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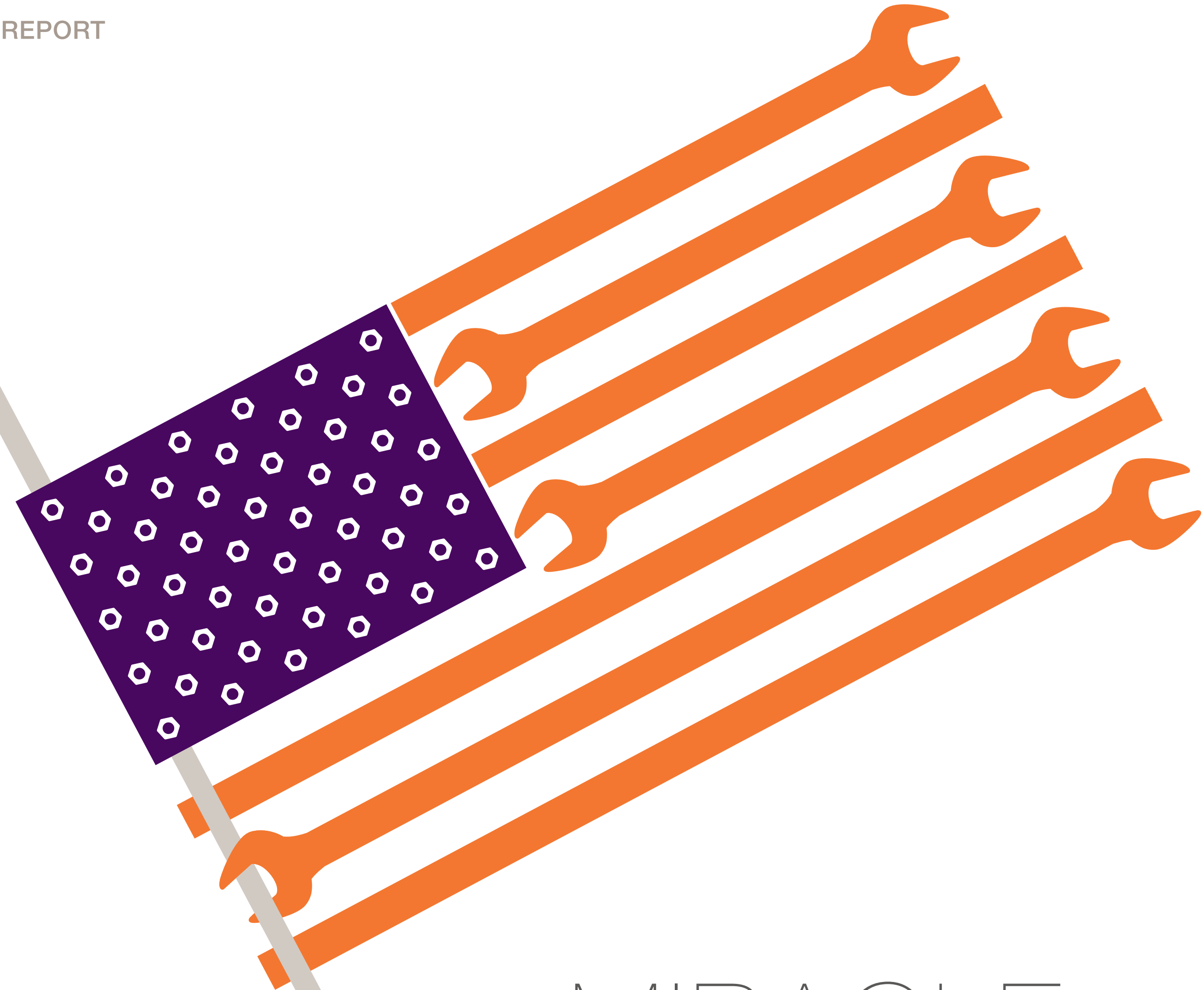

MIRACLE WORKERS

EXPLAINING THE LATE-90s US JOBS BOOM

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Heather Green, Andrew Hall, Jennifer Pescod,
Reg Javier, Kathy Fallon and Dennis Bothamley

Institute for Public Policy Research

ABOUT THE AUTHORS

Heather Green, PhD – consultant, Public Consulting Group
Dr Green is a Boston-based consultant with PCG Human Services. She has produced research publications at PCG on leading-edge developments in participant-directed services and trends in human services practice and procurement. Through the US Office of Management and Budget, she helped to develop a federal funding opportunity for one of those trends: provider scorecards that will help state agencies to assess the administrative strength and value of their contracted providers. In addition to this work on government innovation, Dr Green has project management and strategic and implementation planning experience in welfare-to-work revenue maximisation, regulatory reform, and quality improvement through internal controls.

Andy Hall – business analyst, Public Consulting Group
Mr Hall has provided consulting services for workforce agencies and employment programmes across the United States. As a member of the leadership team for PCG's management and operation of Philadelphia's One-Stop Career system, he developed and implemented a new programme design that integrated multiple funding streams and created a common customer pool. For PCG's CalWORKs Welfare to Work/Refugee Employment Services operation in San Diego, Mr Hall is responsible for business diagnosis, giving analytical support for the management of several initiatives to improve work participation among WTW clients. Mr Hall has also helped design and implement PCG's Refugee Microenterprise Program in San Diego and worked with various Local Workforce Development Boards across California, providing strategic planning, asset mapping, facilitation, integration planning, policy development, and capacity building for workforce development staff.

Jenny Pescod – senior consultant, PCG Advisory Services
Ms Pescod joined PCG in June 2012. Prior to this she worked for HM Treasury for eight years in a range of roles across tax and spending policy. She led on culture spending during the 2010 spending review, small business tax during the early years of the current recession, and spent four years developing adult skills and employment policy, including as a member of the Leitch review team assessing the UK's long-term skills needs. As senior consultant for PCG Advisory Services, Ms Pescod has spent the last four months in the US. In Philadelphia, she designed and implemented a series of workshops for the city's One Stop job centres; in Nashville, she reviewed and recommended changes to the management processes for PCG's self-directed care programme, having interviewed a range of staff on the current system.

Reg Javier – associate manager, Public Consulting Group
Mr Javier has over 20 years' experience in workforce development programme administration, oversight, and consulting. During his tenure with PCG, Mr Javier has worked with state and local workforce agencies to redesign workforce programs, build staff capacity, and manage and operate Career One-Stop centers. In Philadelphia, Mr Javier is the Project Director for the management and operation of a One-Stop system, which serves approximately 75,000 customers annually. As the Director of Workforce Advancement for the San Diego Workforce Partnership, Mr Javier oversaw One-Stop operations, Adult and Dislocated Worker programmes and discretionary grants. He has also worked with the California Workforce Investment Board and leadership to develop a strategic plan and vision for the direction and goals of the statewide workforce development system. Mr Javier's areas of expertise in workforce development include board, committee and operational oversight, contract and grant administration, staff development and capacity building, and strategic planning.

Kathy Fallon, MPA – practice area director, Human Services, Public Consulting Group
Ms Fallon has been with PCG since 1998 and has worked in government and government consulting for over 20 years. At PCG, she has worked with nearly half of the US states, focusing primarily on improving the business of government by improving fiscal functioning, service delivery, and operational process. Ms Fallon has particular regulatory expertise in the areas of TANF, CCDF, IV-E, XIX claiming, and IV-D, and has managed large-scale revenue maximisation projects in Texas, Massachusetts and Colorado. Prior to joining PCG, Ms Fallon worked for the Commonwealth of Massachusetts for eight years in the legislature and in the Executive Office of Administration and Finance managing state budget and finance. She currently teaches a graduate-level course for public administration students at the University of Massachusetts in Boston in public budget and finance.

Dennis Bothamley, MSW – director, PCG Advisory Services
Mr Bothamley has over 30 years' experience with managing government funded health and social care programmes. Mr Bothamley held leadership positions in state government in the United States for 14 years, including being the director of social services for the state of New Hampshire and the director of Medicaid programme policy and Implementation for the state of Connecticut. He has worked as a management consultant to government for over 20 years. He directed PCG's health and social care consulting practice for nine years and, most recently, directs PCG's office in the United Kingdom.

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IPPR
4th Floor
14 Buckingham Street
London WC2N 6DF
T: +44 (0)20 7470 6100
E: info@ippr.org
www.ippr.org
Registered charity no. 800065

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PCG Advisory Services is the London-based office of PCG, a firm headquartered in Boston, Massachusetts. With over 1,000 staff in 35 offices located in the US, UK, Canada and Europe, PCG offers management consulting, technology, operations and research solutions to help governments achieve their performance goals and better serve populations in need.

PCG has subject-matter knowledge and experience in managing a range of government-related topics, including social care, welfare-to-work, healthcare, education and technology solutions.

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PROJECT OVERVIEW

In June 2012, IPPR invited Public Consulting Group (PCG) to examine the drivers of the full employment economy that was achieved in the late 1990s in the United States and to explore the impact and potential lessons of that period for today's economic recovery.

Among PCG's many areas of expertise are workforce development and welfare-to-work revenue management, operations and strategic planning. PCG drew upon this knowledge base, conducted an extensive literature review, and performed original research in the production of this report.

The objectives of this report are to provide historical context and details to answer the following questions:

- What did 'full employment' look like for different demographic groups across the US?
- How did the US achieve the full employment economy of the late 1990s?
- How does today's recovery from the Great Recession figure in the employment history of the US, and what lessons can be pulled from the late 1990s to address unemployment in that recovery?

IPPR's work on full employment
This report will feed into IPPR's current project on full employment. Subsequent reports will set out the case for full employment in the UK and put forward proposals for achieving full employment over the long term. For more, see http://www.ippr.org/research-project/44/8933/routes-to-full-employment-scenarios-and-impacts

EXECUTIVE SUMMARY

In the late 1990s, the United States achieved a 'full employment economy', an anomaly in the post-war period. Achieving full employment meant that everyone who wanted to work and was willing to work at the market wage could find a job, allowing for some frictional unemployment. For the purposes of this paper, the 'full employment period' runs from 1997 – the year in which the national unemployment rate moved below the consensus 'full employment threshold' of 4.5 per cent – until 2000, when unemployment was still mostly at or below 4.5 per cent but beginning to climb. This full employment picture was coupled with a contemporaneous period of low inflation, challenging economists' previously established ideas about how low unemployment could be without destabilising prices.

In today's challenging employment climate, it is worth revisiting this remarkable convergence of low unemployment and low inflation in detail. What did it mean for different groups of Americans? How was it achieved? What lessons can we take and apply today?

The full employment economy translated into gains for many different cross-sections of Americans, but they were not necessarily distributed evenly. For example:

- Unemployment rates fell for men and women alike; men saw greater job gains in terms of raw numbers, while the rise in employment as a percentage of population was greater for women, due to continued increases in their labour market participation.
- The disparity in unemployment rates between racial groups narrowed, but white people saw gains more quickly and were able to sustain their traditional employment advantage.
- Workers in their prime working years (25–54) saw more dramatic improvements in unemployment than did younger and older workers.
- Middle- and lower-income families saw real income gains as low unemployment boosted real wages, but the real income growth of the wealthiest taxpayers far outstripped that of the rest of the population.

What explains the late-1990s jobs boom?

Full employment was the product of myriad forces, including fiscal and monetary decisions, demand for technology and low-cost capital, demographic factors, and research and development spending. The tax increases and spending cuts of 1993 set the stage for reconciliation between the nation's spending and its revenues, and monetary policy was used to encourage investment with lowered interest rates and risk-free government bonds encouraging more active bank lending. At just this time, the demand for computer technology – due to the development of the internet and the proliferation of personal computers – and area networks soared, driving consumption and investment. The maturing of the baby-boomer generation also played a part as it aged out of young adulthood and entered a more stable employment period. The end of the Cold War enabled reductions to defence spending, and the nation's public and private sectors maintained a commitment to investment in innovation.

The full employment economy is not generally attributed to government policy interventions, but there were policy foundations and decisions that created the conditions for growth and increased the individual incentive to work. US employment policy is traditionally non-interventionist. The US economy has to this day the most liberal employment protection legislation in the OECD, and the 'employment at will' doctrine, allowing employers to hire and fire as required, has been upheld with relatively limited restrictions since the late 19th century. Since the depression of the 1930s, subsidised employment services, financial support for those out of work and their dependents, and training to support employment and advancement have been introduced. From the 1960s, the balance of emphasis began to shift towards increasing the incentives to work.

By the early 1990s, responsibility for administering employment services had passed to state governments, along with tougher monitoring requirements for accessing federal funds, which increased state incentives to invest in more effective job-matching and job search activities. In addition, changes to the tax and welfare regimes introduced time limits and conditionality to benefits and increased the in-work tax credits available to those on low incomes. The overarching political philosophy of employment support at this time followed a trajectory towards increased individual incentives to work, promoting a culture of responsibility that, it was hoped, would plant the seeds of success for future generations.

The most profound employment policy change of the 1990s was the move from Aid to Families with Dependent Children, an entitlement programme, to the Temporary Assistance for Needy Families (TANF) block grant programme, introduced in 1996. TANF capped federal benefits, instilled work participation requirements for 'work-eligible' individuals, and mandated 75–80 per cent matching state spending on families in need. At an administrative level, the results were dramatic and manifested quickly. Welfare caseloads dropped from their peak of 5.04 million in 1994 to 2.26 million in 2000. These results have been sustained, even through the two recessions of the 2000s, reaching a low of 1.62 million in 2008 and remaining under 2 million since.

Another significant development was the expansion of the federal earned income tax credit (EITC). The EITC rewards households that are able to bring in a wage. It was introduced in 1975 and increased substantially in the early 1990s. The number of claimants swelled in response: from 7 million in 1986, the number of EITC claimants grew to 19 million by 1996. This increase translated to a 10-fold increase in government expenditures on the programme, from $3 billion to $31 billion, more than the government was spending on TANF.

The Great Recession and jobs recovery

The 'full employment economy' is perhaps all the more extraordinary because it was not an explicit goal of government at the time, a far cry from today's ubiquitous attention on unemployment rates in the wake of the Great Recession.

In terms of job loss, the more recent recession has been devastating. Nationally, 7.5 million jobs were lost, and the national annual unemployment rate spiked to nearly 10 per cent in 2009. Particularly damaging have been the growth of long-term unemployment and the part-time 'underemployment' of people who would rather be working full-time. The recovery of jobs has been slow compared to the more rapid recoveries from other recent recessions, despite the government's interventionist approach to reducing unemployment.

The federal response has been multifaceted. By far the largest government intervention was the 2009 American Reinvestment and Recovery Act (ARRA), the $787 billion stimulus that aimed to jumpstart the economy. ARRA cut taxes for 95 per cent of the working population and encompassed a massive spending programme that spanned health and human services, education, energy, infrastructure, and assistance for struggling Americans. The Troubled Asset Relief Programme of 2008 set aside $431 billion in disbursements to purchase assets and equity from troubled financial institutions and shore up their holdings. Bailouts of automotive, mortgage, insurance and financial industry heavyweights buoyed foundational institutions for those sectors. Even the Federal Reserve recently committed to more a more proactive approach to strengthen the jobs picture.

The path of return to a higher employment rate is still to be determined. The most recent numbers at the time of publication show that the national unemployment rate is at a four-year low of 7.8 per cent with a preliminary count of 114,000 jobs added in September 2012. Amidst incremental gains in jobs are concerns of a prolonged collapse of aggregate demand, protracted bouts of unemployment, and employer adjustments to a 'new normal' of lower employment levels. In this climate, inflamed by the politics of an election year, we can see that some of the lessons learned and successful tactics of the 1990s are finding their way onto today's agenda, alongside some more novel approaches. Echoes of the 1990s include:

- the call for deficit reduction to stabilise the economy (though the best means of doing so is fiercely contested)
- a commitment to low interest rates to stave off inflation
- a drive to connect people with stabilising, sustaining employment, now with an emphasis on the qualification-based training that enhances mobility
- renewed interest in apprenticeships as a path of advancement, building on the career ladder ideas of the past
- continued belief in the power and potential of the private sector to spur growth and create jobs, apparent today in the pursuit of public–private partnerships, the more employer-centric approach to workforce development strategies, and the required presence of local business leaders on workforce investment boards.

In order for the US to build the strength of its labour market and assert its competitiveness as not only a consumer but also a producer in the global economy, many challenges lie ahead. Education and training for high-demand skills, enhanced job-related information delivery, promoting family-supporting wages, and pursuing new frontiers (as well as restoring the old) will all be part of the picture.

INTRODUCTION

In the late 1990s, the United States achieved a 'full employment economy', an anomaly in the post-war period. Achieving full employment meant that everyone who wanted to work and was willing to work at the market wage was in work, allowing for some frictional unemployment.[1] This full employment picture is especially remarkable because it was coupled with a contemporaneous period of low inflation, challenging economists' previously established ideas about how low unemployment could be without destabilising prices.

As shown in the national overview in figures 1.1 and 1.2, the national employment rate reached a low in 1991, while interest rates remained relatively low compared to the recent past; the national unemployment rate then declined from 1992.[2] For the purposes of this paper, the 'full employment period' will run from 1997 – the year in which the national unemployment rate moved below the consensus 'full employment threshold' of 4.5 per cent (Kaplan 1999) – through 2000, when unemployment was still mostly at or below 4.5 per cent but beginning to climb.[3]

This paper explores the nature and impact of America's employment success in the late 1990s. It discusses in depth the demographic and regional breakdown of changes in the unemployment rate to give a clear picture of what full employment meant for different sectors and areas of the country. Variations of this data set have informed many past analyses; here we include detailed demographic breakdowns by race, gender, age and region for the key 1997–2000 period in order to capture a nuanced representation of full employment. We also include for reference, where available, data points for 1991, the year of the lowest national employment level prior to the full employment period. This data shows that full employment did not affect all demographic populations equally positively, and we discuss the persistence of inequality here as well.

The drivers of this full employment economy in the US have been discussed at length in the existing literature, and we will present here a review of those findings. This review includes coverage of both the main causes of full employment – largely connected to monetary and fiscal policy, demographic shifts and demand shocks – as well as relevant policy changes that affected the historical employment landscape. Although full employment was not a deliberate political goal at the time, it is still instructive to understand what policies were in place to support the robust employment picture.

This report concludes with a discussion of the US today, in recovery from the 'Great Recession', and the strategies of this more recent, more explicit push against unemployment. We include salient notes of comparison with the UK context to inform strategic thinking on employment strategies in a time of economic recovery.

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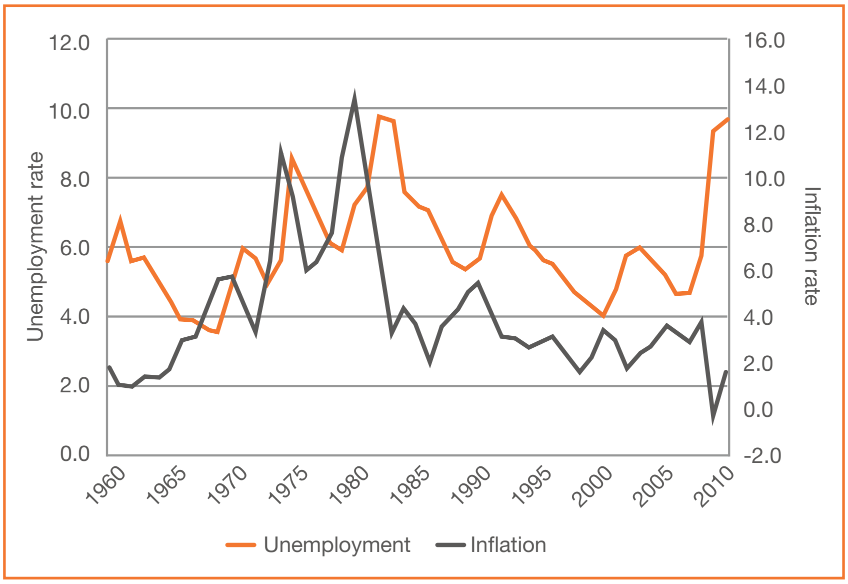
1 Definition taken from the *Economist*'s 'Economics A–Z': http://www.economist.com/economics-a-to-z/f#node-21529900

2 Unless otherwise noted, all statistics and other data pertain to the United States.

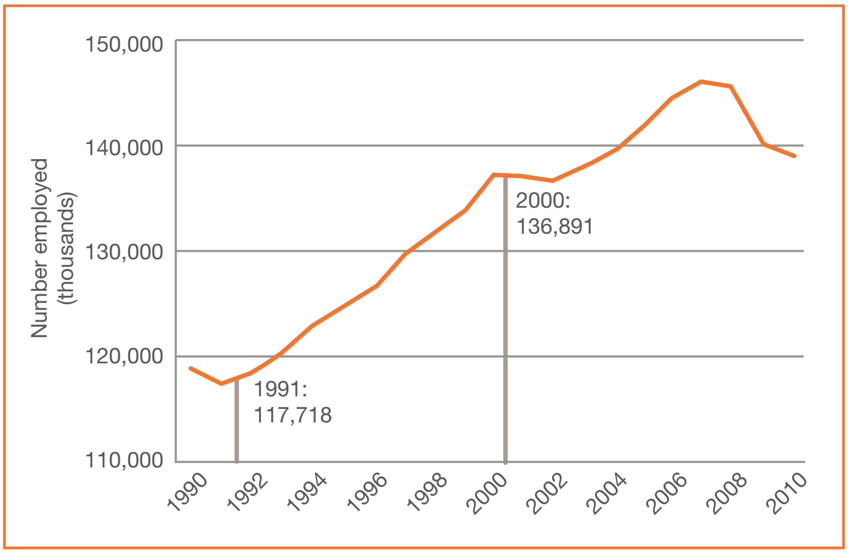
3 We recognise that the precise limits of this period are open to interpretation and that the national unemployment rate was improving for much of the 1990s. Likewise, we acknowledge that the drivers of full employment were in place and effective before 1997: our emphasis on the 1997–2000 period is not intended to suggest that the drivers described here took effect in 1997 and not before. This study's focus on the peak of full employment allows us to concentrate on the key exploratory question of how the supposed benefits of this period affected different groups of Americans.

Figure 1.1
National unemployment rate and inflation rate, 1960–2010



Source: US Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey: http://www.bls.gov/cps/

Figure 1.2
National employment level in the civilian, non-institutional population, 1990–2010



Source: US Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey: http://www.bls.gov/cps/

1. WHAT DID FULL EMPLOYMENT LOOK LIKE?

In the wake of the 1990–1991 recession, the US economy showed only weak signs of recovery. Non-farm payroll employment (a standard measure of US labour market performance) rose by just 36,000 per month in the year and a half after the recession's trough in March 1991 (Blinder and Yellen 2002). The national unemployment rate of 7.5 per cent in 1992 was the highest since the early 1980s. Average hourly wages of production and non-supervisory employees increased by a meager 3 per cent from 1991 to 1992, while real GDP constricted by 0.2 per cent that year.[4]

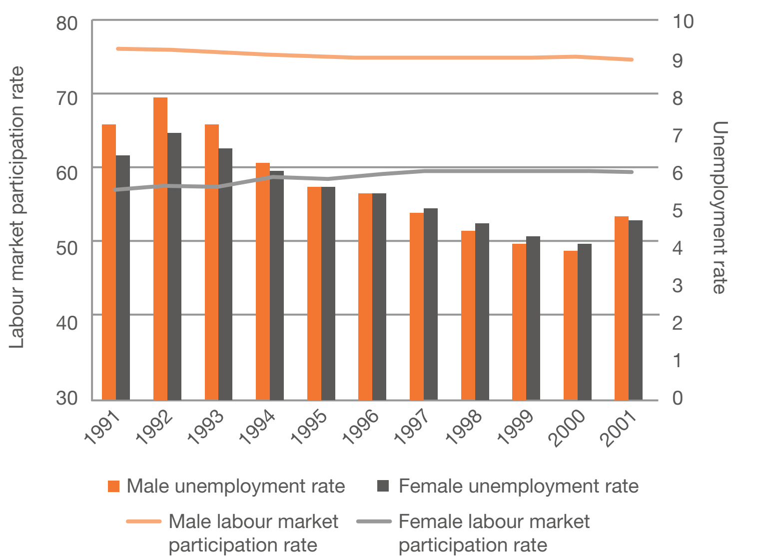
Just a few years later, however, the US began to experience extraordinary growth and prosperity. Real GDP grew by 4 per cent in the second half of the 1990s, and the rates of unemployment and inflation both fell dramatically (Blinder and Yellen 2002). The national annual unemployment rate dropped 2.6 percentage points to 4.9 per cent in 1997. As a percentage of the population, more Americans were able to work than ever before: that year, the civilian labour force[5] represented 67.1 per cent of the population,[6] the highest level in the post-war period.

Although the US economy thrived in the late 1990s, it was not the case that all parts of the population benefitted equally. In this chapter, we present employment data for the years 1991–2001 sliced by demographic categories of race, gender, age and region, along with some sector and education level information. This analysis will show who was affected most and least by the employment developments during the full employment period.

Gender

As shown in figure 2.1, the full employment economy brought reductions in unemployment for men and women alike. While men saw greater employment gains in terms of raw numbers, employment as a percentage of population was actually greater for women, thanks to continued increases in their labour market participation.

Figure 2.1
Unemployment and labour market participation rates by gender, 1991–2001



Source: US Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey: http://www.bls.gov/cps/

4 See Bureau of Economic Analysis, 'National Income and Product Account Tables': http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1
5 Excluding individuals employed by the Department of Defense
6 See US Bureau of Labor Statistics, 'Unemployment': http://www.bls.gov/data/#unemployment

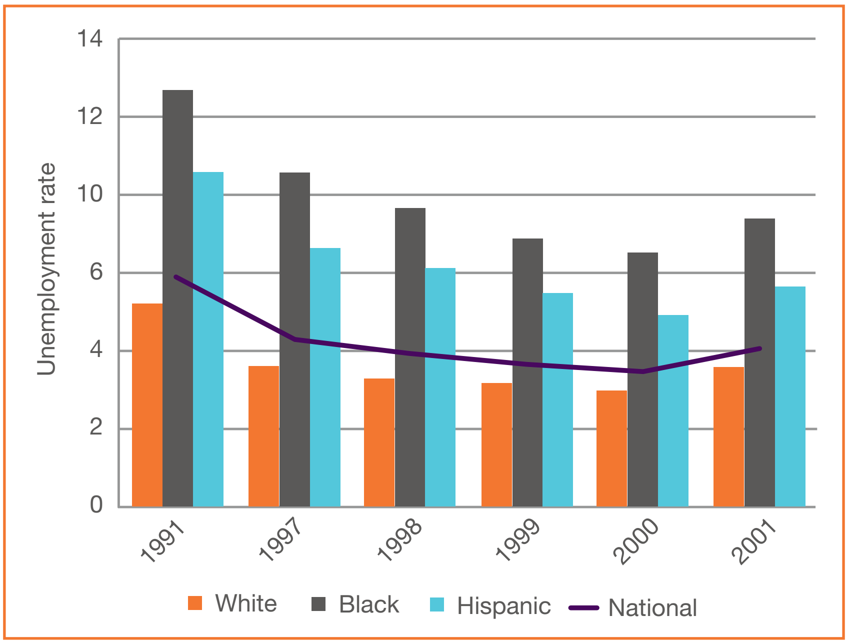
From 1991–2000, the national male unemployment rate fell 3.3 percentage points from 7.2 per cent to 3.9 per cent; the female unemployment rate dropped 2.3 percentage points from 6.4 per cent to 4.1 per cent. On the surface, this data suggests that men were the primary benefactors of full employment, but the unemployment rate statistic on its own overstates this advantage.

During this time, labour market participation rates for males fell by 1 percentage point (from 75.8 per cent in 1991 to 74.8 per cent in 2000), deflating the male unemployment rate. Conversely, the female labour market participation rate increased by 2.5 points over the same period. Employment gains as a proportion of the population were actually greater for women: from 1991–2000, the percentage of females employed increased by 7.1 points, compared to only 2.1 points among males.

Race

National unemployment data reveals mixed results concerning the impact of the full employment economy on different racial demographic groups. All racial groups experienced lower unemployment, and there was a narrowing of the disparity in unemployment rates between racial groups, as shown in figure 2.2. Still, white people benefited more quickly than did black and Hispanic people, and were able to sustain their employment advantage through the decade.

Figure 2.2
Unemployment rates by race, 1991 and 1997–2001



Source: US Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey: http://www.bls.gov/cps/

While substantial differences remained, the gaps between traditionally advantaged and traditionally disadvantaged groups were narrowed to some degree. In 1997, the black unemployment rate was 2.4 times greater than the rate for white people; by 2000, that multiple was down to 2.2. The analogous disparity between the unemployment rate for Hispanic and white groups also fell, from 1.8 in 1997 to 1.6 in 2000.

Another indication of gains for minority groups at this time is the substantial expansion of employment opportunities for black and Hispanic people, as seen in the dramatic growth in the labour forces and proportions of these populations in employment. As shown in table 2.1, the proportion of black people in employment grew by 9.2 per cent from 1991–2000, while the proportion of Hispanic people in employment grew by 9.9 per cent.

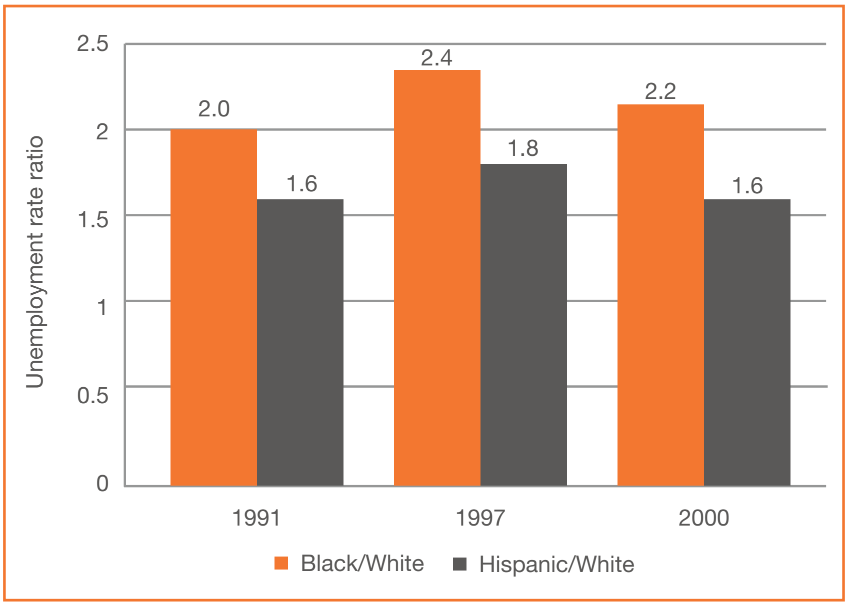
Table 2.1
Labour market trends by ethnic group, 1991–1997 and 1991–2000

	1991 Labour force (m)	1997 Labour force (m)	1991–1997 Change	2000 Labour force (m)	1991–2000 Change
White	107,760	114,695	+8.6%	118,544	+13.1%
Black	13,797	15,529	+12.6%	16,299	+18.1%
Hispanic	10,920	13,796	+26.3%	17,330	+52.8%
	1991 % of civilian population employed	**1997 % of civilian population employed**	**1991–1997 Change**	**2000 % of civilian population employed**	**1991–2000 Change**
White	62.6%	64.6%	+3.3%	64.9%	+3.8%
Black	55.4%	58.2%	+5.1%	60.5%	+9.2%
Hispanic	59.8%	62.6%	+4.7%	65.7%	+9.9%
	1991 Unemployment rate	**1997 Unemployment rate**	**1991–1997 Change**	**2000 Unemployment rate**	**1991–2000 Change**
White	6.1%	4.2%	-31.0%	3.5%	-43.0%
Black	12.5%	10.0%	-19.7%	7.6%	-39.3%
Hispanic	10.0%	7.7%	-22.8%	5.7%	-43.0%

Over that period, black and Hispanic unemployment rates saw falls which, at 39.3 per cent and 43.0 per cent respectively, were comparable to that of the white unemployment rate (down 43.0 per cent). By 2000, 65.7 per cent of the Hispanic labour force was employed, compared to 64.9 per cent of the white labour force. By the end of the 20th century, a greater proportion of the Hispanic and black populations were working than at any time since the second world war.

This is not to say that the full employment economy simply benefitted minority populations more than the white population. As we have seen, white, black and Hispanic groups experienced similar proportional drops in their respective unemployment rates. However, the white population saw these employment gains earlier and, of the three groups, ended the decade with the lowest unemployment rate. In 1997, the white unemployment rate had already fallen by 31 per cent from 1991 levels, compared to drops of 19.7 per cent and 22.8 per cent in the black and Hispanic unemployment rates respectively. In terms of raw numbers, the employment level (the number of people employed) of the white population grew by 4.6 million, compared to 1.1 million and 3 million in the black and Hispanic populations respectively. In 2000, the white unemployment rate was 3.5 per cent, compared to a black unemployment rate of 7.6 per cent and a Hispanic rate of 5.7 per cent. As figure 2.3 shows, even with the gains of the intervening full employment period, the employment gaps between the racial demographic groups remained.

Figure 2.3
Black and Hispanic unemployment rates as a proportion of white unemployment rates, 1991, 1997 and 2000

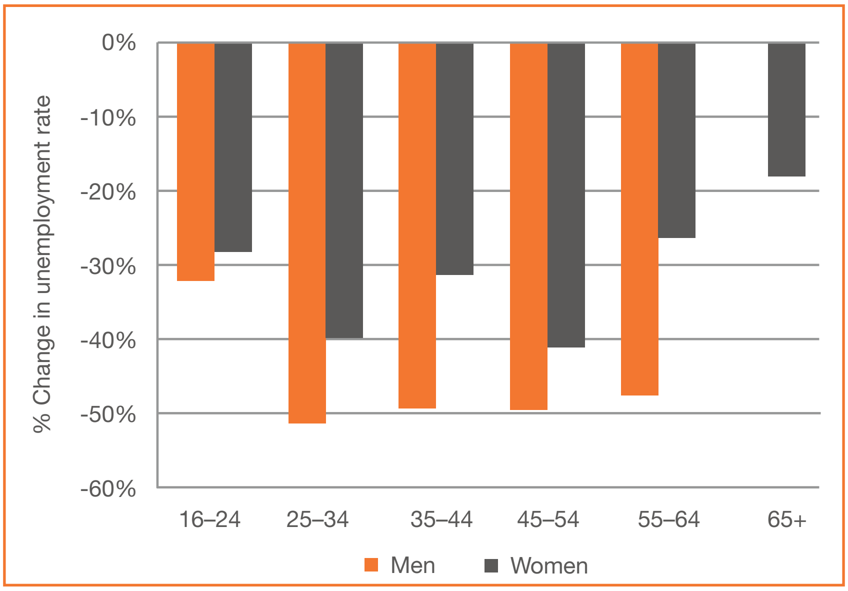


Source: US Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey: http://www.bls.gov/cps/

Age

From 1991–2000, workers in their prime working years (25–34, 35–44, and 45–54) saw more dramatic changes in unemployment than younger workers (16–24) and older workers (55–64 and 65+), as shown in figure 2.4. (Percentage change for men 65+ was zero.)

Figure 2.4
Unemployment rate by age group and gender, 1991–2000 (% change)



Source: US Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey: http://www.bls.gov/cps/

Younger males (16–24) saw smaller employment rate gains and, as shown in figure 2.5, also experienced the steepest drop in labour market participation of any male age group.

The big picture is the same for women, but the data reveals one difference. As with men, women aged 25–54 saw more pronounced drops in unemployment levels than did younger (16–24) and older (55+) women. Within this age group, however, the drop in unemployment for women aged 35–44 was noticeably more modest than for those aged 25–34 and 45–54. The same group also saw the smaller gains in terms of labour market participation and employment as a percentage of population than any other female age group.

Figure 2.5
Labour market participation and employment as percentage of population by age group and gender, 1991–2000 (% change)

Source: US Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey: http://www.bls.gov/cps/

Regions

In addition to the demographic breakdown of the full employment of the late 1990s, we briefly discuss how developments broke down along regional and sectoral lines.

The US Census Bureau segments the nation into four regions for the purposes of regional analysis: Northeast, Midwest, South and West.[7] Throughout the full employment period, unemployment levels remained disparate across the four regions and gains were uneven, as shown in table 2.2.

Table 2.2
Unemployment rate by region, 1991–1997 and 1997–2000 (% change)

	1991–1997	1997–2000
Northeast	-47.9%	-29.6%
Midwest	-44.6%	-12.2%
South	-41.8%	-20.4%
West	-33.3%	-17.9%

Source: US Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey: http://www.bls.gov/cps/

7 See map at https://www.census.gov/geo/www/us_regdiv.pdf

In terms of decreased unemployment rates, the Northeast saw the biggest improvements. From 1991–1997, the Northeast saw a 48 per cent drop in unemployment. Through the full employment period, 1997–2000, the drop was close to 30 per cent – this was much greater than the next best, the South, which saw a fall of 20 per cent in its unemployment rate over the same timeframe. Although the West is home to many of the country's most innovative companies, that region – perhaps surprisingly – did not see an especially large gain in employment. The West's unemployment rate fell by 18 per cent from 1997–2000 and, although substantial, this decrease was the second-smallest of the four regions across the full employment period.

It is important to note that although the Northeast experienced the greatest percentage drop in unemployment rate, it did not necessarily fare best on other important measures of economic conditions (Mishel et al 2001). For example, through the 1990s, median family income grew fastest in the South and Midwest while declining in the Northeast. Poverty rates fell furthest in the South and Midwest while they rose in the Northeast (ibid).

Occupations and industry sectors

The full employment economy was a positive period in the otherwise declining trend for blue collar employment in the US.[8] Prior to the full employment period, the US was continuing its post-war transition from a manufacturing to a service economy (see figure 2.6; see also Buera and Kaboski 2009, Peck 2011: 26–40). Opportunities for blue collar workers were becoming increasingly limited, while white collar unemployment stayed lower. In 1991, the unemployment rate for blue collar workers was two percentage points higher than for service workers and more than four percentage points above that of white collar workers. By 1998, however, blue collar workers were less likely to be unemployed than service workers, and the gap between the blue and white collar unemployment rates had shrunk to roughly two percentage points. But this blue collar revival was short lived, and by 2001 they were again the unemployment leaders.

Industry sector data shows that, despite the substantial overall employment gains for the blue collar, white collar and service sectors in the 1990s, the full employment period produced winners and losers at the industry level.

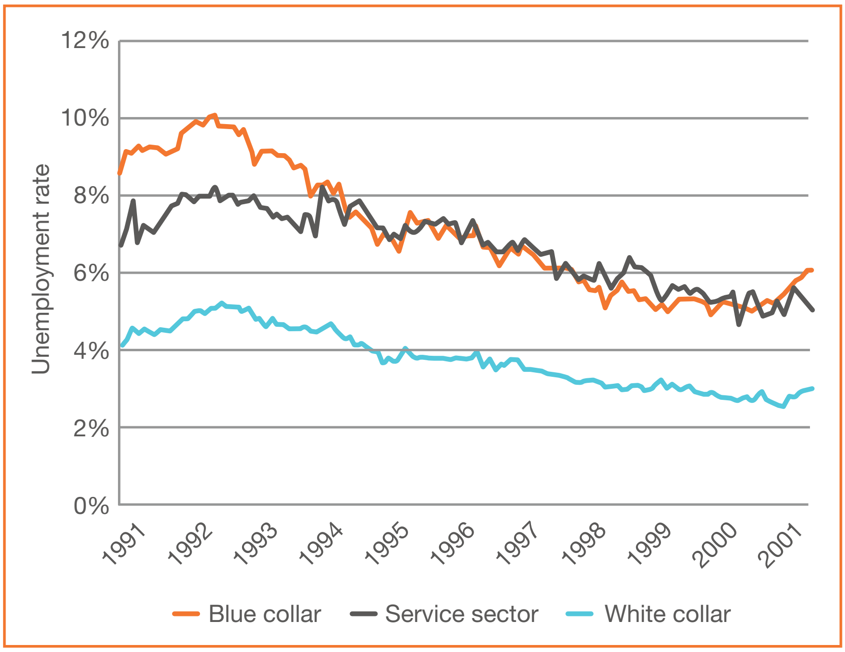
A wide range of industries saw marked growth both over the course of the 1990s and during the full employment period in particular. The service sector, both professional and non-professional, boomed. Most notable, of course, was the flourishing IT sector, driven by computer and internet innovations. By the end of 2000, investment in IT accounted for 4.9 per cent of GDP, up from 3 per cent in 1991. The telecommunications subsector registered unprecedented employment gains, with the number of jobs in the sector growing by 36 per cent from January 1996 to March 2001 (Carbone 2006).

Service-producing employment grew by 25 per cent during the 1990s, led by growth in professional services (up 45 per cent), transportation and public utilities (up 22 per cent), retail trade (up 17 per cent) and finance, insurance and real estate (up 14 per cent). The government sector grew by 13 per cent over the decade, fueled by growth in state and local government employment. Construction was a bright spot in the broader goods-

8 According to the Economic Policy Institute, 'blue collar workers' are those employed in natural resources, construction, and maintenance occupations; farming, fishing, and forestry occupations; construction and extraction occupations; installation, maintenance, and repair occupations; and production, transportation, and material-moving occupations. 'White collar workers' are those employed in the management, professional, business, financial, and related occupations; sales and related occupations; and office and administrative support occupations. Service sector workers belong to their own category specific to that sector.

producing sector, growing by approximately 25 per cent over the decade. This growth was led by special trade contractors (up 33 per cent) and heavy construction (up 13 per cent).

Figure 2.6
Unemployment rate by job sector, 1991–2001



Source: EPI analysis of US Bureau of Labor Statistics from Current Population Survey

Sectors built upon the original wave of industrial revolution did not fare as well. The mining industry shed nearly 25 per cent of its workforce during the 1990s, while manufacturing lost 4 per cent of its workforce from 1989–1999 (Hatch and Clinton 2000), offsetting gains in construction for the private goods-producing category. Prompted by reductions in defence spending following the end of the Cold War, the federal government shed nearly 11 per cent of jobs, serving as a counterweight to the growth in state and local government employment.

Part-time and temporary work

Understanding developments in the temporary staffing industry adds further nuance to the sectoral picture of full employment. These firms have extensive employer networks, sophisticated job-matching technology and training and career development programmes that are designed to reduce the length of time vacancies go unfilled. There is evidence that they can reduce the level of frictional unemployment[9] and improve the efficiency and flexibility of the labour market.

Over the course of the 1990s, this industry almost tripled in size, growing from 1 million workers to 2.7 million (Nash and Romero 2011). The percentage of non-farm employment provided by staffing firms grew from 0.7 per cent in 1985 to 2.25 per cent by 1998.[10] This increase in temporary workers also contributed to the unexpectedly low inflation rates of the late 1990s, because wages are relatively low and workers' bargaining position

9 The rise in temporary workers has been credited with lowering frictional unemployment by as much as 0.25 percentage points from 1979 to 1993 (Otoo 1999).

10 US Bureau of Labor Statistics, 'Employment, Hours, and Earnings – National Tables from the Current Employment Statistics (Establishment) Survey': http://www.bls.gov/ces/

weak.[11] Indeed, states with higher percentages of temporary help experienced slower wage growth (Katz and Krueger 1999). Although these firms help people to find jobs more quickly and efficiently, such employment is relatively insecure.

A look at which groups held part-time and temporary positions indicates which groups were most vulnerably employed during the full employment period, where vulnerability is reflected in a worker's contingency. Contingent workers are defined by the US Bureau of Labor Statistics as persons who do not expect their jobs to last or who reported that their jobs are temporary. They do not have an implicit or explicit contract for ongoing employment. Part-time work is included in this discussion because part-time workers have a higher probability of being contingent than full-time workers (Hipple 2001). Alternative employment arrangements that qualify as contingent include independent contractors, on-call workers, temporary help agency workers, and workers provided by contract firms. When considering this data, it is important to remember that contingent workers may choose contingent work and that greater incidence of contingent work in a population is not necessarily an indicator of fewer or inferior employment options (DiNatale 2001).

Looking first at gender, the rate of part-time employment as a proportion of all full- and part-time workers was more than double for women what it was for men throughout the full employment period. From 1997–2000, women employed part-time as a percentage of all women employed dropped by 6.6 per cent, compared to a 5.7 per cent decrease for men.[12] In 2000, 24.6 per cent of employed women worked part-time, compared to 10.1 per cent of employed men.[13] Although women continued to be more likely to hold temporary jobs than men, temporary employment rates for men and women were closer: in 1999, the rate of temporary employment for women was 4.7 per cent compared to 3.9 per cent for men (Hipple 2001).

Breaking down the data by race, the distribution of part-time employment rates across demographic groups is much narrower. The percentage of white workers employed part-time was higher than for black or Hispanic workers throughout the full employment period. Black and Hispanic workers also moved from part-time to full-time employment more than whites: with employment levels for all three groups rising, the percentage of black workers employed part-time dropped by 8.9 per cent, and for Hispanic workers that percentage dropped by 15.1 per cent, compared to a 5.6 per cent drop for white workers. Black and Hispanic workers were more likely than white workers to hold contingent jobs: in 1999, the rate of contingent employment was 4.1 per cent for white workers, 4.7 per cent for black workers and 5.6 per cent for Hispanic workers (ibid).

Overall, although job insecurity persisted for some during the full employment period, the tight labour market did bring increased job security and other significant gains for traditionally disadvantaged Americans. The percentage of workers in temporary, part-time and other non-standard jobs fell from 26.4 per cent in 1995 to 24.8 per cent in 1998 (Appelbaum 2000), meaning that over 75 per cent of workers held full-time positions.

11 The enhanced job matching, competition and labour market insecurity associated with temporary workers has been associated with a decline in the NAIRU – the non-accelerating inflation rate of unemployment – estimated at 0.39 percentage points (Katz and Krueger 1999).

12 Raw data: US Bureau of Labor Statistics, 'Quarterly tables: Full- or part-time status by sex and age, seasonally adjusted': http://www.bls.gov/cps/lfcharacteristics.htm#fullpart

13 Raw data: US Bureau of Labor Statistics, see note 12

Wages, incomes and household poverty

Middle- and lower-income families saw real income gains over the late 1990s. After a persistent period of stagnation from 1973–1995, during which time real median family income grew by just 0.4 per cent annually, growth accelerated to 2.2 per cent per year from 1995–2000 (Mishel et al 2003). Black and Hispanic households, who have lower average incomes than white families, benefited from fast earnings growth during this period: their real median incomes grew by 16 per cent and 25 per cent, respectively, compared to 11 per cent for white families (ibid). Low unemployment was boosting real wages, countering the long-term historical slide in union strength (see Levy and Temin 2007), as real wages grew by an average of 7.5 per cent annually from 1997–2000 (Meisenheimer 2005).[14] As a consequence, families could work fewer hours to bring home an equal or greater income and enjoy a less stressful quality of life (Mishel et al 2003).

If we look at national income statistics we see that the elimination (or even near elimination) of poverty through the promotion of employment at the lowest economic levels was not achieved. After reaching a low of 11.1 per cent (22.9 million individuals) in 1973, the national poverty rate began to climb steadily in 1980; by 1993, it had reached 15.1 per cent (39.3 million individuals). For the rest of the 1990s, in step with lower unemployment rates, the poverty rate did decline substantially, falling to 11.3 per cent in 2000.[15] This was a relatively low level, but still more than 31 million individuals lived in poverty. Federal welfare rolls dropped precipitously, from a high of over 5 million cases in 1994 to 2.26 million in 2000, but that must be attributed in large part to the policy restructuring of welfare reform, which is discussed in more detail below. From 1995–1999, the real income of the top 1 per cent of taxpayers (including their realized capital gains) grew by 59 per cent, while that of the bottom half grew by just 9 per cent over the same period (Mishel et al 2003). Regardless of the way poverty is measured[16] or the extent of its fluctuations over time, it is fair to say that although middle- and lower-income families benefited economically from the full employment economy, inequality persisted.

It should be noted that egalitarianism is not an explicit or even an implicit corollary of full employment. Full employment in itself says nothing about the wage level of workers or the cost of living or any of the social barriers or other conditions that contribute to enduring poverty. As the full employment period lasted only a few years, it is difficult to conclude whether or not a protracted trend of low unemployment would have affected a more substantial or more lasting change in the distribution of wealth.

These demographic disparities in employment gains, the prevalence of lower-paying and less secure temporary work, and the persistence of poverty and inequality in the US complicates the conventionally rosy picture of full employment. It is clear that not everyone was equally comfortable during the country's full employment period – as Thomas Palley (2004) argued at the time, though the US has shown that it can produce a full employment economy, poverty and inequality endure.

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14 Raw data: Bureau of Economic Analysis, see note 4

15 See National Poverty Center, 'Poverty in the United States: Frequently Asked Questions': http://www.npc.umich.edu/poverty/

16 It is worth noting here that the definition and measurement of poverty have been the subject of recent debate. Bruce Meyer and James Sullivan (2012) posit that trends for consumption-based and income-based measures of poverty differ considerably from the official measure, which is based on an early-1960s standard. According to Meyer and Sullivan, changes in tax policy, including the earned income tax credit (EITC), and changing consumption patterns have contributed to a decline in income poverty, especially for families with children. These insights suggest that the impact of policies and programmes targeted at needy populations must be interpreted carefully.

3. ACHIEVING THE FULL EMPLOYMENT ECONOMY

The combination of historically low unemployment levels and low inflation rates that prevailed during the full employment period was remarkable. As a result, it sparked great interest among economists as to the causes of such strong performance, and many explanations have been put forward. In this chapter, we survey the existing literature on the drivers of full employment in the late 1990s.

It is generally observed that the low levels of unemployment achieved by the US in this period were not achieved through policy. As Joseph Stiglitz, chief economist to President Clinton in his second term, has said: 'We did not create the jobs; the American economy did' (Stiglitz 2003).[17] That said, there were key decisions made at the federal level that did pave the way for the full employment economy, especially at the level of fiscal and monetary policy. In addition, it is worth considering some key areas of government spending and service delivery that affected the landscape of investment and job growth in the late 1990s.

Fiscal and monetary decisions

As a candidate, Bill Clinton presented jobs growth as a cornerstone of his 1992 campaign.[18] However, with the national deficit so high, the newly elected President Clinton was persuaded to make deficit reduction his 'number one priority' (ibid). The large deficit, along with a recent history of high interest rates, led the federal government to aim to reduce federal debt, promote increased investment and reduce interest payments. This would, it was hoped, reignite the economy (ibid).

> Today, deficit reduction in both the US and the UK is often discussed in terms of spending cuts and austerity measures, but in the years leading up to the full employment period, efforts were balanced between spending cuts, higher taxes and financial incentives.

With a combination of tax increases and spending cuts, the Clinton administration's prioritisation of deficit reduction helped to fuel the economic growth that brought with it full employment (ibid). In 1993, a combination of tax increases and spending cuts set the stage for a reconciliation of national spending and revenues. Specific measures in the 1993 budget included increases in the personal income tax rate for wealthy households, the corporate income tax, and the taxes for gasoline, electricity, and heating fuel (Greenhouse 1993). At the same time, the recent end of the Cold War enabled reductions in defence spending (Ruffing 2011).

Another effective component of the overall deficit reduction programme was the promotion of increased investment within the financial sector. Following the savings and loan crisis of the 1980s, banks were newly mandated to maintain adequate capital to support their loans – the size of reserves held was directly tied to the extent of a bank's risk. This risk included the danger of decreases in asset value, which happen in the case of government bonds when interest rates rise. Long-term interest rates are usually higher than short-term ones because they must account for greater risk over time. However, the US Federal Reserve (the Fed) decided to allow banks to treat long-term government bonds as if they were risk-free. This decision provided banks with an opportunity to make handsome profits, as these bonds had at the time a higher yield (8.14 per cent) than shorter-term

17 Alan Greenspan also recalls talking with the president-elect on this subject: see Greenspan 2007.

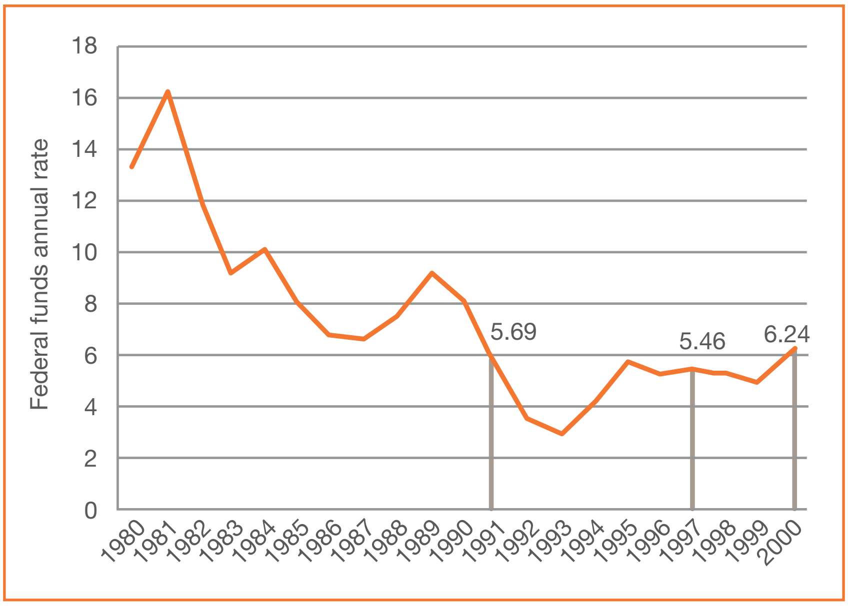
18 See 'Fighting for the Forgotten Middle Class', Bill Clinton for President 1992 campaign brochure: http://www.4president.org/brochures/billclinton1992brochure.htm

investment vehicles like Treasury bills (5.4 per cent) and certificates of deposit. As long-term interest rates fell by more than a third between 1990 and 1994, banks that had taken advantage of the risk-free status given to long-term bonds were rewarded on their balance sheets. At that point, with these bonds now less lucrative, banks turned to more active lending, making credit and capital more easily available to investors.

In addition to the risk-free long-term government bonds, the Fed made another key decision: to refrain from raising short-term interest rates even in the face of low unemployment numbers (see for example Gordon 1999). Under chairman Alan Greenspan, the Fed's restraint kept the cost of capital low through the boom, which encouraged expansion and promoted growth.

Figure 3.1 shows the context for this development. Whereas double-digit interest rates were the norm in the early 1980s, between 1991–1999 they did not exceed 6 per cent.[19] For Greenspan, higher interest rates were 'acting as a brake on economic activity by driving up the costs of home mortgages and bond insurance. They reflected an expectation of ongoing inflation for which investors had come to require an extra margin of interest to offset the added uncertainty and risk' (Greenspan 2007). As an economic stimulant, keeping interest rates low was a priority because it not only reduced the cost of capital but also created a more stable sense of the future for investors and improved expectations. These low rates added to the surge in the US stock market, making household saving less attractive and creating great wealth for investors, who could in turn reinvest in more enterprises.

Figure 3.1
Federal funds annual rate, 1980–2000



Source: Federal Reserve System historical data

It is important to note that the effect of these tactics in promoting economic growth was not universally positive. The government at this time was acting in the best interests of financial investors, catering to the market, its stocks and its bonds prices. This approach, as we see more plainly today, is not always in the best or perhaps most secure interests of

19 Federal Reserve, 'Selected Interest Rates (Daily) – H15': http://www.federalreserve.gov/releases/h15/data.htm

those outside the financial industry. This was not lost on the administration leadership of the time. Stiglitz, for one, laments the 'ascendancy of finance' in his retrospective account of the 1990s economy (Stiglitz 2007: xiv) and Clinton political adviser Joseph Carville has famously said:

> **'I used to think that if there was reincarnation, I wanted to come back as the president or the pope or as a .400 baseball hitter. But now I would like to come back as the bond market. You can intimidate everybody.'**
> Quoted in Campbell and Kruger 2009

Demand for technology and the low cost of capital

Arguably even more effectual than these monetary machinations was the demand shock in the technology sector. With the development of the internet, public interest in and demand for computer technology skyrocketed. Between 1990–2000, the number of internet hosts jumped from 313,000 to 43,230,000 (Samuelson and Varian 2001). Combined with the increasing capacity, availability and affordability of personal computers, local area networks and wide area networks, demand for computers in the workplace and the home soared.

This growth, in turn, generated interest from private investors large and small. Venture capital flooded the sector, with roughly 75 per cent of all such funding at the peak of the boom going to so-called dotcom businesses (ibid). The media provided spectacular coverage to tech initial public offerings (IPOs), and the stock market climbed as tech companies established a larger presence on the NASDAQ and the S&P 500, attracting even more 'irrationally exuberant' investors (Greenspan 1996). Some heralded the greater capacity of the techcentric 'new economy' thanks to globalised lower production prices, as well as greater quantity and demand (see Farrell 2001).

Although it is clear with hindsight that the feverish demand of this 'new economy' was a bubble and did not represent a permanent adjustment to the rate of technology consumption, it did transform the national economy and certainly made an enormous impact on domestic employment at the time. Between 1993–2000, the number of IT workers in the US increased by nearly 50 per cent, more than double the rate of growth in non-IT industries (Hotchkiss et al 2005). This employment explosion was experienced across nearly all components of the tech sector, with only communications equipment seeing growth of less than 10 per cent (ibid). By 2000, the tech boom supported 5.4 million IT workers, representing 4.9 per cent of all private sector employment (ibid).

The low cost of capital and the low rate of inflation were themselves the result of multiple underlying factors which also indirectly promoted low unemployment. In his study, Robert Gordon highlights the role of supply shocks in promoting simultaneously low unemployment and inflation. Specifically, he identifies five beneficial shocks: decreased real food and energy prices, decreased real import prices, accelerated deflation in real computer prices, markedly slowed inflation in real medical care prices, and reduced measured inflation due to measurement improvements in the official price indexes (Gordon 1999). Of particular note is the lower cost of computers (and associated supply materials), which fed the roaring appetite for technological goods at the time. The affordability of medical care also had a significant direct impact on employers, whose health insurance costs actually declined by 14 cents per hour between 1994–1998 (Katz and Krueger 1999). As with the demand shocks of the technology boom at this time, these price levels were not due to any particular policy or planning, but they contributed to the low inflation that enabled the booming productivity that brought with it hiring activity and employment growth.

The 'weak backbone' of labour was one of the reasons that the economy was able to continue to grow and create new jobs at a rate affordable to employers (ibid). Private-sector union membership declined sharply in the 1970s and 1980s, in a drop-off which cannot be fully explained by the shift in employment from highly unionised occupations to less intensively unionised ones or by demographic shifts (Farber and Krueger 1992). Unions have been shown to be effective agents of wage promotion for their members (Lewis 1986) and for non-members alike, as employers raise wages across the board to discourage collective action (Dickens 1986). Without representation, however, workers in the 1990s lacked a means to advocate aggressively for wage gains. Worker insecurity, global competition and a shareholder-focused corporate culture added to the pressure on wages.[20] This may have allowed for a more sustained boom period but it did not substantially reduce income inequality, even during a period of expanded employment opportunities and increased real incomes for disadvantaged families.

Demographic factors

Demographic changes, especially the maturing of the baby-boomer generation (born 1946–1964), played a part in the employment situation. Historically, unemployment rates for teenagers (ages 16–19) and young adults (20–24) have been dramatically higher than for older segments of the labour force (Katz and Krueger 1999), and so changes in the proportion of teenagers in the population would be expected to affect the aggregate unemployment rate. One explanation for this is that the new jobs that young workers typically get are more easily destroyed than more established positions (Shimer 1999). Also, young workers often explore different options and avenues when it comes to employment, and so may endure spells of unemployment (ibid). With a greater proportion of young workers, as there was in the US in the 1960s and 1970s, there are more people who are susceptible to these kinds of unemployment factors. Indeed, this was the case: as the baby-boomer generation entered the labour force, the youth unemployment rate increased; as they aged, the youth unemployment rate correspondingly fell (ibid). The extent to which this demographic development was responsible for changes in the aggregate unemployment rate has been debated (see Katz and Krueger 1999) – nevertheless, the decrease of teenage and young adult workers as a percentage of the overall labour force did contribute to the low unemployment rate of the late 1990s.

The solidifying presence of women in the labour force was also a factor (Gary Burtless in Katz and Krueger 1999: 66). Many female jobseekers were new entrants to the job market in the 1970s and 1980s, and the unemployment rate for women at that time was higher. By the 1990s, however, more female workers were already participating in the workforce and attached to jobs, thereby contributing to a lower natural unemployment rate among both women and the overall population.

Furthermore, the education level of workers changed in the years leading up to the full employment period (Shimer 1999). From 1970–1994, the fraction of adult workers with at least some college or 'college-plus' education climbed,[21] while the fraction with

20 For an evocative description of that pressure at ground level, see Faludi 1990.

21 The four US Bureau of Labor Statistics categories for education are No High School Diploma, High School Graduates (no college), Some College or Associate Degree, and Bachelor's Degree and Higher. The 'some college' educational attainment level refers to individuals who have attended some type of post-secondary education, including four-year universities, community colleges, and vocational schools, but have not achieved a degree.

only high school education steadily dropped. The latter group contracted noticeably in the early 1990s, at the same time as the college/college-plus group swelled. As the historical unemployment rate of lower educated workers is much higher than that of highly educated workers, it is not surprising to see a positive correlation between higher education and higher employment levels at this time.

Rising incarceration rates influenced the unemployment rate by removing large numbers of typically hard-to-employ individuals from the labour market altogether (Katz and Krueger 1999). The proportion of incarcerated adults relative to the adult civilian non-institutional population more than quadrupled from two in 1,000 in 1970 to nine in 1,000 by 1998. This trend was especially significant for men, as about 90 per cent of those imprisoned were male. In June 1998, the equivalent of 2.3 per cent of the male labour force was in prison. Incarcerated persons are removed from the unemployment rate calculation altogether, lowering the aggregate number by reducing both the total in the denominator and (it is assumed) the number of unemployed persons in the numerator.

Research and development spending

In terms of the most direct government spending, research and development (R&D) investment helped to fuel the development of technologies and products that contributed to the national economy's overall growth (Eiseman et al 2002). Total federal R&D spending declined from 1993–1996 before gradually picking up through the rest of the decade. After substantial Cold War-fueled growth in the 1980s and relatively high sustained spending into the early 1990s, defence R&D – comprised mostly of weapons development and testing – dropped in 1994 and remained basically static through the rest of the full employment period. Non-defence spending (mostly basic and applied research) grew as defence spending dropped, keeping the overall level of federal R&D investment relatively high through the 1990s.

Although federal R&D spending did not continue to expand as it had in the mid-1980s, there was still a growing pool of funding available, thanks to increased investment by the private sector. At about the same time that federal R&D expenditure leveled off, private R&D investment began to soar. In fact, private industry had outspent the federal government on R&D since the early 1980s, but by 1998 private investment was worth approximately twice as much as federal investment. In addition to investments in high-tech industries, like biotechnology and IT, this money reached the manufacturing and service industries as well, promoting the growth and employment that marked the full employment economy.

This high and sustained R&D spending helps to explain the strength of the US employment picture through the late 1990s. The jobs created through such funding are not limited to scientist, engineer and entrepreneur positions; this industry also creates jobs for others and improves their salaries (Moretti 2012). Such jobs act as 'multipliers', generating growth in seemingly unrelated industries such as hospitality, retail and banking (Bivens 2003).

Welfare and labour market policy reform, 1930s to 1980s

Although, as noted above, the full employment economy is not generally attributed to government policy interventions, there were nevertheless policy foundations and decisions that affected unemployment levels. Federal policies installed in the late 1990s supported the idea of employment as a means of reducing poverty at a moment when employment opportunities for low-income workers (as for everyone) were about to increase. More than they affected the *supply* of job opportunities, these policies aligned priorities so that people who had previously relied on public benefits would want to work.

The OECD summarises the range of employment-specific policy interventions into three types:

- active labour market policy (ALMP) – such as job training, employment services and subsidised employment
- passive labour market intervention – such as unemployment benefits or insurance, and taxes on employment
- employment protection legislation (EPL) – such as minimum wage requirements, hiring and firing requirements and fixed employee probation periods.

In the years prior to 1997, US employment policy showed a bias towards active rather than passive support for the unemployed. In 1997, US public spending on labour market policies was less than 0.5 per cent of GDP, far lower than the larger European economies: over 1 per cent in the UK, over 3 per cent in France and closer to 4 per cent in Germany (Martin 2000). With the funds spent, the US was investing more heavily in ALMP than in unemployment benefits and more heavily in public employment services than in training or subsidised employment.[22]

Measures of employment protection at the time ranked the US as the least strict in the OECD, offering the lowest level of protection for employees (OECD 2004).[23] Nevertheless, the number of cases of unfair dismissal raised with arbitration authorities in the wake of the full employment period was relatively low. The National Labour Relations Board saw 4,708 cases in 2002 (0.03 per cent of layoffs); by comparison, in the UK, ACAS saw an average of 42,000 cases per year between 2001–2003 (7.1 per cent of layoffs) (ibid).

The foundations of the US approach to employment policy date back to the interwar years, during which time the US was in recovery from the stock market crash of 1929 and struggling with the Great Depression. The most notable developments were the passage of the Wagner-Peyser Act (1933) and the Social Security Act (1935).

Table 3.1
Highlights of US jobs policy in the 20th century

1933	Wagner-Peyser Act
1935	Social Security Act – foundations of unemployment compensation and Assistance for Families with Dependent Children (AFDC)
1962	Manpower Development and Training Act
1967	Economic Opportunity Act – including the WIN programme
1973	Comprehensive Employment and Training Act
1975	Earned Income Tax Credit
1982	Job Training Partnership Act
1993	Unemployment Compensation Amendments
1996	Personal Responsibility and Work Opportunity Reconciliation Act Temporary Assistance for Needy Families welfare reform
1998	Workforce Investment Act

Employment services had existed in some form in the US prior to 1933, but Wagner-Peyser formalised a nationwide employment system. In the wake of the first world war, federal employment services focused on job placements for immigrants. Around this

22 For average ALMP expenditure breakdowns across the OECD from 1985–1999, see Boone and van Ours 2004.

23 2003 figures from the OECD show the US at the bottom of the range for strictness of employment. This did not represent a significant change from the two decades prior whereas most other countries registered a trend towards looser regulations.

time, many states developed their own services as well. The massive unemployment that followed the stock market crash emboldened calls for coordination, standardisation and quality monitoring in employment services. Wagner-Peyser established the principle that the federal government would ‘develop and maintain minimum standards of operation, promote uniformity in procedures and record-keeping, maintain interstate clearance of labor, and thus integrate the local and state services into a nationwide system of labor’ (Committee on Economic Security 1937: appendix IV). Most pointedly, the Wagner-Peyser Act made state compliance with federal standards a condition of federal grants.

Two years later, the Social Security Act laid the foundations for ‘unemployment compensation’, a budgetary architecture funded through a state levy, and also the low-income aid that became the Aid to Families with Dependent Children programme (AFDC), which served as the federal family welfare programme up until 1996.

AFDC was conceived to aid children in families where the father or mother was absent from the home, incapacitated, deceased or unemployed. The majority of participating families were (and continue to be) those comprised of single mothers and their children (Moffitt 2003). AFDC was an entitlement programme with shared federal and state responsibility. The federal government was responsible for regulating the programme, including its definition of eligibility, and provided open-ended matching grants. States had to create and administer their own programmes and also set the level of basic benefits, which determined the extent of the federal matching grant (ibid). Families often remained on aid for very long periods of time; by the early 1990s, 75 per cent of all active recipients had been on AFDC for over five years (Pavetti 1995). With the imposition of time limits on federal cash assistance and work participation requirements, the replacement of AFDC with Temporary Assistance for Needy Families (TANF, discussed in more detail below) transformed welfare into an employment-oriented program.

Another defining and longstanding characteristic of the US employment market is that it allows ‘employment at will’, meaning that in the absence of a contract to the contrary, employment can be terminated by either party at any time for any reason. Beginning with a ruling from the Tennessee Supreme Court in 1884, almost all states had adopted employment at will into common law by the mid-1930s. Although the principle is still strong, 46 of 50 states had, by the early 1990s, amended the at-will doctrine with exceptions to protect employees under specific circumstances. These protections do not go as far as those in Europe; nonetheless, there is robust evidence to show that these exceptions had an observable effect on US employment strategies. Particularly significant was the ‘implied contract exception’, which prohibits an employer from firing an employee in a situation where an implied contract has been formed. Facing considerable uncertainty, employers sought instead to outsource jobs in order to avoid being tied to an implied contract in the event of dismissal. This shift accounted for as much as 20 per cent of the growth in temporary employment between 1973–1995 (Autor 2000).

The 1960s saw an increased focus on the need for work incentives as well as training to promote employment. Automation in the manufacturing sector was starting to take its toll. Congress responded by allocating federal funding for the provision of vocational training for displaced workers. In 1962, the Manpower Development and Training Act introduced provisions for retraining qualified persons, as well as proposals to improve the job-matching function of the Employment Service. Later, the WIN programme, introduced as part of the Economic Opportunity Act of 1967, encouraged all welfare recipients to seek help to find work through training or supportive services.

Through the 1970s, persistent welfare caseloads stimulated action to reduce poverty by further encouraging welfare recipients into employment. The federal response was twofold. First, training and job support services were tailored to local labour markets and the needs of different demographics. At a policy level, this was accomplished through the Comprehensive Employment and Training Act of 1973, later replaced by the Job Training Partnership Act of 1982, which pushed responsibility and funding for training programmes down to the state level. Second, efforts were made to make work more attractive than welfare. With a focus on job search assistance more than training, WIN participation became mandatory for 'employable' AFDC recipients starting in 1971 (Lalonde 2003). Also, the first (modest) earned income tax credit was introduced in 1975 to provide an incentive to work.

These historical facts all contributed to the shape of employment policy in the years immediately preceding and during the full employment period itself.

Key policy reforms of the 1990s: welfare reform, workforce development and infrastructure

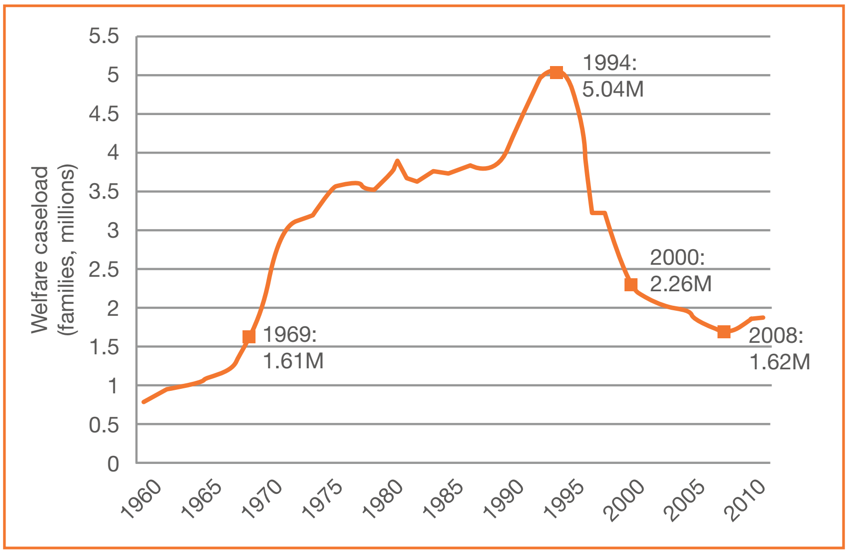
The most profound contemporary employment policy change of the time was the move from Aid to Families with Dependent Children (AFDC) to Temporary Assistance for Needy Families (TANF), introduced in 1996 through the Personal Responsibility and Work Opportunity Reconciliation Act. Unlike AFDC, with its unlimited assistance, TANF was established as a block grant programme with federal benefits for families capped to a maximum of five years. States could decide to administer benefits for longer, out of their own pockets, but federal funds were time-restricted. Work participation requirements for 'work-eligible' individuals were instituted, introducing accountability for participants and states alike. States were also mandated to meet a 'maintenance of effort' requirement of 80 per cent (or 75 per cent if the state could meet its work participation requirements) of their pre-welfare reform spending levels on AFDC and related programs for families in need. It took six years for all states to adopt the legislation, and the strictness of enforcement varied from state to state (Grogger et al 2002).

At an administrative level, the results were striking: caseloads dropped from a high of 5.04 million families on AFDC in 1994 to 2.26 million families on TANF in 2000.[24] Levels have remained low since, even through the recessions of the 2000s. The TANF caseload dropped every year from 2000–2008, when it reached a low of 1.62 million, a level not seen since 1969. Even in the last few years of severe recession and slow recovery, rolls have remained below 2 million, a testament to the lasting effectiveness of the policy change from AFDC to TANF.

It is important to recall that although fewer people were receiving federal benefits, inequality and poverty persisted, as was highlighted in chapter 2. Still, the shift in turning federal assistance away from unlimited benefits and towards employment was paradigmatic and did create new incentives for low-income parents to seek work.

24 All TANF caseload data: US Department of Health and Human Services, Administration for Children and Families: http://www.acf.hhs.gov/programs/ofs/data/

Figure 3.2
US national total welfare caseload, 1960–2011



Source: US Department of Health and Human Services, Administration for Children and Families

> The TANF reform of welfare services should resonate with current welfare and employment policy reforms in the UK. Restricting the eligibility conditions of the jobseeker's allowance (JSA) and tightening eligibility for the employment and support allowance through the work capability assessment will increase the incentive to work by decreasing the support available for those who do not. The US experience tells us that whether or not these high-needs populations will be able to find jobs will be influenced by the overall state of the UK economy, not just changes in policy. That said, tightening the limits and requirements of benefits in the US has proven effective at reducing the number of people on the welfare rolls, however, thereby easing the strain on the public budget and freeing up resources for other efforts.

In the same vein as the TANF reforms, the Unemployment Compensation Amendments (UCA) of 1993 also promoted employment considerations for recipients. The UCA extended allowances for emergency unemployment compensation but also required that states implement a Worker Profile and Reemployment Services (WPRS) programme (Katz and Krueger 1999). WPRS programmes profile those most likely to exhaust their basic entitlement (usually up to 26 weeks) and enroll those people in job search activities; if they fail to enroll, individuals are ineligible for emergency compensation. This mandate not only increased the incentive for individuals to engage in job search activity, it also encouraged states to focus on the effectiveness of employment services. Although the intensity of assistance provided varied, all 50 states and the District of Columbia had instituted WPRS systems by 1996. Complementary to these efforts was the expansion of the youth-focused Job Corps programme and youth apprenticeship training programs.

The kinds of job assistance provided through WPRS programmes, especially those with an instructional component (Ashenfelter et al 1999), have been shown to be effective at reducing spells of unemployment. Moreover, the tax revenue associated with faster employment makes such programmes cost-effective (Meyer 1995). Likewise, the youthoriented programmes were capable of building skills in their service populations. That said, it has been noted that these programmes were not scaled to a sufficient size to influence significantly the aggregate unemployment rate (Katz and Krueger 1999) and it seems unlikely that the magnitude of investment was sufficient to achieve higher earnings or employment rates for the low-skilled (Heckman 1994).

Bolstering the federal earned income tax credit (EITC) rewarded households who were able to bring in a wage. EITC was introduced in 1975 as a deliberately targeted work incentive for very low-income households; however, it was not pegged to the rate of inflation and so its value diminished quickly. In 1986, the maximum credit was increased for the first time to match the real value of the original 1975 credit and thereafter was linked to inflation. The credit was increased once more in 1990 and again in 1993, in line with the Clinton administration's aim to ensure that 'if you work 40 hours a week and you've got a child in the house, you will no longer live in poverty'. Whereas there were 7 million EITC claimants in 1986, by 1996 this number had grown to 19 million. This swell translated, over the same period, into a jump in real government EITC expenditure from $3 billion to $31 billion, which was more than the federal government was spending on TANF (Hotz 2003).

This combination of policy and spending developments represents an interesting shift. The government spent more on low-income families, but it put the dollars behind 'work first' efforts that supported job placement, like those under TANF and work incentives like EITC, over benefit handouts. This approach was part of a greater philosophical desire to foster a multigenerational attachment to work that assistance benefits alone could not achieve (Wagner 2012).

To what extent did these employment-incentivising policies affect unemployment rates? It is difficult to isolate the impact of these changes. However, it is known that there is a lag in the observable impacts of changes to benefit requirements, due to the number of interlinked changes required in the expectations and behaviour of recipients, benefit administrations, and employers.[25] By the start of the full employment period in 1997, these reforms had only partially been implemented across states. Although it makes sense that these reforms would have had an effect on the unemployment rate, especially for single mothers, the number of individuals affected would have been too small at the onset of the full employment period for these changes in isolation to register as a major driver. Furthermore, as modified versions of these policies are still in place today, it is clear that having these policies on the books is not in and of itself sufficient to fuel employment among low-income households.

In addition to policies aimed at supporting vulnerable households, there were also policies put in place to stimulate the business environment that played an active part in the US economic growth strategy. Like most countries, the US had an array of small support initiatives for businesses, but the Agenda for Action for a National Information Infrastructure, published in 1993 by the Clinton administration, stands out as an agent of meaningful economic determination. This agenda aimed to ensure that the government would provide incentives for growth in information technology driven by the private sector. Through the agenda, the administration adopted a certain tax and regulatory policy but did not dictate any specific direction of development. (Indeed, at the time they thought they were addressing the growing 500-channel cable TV market.) The new financial regulations helped to promote accurate information on financial transactions, deregulation of the telecommunication industry, and opposition to new taxes on internet transactions. In addition, there were new IP rules to protect the names of established companies, which

25 On adjustment lags for changes to unemployment benefit, see OECD 2003.

enabled them to enter the market positively, and opposition to database regulation, which paved the way for marketplace companies like Yahoo! and Google that relied on innovative database extraction (Samuelson and Varian 2001).

Also noteworthy but instigated too late to be causally tied to full employment was the Workforce Investment Act (WIA), which took effect in 1998. WIA concentrated employment services into 'one-stop' centres, designed to allow jobseekers to access both state and federally funded training and job search assistance in the same location. WIA formally articulates and promotes the 'work-first' principle, prioritising immediate employment over prolonged training. 'Core' career activities were identified and made universal so that any jobseeker would be able to find support and build towards a job, whether or not they qualified for training or job search assistance on welfare grounds. WIA also advanced the localisation of workforce development by requiring majority private sector representation on the state and local workforce investment boards that oversee WIA-related activities.

Conclusion: how the US achieved full employment

Having identified so many confluent demographic, economic, fiscal, monetary, technological and policy-based forces as directly or indirectly supporting employment growth in the late 1990s, perhaps it is not surprising that the US managed to achieve full employment for a time. This increase in employment opportunities for all groups of Americans – albeit to varying degrees – is all the more extraordinary because it was not an explicit goal of government at the time. Though understandable in light of the myriad drivers and factors at work, it must still be noted that full employment was far from a foregone conclusion. The historically unique combination of extraordinary demand and supply shocks, federal adherence to a platform of growth through affordable capital, significant demographic and labour market shifts, and increasing political attention to workforce development is non-trivial to reproduce, as we see clearly in today's employment picture in recovery from the Great Recession.

Aftermath: the dotcom crash

Some thought that the tech economy had ushered in a newly low threshold for a stable, non-inflationary unemployment rate – needless to say, it became clear that this was not the case. The nation's employment high ended as the tech investment and market bubbles burst following the events of 11 September 2001. Although that period was catastrophic for the US and triggered a massive national reaction – both economic and more widely – the signs of a slowdown in employment were evident even before then. From late 2000 to the third quarter of 2001, the unemployment rate rose 20 per cent, from 4.0 per cent to 4.8 per cent (US BLS 2001). This rise in unemployment largely reflected job losses in the manufacturing sector and also among higher-paid job categories, including managers in manufacturing and sales representatives in wholesale trade, as well as in finance, insurance, and real estate (ibid). In the period between 2001–2008, national annual unemployment peaked at 6.0 per cent in 2003, still well below the highs of the early 1990s.

Although national unemployment levels never returned to the sub-4 per cent low of the full employment period, another boom in technology investment, combined with explosive growth in construction and cheap, easy access to credit, fueled another remarkable period of low unemployment from mid-2005 through 2007, during which time the unemployment rate never rose above 5 per cent.[26]

This relatively quick bounce-back has not been repeated in the recent past, as the US slowly recovers from the latest recession to hit its economy and population.

26 US Bureau of Labor Statistics, 'Labor Force Statistics from the Current Population Survey': http://data.bls.gov

4. JOBS RECOVERY FROM THE GREAT RECESSION

The recovery that the US is experiencing now, in the aftermath of the 'Great Recession' – the most profound national and global economic crisis since the Great Depression – is very different from the resilient recovery that followed the 2001 downturn. The Great Recession has been attributed to many causes, including reckless subprime mortgage lending (leading to the housing crisis and destabilisation of bank capital), regulatory failure, high levels of national debt and increased oil prices. Whatever the precise blend of causes, the impact on the US employment picture has been major and long-lasting.

The employment impacts of the Great Recession

In terms of job loss, the Great Recession has been devastating. Nationally, 7.5 million jobs were lost during the recession itself (Grusky et al 2011), and the national annual unemployment rate spiked to nearly 10 per cent in 2009 – as recently as 2007, it was just 4.6 per cent.[27] Particularly damaging factors have been the growth of long-term unemployment, which can be discouraging for would-be workers, and the part-time 'underemployment' of people who would rather be working full-time. Taking into account such slack in the labour market, according to some, unemployment registered between 16–18 per cent in 2010 (ibid).

As with the full employment period, it is important to recognise that what gains have been made in recovery from the Great Recession have not been experienced equally.

One of the disparities that have emerged falls along gender lines in terms of new jobs filled. Although the predominantly male sectors of construction and manufacturing were two of the hardest hit, and many of the occupations with the best job growth prospects are in fields traditionally associated with female workers, such as home care and therapies, the majority of new jobs created since the recession ended in June 2009 have gone to men (Lee 2012). There have been some job gains in the manufacturing and professional/business services industries, where men have picked up more positions than women, but the data also shows men taking jobs in typically female sectors, such as retail sales (ibid).

Minority communities, especially black and Hispanic groups, were hit heavily by the recession and now in recovery face a deeper hole than white workers (CAP 2011). This disparity is stark: at the end of 2009, the national unemployment rate was 16.2 per cent for black workers and 12.8 per cent for Hispanic workers – for white workers, unemployment was running at 9.0 per cent.[28]

This uneven distribution of unemployment persists, although the gains of recovery have registered across racial demographics. In July 2012, the unemployment rate was 14.1 per cent for black workers, 10.3 per cent for Hispanic workers and 7.4 per cent for white workers – that is, all three groups saw an increase of approximately two percentage points.[29] As the nation pulled into recovery, the homeownership rates and median household incomes for black and Hispanic people were approximately 60 per cent that of white people (CAP 2011), pointing to an uneven recovery in areas beyond employment.

27 US Bureau of Labor Statistics, 'Labor Force Statistics from the Current Population Survey, Previous years': http://www.bls.gov/cps/prev_yrs.htm

28 US Bureau of Labor Statistics, 'Labor Force Statistics from the Current Population Survey, Employment Status of the Civilian Population by Race, Sex, and Age' and 'Employment Status of the Hispanic or Latino Population by Sex and Age'

29 See note 28

The employment data paints an interesting picture when dissected by age (Johnson and Butrica 2012). Older workers were less likely than younger workers to lose their jobs during the course of the recession itself. From May 2008–March 2011, the monthly unemployment rate averaged 9.4 per cent for workers aged 25–34, 54 per cent higher than for workers 50–61 and 129 per cent higher than for workers 62 and older. Younger workers were also more likely than their older counterparts to have experienced unemployment at all during the same period. This, in turn, translated into a greater likelihood of experiencing long-term unemployment: 12.1 per cent of workers aged 25–34 were unemployed for at least six months, about 46 per cent more than among workers age 50–61. However, in recovery, unemployed workers in their 50s were significantly less likely than those age 25–34 to become reemployed. This can be partially explained by the fact that some opted to retire and rely on social security, retirement claims for which surged in 2009. Older workers who did become reemployed suffered wage loss of 21 per cent, suggesting employment-related stresses that are not reflected in the employment rate.

Long-term unemployment for young people is high in the UK as well. The claimant count for those aged 18–25 out of work for more than six months jumped from 38,000 in 2008 to 147,000 by the end of 2011, and in the three months to July 2012 there were 1.02 million unemployed 16–24 yr olds, up 7,000 on the previous quarter. Although this is not out of line with the rest of Europe, this group's needs are urgent, and efforts to address them are important for achieving future economic stability.

Finally, the income gains made in recovery have been extraordinarily uneven, in favour of the wealthiest Americans. During 2010, the first full year of recovery, the average real income of the top 1 per cent grew by 11.6 per cent while that of the rest of the country increased by just 0.2 per cent (Saez 2012) – that is, the growth rate of the incomes of the top 1 per cent was 58 times greater. From 2007–2009, incomes for the bottom 60 per cent of Americans fell (Grusky et al 2011). Whereas the well-off have been able to recoup at least some of their lost wealth through stock market gains, the assets of the middle class – their home values and retirement accounts – have rebounded less quickly (ibid).

In 2009 and 2010, the poverty rates for families were above 11 per cent, nearly as high as at the peak of the 1990s recession.[30] Increases in poverty have been especially large among young unskilled men and children (ibid). This unbalanced distribution of gains and spike in poverty speak to the persistence of the economic difficulties facing the majority of American households.

In the UK, earnings growth is not keeping pace with inflation. The consumer price index (CPI) has stayed above 3 per cent since 2010, but monthly earnings growth has never exceeded 2.3 per cent.

Sectoral data about the nature of the jobs lost during the recession and those created since shows further evidence of unevenness and broader structural changes in the US economy. Manufacturing and production have been in decline over the last three

30 US Census Bureau, 'Historical Poverty Table 13 – Families, Number Below Poverty Level and Rate': http://www.census.gov/hhes/www/poverty/data/historical/families.html

decades, and losses there were magnified by the downturn. As more and more firms moved production offshore to save costs, manufacturing workers suffered acutely, losing approximately 175,000 jobs from May 2007–May 2011.[31] By contrast, May 2012 marked the 29th consecutive month of growth for the service sector, which now employs more workers than any other sector of the domestic economy (AP 2012).

Across the board, it is clear that education pays, both in terms of higher earnings and lower unemployment rates. In 2011, the unemployment rate for those without a high school diploma was 14.1 per cent, nearly twice the national average.[32] High school graduates had an unemployment rate of 9.4 per cent, nearly twice that of college graduates. In work, the median weekly earnings of high school graduates were 46 per cent lower than college graduates' and less than half of those for people with professional degrees. Differences in educational attainment will continue to shape differences in employability and income (Rothwell 2012).

The shift away from manufacturing and towards a service-based economy has affected the recovery of wealth in addition to the recovery of employment. In 2012, a new study analysed the *quality* of recent job loss and growth (Bernhardt et al 2012). As shown in table 4.1, employment losses were distributed across higher-wage, mid-wage, and lower-wage occupations, with a concentration in mid-wage occupations (making up 60 per cent of recession job losses). However, employment gains in recovery have been concentrated in lower-wage occupations (58 per cent of recovery growth).

Table 4.1
Job losses and gains by wage category

	Low-wage	Mid-wage	High-wage
Recession job losses	21%	60%	19%
Recovery job gains	58%	22%	20%

Source: ibid

Within the low-wage category, the strongest growth has been in food services, retail and administrative support jobs, which have accounted for 1.7 million jobs and over 40 per cent of total net job growth during recovery (ibid). Correspondingly, employment has grown by 8.7 per cent in low-wage occupations but fallen by 7.3 per cent in mid-wage occupations. With construction, manufacturing and professional sectors stagnant or growing only slowly, higher-quality job options and the improved quality of life they can bring are scarce.

As in the US, the UK has seen a substantial and long-term decrease in manufacturing jobs and growth in service sectors such as financial and insurance activities. For the UK, the greatest relative employment growth has been in the real estate sector.

One of the obstacles to a return to better-quality jobs is the skills gap that exists between the requirements of today's mid- and high-wage opportunities and the capacities of the unemployed. A 2012 study shows that over one-third of employers surveyed were unable

31 US Bureau of Labor Statistics, 'Occupational Employment Statistics': http://www.bls.gov/oes/current/distribution_table.htm

32 All figures US Bureau of Labor Statistics, 'Employment Projections – Education pays': http://www.bls.gov/emp/ep_chart_001.htm

to find the talent their organisations needed, with 40 per cent reporting that a majority of candidates lack essential professional and technical skills (ManPowerGroup 2012). The American Society of Training and Development found similar results (ASTD 2009). Who should be responsible for filling this crucial gap is up for debate. Government, employers, unions, educators and individuals all have a role to play,[33] but those roles remain undefined.

Short-term policy responses: the American Reinvestment and Recovery Act

Unlike in the 1990s, employment has been the priority of politicians across the spectrum. The economy and unemployment specifically are the two issues ranked as either extremely or very important to registered voters this year.[34] The same was true for the mid-term elections in 2010.[35] As Ira Glass, host of the National Public Radio programme *This American Life*, put it in his introduction to a 2011 episode: 'In fact, if anyone these days brings up any subject besides jobs, people complain why aren't we talking about jobs?'[36] Even the smallest gains are touted as successes. Both rhetorically and in policy decisions, US leadership today continues to promote and prioritise the return to employment much more explicitly than it did in the 1990s.

For its part, the federal government took an active approach to counter the Great Recession's destabilisation of the economy, employment and the housing market. Alan S Blinder of Princeton and Mark Zandi of Moody's Analytics (2010) have tabulated a thorough overview of the federal response in their report *How the Great Recession was Brought to an End*. A few highlights are discussed here.

The most visible aspects of this multifaceted response were the bailouts of highly troubled industries. Institutional heavyweights including General Motors, the quasi-governmental mortgage houses Fannie Mae and Freddie Mac, the insurance house AIG, and the investment bank Bear Stearns were all buoyed by the government. The Troubled Asset Relief Program (TARP) of 2008 set aside $431 billion in disbursements to purchase assets and equity from troubled financial institutions. Although costly and highly criticised, these efforts do appear to have saved jobs, at least in the auto industry. According to the Center for Automotive Research, the $80 billion bailout of the auto industry directly resulted in 1.45 million people employed through a combination of jobs saved and new jobs created (New York Times 2012).

Shortly after taking office, President Obama signed the American Reinvestment and Recovery Act (ARRA), the $787 billion stimulus measure that aimed to jumpstart the economy. The bill cut taxes for 95 per cent of the working population and encompassed a massive spending programme that spanned health and human services, education, energy, infrastructure, and assistance for struggling Americans. Through the federal Department of Health and Human Services alone, over $126 billion of ARRA obligations bolstered programmes for adoption and foster care, childcare, community health centres, community services, 'Head Start' early education, health information technology, immunisations, Medicaid, medical research and construction, senior nutrition, and

33 In July 2012, former US labor secretary Elaine Chao, professors Cecilia Conrad and Peter Capelli, union leader Liz Shuler and employment services executive Jeffrey Joerres discussed the different facets of this challenge in the online *Room for Debate* forum of the *New York Times*: http://www.nytimes.com/roomfordebate/2012/07/09/does-a-skills-gap-contribute-to-unemployment

34 USA Today/Gallup Poll, February 2012: http://www.gallup.com/poll/153029/economy-paramount-issue-voters.aspx

35 USA Today/Gallup Poll, April 2010: http://www.gallup.com/poll/127247/voters-rate-economy-top-issue-2010.aspx

36 'How to Create a Job', episode 435, 13 May 2011: http://www.thisamericanlife.org/radio-archives/episode/435/transcript

welfare-to-work.[37] In the Department of Education, $97 billion in obligations supported 21 programmes, including 'Race to the Top', 'Investing in Innovation' and the 'Teacher Incentive Fund'.[38] Michael Grunwald (2012) has written extensively on the ARRA stimulus, observing that although it was an 'epic' political failure, it did abbreviate what could have been a catastrophic downward spiral and avert a second Great Depression. This federal spending preserved state and local programmes and public sector employment that would otherwise have been lost due to anemic state and local tax receipts.

The tagline for ARRA was 'Putting America to Work', and recent analyses of its impact have shown that the stimulus did accomplish just that, although not to the extent hoped. The exact figures indicating the effect of the stimulus vary, but a leading report states that the effects of the fiscal stimulus appear to have been substantial, keeping the unemployment rate about 1.5 percentage points lower than it would have been and adding almost 2.7 million jobs (Blinder and Zandi 2010). The White House's Council of Economic Advisors (2011) likewise estimates that, through the first quarter of 2011, ARRA had raised employment by between 2.4–3.6 million over what it would otherwise have been, with a net increase of 1.7 million in private payroll employment from the start of 2010 to the end of the first quarter of 2011. Although it can be (and has been) said that the billions spent through ARRA did not bring unemployment levels down enough or were ineffective (Matthews 2011), it seems now – with a small measure of historical distance – that the stimulus did soften the impact of the recession by stabilising the economy and creating the basic conditions for job growth (Goyette 2011).

Longer-term policy responses: fiscal and monetary policy in the recovery

The road to achieving a stronger US labour market looks to be a long one. Earlier this year, Fed vice chair Janet Yellen said that she expected 'serious headwinds' to necessitate an accommodative monetary policy 'for quite some time to help the economy mend' (Yellen 2012). The Obama administration's head of the Council of Economic Advisors, Christina Romer, has identified a 'prolonged collapse of aggregate demand', creating low hiring rates and, in turn, compounding the negative impact of exit rates through longer bouts of unemployment (Romer 2010). There are signs that employers are adjusting to a 'new normal' of lower employment levels, with increasing indications that they expect their unfilled positions to have little or no impact on key constituents, such as customers and investors (ManpowerGroup 2012). With the Fed taking new steps to spur growth and address the 'grave concern' of unemployment (Appelbaum 2012a), the national attention remains focused on the job numbers.

Although the US has been experiencing jobs growth since 2009, growth has slowed in 2012. In recovery, the private sector has created on average about 157,000 jobs per month (CBPP 2012), and prospects for jobseekers are improving. Compared to 2009, when there were more than six unemployed workers per job opening for most of the year, in 2012 there have been between three and four jobseekers per opening (ibid). Still, if the job creation rate does not pick up, the Economic Policy Institute estimates that it will take in the order of 20 years to achieve a return to the prerecession unemployment rate of 5 per cent (Sheirholz 2010).

With economic recovery at the forefront of US political agendas, there is no shortage of proposals and strategies aimed at achieving job growth. In an election year, the dominant

37 Details of ARRA's funding and spending are available at: http://www.recovery.gov/Transparency/fundingoverview/Pages/fundingbreakdown.aspx

38 Education-specific ARRA highlights are available at: http://www.ed.gov/recovery

rhetoric is often highly inflammatory and the positions polarising. Putting that context aside and deferring partisan bias, however, we can see that some of the successful tactics of the 1990s are finding their way back into today's plans, alongside some more novel approaches.

One of the clearest echoes of the 1990s is the call for deficit reduction as a means of stabilising the economy and promoting job growth over the longer term, by strengthening the US's position in global trade. Certainly it is acknowledged that the deficit does matter and that a credible fiscal plan is a necessary part of a successful economic recovery strategy (CRFB 2010). As for the terms of this plan, however, consensus remains elusive. A wide range of proposals to reduce debt in order to promote recovery has been advanced, but the legislating parties disagree strongly on how to proceed. At issue are defence, social security, healthcare and domestic discretionary spending, tax reform and more (ibid). Unions, both public and private, have become a hot topic, as have accountability and value for money for government dollars.

As part of the resolution of the 2011 debt ceiling crisis, the Budget Control Act of 2011 specified $917 billion in spending cuts over 10 years and established the bipartisan Joint Select Committee on Deficit Reduction, charged with creating deficit reduction legislation. Looming this year, if Congress does not pass legislation enacting at least $1.2 trillion in spending cuts, is the possibility of even larger prescribed spending cuts, called 'sequestrations', which would affect government agencies across the board. With the tax cuts introduced by the Bush administration expiring this year, a major step in this process is revision of the US tax code, which directly informs business decisions, including hiring. However, there is little confidence in the ability or willingness of legislators to reach a compromise, and so this deadline and its enormous ramifications have created a destabilising effect of their own, particularly for employers, who are unsure what to expect and therefore reluctant to make potentially unsustainable new hires.

Today's debates around spending reductions and details of the tax code are taking place in a very different monetary climate from that of the 1990s, in that interest rates are already low. As discussed in the previous chapter, the decisions to reduce and then maintain lower interest rates were crucial in helping to turn the economy around, by providing new attractive options for investors. Compared to the federal funds rate high of 16.39 per cent in 1981, the sub-6 per cent rates of the 1990s made capital relatively cheap,[39] which promoted investment-fueled growth.

Today, resistance to inflation and a commitment to low interest rates remains a pillar of US monetary policy, but there is a lot less room for adjustment on this front than there was in the early 1990s. Interest rates are at rock bottom and have been for several years now. In 2008, the annual federal funds rate was 1.92 per cent, and it has been below 0.2 per cent since 2009, with clear indications from the Fed that rates will not rise in the short or medium term (Appelbaum 2012a). The Fed today, three years into recovery, is working with a more limited set of tools for economic turnaround.

Although the Fed's approach under the leadership of Ben Bernanke has been restrained, further action was anticipated this year. As expected, the Fed announced that it would expand its mortgage-backed securities holdings at a rate of $40 billion a month until the job market improves substantially (Appelbaum 2012b). Most extraordinary about this announcement is the direct connection and commitment to employment, representing

39 Federal Reserve, see note 19

a major shift in the priorities of the nation's central bank (Appelbaum 2012c). In another significant shift, the Fed indicated that it is willing to tolerate somewhat higher inflation, although the target remains around 2 per cent (ibid). In these actions, the pressure to return the US to their full employment heyday is evident, as is the understanding that the exact same prescription will not cure unemployment today.

Longer-term policy responses: industrial policy in the recovery

Beyond these fiscal and monetary resonances, lessons of the 1990s are also being applied in terms of job readiness and opportunity development.

Building on the same drive to connect people with stabilising, sustaining employment which resulted in the Workforce Investment Act in 1998, there is still a concentrated federal effort to connect people with jobs and to move them from lower to higher positions of employment. Today, there is less of a premium placed on a career ladder or 'lattice', although those models can still be useful. Instead, more concentrated periods of training are seen as beneficial because they get people into higher-paying, more stable positions more quickly (Oates 2012). Whereas the idea of apprenticeships in the 1990s was centred on the construction and building trades, today the US Department of Labor Employment and Training Administration (ETA) has put a renewed emphasis on on-the-job training apprenticeship programmes as a means of advancing workers in many fields (ibid). In 2012, 60 per cent of the apprenticeable trades registered with the ETA were outside of construction but built on the same model. The 'earn while you learn' strategy of apprenticeships enables workers to train for the contemporary skills they need and also enables employers to develop the next generation of knowledgeable employees.

Just as the full employment economy of the 1990s was largely the product of market forces, there continues to be an emphasis placed on the potential of the private sector to spur growth and create jobs. From the federal perspective, and for state and local bodies as well, this means seeking and promoting public–private partnerships and using an employer-centric approach to workforce development.

This outreach to the private sector applies to rural as well as urban markets. The Obama administration has committed to a series of conferences to connect investors with rural start-ups, expanding the availability of job search nationwide and creating capital marketing teams to pitch federal funding opportunities to private investors (US DoA 2012). The Workplace Investment Act of 1998 established that the leadership of local workforce investment boards must include local business leaders to ensure active employer involvement in strategic planning, policy development, and oversight – and that requirement continues. Whereas earlier training programs were defined by educators or even participants, today there is a strong impetus to reach out to employers, learn about their needs, and craft training programmes that meet these needs directly (Oates 2012). This approach suits today's environment characterised by specific demands for particular skill sets that vary from employer to employer and from region to region.

The US continues to put a premium on innovation, one of its main competitive advantages in the global economy. The National Academy of Sciences (NAS) has put forward its own strategies to encourage continued innovation, which it calls the 'foundation' of American economic vitality and military power in the post-war era (STEP 2012). The NAS calls for greater support in the form of R&D investment, university funding, ready access to early-stage finance, and talent recruitment and development programmes. To capture economic value, they underscore the importance of investment in advanced manufacturing capacity, transitional and applied research, and cluster development in order to leverage regional strengths. In addition, they point to the need for regulatory reform and trade policy protections to maintain a competitive footing.

Most commonly associated with innovation, clusters – or what Rosabeth Moss Kanter calls 'business ecosystems' – can be powerful engines of growth for thinkers, makers and traders alike (Kanter 2012, Harvard Magazine 2012a). Such clusters rely on links and collaboration to speed up time to market, connections between newer enterprises and more established ones, and clear cross-sector vision for development (Kanter 2012). Geographical clusters have already found support at both the state level, although the successes of Silicon Valley and the North Carolina Research Triangle have proven difficult to replicate (STEP 2012).

Universities often anchor these clusters, providing both a magnet and an engine for talent. Foundations have also played a role, bringing the resources of local-minded and broader organisations alike to bear on concentrated domestic economic development. Federal appropriations in recent budgets have supported regional clusters and associated business incubators; for example, the Advanced Manufacturing Jobs and Innovation Accelerator Challenge is a $26 million federal funding opportunity that promotes advanced manufacturing while supporting connections across institutions.[40] Without a formula for reliable creation of a productive cluster, private and public entities must continue to experiment and to fan the entrepreneurial sparks that can trigger growth and jobs creation.

As in the US, unemployment rates in the UK vary considerably by region. Although the overall national unemployment numbers have trended downward in the recent past, in the last year most regions, except London (which benefitted from the Olympic and Paralympic Games) and the South West, have seen slight increases in unemployment. The divide between north and south is growing, as the manufacturing sector continues to struggle. The great variation in economic strengths and challenges by region means that ecosystemic strategies for innovators, producers and commercial partners are appropriate possibilities for development.

At the same time that local and regional clusters are emerging as loci of job development, mobility remains a major concern. Enrico Moretti has written extensively about the concentration of college graduates and desirable jobs in a small number of metropolitan regions, and the decline of traditional manufacturing centers (Moretti 2012). Although there are some industries where the capacity for domestic manufacturing has been lost (Harvard Magazine 2012b), there are other areas – like the aviation and nuclear industries – where the US continues to build. Such industries share a need for trained labour and considerable physical space, which suggests that their expansion could bring about another geographical migration for American workers. ETA assistant secretary Jane Oates identified industry-recognised credentials as the most valuable tool for workers in an environment that calls for mobility (Oates 2012). The ETA has assumed the responsibility of looking at transferability and has adjusted its training funding streams to encourage the delivery of industry-standard credentials that will give people a solid foundation for skilled work in growth sectors.

40 See http://www.nist.gov/mep/manufacturing-052912.cfm

Fundamentally, with these wide-ranging approaches to job growth, the US is assessing and asserting its global competitiveness. Globalisation is not a new phenomenon, but its effects continue to spread and shape the domestic jobs landscape. The US must find a balance between cost-competitiveness as a business location and supporting high and rising living standards for the average American.[41] The process of 'competitive recovery' will need to address the increasingly complex regulatory environment for businesses and to leverage strengths in reliability, safety and proximity, among others (Porter and Rivkin 2012). Resources will need to be devoted to workforce development in order to improve the productivity of American workers and to better match skills with employer needs (Harvard Magazine 2012c). Training for high-demand skills, enhanced job-related information delivery, promoting family-supporting wages, and pursuing new frontiers of competitiveness (as well as restoring the old) will all be part of the picture (Oates 2012). Many challenges lie ahead, but an extended recovery from the Great Recession need not be of the 'jobless' kind that some fear.

41 As defined by the US Competitiveness Project, a research-led initiative launched through Harvard Business School, a 'competitive location' produces prosperity for both companies and citizens: http://www.hbs.edu/competitiveness/overview.html

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