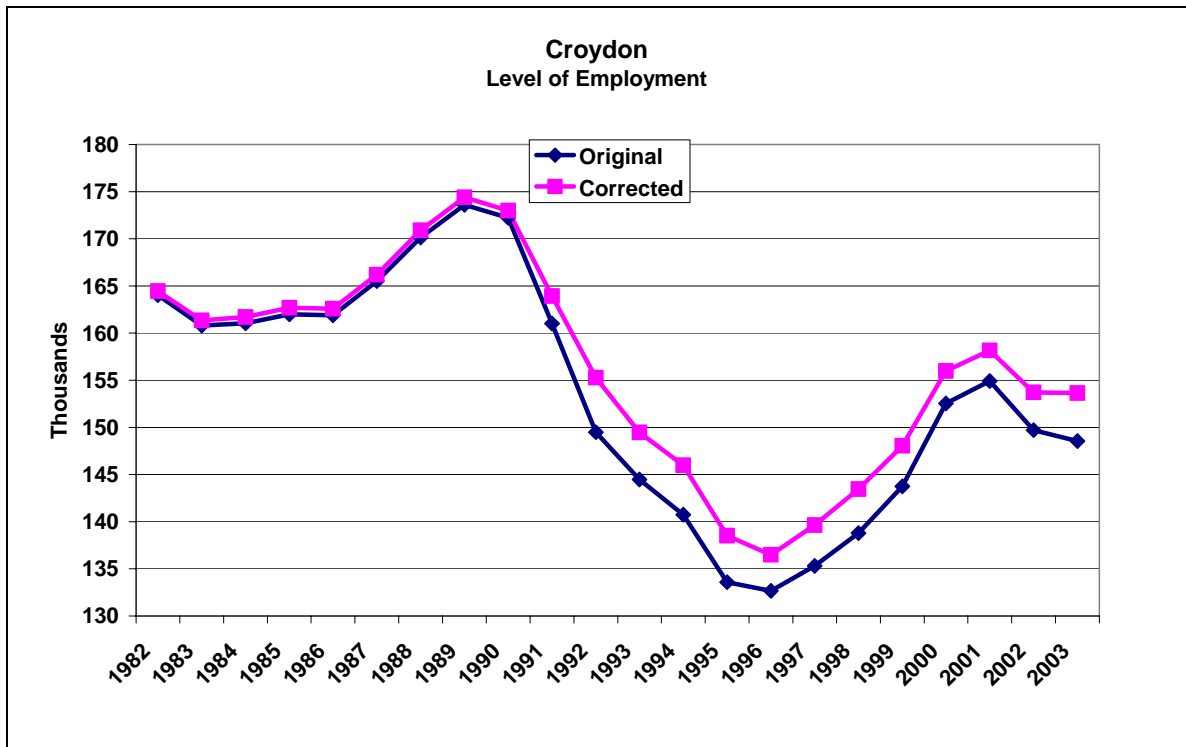
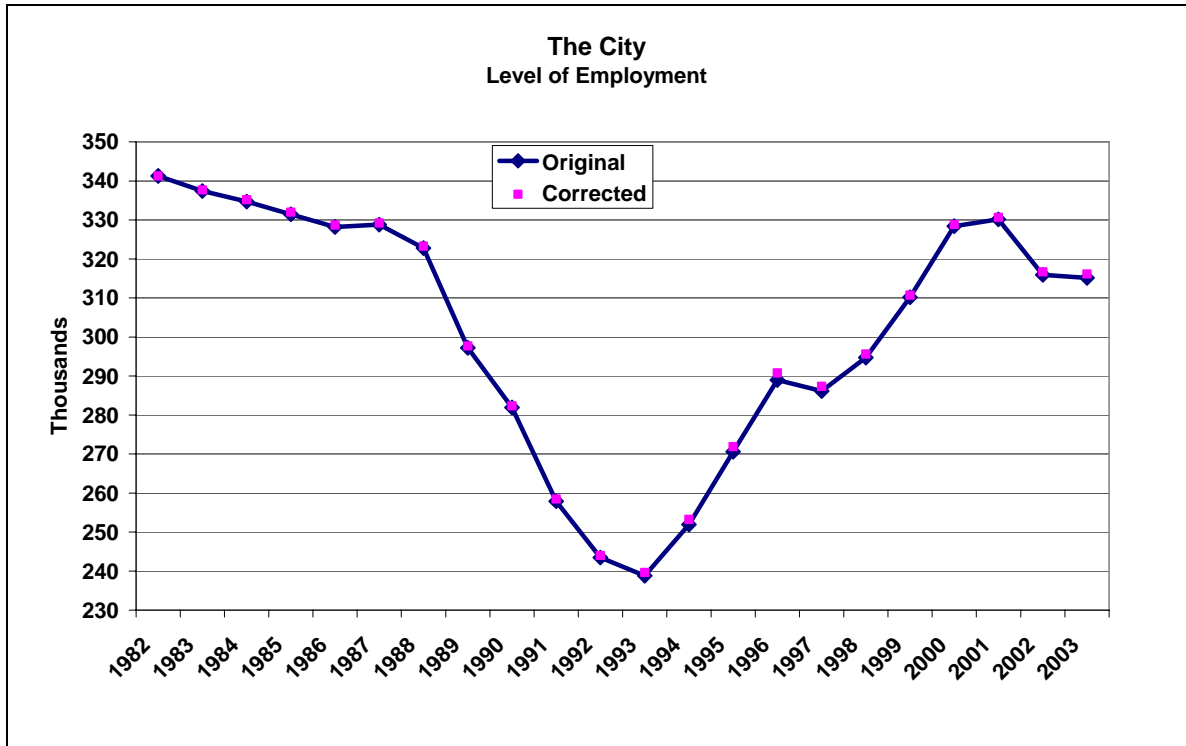
The general trends in the borough level data are very similar between the original EBS and corrected data sets. However, there are significant differences for the borough level numbers at the last actual data point, 2003. Hence the trend based borough numbers that feed into the triangulation exercise have simply been rebased at their new 2003 starting points without any need to re-run the analysis that originally informed these projections. The accessibility and site capacity based projections can similarly be rebased at 2003.

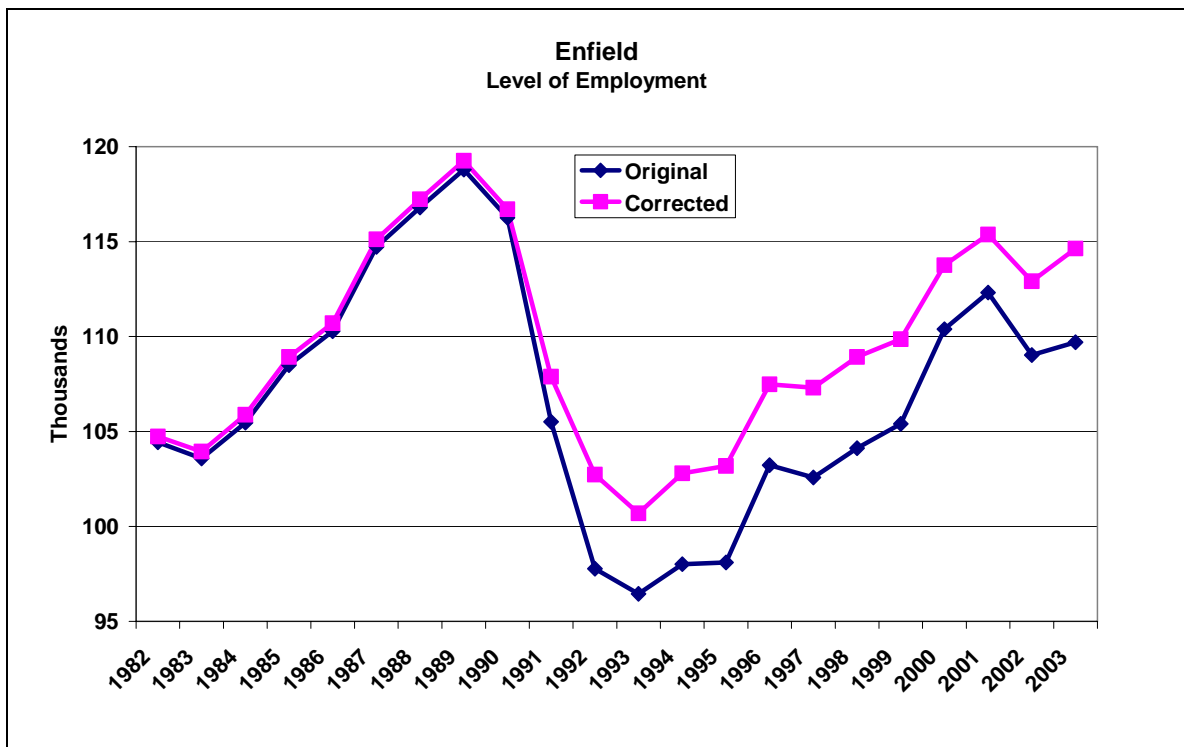
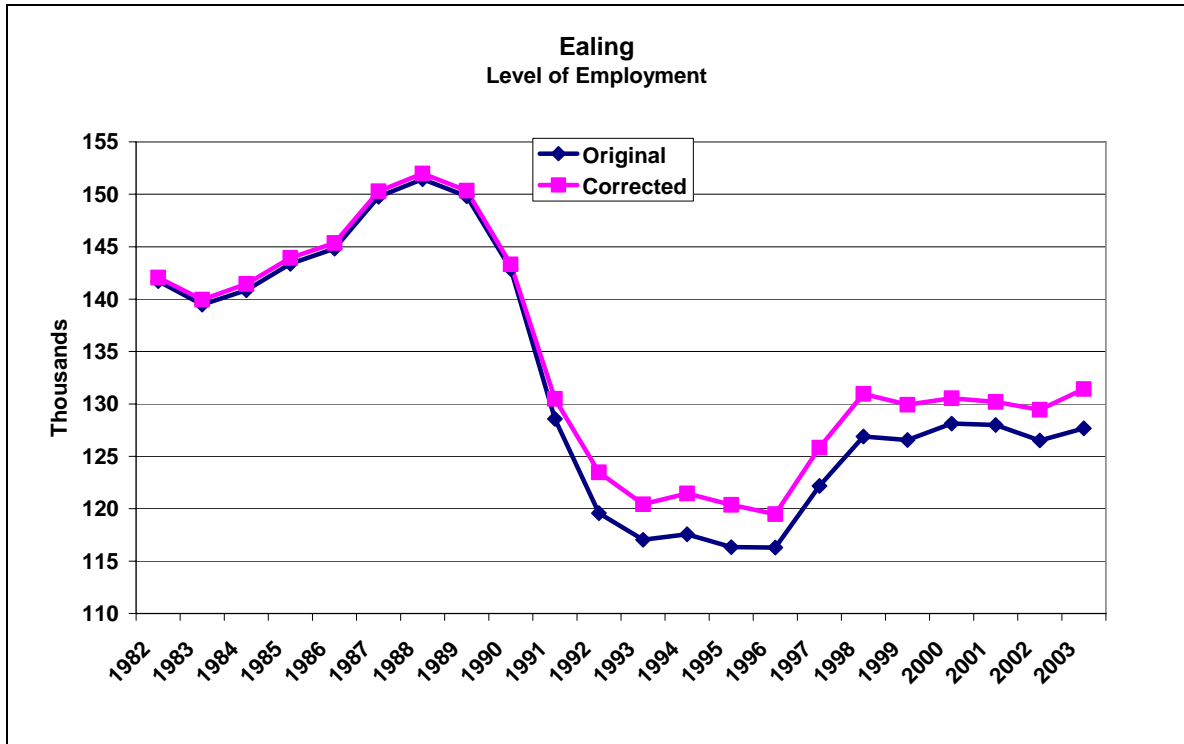
Annex A: Comparisons of the original and corrected EBS borough employment level data.

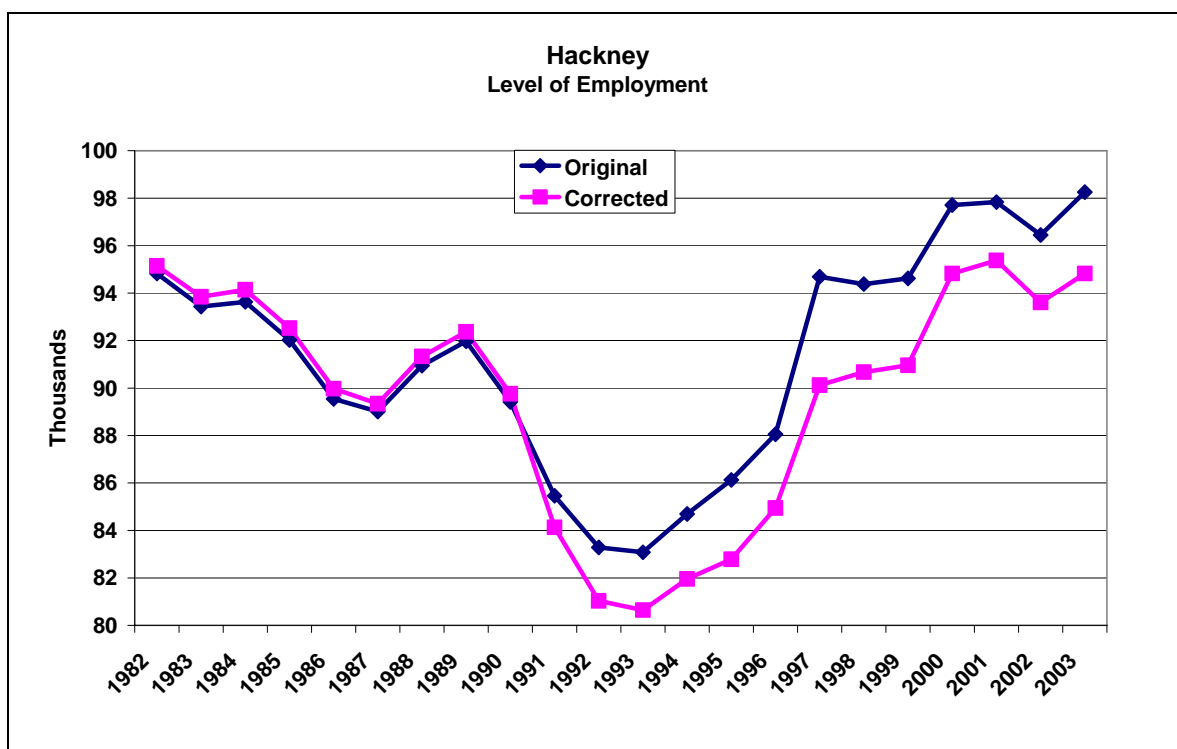
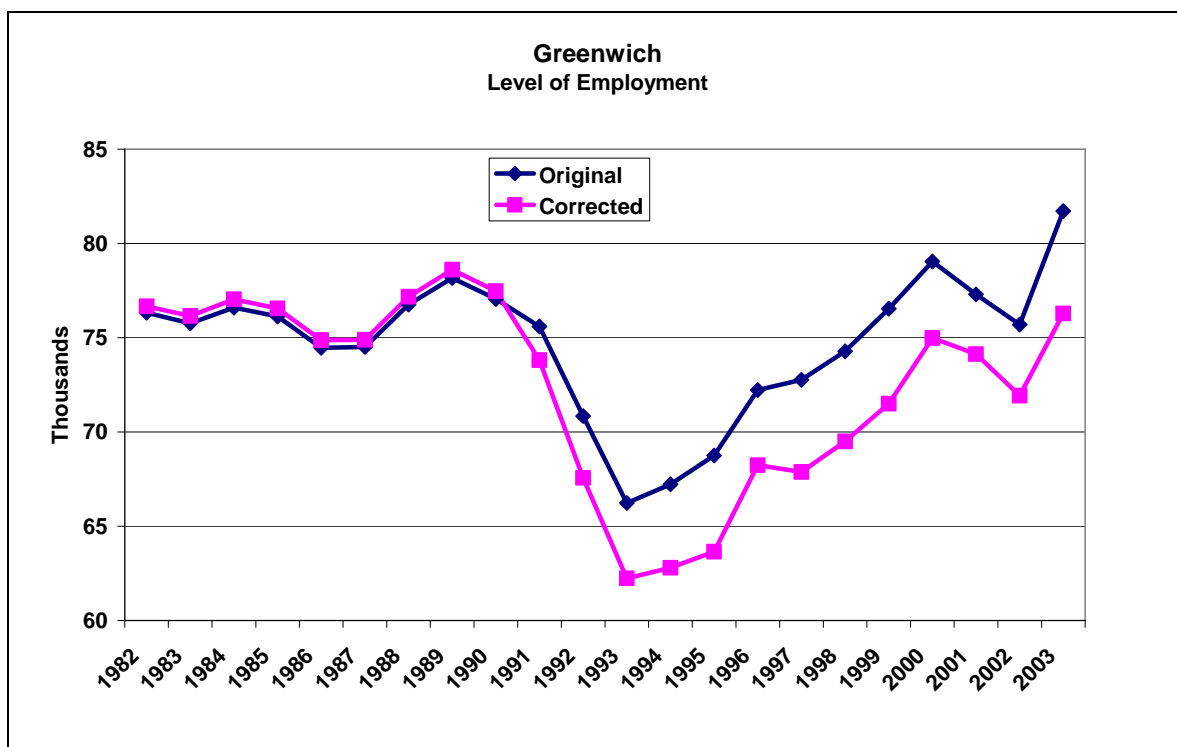


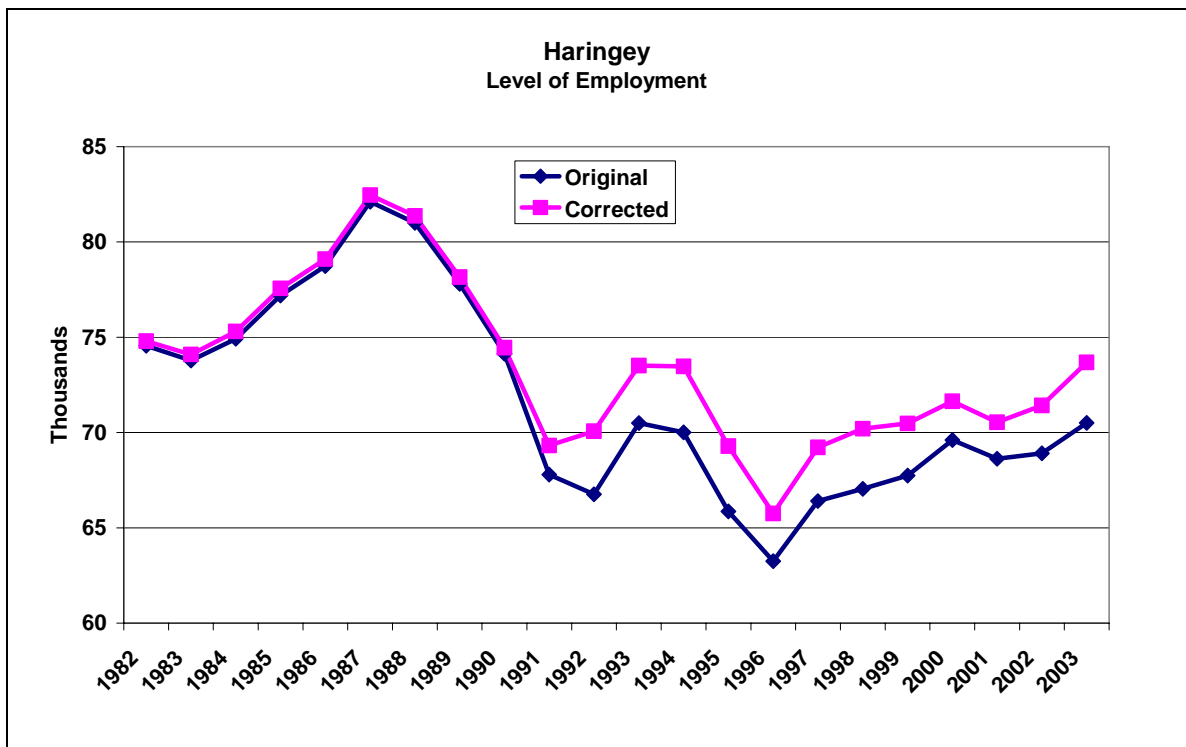
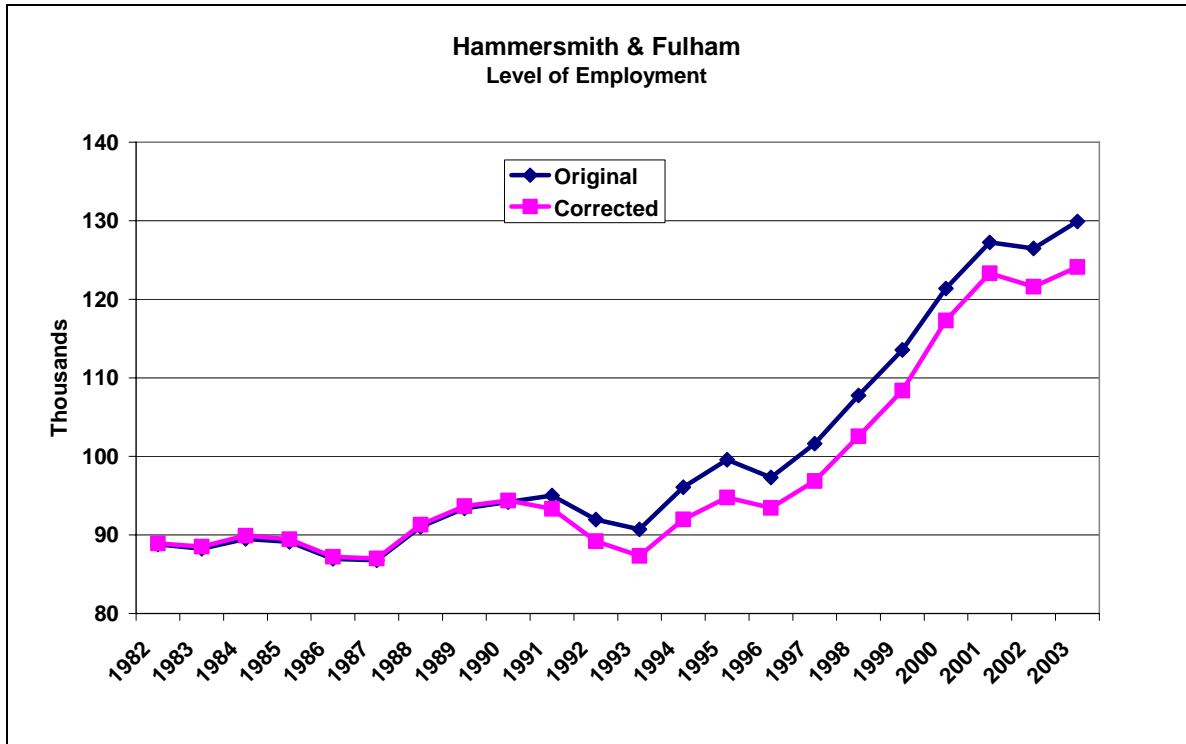


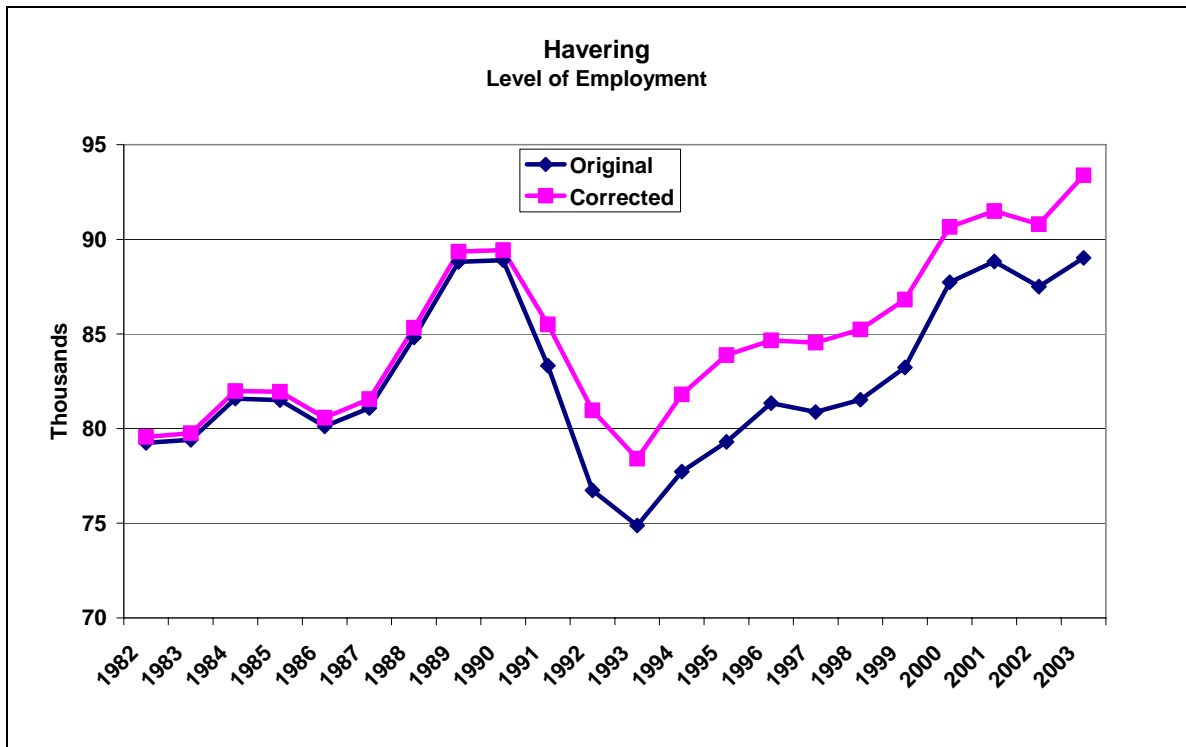
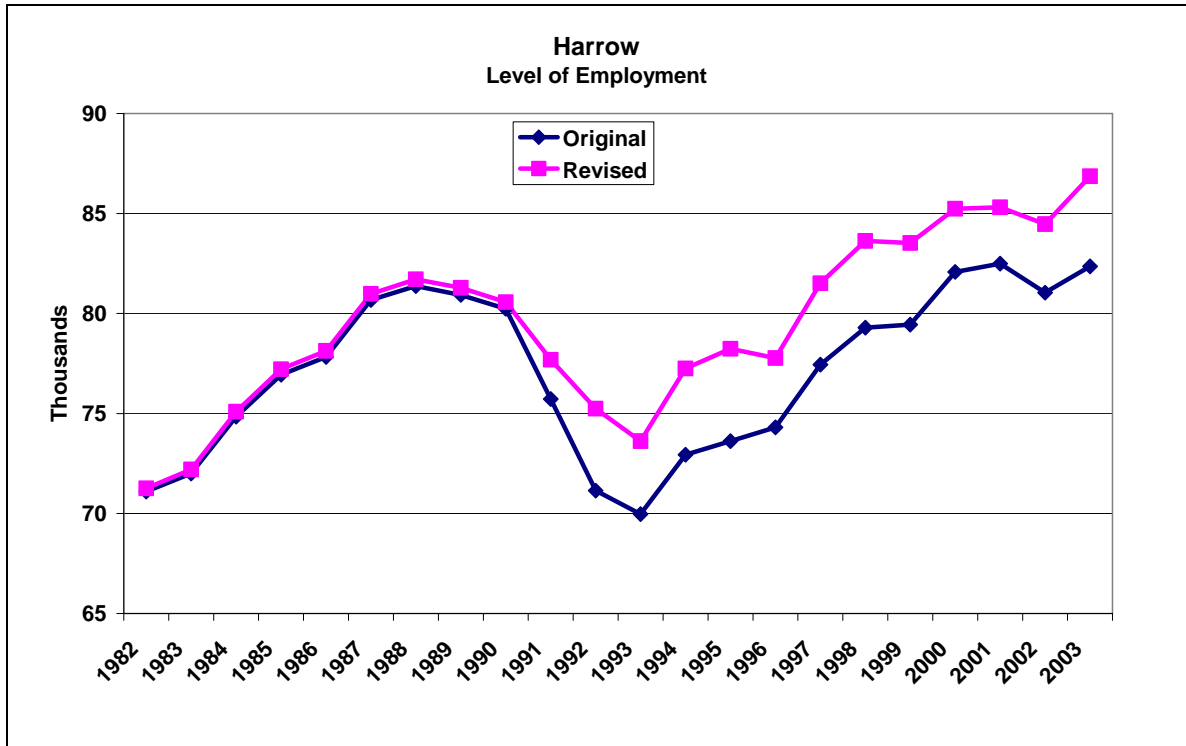


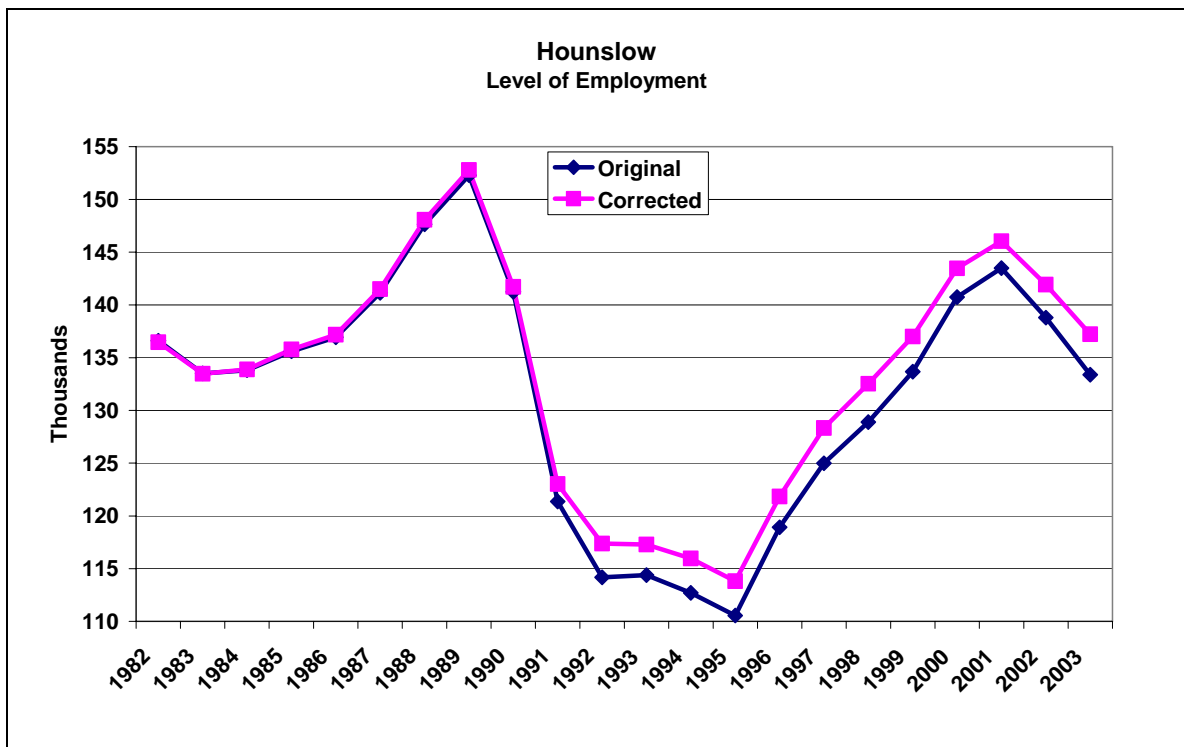
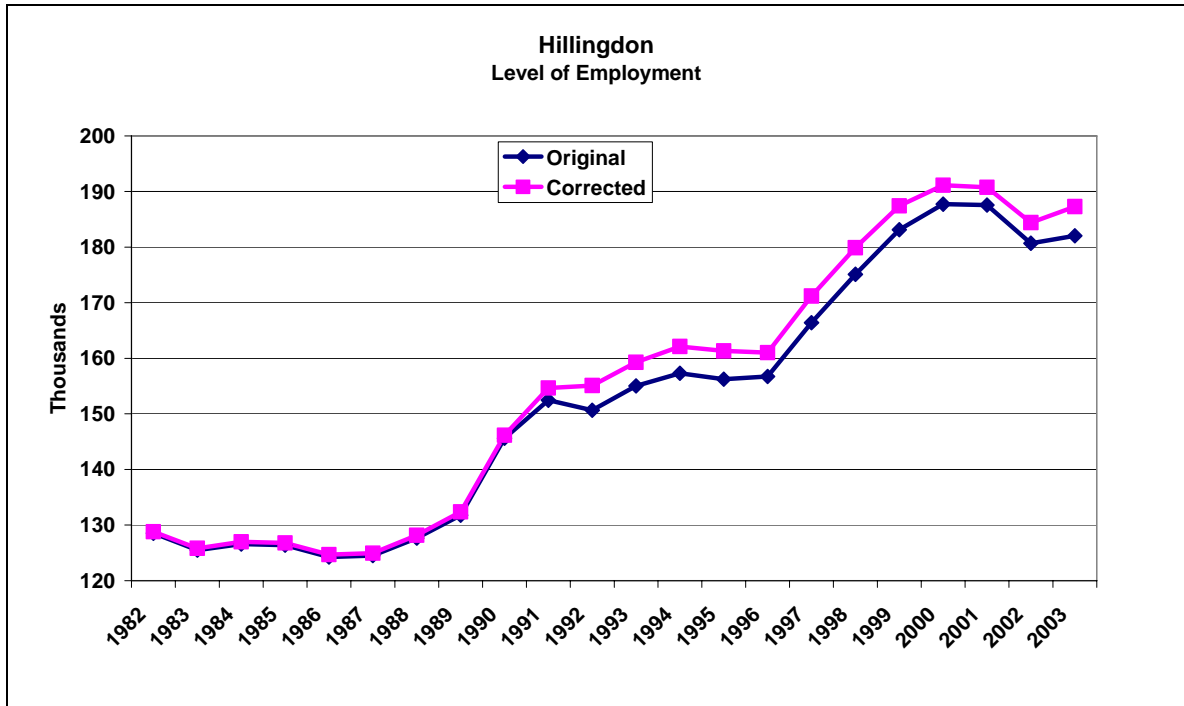


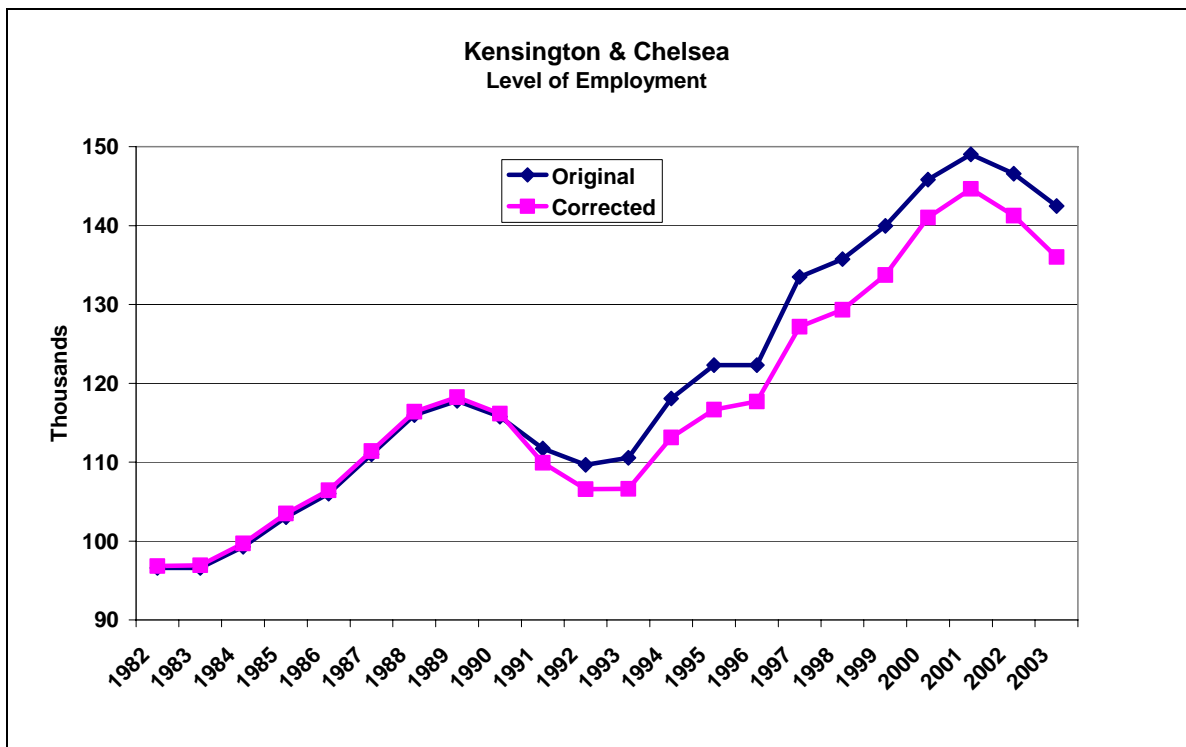
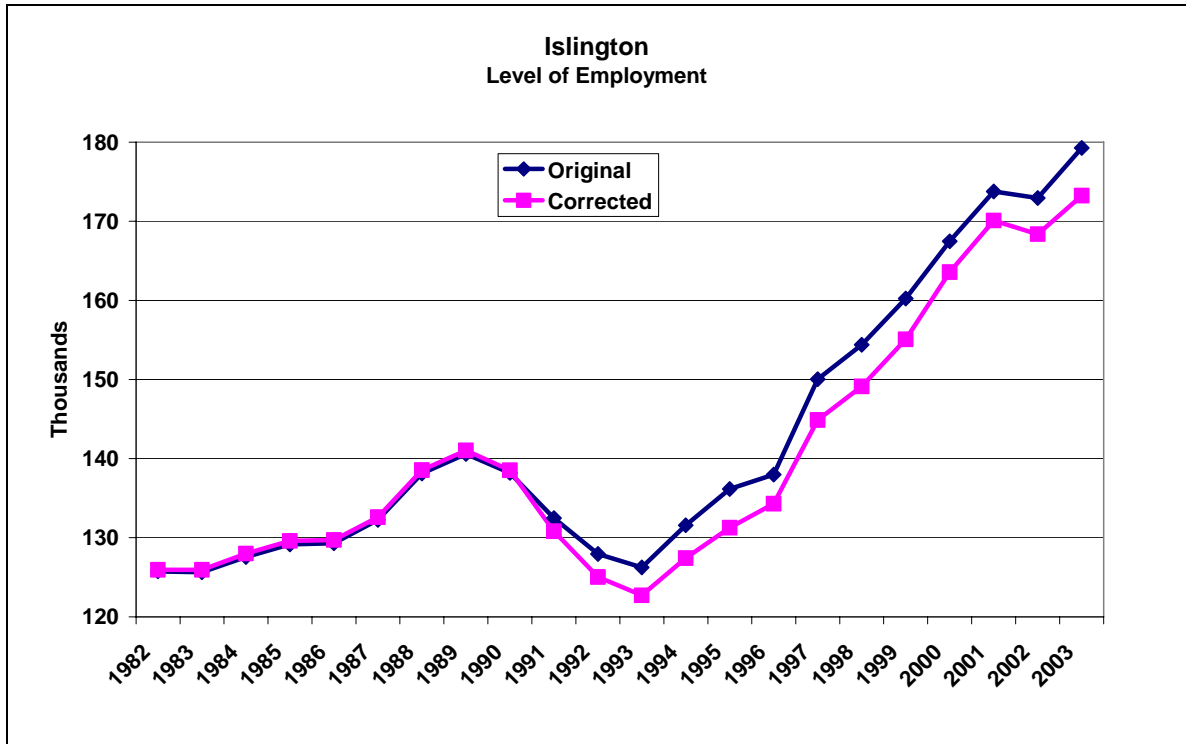


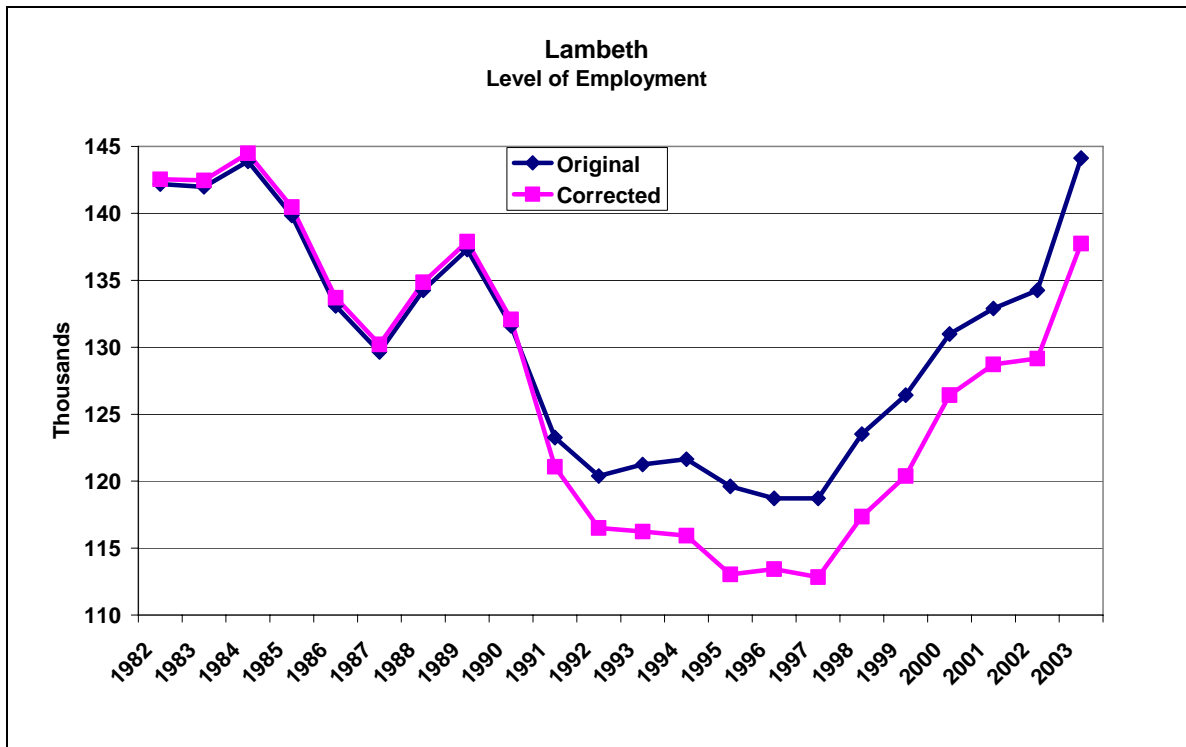
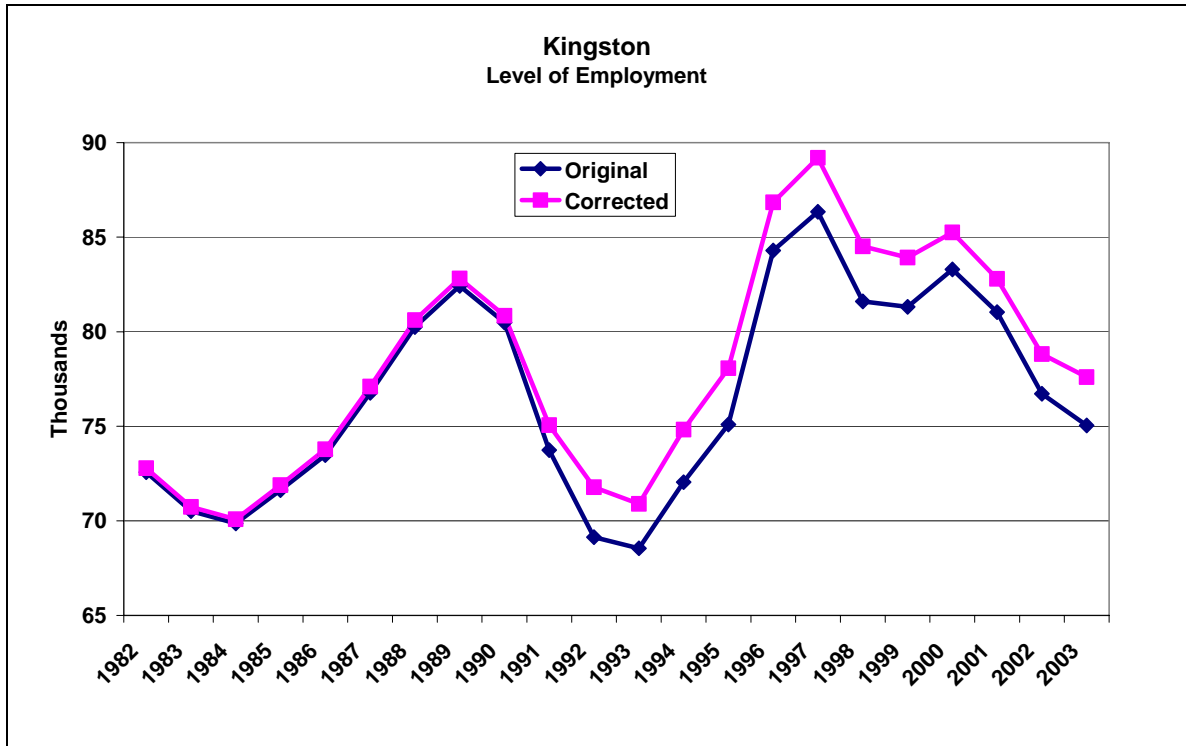


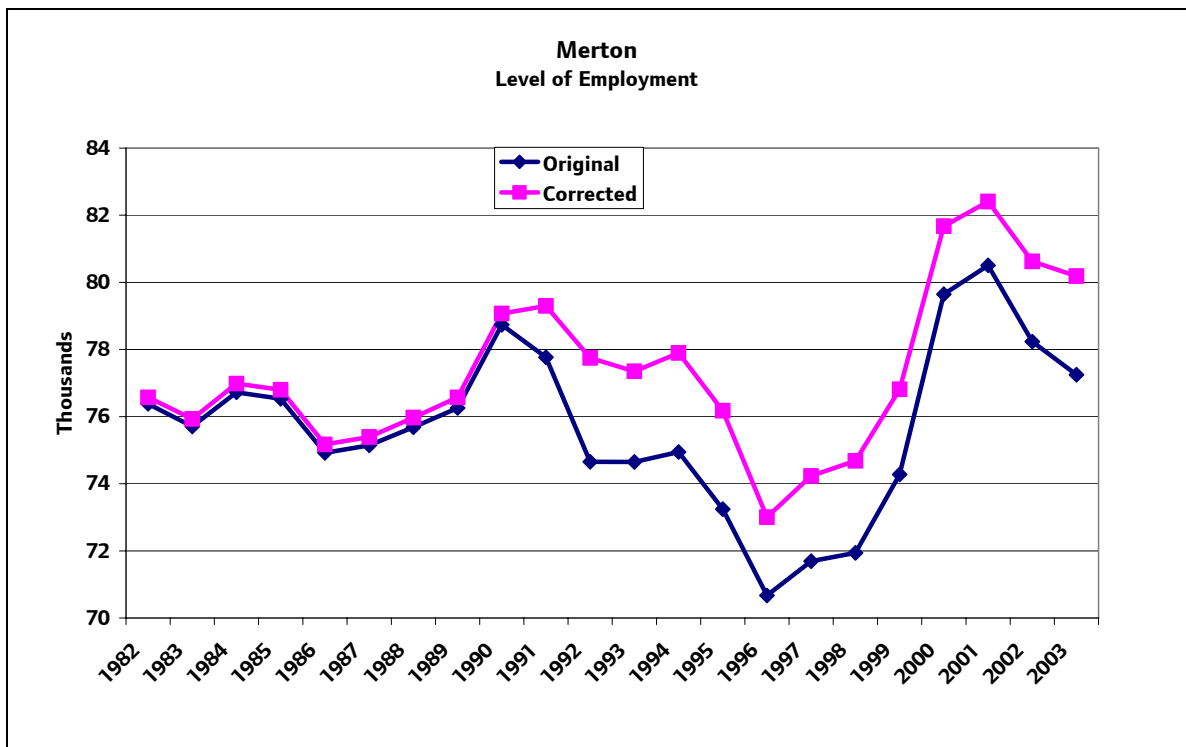
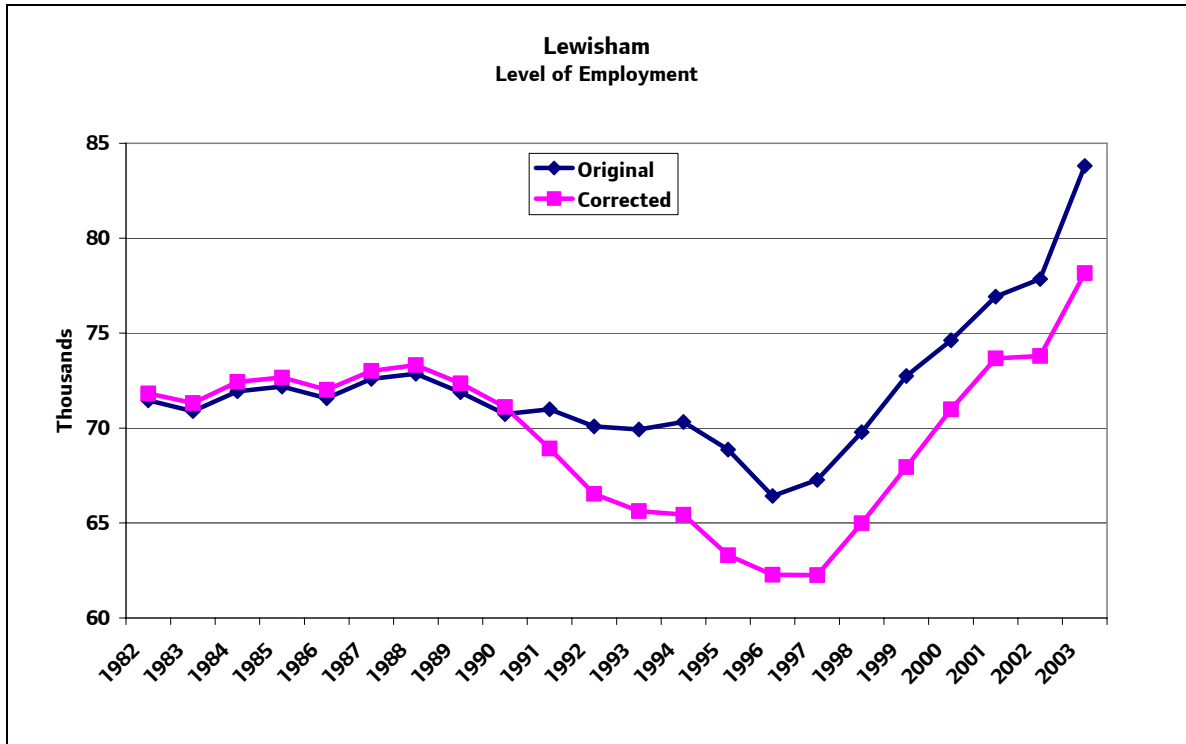


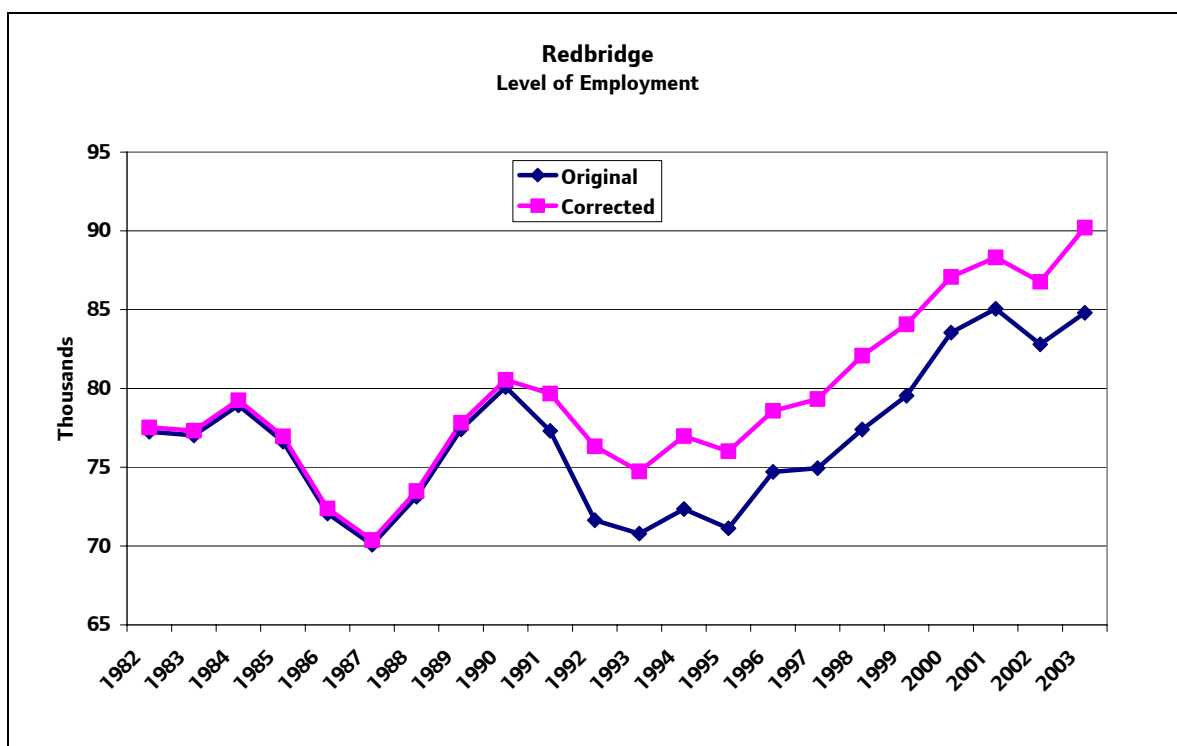
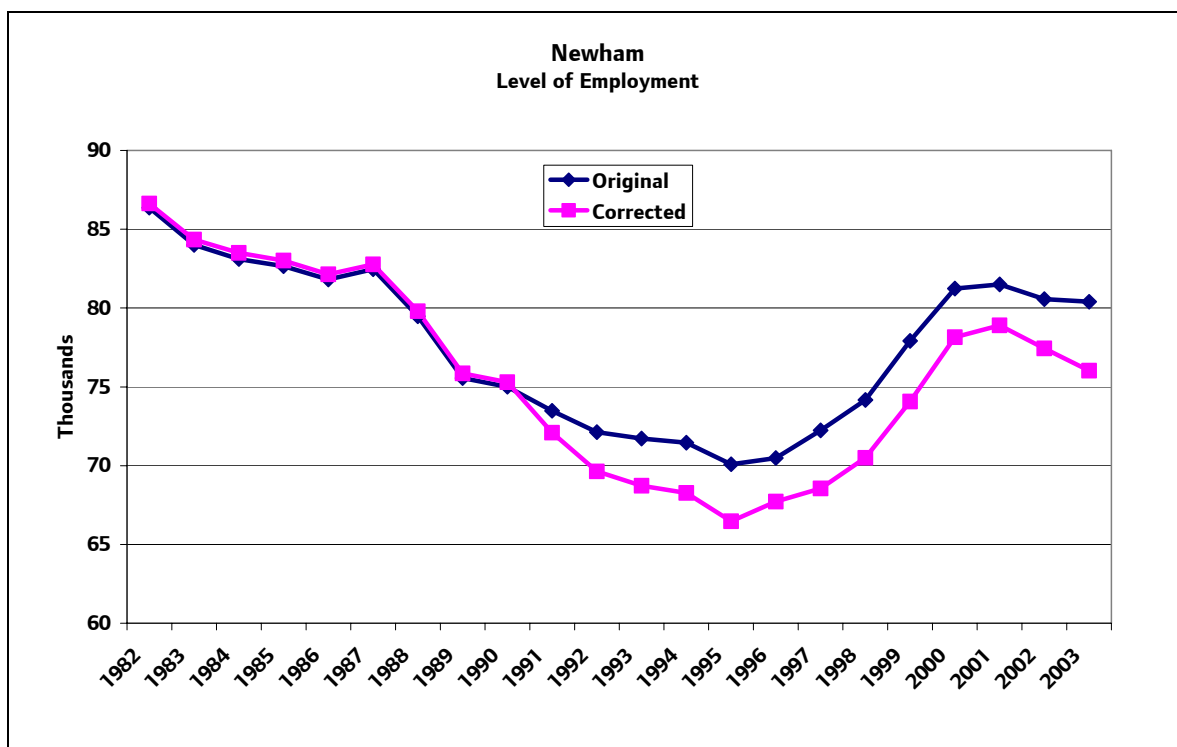


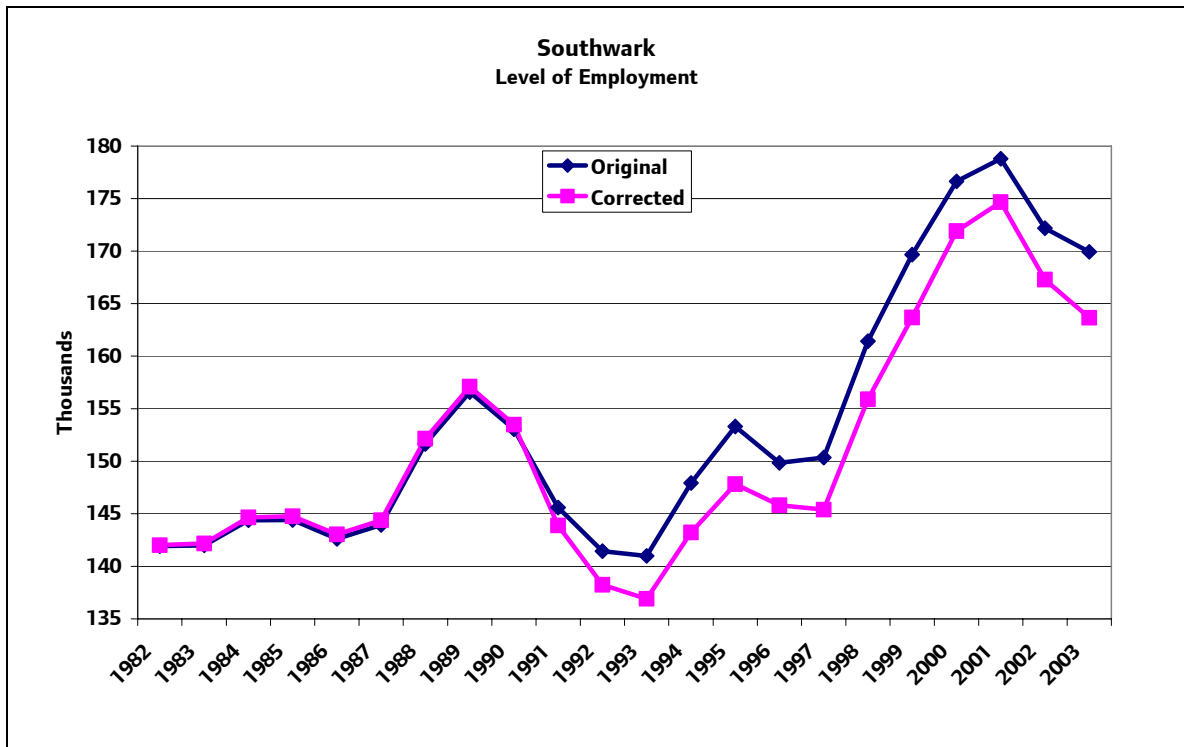
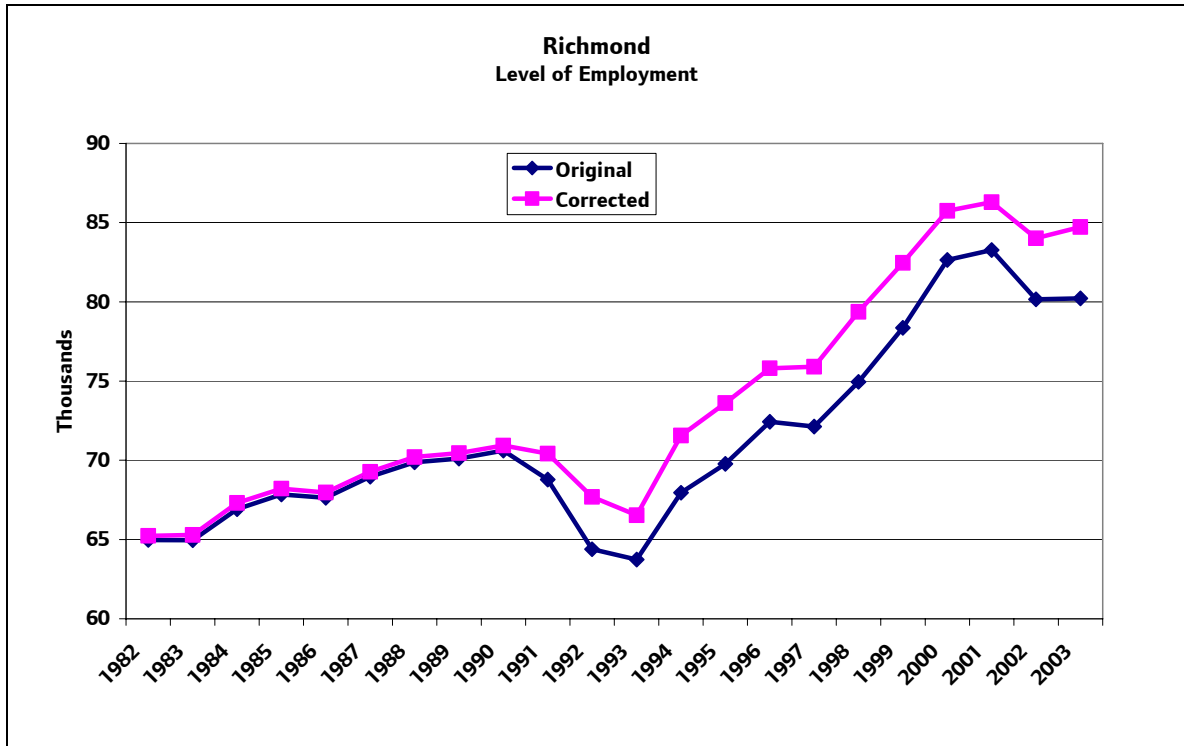


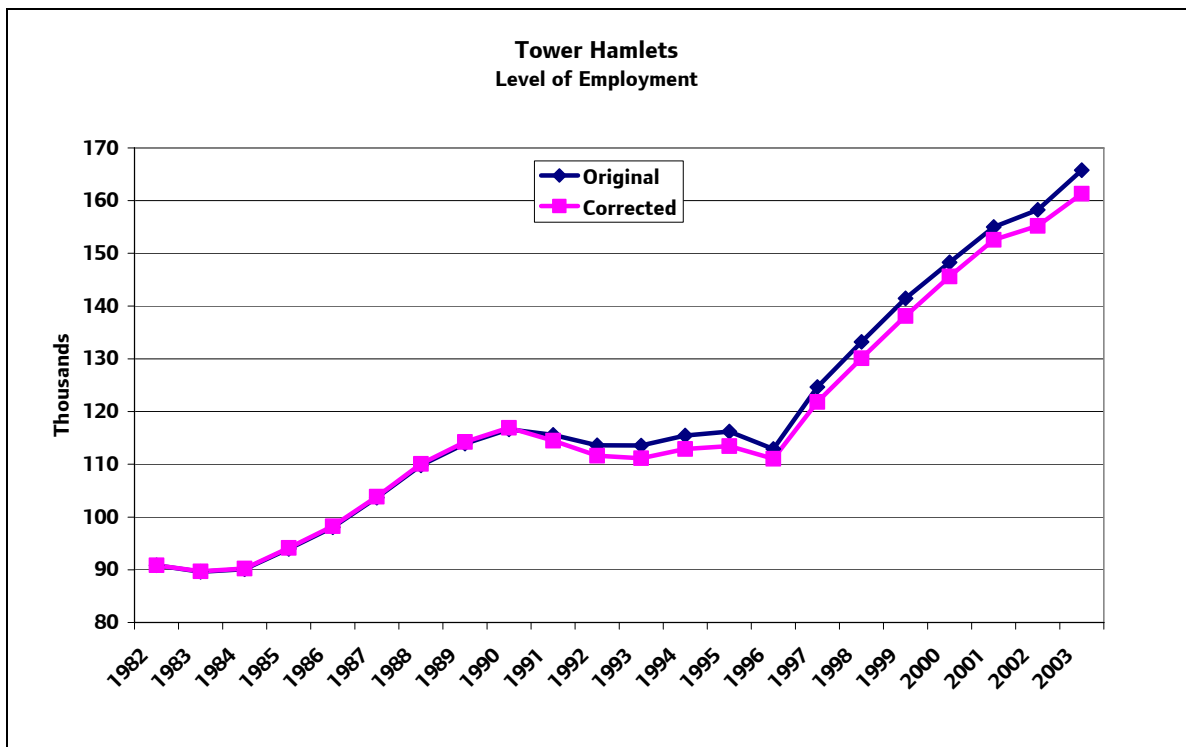
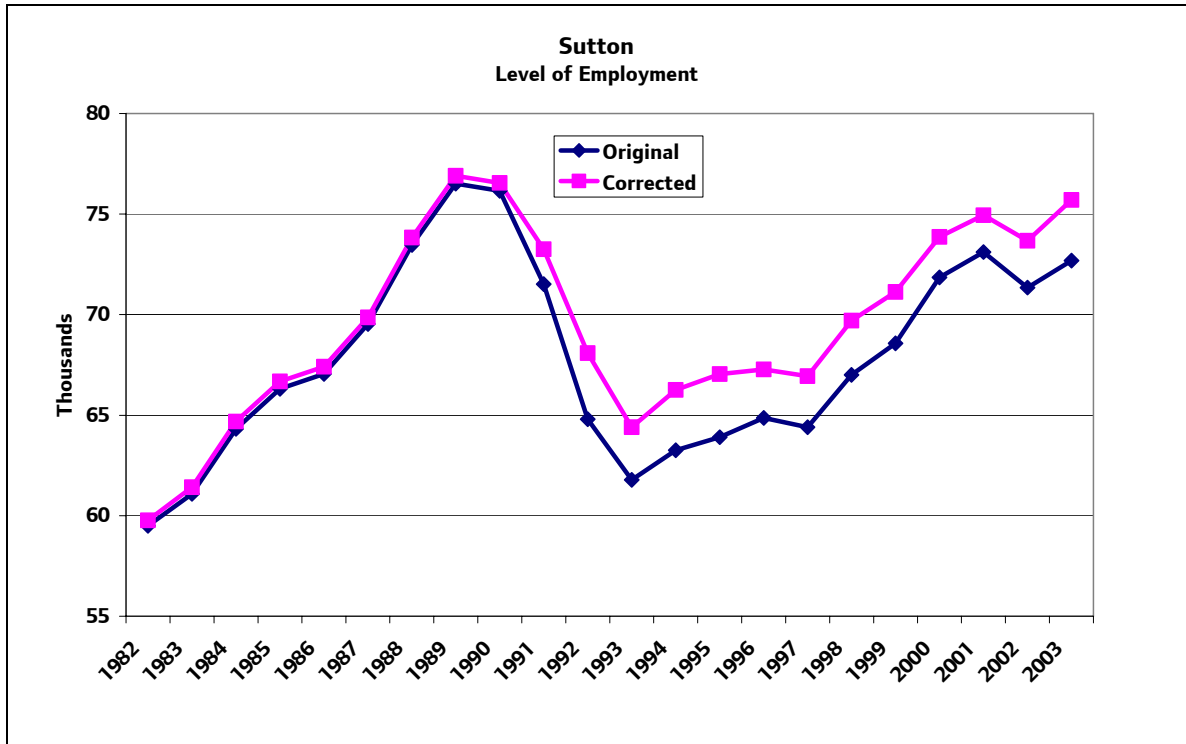


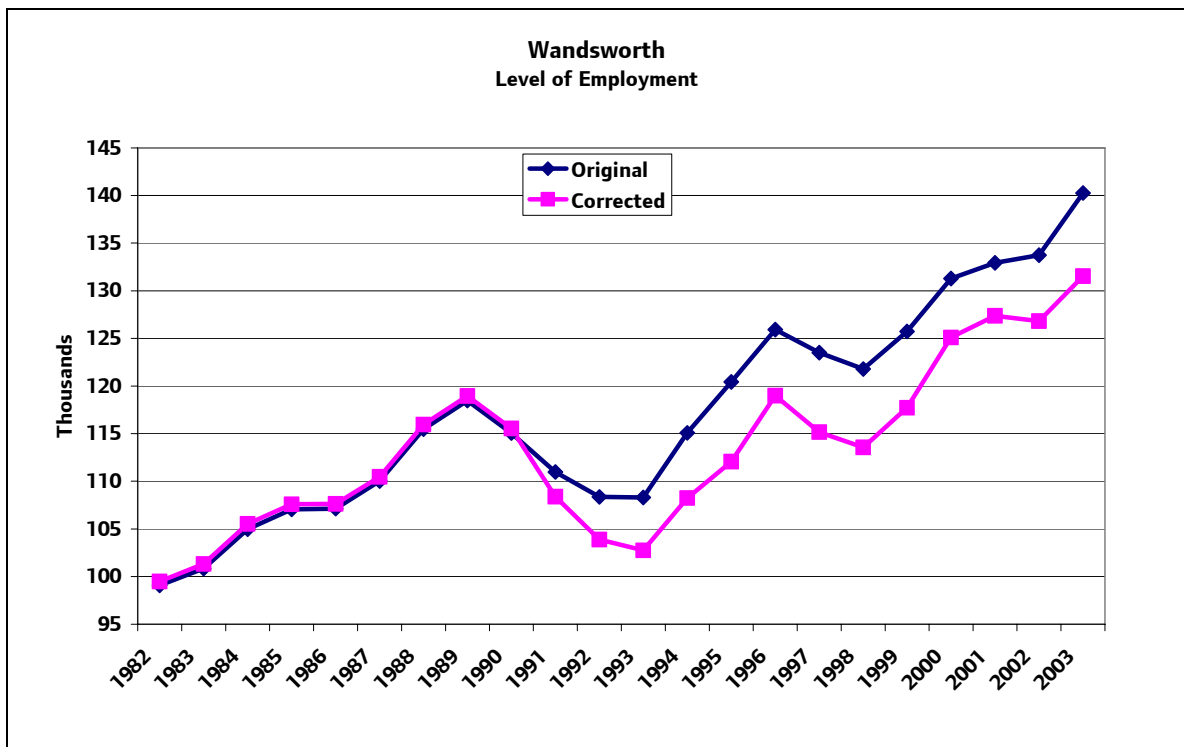
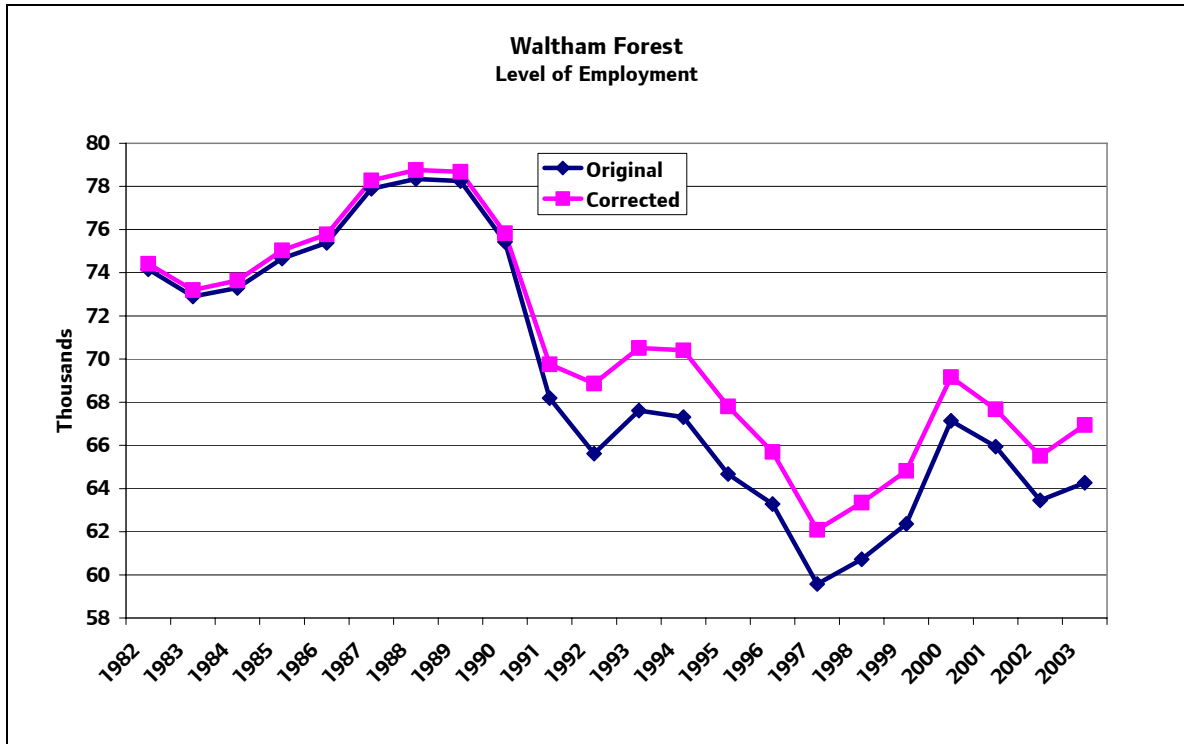




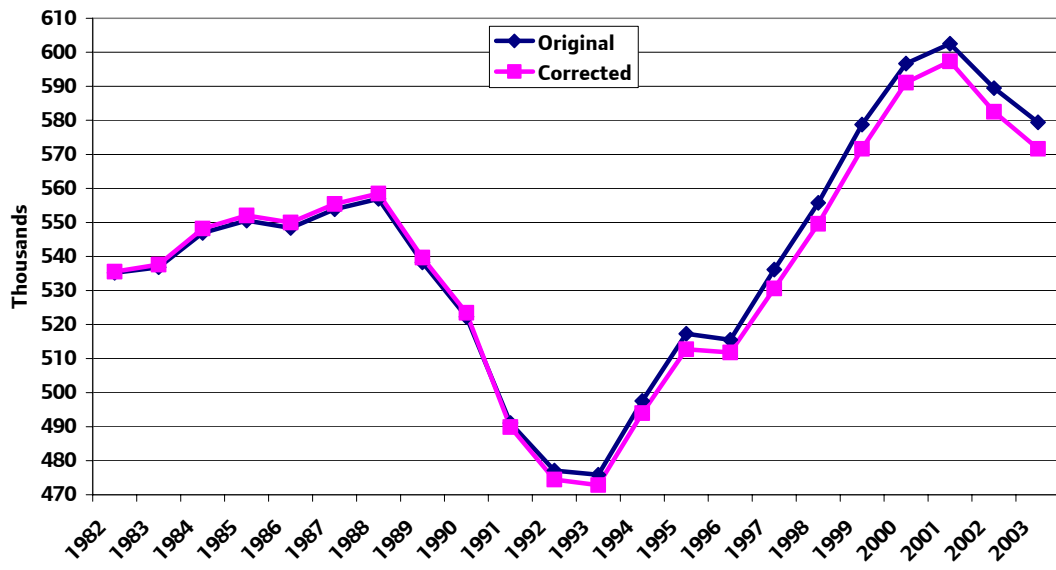




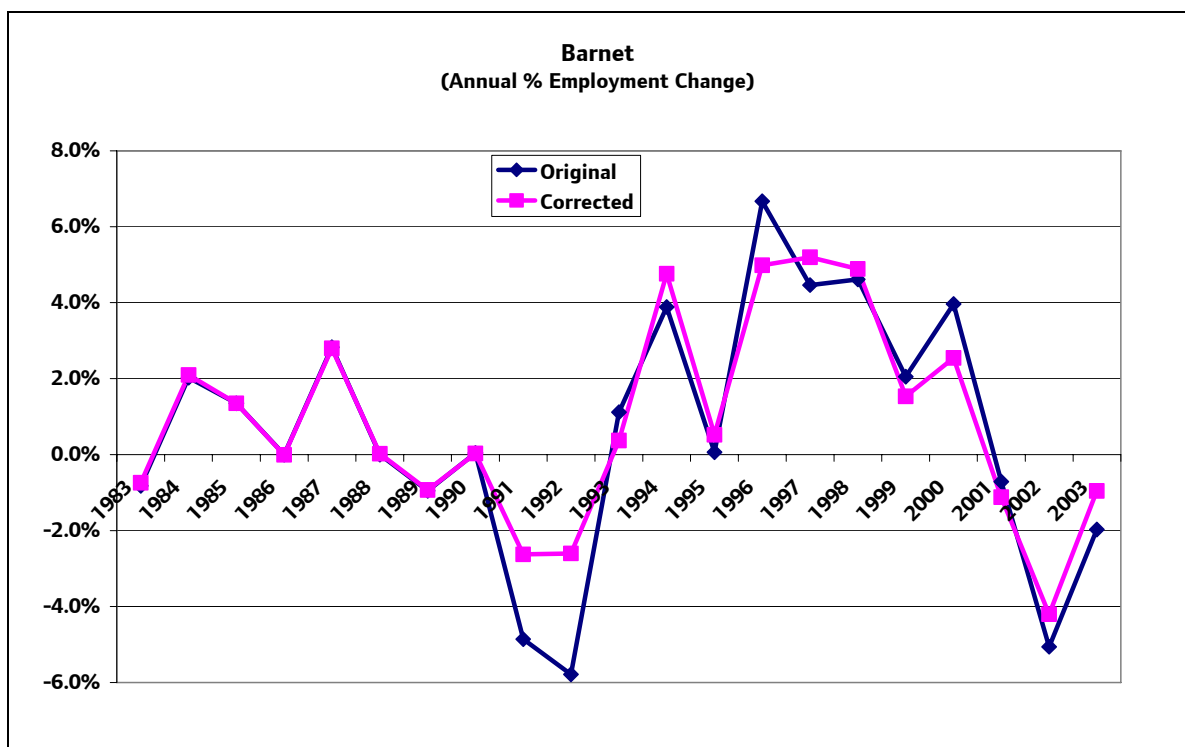
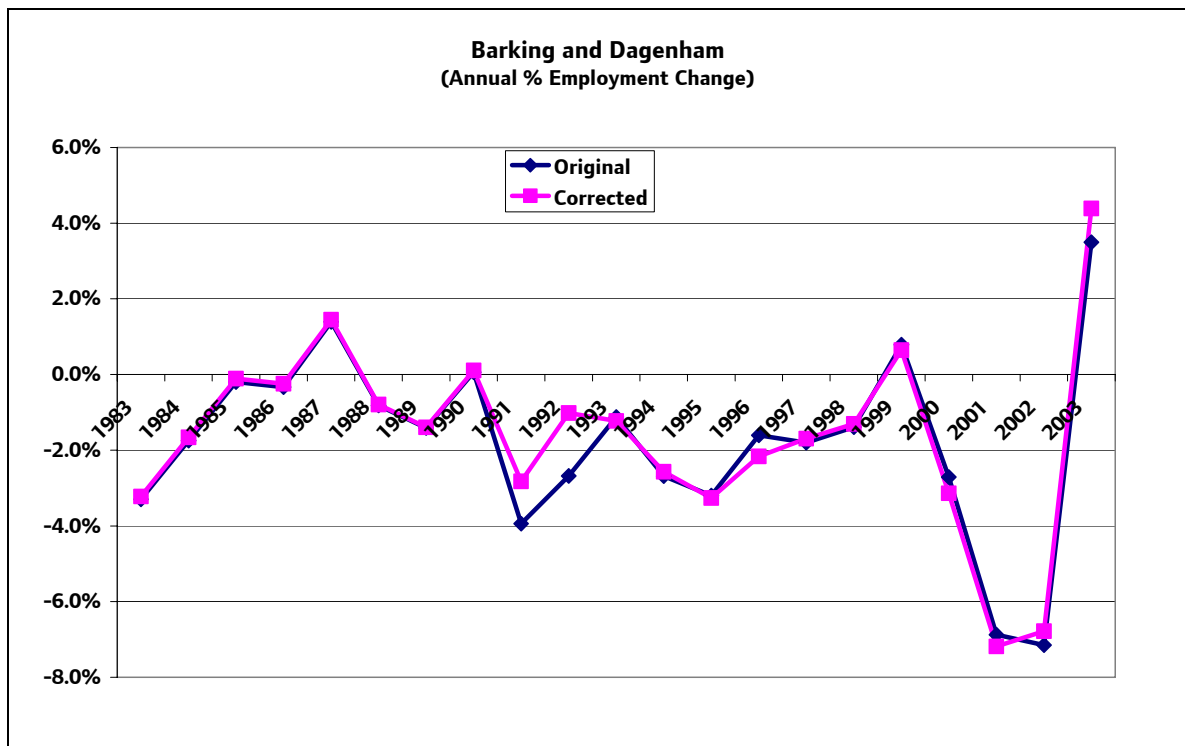


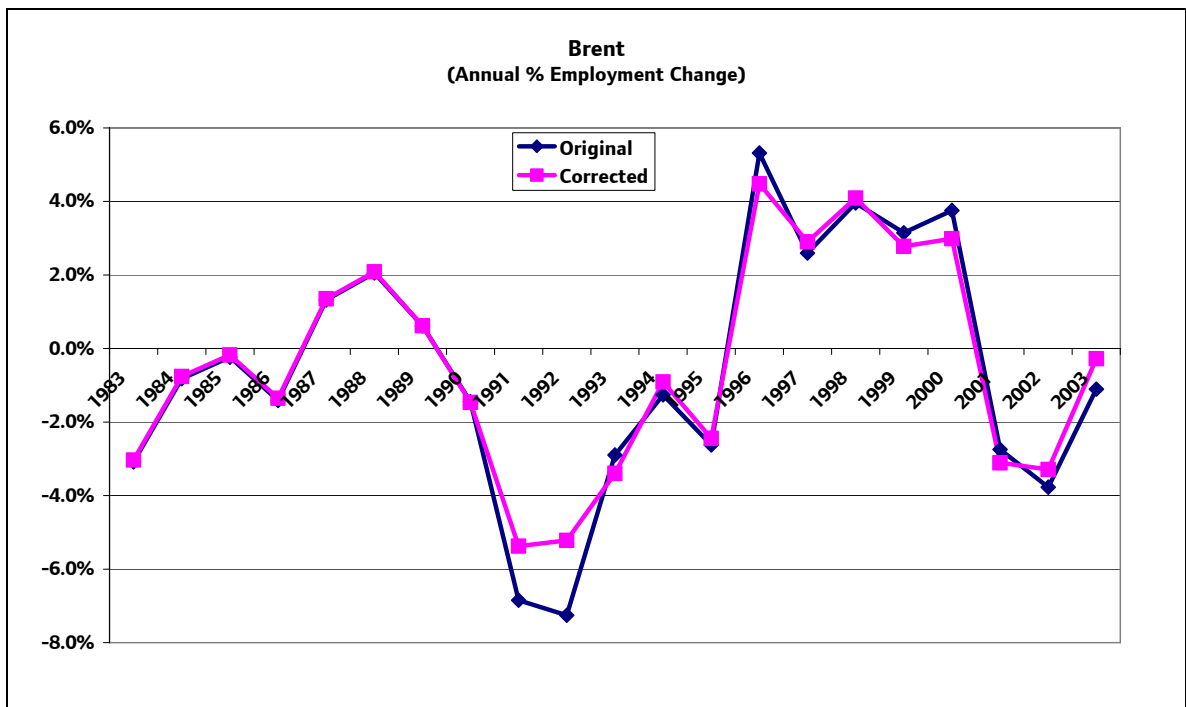
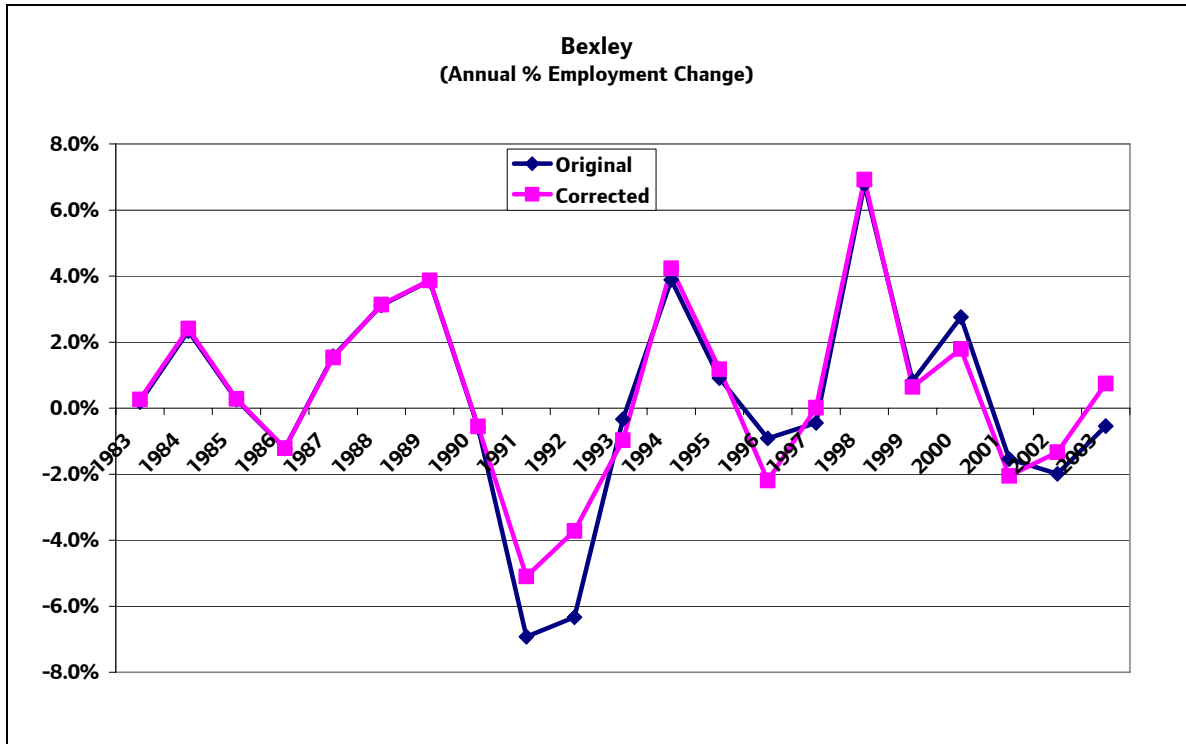


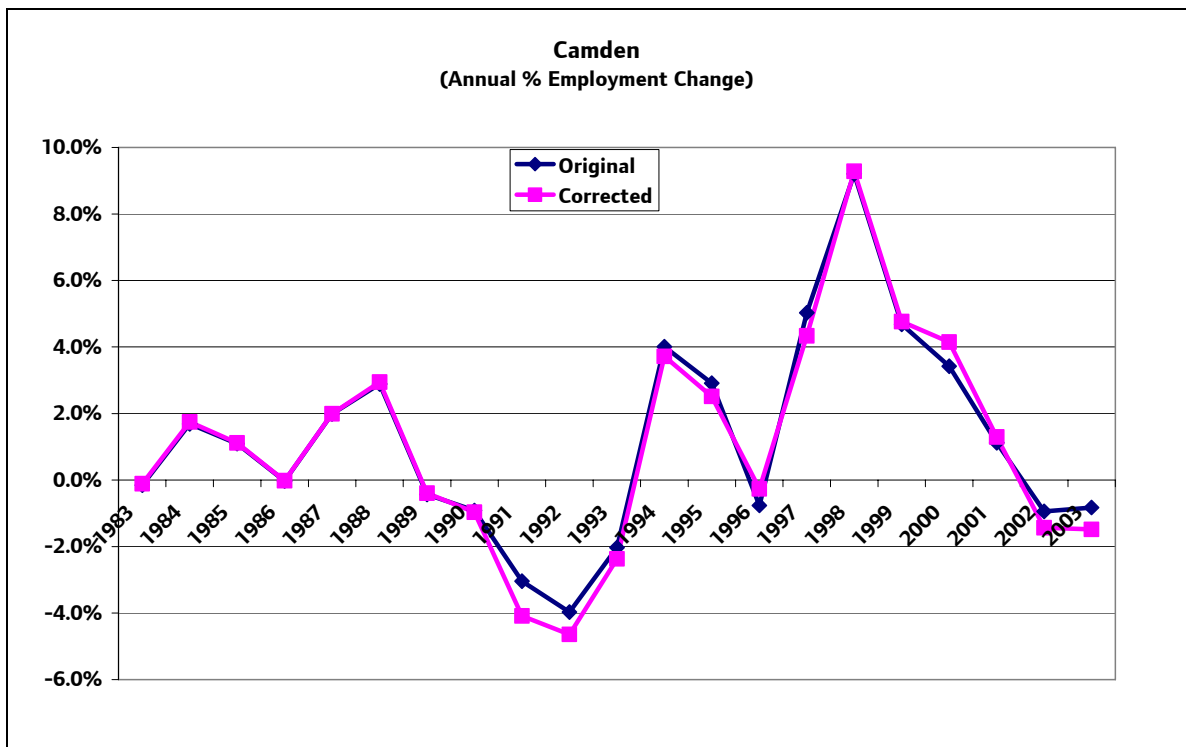
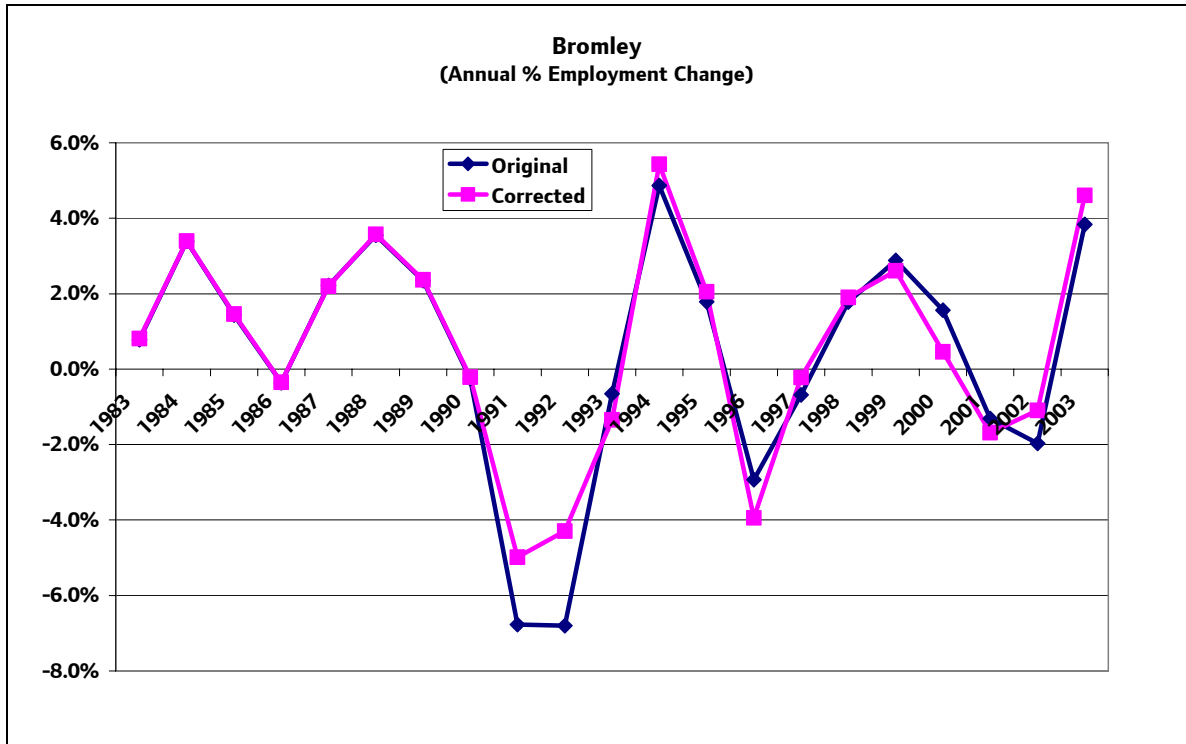
Westminster
Level of Employment



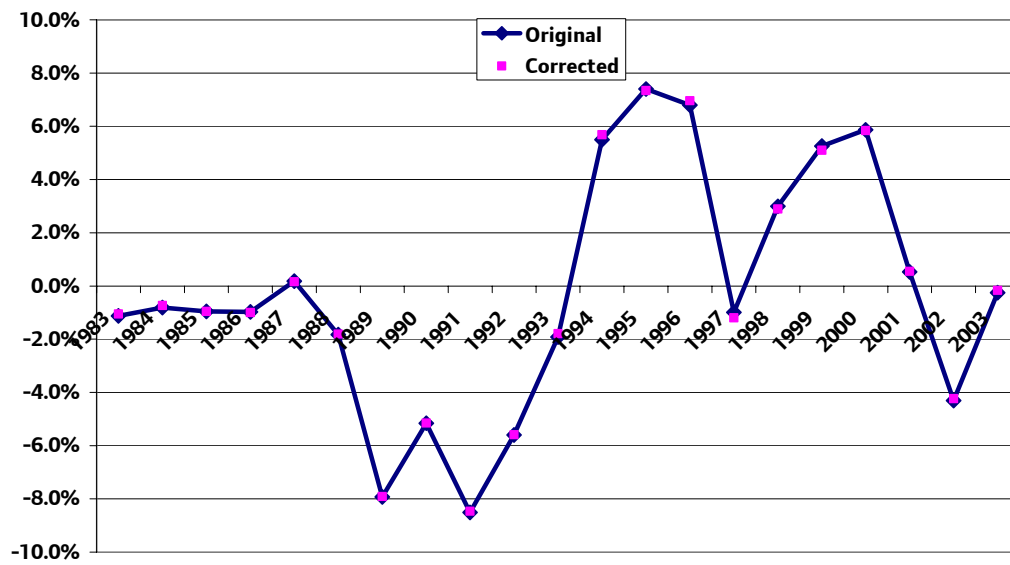
Annex B: Comparisons of the original and corrected EBS borough level annual percentage change data.



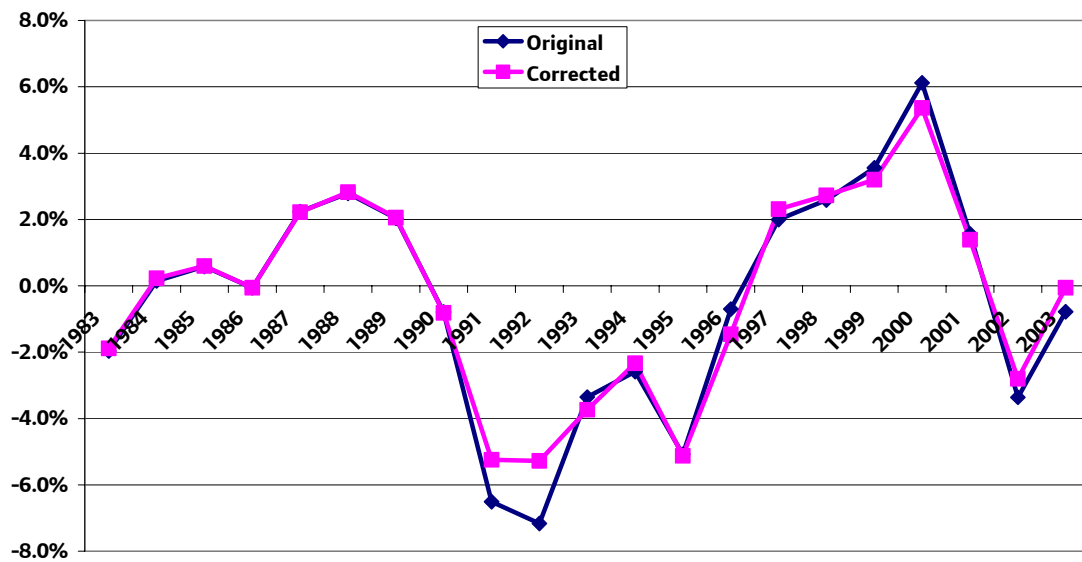


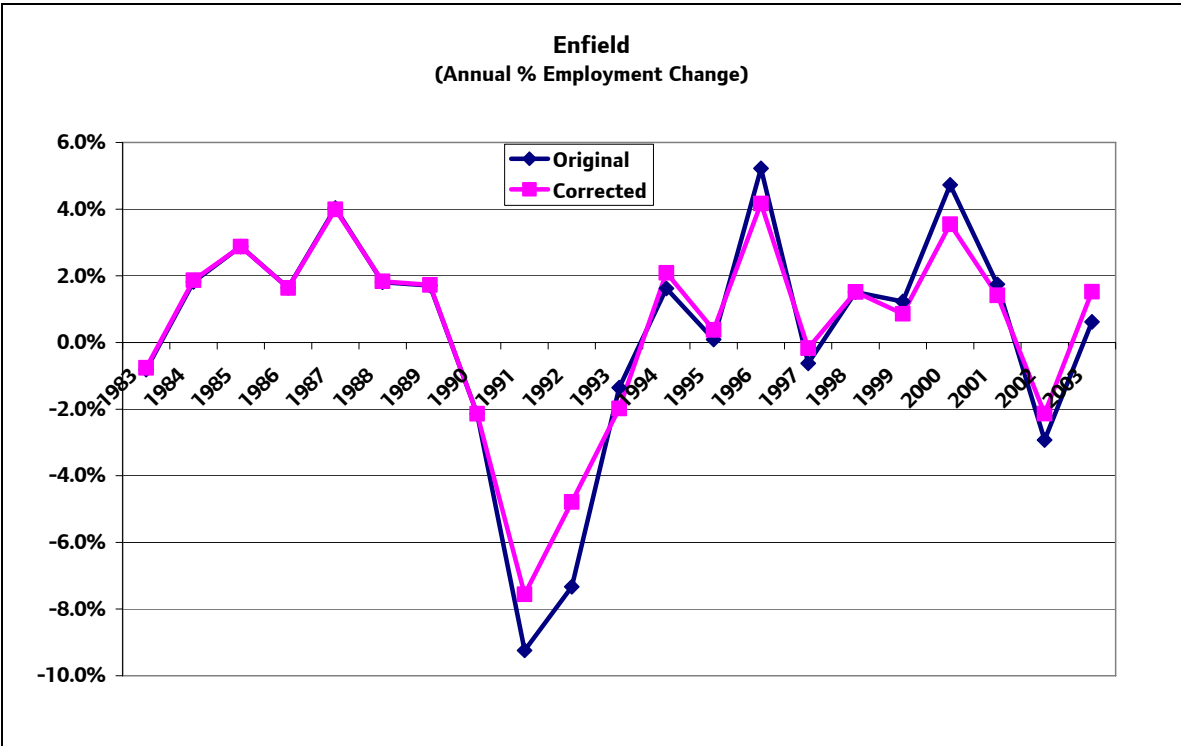
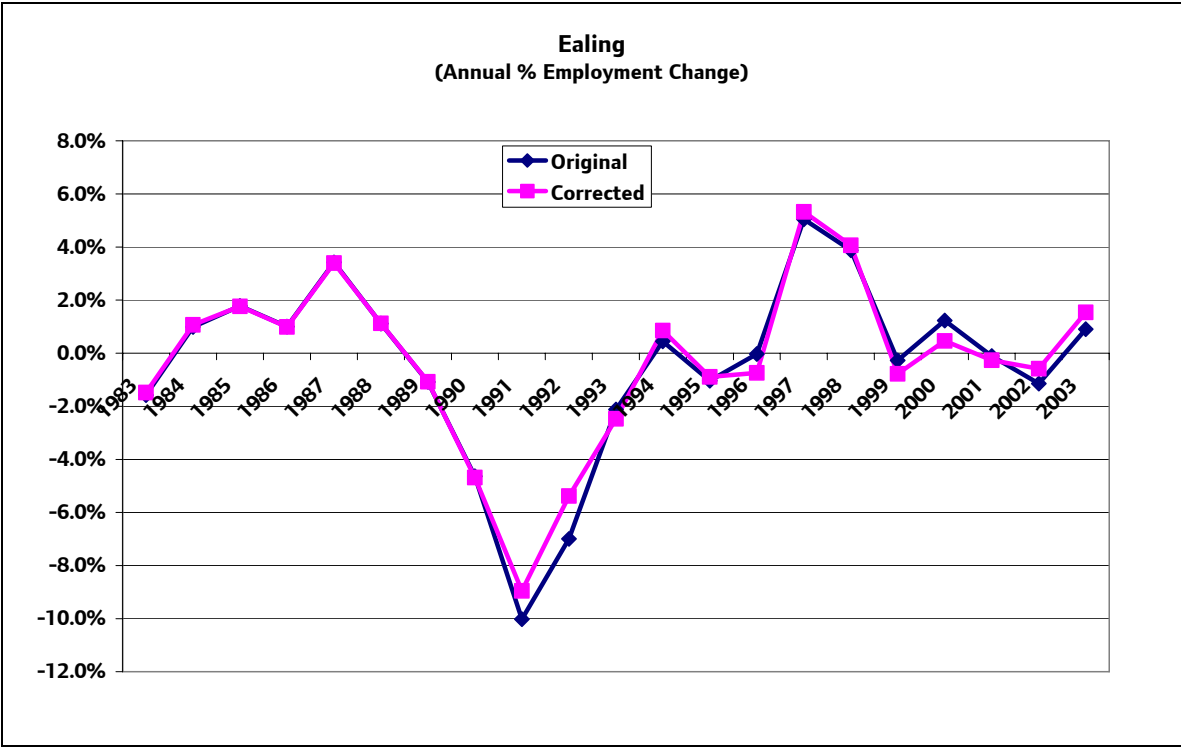


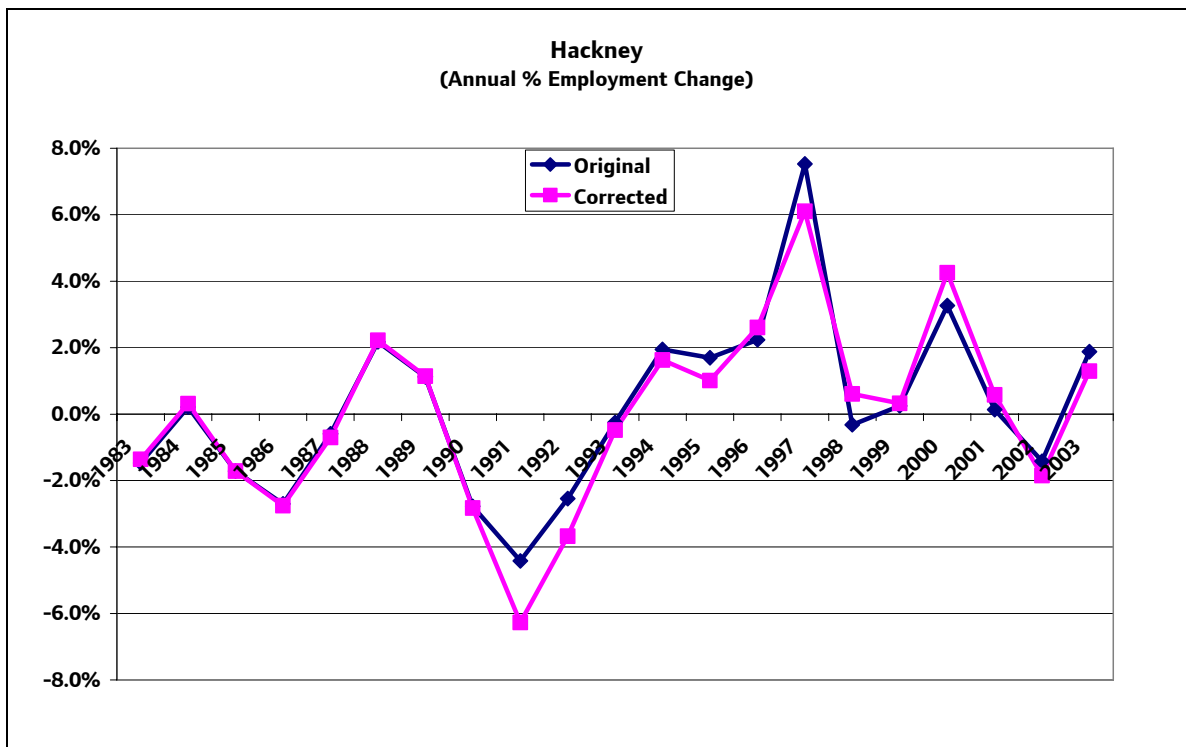
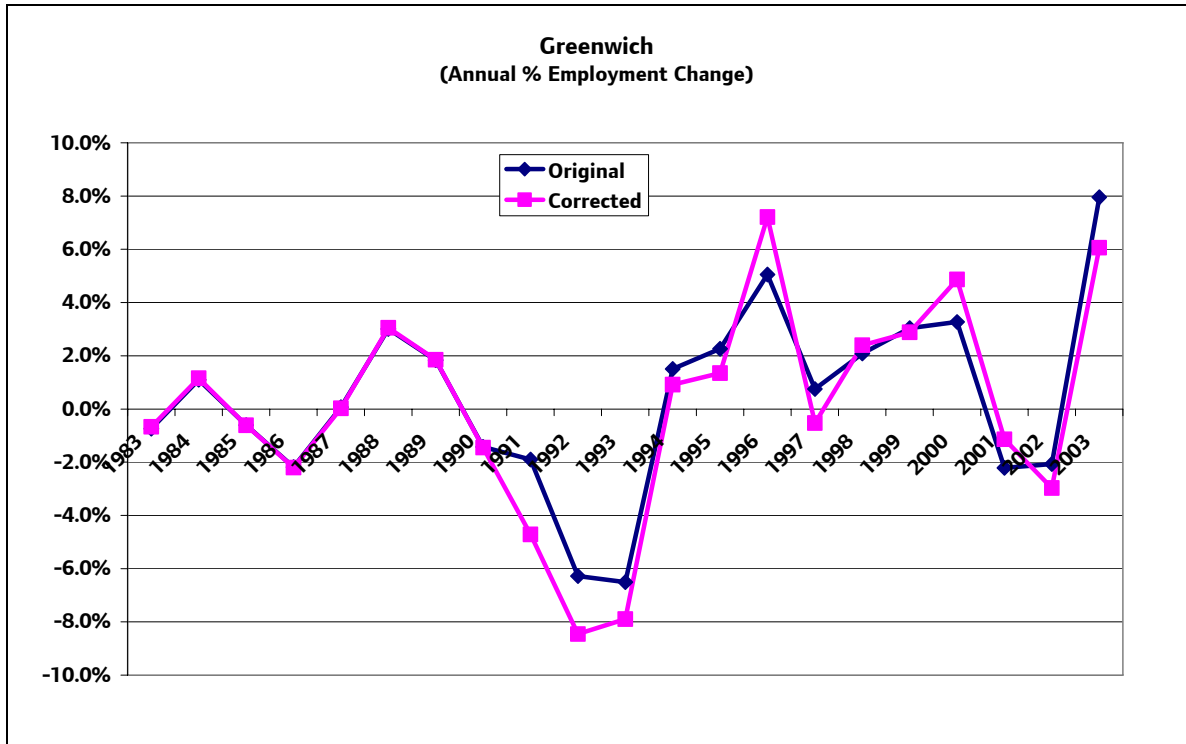
The City
(Annual % Employment Change)



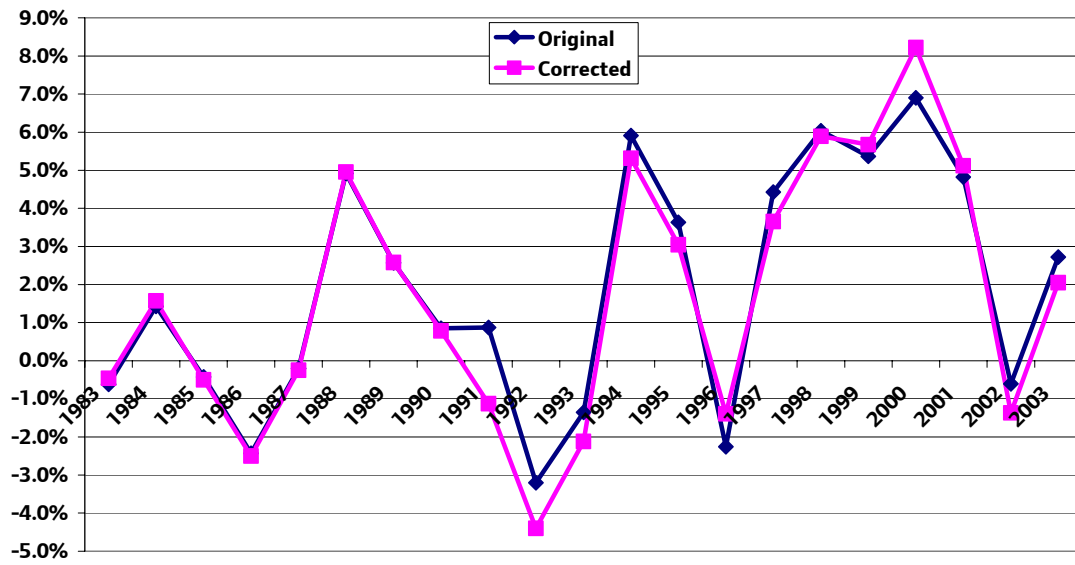
Croydon
(Annual % Employment Change)



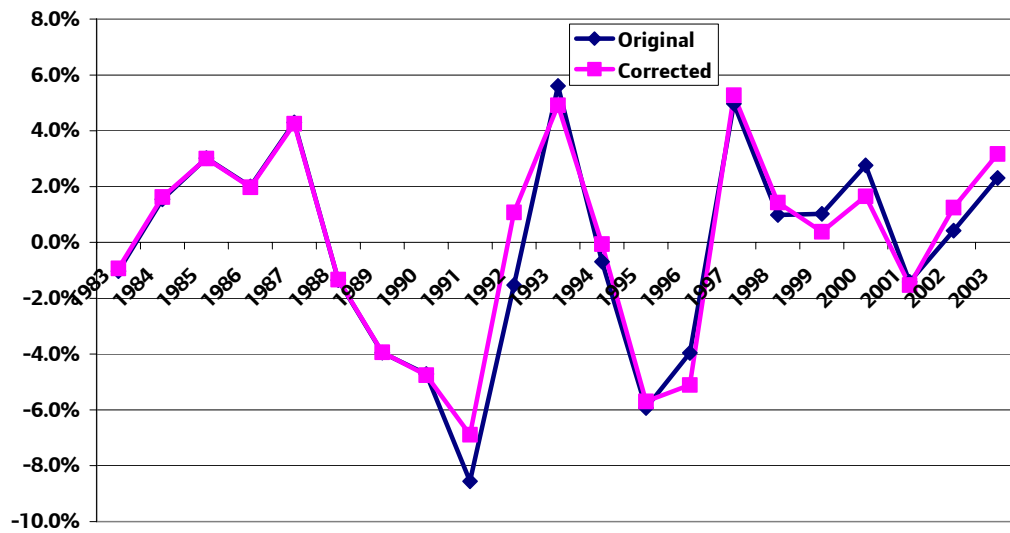


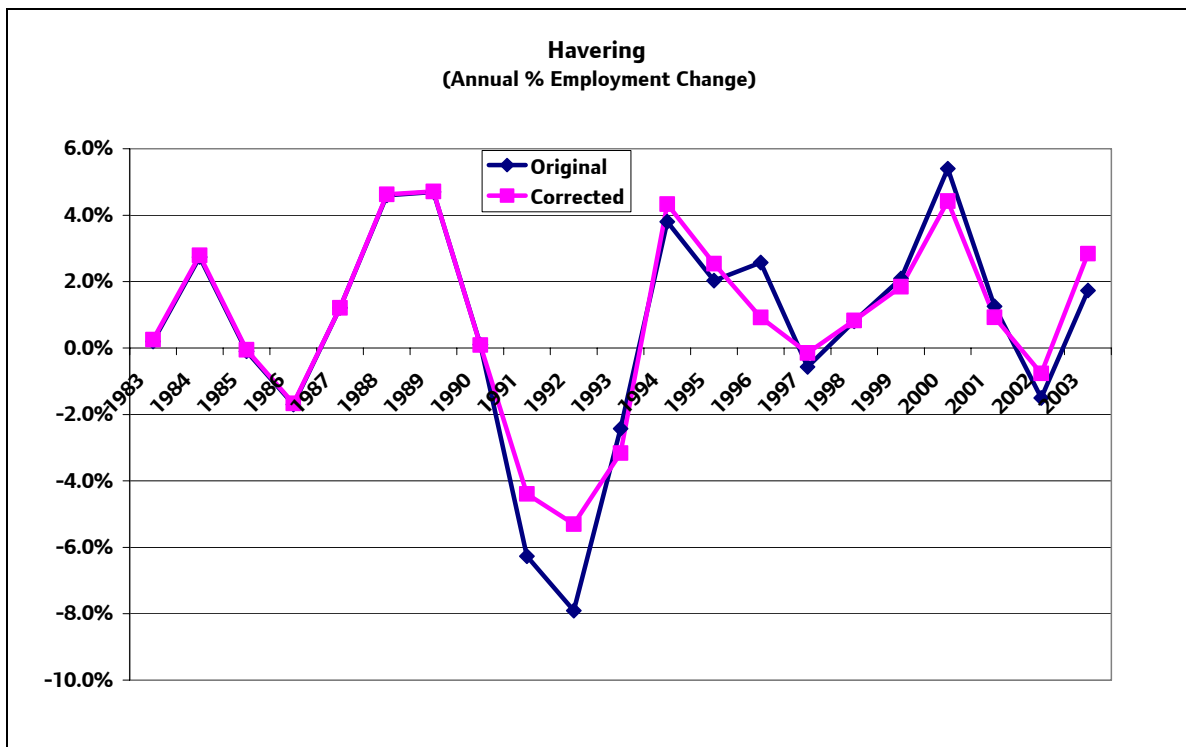
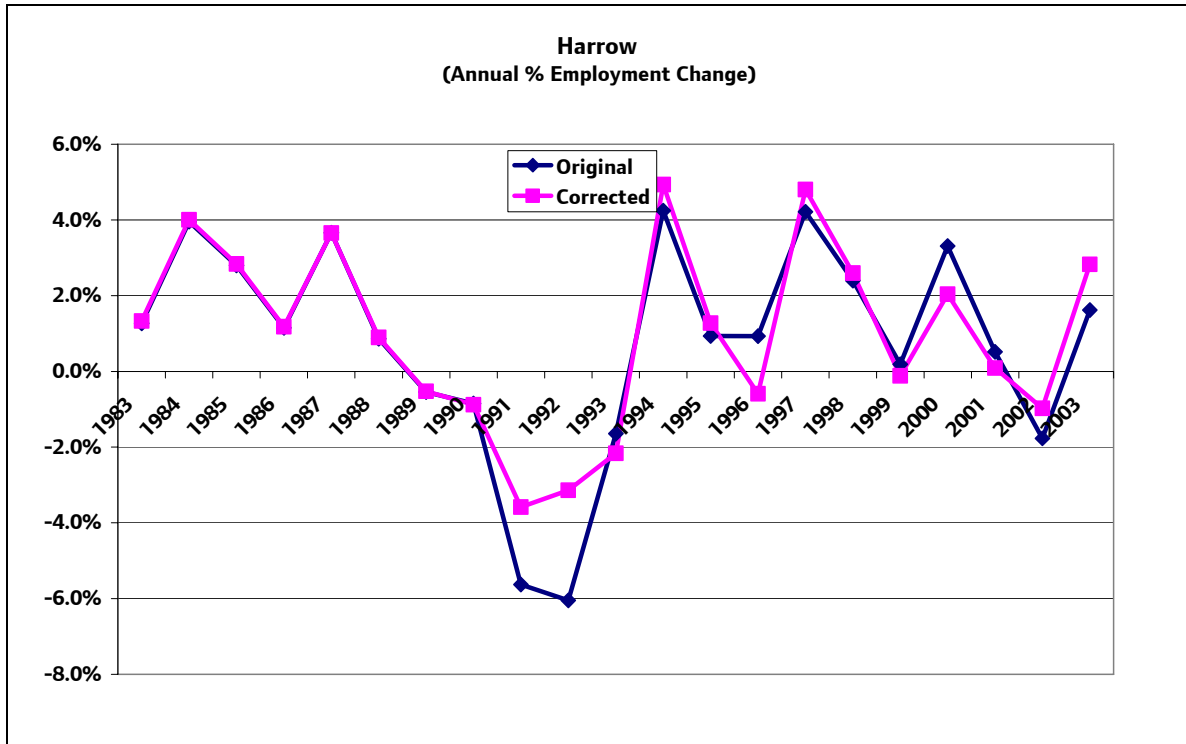


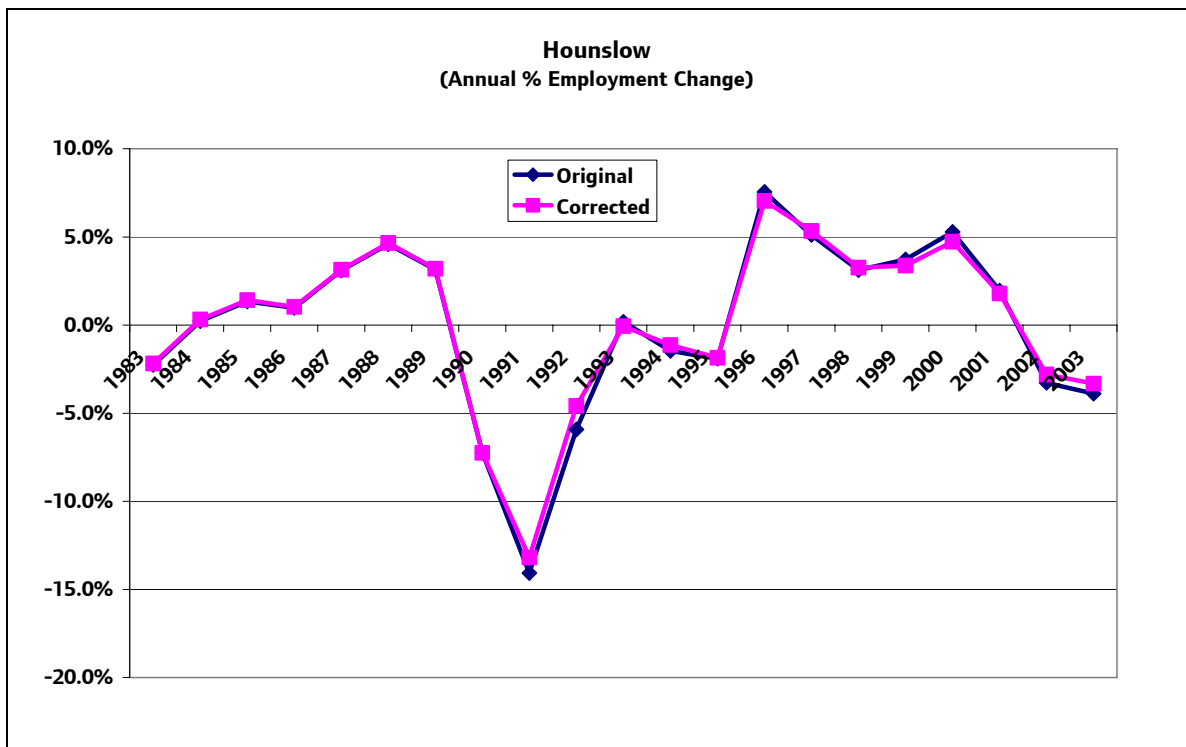
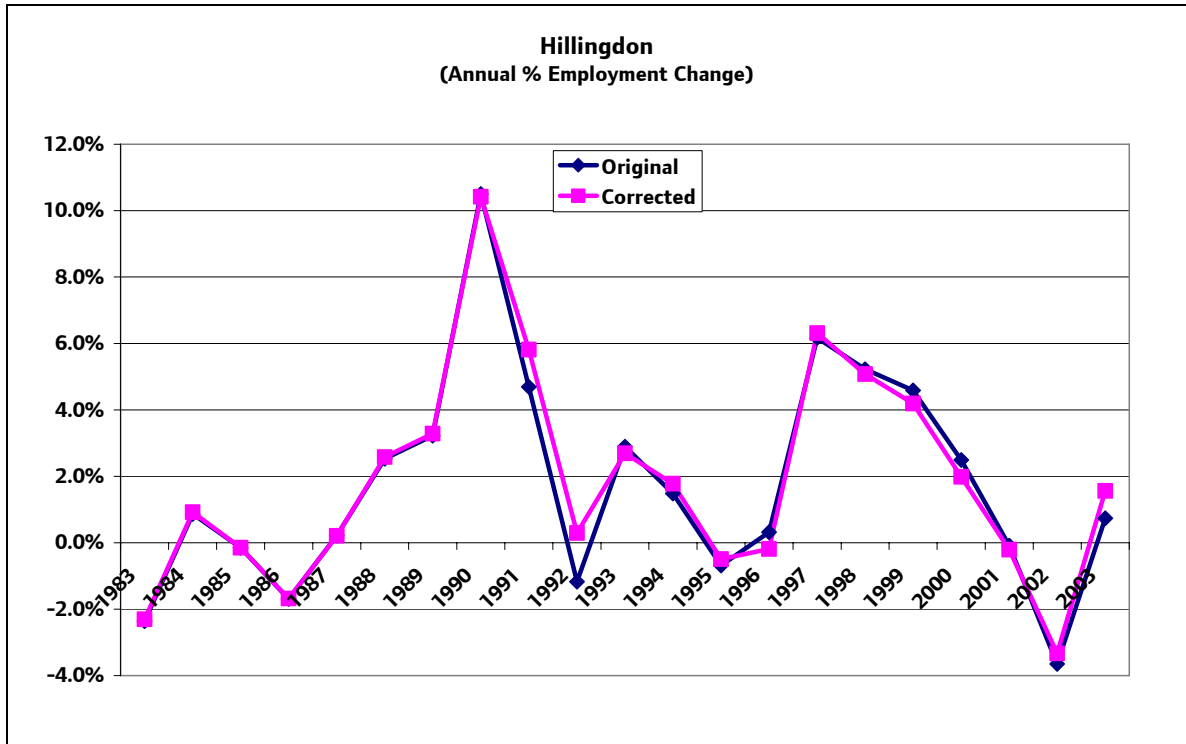
Hammersmith and Fulham
(Annual % Employment Change)

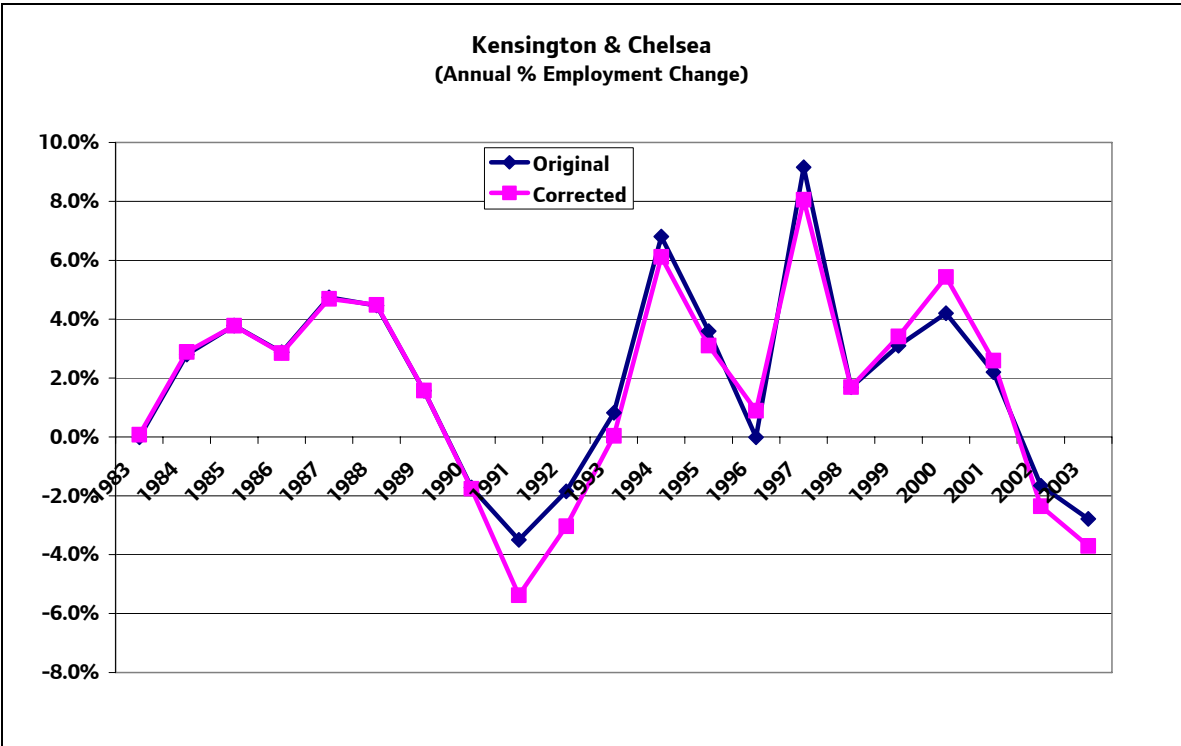
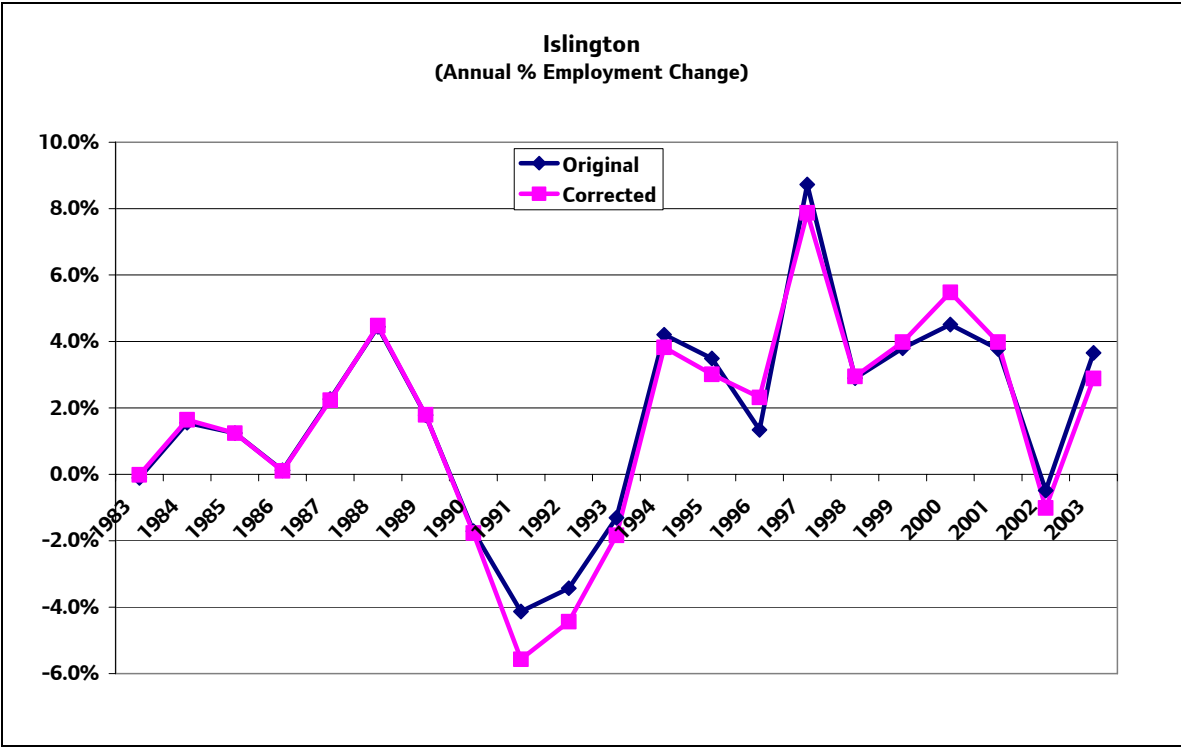


Haringey
(Annual % Employment Change)

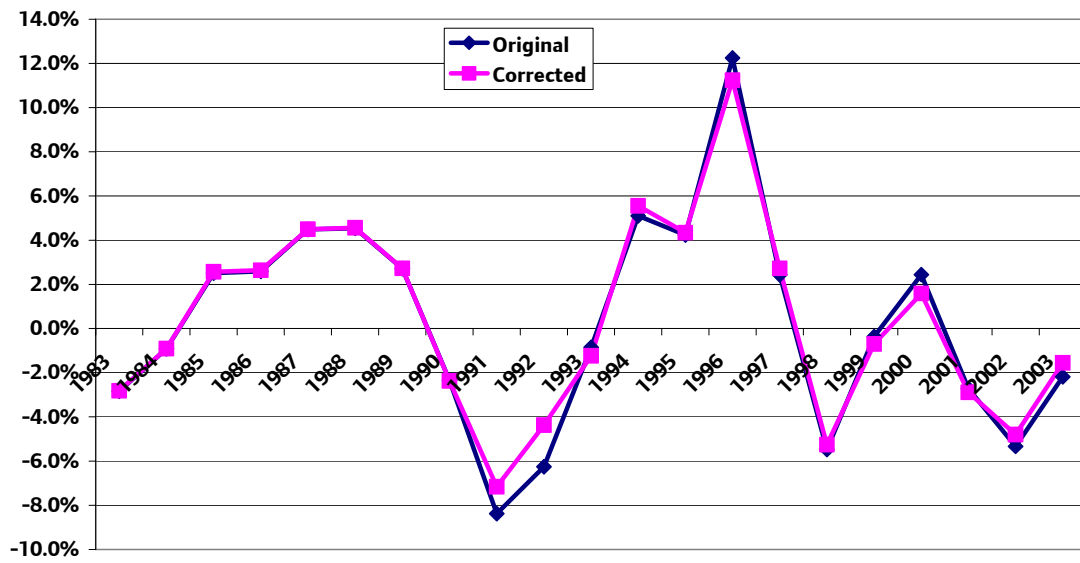




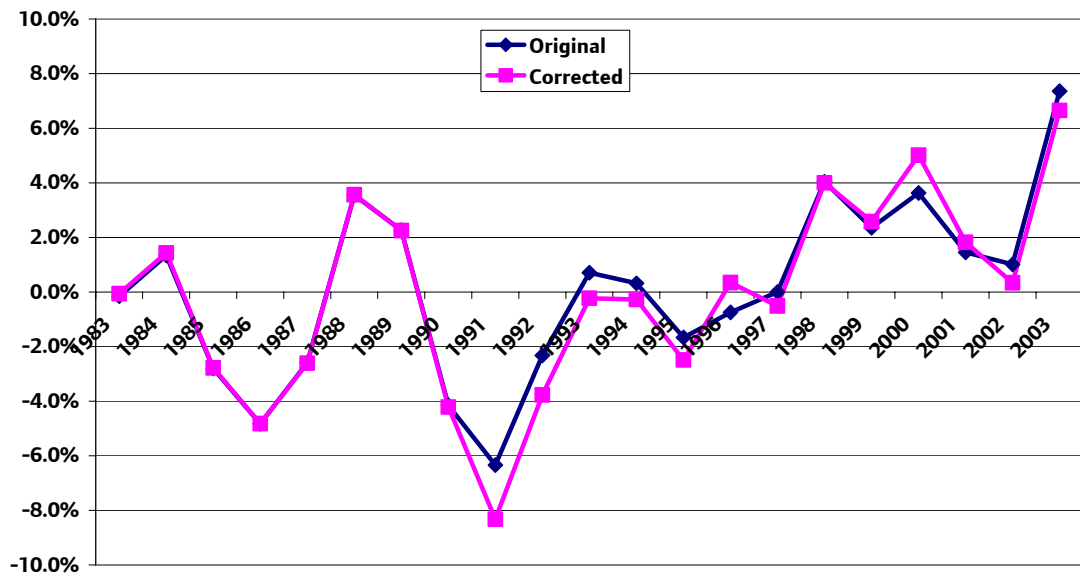




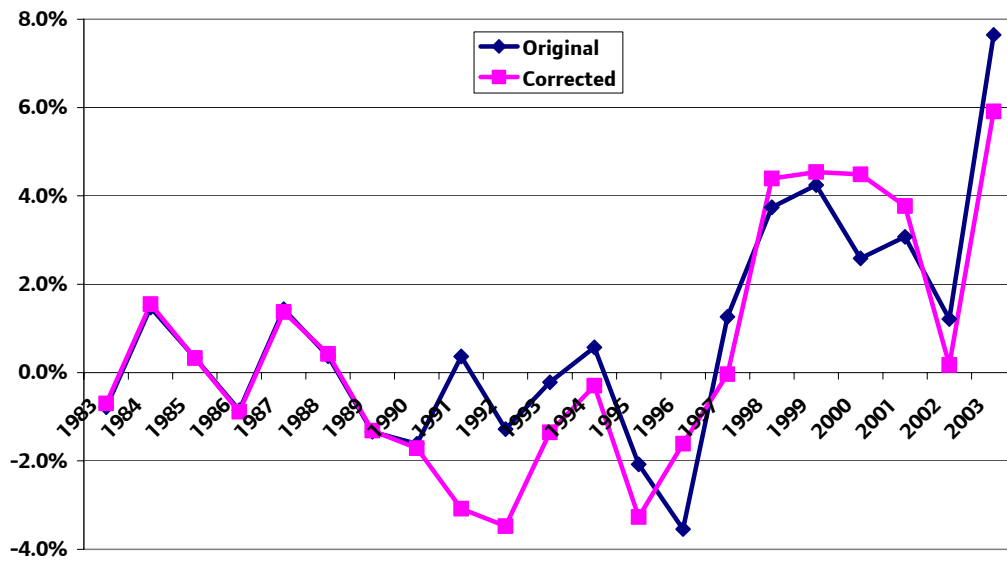
Kingston
(Annual % Employment Change)



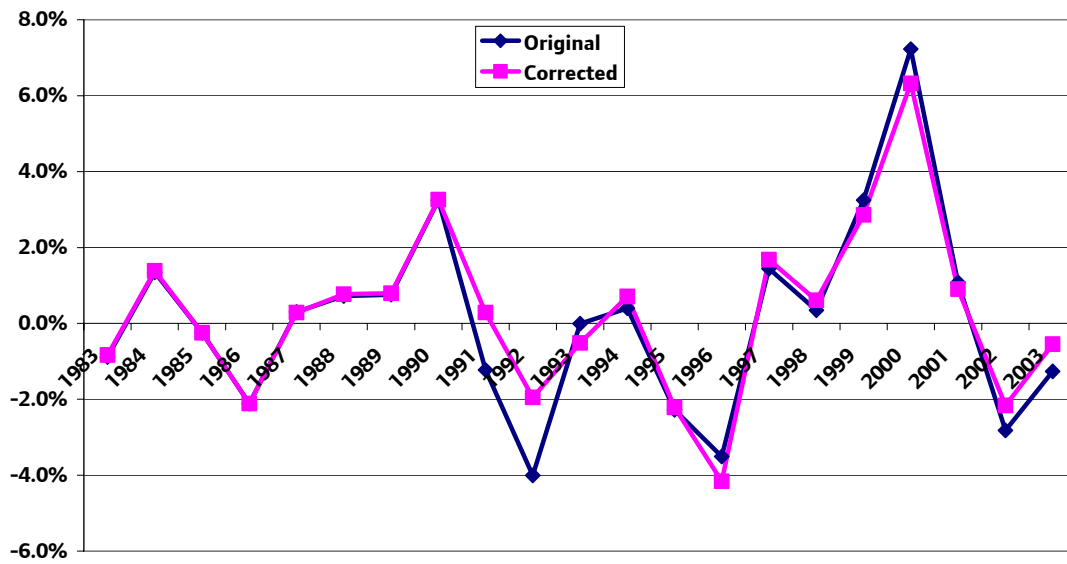
Lambeth
(Annual % Employment Change)



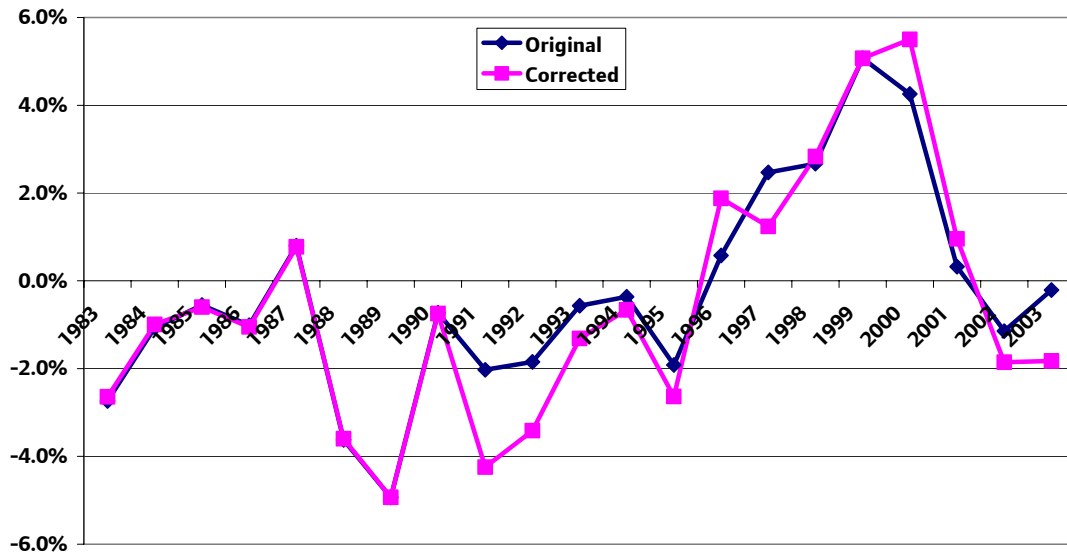
Lewisham
(Annual % Employment Change)



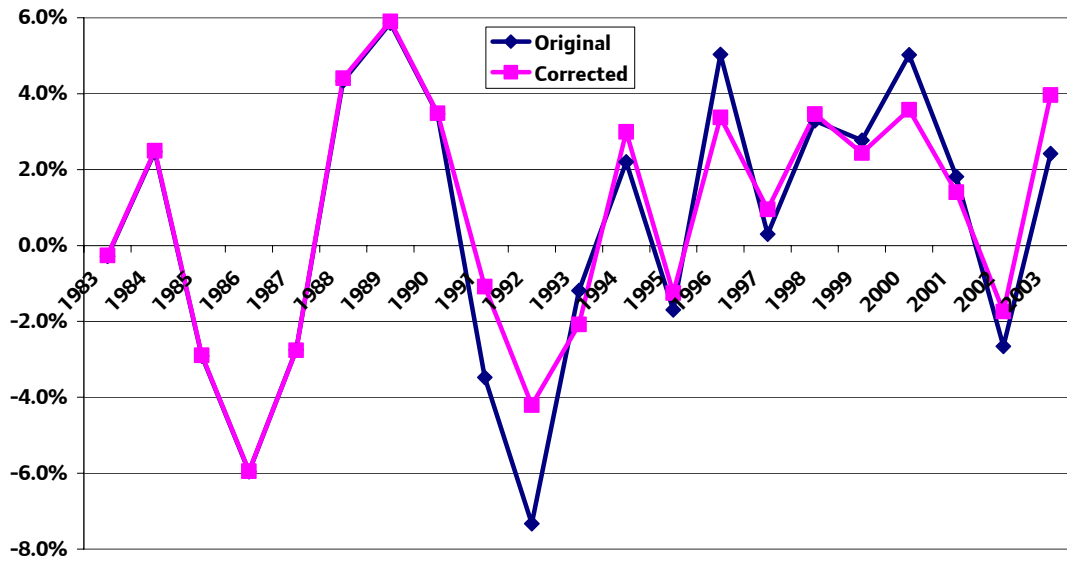
Merton
(Annual % Employment Change)



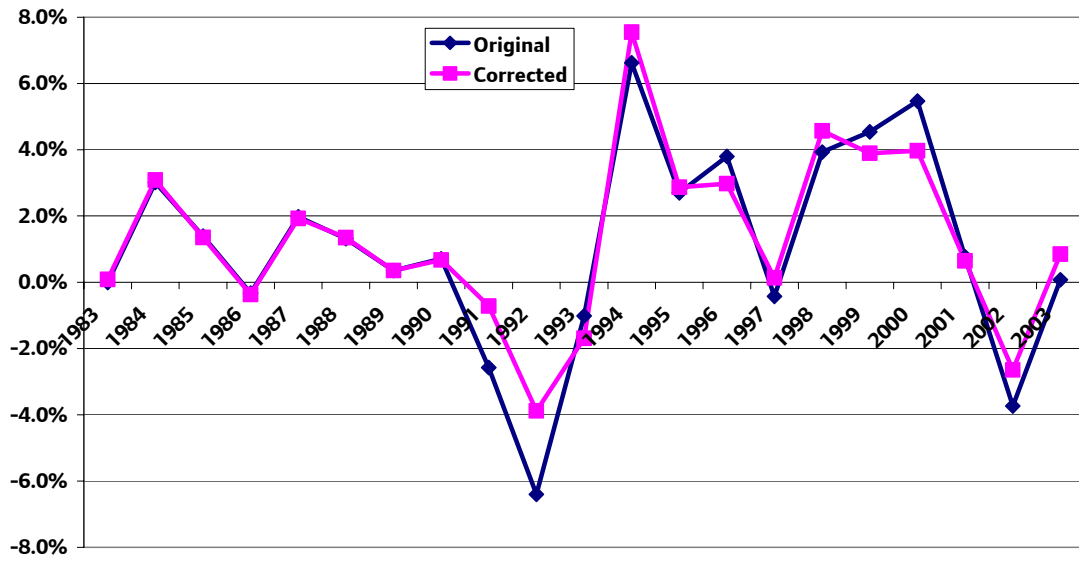
Newham
(Annual % Employment Change)



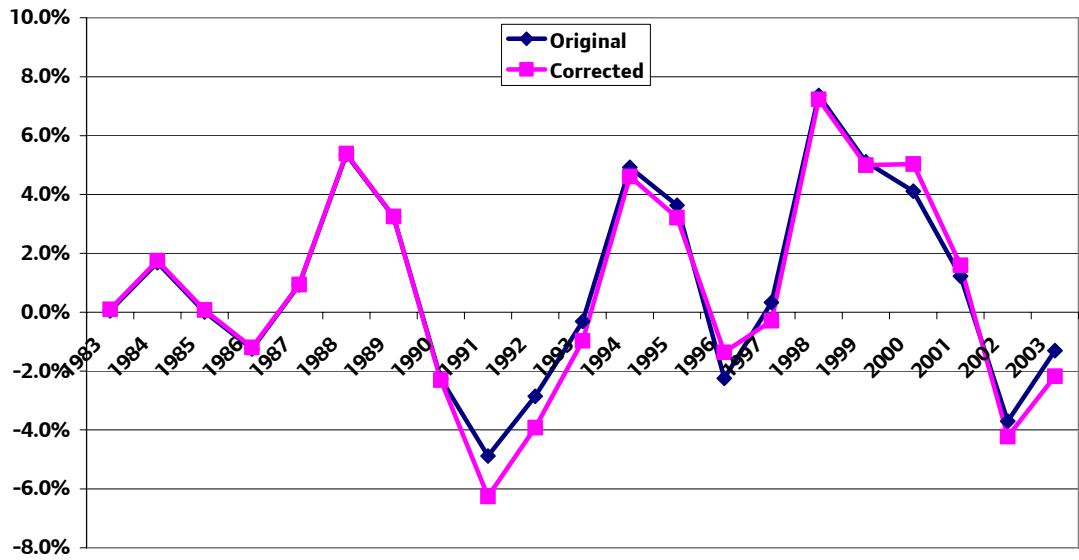
Redbridge
(Annual % Employment Change)

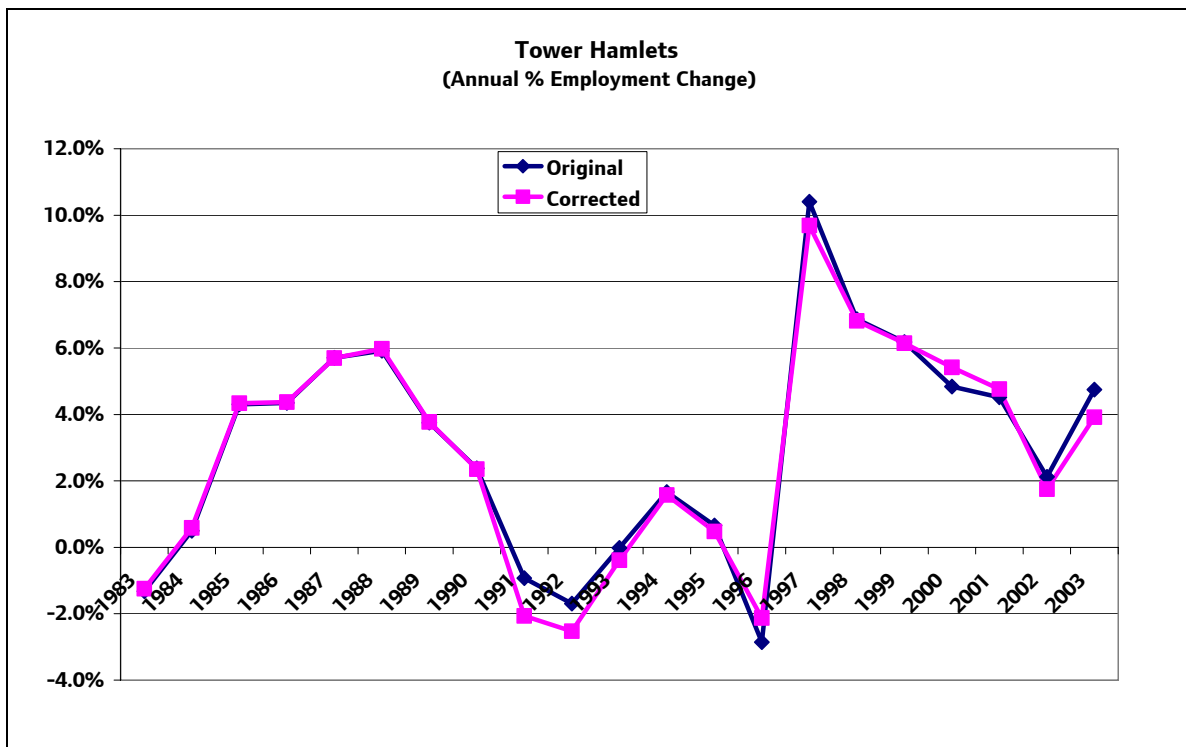
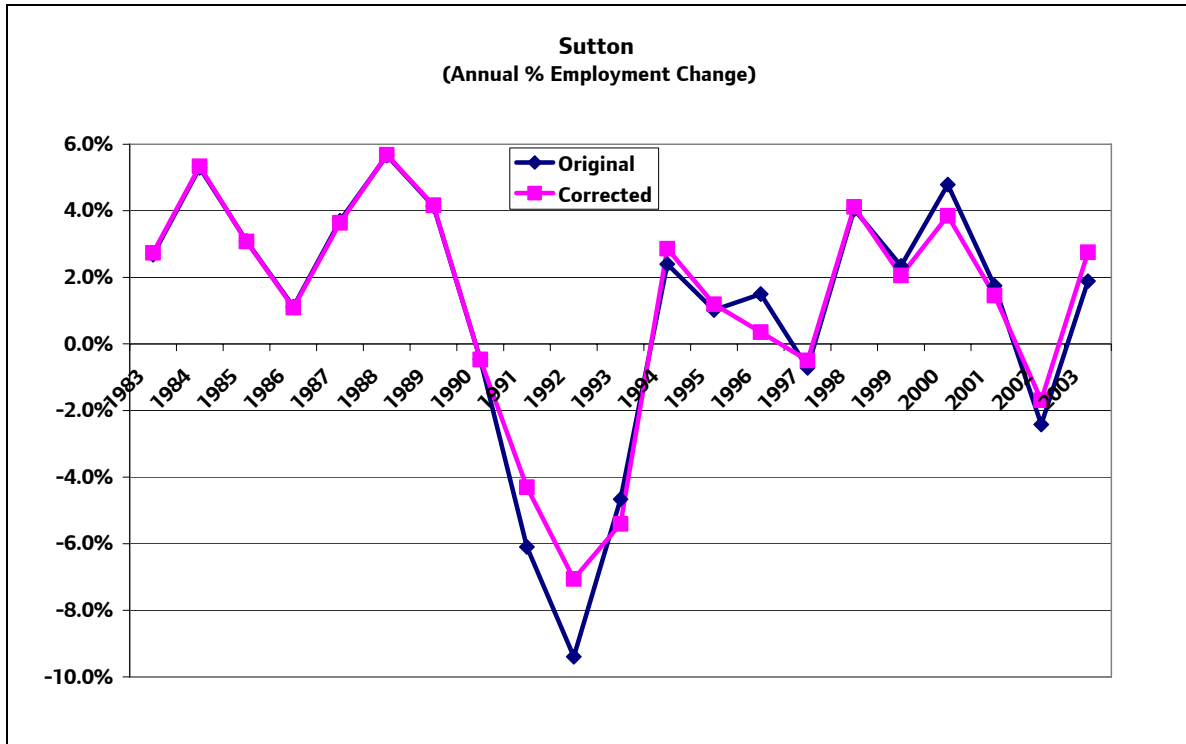


Richmond
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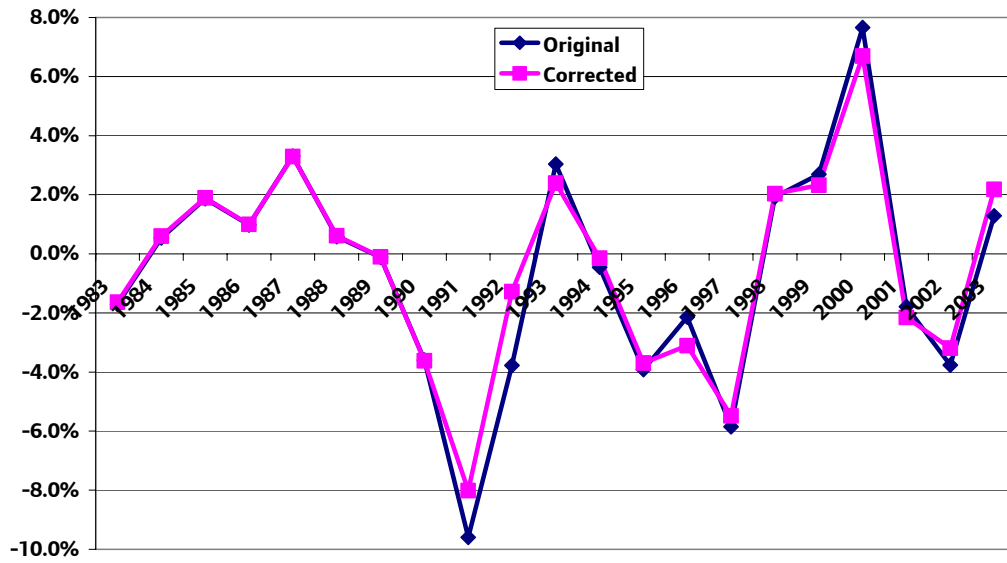


Southwark
(Annual % Employment Change)

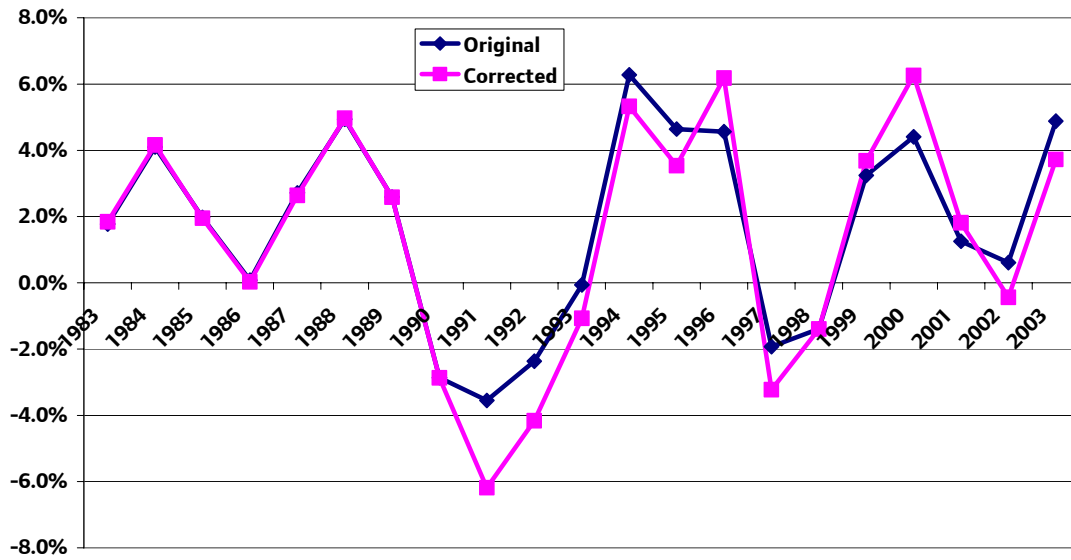




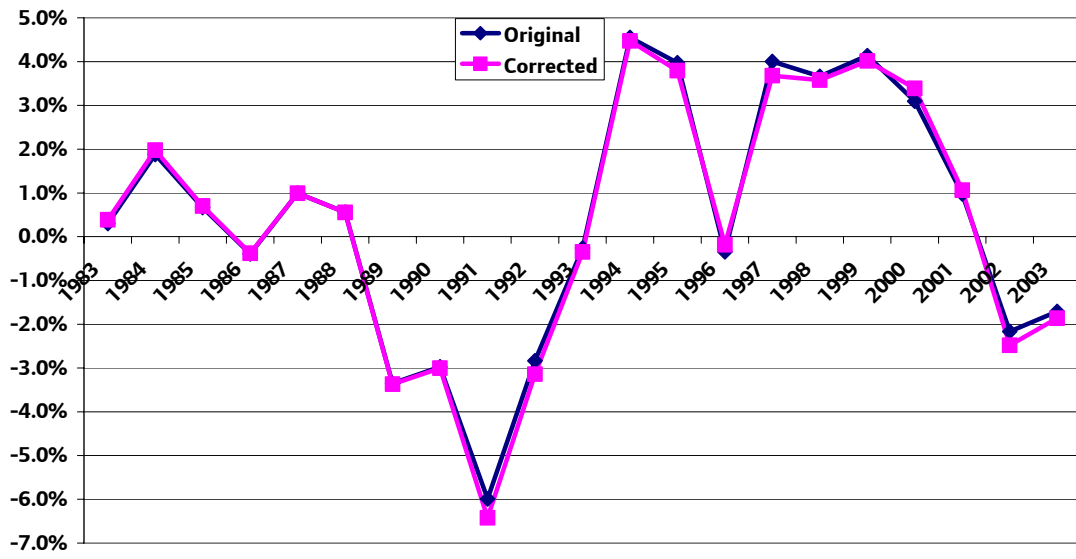
Waltham Forest
(Annual % Employment Change)



Wandsworth
(Annual % Employment Change)



Westminster
(Annual % Employment Change)



Annex C: Level of Employment at 2003: Original and Corrected Data Compared

