From Labor Shortage to Labor Surplus: The Changing Labor Market Context and Its Meaning for Higher Education

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DEFLATION AND JOB LOSS

Triggered by a crisis in the American financial system, the American economy has experienced sharp contractions in overall levels of output, income, and wealth. These losses have had an impact on the nation's labor market, causing sharp declines in payroll employment levels in the nation and most states. Indeed, 48 states have posted net wage and salary employment declines since the beginning of the recession in December 2007.[1] After the Lehman Brothers collapse triggered the credit crisis in September 2008, payroll employment losses accelerated sharply and every state in the nation has lost jobs since then, in some instances at remarkably rapid rates.[2]

This downturn appears to be different in its nature relative to other recessions over the post-World War II period. Households have experienced enormous losses in wealth over the past two years as the values of financial assets have plunged and the real values of residential and commercial properties have spiraled downward. Households have tightened their belts, sharply reduced spending, and increased their savings rates. For the first time since the 1930s, the nominal Gross Domestic Product (GDP) is expected to decline during 2009—the result of not only sharp decreases in the level of final sales of output in the nation, but also the consequence of declining overall price levels.[3]

The US economy appears to be teetering on the brink of deflation characterized by declining output and prices. Between May 2008 and May 2009 the Consumer Price Index fell by 1.3 percent, a historic low rate of decline. A decline in consumer prices results in a decline in producer revenues. However, producer cost structures that are typically embodied in a variety of contractual agreements are somewhat inflexible in the short run. The result is that as producer revenues decline, the price of labor and other inputs used in production do not adjust downward very quickly to the lower revenue structure. Since the price level of these inputs does not change quickly, firms must adjust to the new environment by rapidly reducing the quantity of inputs that they use in production. The result is that in a deflation, employers sharply reduce the quantity of labor they employ both through reductions in the number of workers on their payrolls as well as reductions in the number of hours of the remaining workers. Reduced payroll costs are the primary way that producers have responded to the nation's economic crisis. Eventually, wage rates begin to fall as the volume of excess labor supply (unemployment) grows rapidly and firms seek new contractual relationships that cut costs though reductions in wage and non-wage compensation.

The early stage of the economic crisis generally did not portend the sharp deterioration in economic activity or the rapid deterioration in labor market conditions that we have experienced since September 2008. Indeed, the first eight months of the downturn seemed to indicate that this was a typical postwar recession, and at least some observers attributed the downturn to the rapid increase in energy prices that occurred during the spring and summer of 2008 that acted as a drag on economic activity and triggered a recession.[4] At the national level, payroll employment declines between December 2007 (the official start of the recession) and August 2008 averaged 137,000 jobs per month, a modest rate of decline by historical standards. However, after the Lehman Brothers meltdown in September 2008, the rate of payroll employment losses increased sharply as credit dried up, consumption dropped, wealth values plunged, retail sales declined, and GDP fell.

September and October 2008 saw large drops in payroll employment levels in the nation (averaging 350,000 jobs per month), more than double the monthly rate of payroll employment declines that occurred from December 2007 to August 2008. Over the last six months, the rate of job loss has nearly doubled again. Monthly job losses over the November 2008 to April 2009 period have averaged 656,000 per month, a very large and sustained level of payroll employment declines by any historical measure, and a key indicator of the deflationary nature of the current downturn.

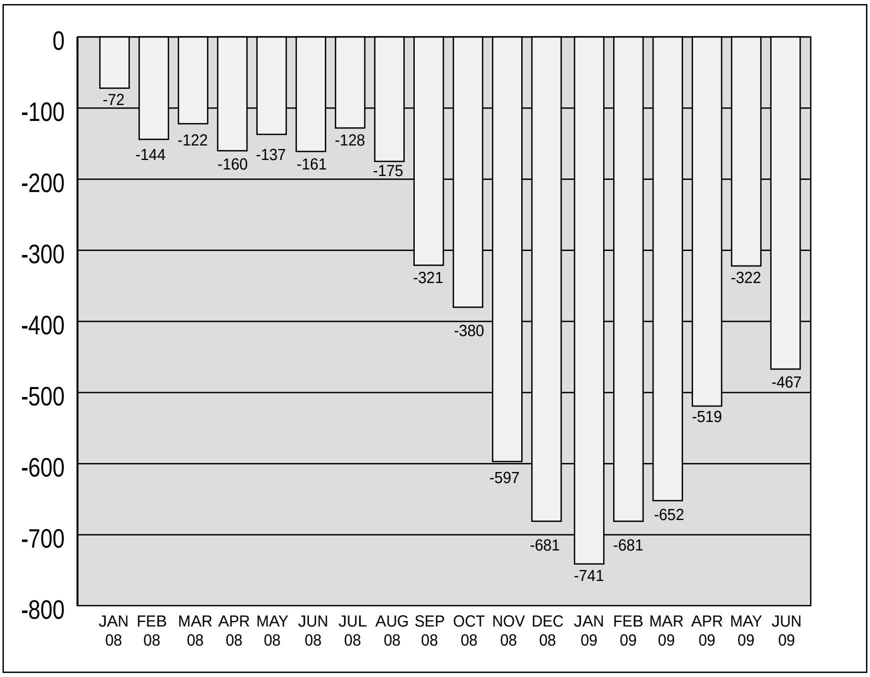

Chart 1. Monthly job losses during the current economic recession (in thousands, seasonally adjusted)

As the nation caught its first terrifying insight into the catastrophe of the global financial crisis following the collapse of Lehman Brothers, the size and pace of domestic job losses exploded in a way that was consistent with the worst fears of economic deflation. In September and October combined, the nation lost 700,000 jobs. Over the next six months, the wheels fell off the American labor market as the pace of job loss accelerated at a stunning pace. In just six months between October 2008 and April 2009 the nation lost 3.871 million jobs, a staggering average monthly job loss of 645,000. Over the last two months the pace of job loss has moderated only in the most reserved sense of the term. Job losses in May and June 2009 have averaged 395,000 per month, a rate of loss that can be considered modest only when compared to the prior six months, but still quite high compared to most other recessions over the post-World War II period.

INDUSTRY SOURCES OF JOB LOSSES

Since the beginning of the recession through June 2009, the US economy has lost nearly 6.5 million payroll jobs, a relative decline of 4.7 percent of all wage and salary employment over the 18-month period. Despite the fact that the current economic crisis originated in the nation's financial sector, the job losses triggered by the crisis were heavily concentrated among the nation's goods-producing firms in the private sector. The nation's construction industry—both residential and commercial—experienced extraordinary job losses as the value of the nation's stock of housing and commercial property plunged. These declining values caused new construction activities to plunge. A sharp decrease in the availability of credit for home mortgages created a vicious cycle of declining values triggered expectations among lenders about further declining values. Over the past 18 months, construction payrolls have declined by nearly 1.3 million jobs, representing a 17-percent decline in employment levels in the industry, with further declines expected next year. Specialty trade contractors that employ many skilled construction trade workers have reduced employment at an extraordinary pace since the end of 2007.

Producers of manufactured goods also experienced sharp reductions in payroll employment levels over the course of the crisis as demand declined sharply for credit-dependent big-ticket items produced by firms in the manufacturing industry, including auto and truck producers, electronic equipment manufacturers (including computers and peripherals), and fabricated metal and machinery manufacturers. Employment in the manufacturing sector declined by more than 1.9 million jobs, from 13.777 million jobs in December 2007 to 11.854 million in June 2009—a 14-percent reduction in payroll employment levels in just 18 months.

The construction and manufacturing sector and their employees have borne the brunt of the worst effects of the economic crisis. Together, the construction and manufacturing industries accounted for about 15 percent of pre-recession employment in the nation, yet one-half of the net job loss that has occurred since the end of 2007 has been concentrated in these two industries.

Major Industry Sector	December 2007	June 2009	Absolute Change	Relative Change
Total	138,152	131,692	-6,460	-4.7%
Private	115,783	109,138	-6,645	-5.7%
Construction	7,523	6,240	-1,283	-17.1%
Manufacturing	13,777	11,854	-1,923	-14.0%
Trade, transportation, utilities	26,725	25,263	-1,462	-5.5%
Information	3,025	2,838	-187	-6.2%
Finance	8,243	7,754	-489	-5.9%
Professional and technical	7,819	7,607.3	-211	-2.7%
Management of companies	1,903	18,13.6	-89	-4.7%
Administrative/Waste	8,386	7,196.3	-1,189	-14.2%
Education services	2,978	3,097.6	119	4.0%
Health services	15,592	16,158	566	3.6%
Leisure and hospitality Services	13,551	13,168	-383	-2.8%
Other services	5,517	5,427	-90	-1.6%
Federal government	2,746	2,807	61	2.2%
State government	5,142	5,191	49	1.0%
Local government	14,481	14,556	75	0.5%

Source: US Bureau of Labor Statistics, www.bls.gov

Table 1. Trends in non-agricultural wage and salary employment in the US by major industry sector from December 2007 to June 2009 (in thousands, seasonally adjusted)

Service producing firms have had a much more mixed record of job losses since the onset of the recession. Very large losses occurred in the administrative and waste services industry. This industry sector is composed of an amalgam of temporary help, business support services (like payroll services), building services, and waste management services. Overall, this industry experienced employment losses of 1.189 million since the beginning of the recession, a relative decline of 14.2 percent. A very large share of the losses in the overall administrative and waste management industry occurred in its temporary help sector. Indeed, losses in temporary help and employment placement firms accounted for the bulk of the job losses in the administrative and waste management industry.

The trade, transportation, and utilities industries collectively lost 1.462 million jobs over the course of the downturn, a relative decline of 5.5 percent. While the utilities industry posted no job losses, the retail trade sector—led by the automotive dealer industry, building materials, and furniture and home furnishings industries—posted above-average rate of job losses. Transportation and warehousing also posted substantial declines, led by losses in truck transportation.

Despite the very large losses in wage and salary employment levels that the nation has sustained since the onset of the economic recession, some industries have been able to continue to expand employment levels. The private education sector—traditional private higher education institutions, private elementary and secondary schools, and for-profit and nonprofit education and training organizations—has grown modestly over the course of the downturn. Payroll employment in the private education sector has grown by about 119,000 jobs, a rise of 4 percent over the last eighteen months.

Health-service providers have also experienced considerable employment gains since the onset of the economic downturn. Job growth in the health sector has topped 566,000 over the course of the downturn. Much of this gain was concentrated among ambulatory healthcare providers including physicians, dentists, and other health practitioner offices. Hospitals also posted solid growth, as did home healthcare services.

The payroll employment levels of government at all three levels has also increased over the course of the downturn, despite massive revenue declines at the state and local level combined with very limited ability to borrow in order to finance these revenue shortfalls. Federal government employment has increased by 61,000 jobs (2.2 percent), in part because the Census Bureau has been hiring in anticipation of the 2010 decennial census. State government payrolls increased by 49,000 jobs (1 percent). All of these gains were in state government education payrolls, including public colleges and universities. Indeed, non-education related state government employment has declined modestly throughout the nation over the course of the downturn. Local government organizations across the nation have collectively increased their payroll employment levels by about 75,000 jobs (0.5 percent) since the beginning of the recession. This increase occurred both in education-related local government positions as well as general local government jobs.

OCCUPATIONAL AND EDUCATIONAL IMPACTS OF JOB DECLINES

The industry origins of job losses exert a powerful influence on the distribution of job losses across occupations and across various levels of educational attainment. The construction and manufacturing industries have a staffing structure that employs large numbers of blue-collar workers, who typically have lower levels of educational attainment. In contrast, service-producing industries, especially in education, health services, and government, have staffing patterns characterized by very large proportions of workers in professional and managerial occupations that are disproportionately staffed by college graduates. The large losses we observed in the nation's construction and manufacturing sector mean that blue-collar workers experienced a disproportionate share of job losses. In contrast, the growth in employment in education, health, and government sectors suggests that college labor market workers are somewhat better insulated from the employment losses that have occurred over the last eighteen months.

Over the last two years the trends in occupational employment levels have followed the pattern predicted by the concentration of job losses in the construction and manufacturing industries combined with modest gains in employment in the education, health, and government industries.[5] The Current Population Survey, a monthly survey of about 60,000 households, is used by the US Bureau of Labor Statistics to measure the occupational characteristics of the nation's workforce. The data provided in Table 2 reveal extraordinary rates of job losses in key blue-collar areas—construction occupations, such as construction laborer and production occupations, including a variety of assembly and machine operations occupations. The number of workers employed in the construction sector declined by more than 2 million over the last two years, accounting for nearly one-third of the decline in the number of persons employed in the nation. Blue-collar production employment declined from 9.5 million to 7.6 million over the last two years—a reduction of one-fifth in employment over the period. Employment in sales jobs—including cashiers and retail clerks as well as office clerical occupations—posted large absolute job losses of nearly 2.4 million. The sales and clerical occupations employ large shares of workers who have not earned a college degree.

Occupational Group	June 2007	June 2009	Absolute Change	Relative Change
Management and Financial	21,352	21,510	158	0.7%
Professional	29,949	30,266	317	1.1%
Service	24,976	25,330	354	1.4%
Sales	17,037	15,894	-1,143	-6.7%
Office and Clerical	19,481	18,231	-1,250	-6.4%
Construction	9,597	7,520	-2,077	-21.6%
Installation/Repair	5,223	5,129	-94	-1.8%
Production	9,517	7,634	-1,883	-19.8%
Material Moving	8,777	8,258	-519	-5.9%
Total	145,909	139,772	-6,137	-4.2%

Source: US Bureau of Labor Statistics, www.bls.gov

Table 2. Trends in the number of employed persons aged 16+ in the US by major occupation, June 2007 to June 2009 (in thousands, not seasonally adjusted)

In contrast to employment developments in blue-collar and clerical/sales fields, employment among managerial, finance, and professional workers actually posted modest gains over the last two years. Professional fields, including the health professions and education professions, saw employment increase by more than 300,000 since mid-2007. Employment levels in the nation's management and finance occupations increased by more than 150,000 since 2007, a modest increase of 0.7 percent during a period of sharp job losses in other occupational areas. These sharp differences in employment developments by occupation have, in turn, substantial impacts on the nature of job losses by level of educational attainment.

Information about the educational attainment of the nation's workforce participants for the adult population aged 25 and older is published by the US Bureau of Labor Statistics and derived from the monthly Current Population Survey (CPS). The data reveal very sharp variations by education in the employment experiences among adults in the nation since the beginning of the economic recession in December 2007. The size of employment declines over the last eighteen months among adults systematically varied by the level of their educational attainment. As the decline of construction and manufacturing employment reduced the demand for blue-collar workers, employment among high school dropouts and high school graduates with no college fell sharply, especially among men (Sum, Labor)

Educational Attainment	December 2007	June 2009	Absolute Change	Relative Change
High school dropout	11,356	10,447	-909	-8.0%
High school grad	36,928	34,898	-2030	-5.5%
Some college	35,071	33,713	-1358	-3.9%
College grad	43,606	43,368	-238	-0.5%

Source: US Bureau of Labor Statistics, www.bls.gov

Table 3. Trends in the number of employed persons aged 25 and older in the US (in thousands, seasonally adjusted)

Employment among high school dropouts has declined by 8 percent so far over the course of the current downturn. The number of employed high-school graduates with no postsecondary schooling has declined by 5.5 percent over the same period. In contrast, employment losses among those adults with a bachelor's degree or higher have been quite modest; employment fell by just 0.5 percent over the entire 18-month period. Employed persons with a college degrees are much more concentrated in service-producing industries and more likely to work in professional and managerial occupations—the same industry and occupational labor markets least impacted by the economic crisis—than those with fewer years of schooling. Consequently, adult college graduates have been relatively insulated from the declines in employment caused by the nation's financial meltdown. Higher levels of educational attainment generally have provided adults with access to jobs in industries and occupations that experienced relatively small employment losses, especially compared to those adults with only a high school diploma or a lower level of education.

EMPLOYMENT AND AGE

While adult college graduates in general escaped much of the damage from the job losses of the last eighteen months, working-age teenagers and young adults, including recent college graduates, have experienced considerable employment losses. Individuals who transitioning into the labor market typically experience a disproportionate share of the adverse labor market impacts of an economic contraction. As the number of job vacancies decline sharply in an economic recession and layoffs of experienced workers rise, the chances of someone entering the career labor market plummet. One consequence of this is that the decline in the number of persons employed has been concentrated among those under 25, the age group that consists of disproportionate numbers of labor-market entrants.

Age	December 2007	June 2009	Absolute Change	Relative Change
16-19	5,822	4,999	-823	-14.1%
20-24	13,731	12,774	-957	-7.0%
25-54	100,519	95,391	-5,128	-5.1%
55+	26,218	27,147	+929	+3.5%

Source: US Bureau of Labor Statistics, www.bls.gov

Table 4. Trends in the number of employed persons aged 16+ by age group in the US (in thousands, seasonally adjusted)

Since the beginning of the economic recession in December 2007, the number of teens aged 16 to 19 has declined by 823,000 persons, a relative reduction of 14.1 percent. Sadly, the proportion of teens who are employed fell to an historic low by 2009: only 29 percent of teens were working at the time of the June CPS survey reference week. The teen employment rate fell from a pre-recession level of 34.1 percent to 29 percent, representing a relative reduction of 14 percent in the teen employment rate. The economic consequences of this are important insofar as early work experience has proven to be an important source of "soft skill" development. Work experience provides young people with the opportunity to develop a set of behavioral traits that are highly complementary to cognitive and occupational skills. These behavioral traits have proven to be greatly valued by employers. Furthermore, work experience bolsters worker productivity and enhances long-term employment and earnings outcomes.

The employment levels of young adults aged 20 to 24 have also declined at a somewhat above average pace of 7 percent since the end of 2007. The employment-to-population ratio for this group declined by 7 percent over the period. In contrast, as both employment levels and rates plunged for teen and young adults, employment levels among those aged 55 and older actually increased over the past eighteen months since December 2007.

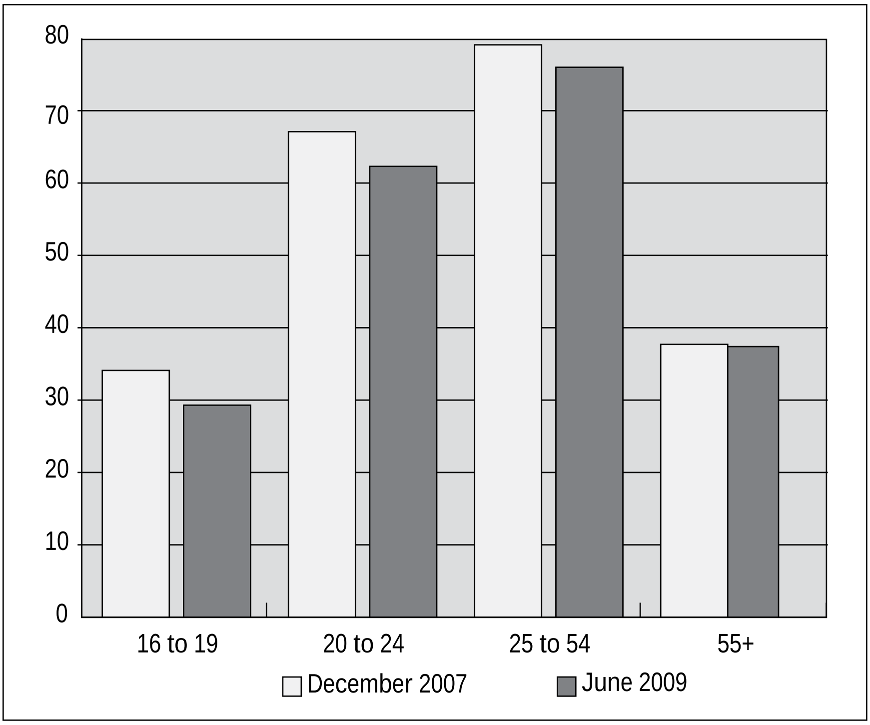

Chart 2. Trends in the employment-to-population ration of the 16+ civilian non-institutional population in the US

As the overall number of employed persons in the nation has fallen by about 6 million persons, employment levels among older workers increased by 929,000 between December 2007 and June 2009, representing a rise of 3.5 percent. Persons aged 55 and above were the only population age group to experience no reductions in their employment rate over the last eighteen months, remaining at 37 percent over the course of the downturn. The increase in employment among older workers is, in part, the consequence of the well-educated baby boom generation reaching their pre-retirement and early retirement years. Better-educated older persons tend to remain in the labor market at higher rates. Therefore as the number of better-educated older workers increases, we might expect a larger fraction of the older worker group to delay retirement and continue working. It is also quite likely that the decline in equity and real estate values provided stronger incentives for older workers to continue working as their retirement accounts and home values declined with the onset of the financial crisis. This reduction in wealth likely caused at least some older workers to re-evaluate their plans to retire.

GROWING LABOR MARKET IMBALANCES

The economic crisis has manifested itself in the labor market in a variety of ways since the end of 2007. Among the first set of adjustments that employers undertake in response to revenue reductions is to slow down worker recruitment and hiring activities. A key indicator of employer recruitment and hiring in the external labor market is trends in the number of job vacancies and the job vacancy rate over time. The US Bureau of Labor Statistics conducts a monthly survey of unfilled jobs for which employers are actively recruiting for new hires outside of the firm.

The Job Openings Labor Turnover Survey is a monthly survey of business establishments that produces measures of the number of unfilled jobs openings that exist at the end of the month. These data, in combination with payroll employment data derived from the Current Employment Statistics, are used to create estimates of job vacancy rates that are designed to be conceptually comparable to the official unemployment rate measure.

Since the economic recession began, the number of unfilled jobs in the US economy has declined at a very rapid pace because firms have sharply reduced their hiring activity. Just prior to the onset of the recession, American firms were recruiting for an estimated 4.382 million unfilled jobs on their payrolls. As the economic crisis deepened over the next eighteen months, the number of job vacancies plunged to 2.554 million by the end of May 2009, a decline of 41.7 percent over the 18-month period. This indicated a dramatic reduction in the level of external labor demand among employers in a very short period of time. The job vacancy rate, a measure of the share of all payroll jobs that are unfilled, fell from 3.1 percent to 1.9 percent over the course of the economic downturn.

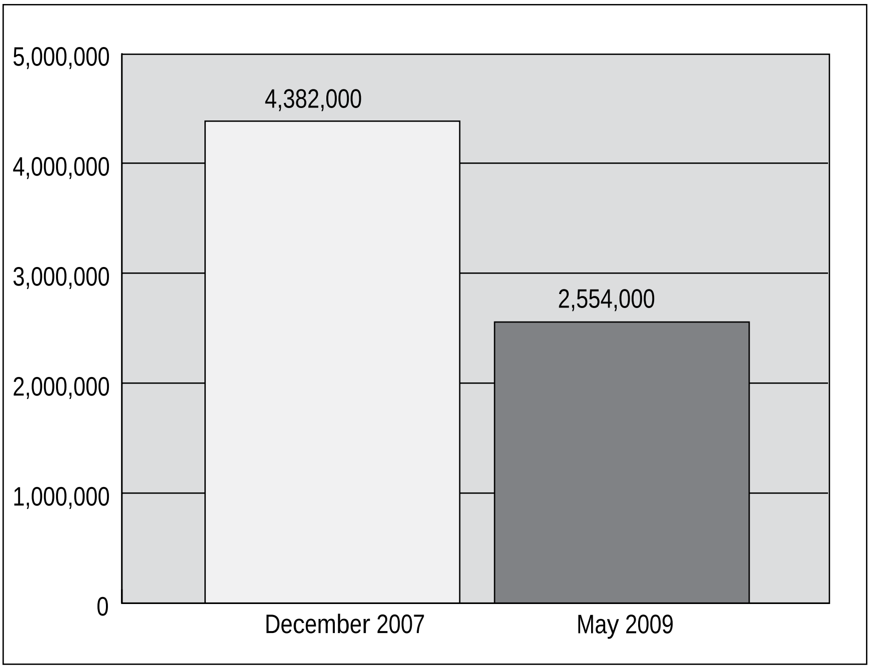

Chart 3. Trends in the number of job vacancies in the US economy December 2007 to May 2009

The rate of decline in the number of unfilled jobs varied sharply across industry sectors. Declines in the number of vacant jobs were especially large in the construction and manufacturing sectors. Between December 2007 and May 2009, the number of vacant jobs in the nation's manufacturing sector declined from 316,000 to 91,000 positions, a decline of 71.2 percent. The nation's construction sector also experienced very large reductions in the number of job vacancies over the last year and one half. The number of vacancies in the construction sector fell by 71.1 percent. These two goods-producing industries, which tend to employ above average shares of blue-collar workers with lower levels of educational attainment, experienced a reduction in the number of job vacancies that was equal to 1.7 times the average pace of reduction in job vacancies in the US economy as a whole. The job vacancy rate in both the construction and manufacturing sectors fell below 1 percent by May of this year.

Major Industry Sector	December 2007	May 2009	Absolute Change	Relative Change
Total	4,382	2,554	-1,828	-41.7%
Private	3,918	2,221	-1,697	-43.3%
Construction	135	39	-96	-71.1%
Manufacturing	316	91	-225	-71.2%
Trade, Trans, Utilities	785	430	-355	-45.2%
Professional/ Business Services	784	520	-264	-33.7%
Education and Health	794	537	-257	-32.4%
Leisure and Hosp.	586	269	-317	-54.1%
Government	462	344	-118	-25.5%

Source: US Bureau of Labor Statistics, www.bls.gov

Table 5. Trends in the number of job vacancies in the US, by major industry sector, December 2007 to May 2009 (in thousands, seasonally adjusted)

The goods-producing sector of the US economy has experienced the greatest reduction in the number of job vacancies compared to all major industry sectors. In contrast, the service-producing sector, which tends to hire a disproportionate share of workers in college labor market occupations, experienced a much less severe reduction. For example, over the course of the current economic crisis, health and education services and professional and business services experienced only about a one-third reduction, a rate of decline equal to less than half that in the goods-producing sector. Nonetheless, these are still quite large reductions in the level of recruitment and hiring activity that will have particularly adverse impacts for job seekers, including recent college graduates.

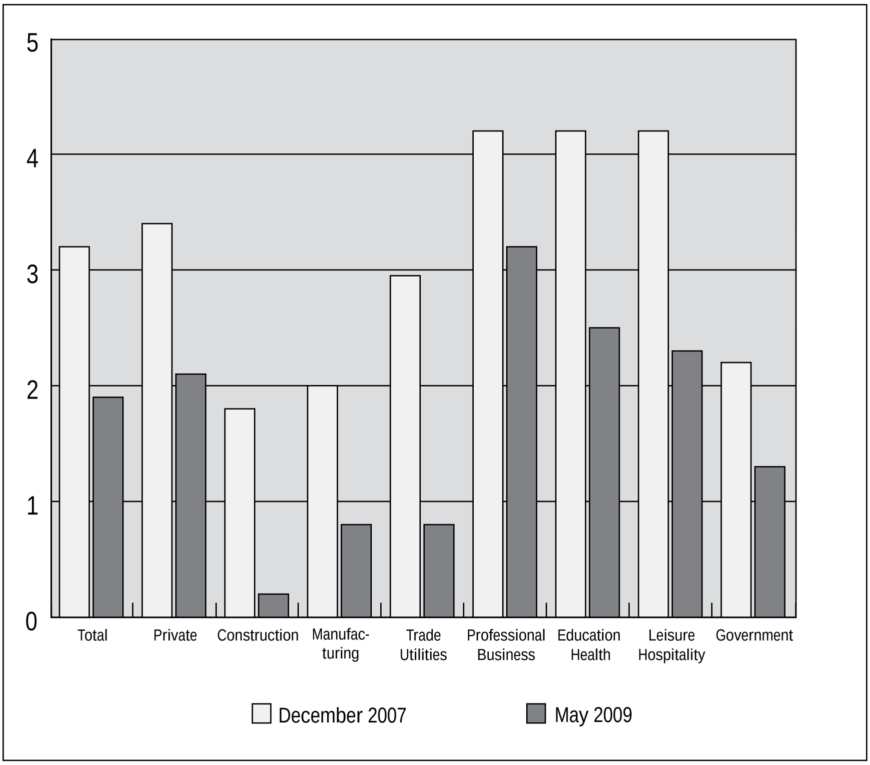

Chart 4. Trends in job vacancy rates in the US by major industry sector, December 2007 to May 2009

Although the job vacancy rate in both of these service-producing industries declined, they still remained relatively high compared to other industries. In professional and business services the vacancy rate fell from 4.1 percent at the end of December 2007 to 3.0 percent by May 2009. In education and health services the job vacancy rate declined from 4.1 to 2.7. Despite the decline, these industries thus had job vacancy rates that were four to five times greater than those found in construction and manufacturing by the end of May 2009.

The trends in the number of unemployed workers active in the job market and the number of available job openings have moved in opposite directions. As one would expect, deteriorating labor demand reduces job vacancies and increases unemployment. At the beginning of the economic downturn, 7.451 million individuals were officially classified as unemployed. At the same time, 4.382 million jobs were unfilled in the American economy. This means that for every unfilled job, there were 1.7 unemployed, active job seekers available to fill these positions. This unemployment-to-job-vacancy ratio of 1.7 implies that the economy is operating relatively close to a full-employment condition where the ratio of unemployed workers to available job openings is 1. As the economic crisis emerged, unemployment levels began to skyrocket while the number of job vacancies plunged. By May 2009, there were 5.7 unemployed workers for every unfilled job opening. In a period of about one and one-half years, the US labor market went from one operating at near full employment to one with enormous excess labor supply relative to labor demand—a fundamental shift in labor supply and demand relationships not seen for several decades.

	December 2007	May 2009
Total unemployed	7,541	14,511
Total job vacancies	4,382	2,554
Ratio of total unemployed to total job openings	1.7	5.7

Source: US Bureau of Labor Statistics, www.bls.gov

Table 6. Trends in the relationship between unemployment and job vacancies in the US, December 2007 to May 2009 (in thousands)

While the US labor market has shifted sharply toward large excess labor supply conditions, unemployment-to-vacancy relationships vary sharply by industry. This is due in part to the relative cyclical sensitivity to the forces underlying the economic crisis but also due to differences in staffing structures and related education and training requirements.

The findings in Table 7 reveal enormous variations in labor supply-demand conditions across major industry sectors of the US economy as measured by the unemployment-to-vacancy ratio. Labor markets in the goods-producing sector are flooded with excess supply. In the construction sector, the data reveal that for every currently unfilled job in the industry, 39 unemployed workers with construction sector experience are available for hire. In the manufacturing sector, the ratio of experienced unemployed manufacturing workers to available jobs in the industry was 20 to 1. The unemployment-to-job vacancy ratio in most of the service-producing industries was much lower. The education and health industries collectively had an unemployment-to-vacancy ratio of just 2 to 1, indicating much more balanced labor supply-demand conditions. While the current crisis has caused tremendous increases in the excess supply of labor in the nation, the chances of finding a job for those with skills in the education and health arenas are still far better than those with skills required to work in the goods-producing sector.

Major Industry Sector	Unemployed	Job Vacancies	Unemployed/ Job Vacancies
Total	13,973	2,604	5.4
Construction	1,768	45	39.3
Manufacturing	2,010	102	19.7
TTU	506	429	1.2
Finance	536	159	3.4
Education and health	1,005	513	2.0
Leisure and hospitality	1,599	290	5.5
Other services	476	137	3.5
Government	702	350	2.0

Source: US Bureau of Labor Statistics, website www.bls.gov

Table 7. Trends in the relationship between the experienced unemployed and job vacancies in the US by major industry sector, December 2007 to May 2009 (in thousands, not seasonally adjusted)

THE JOBS OUTLOOK AND HIGHER EDUCATION

Since the onset of the economic crisis, relatively low-cost elements of the higher education system, including community colleges, have experienced rising student enrollments. This is in part due to a decline in the opportunity cost of school among the growing number of jobless or involuntary part-time workers and the rising need among workers to retool and upgrade their skills. Furthermore, President Obama has proposed a sharp expansion in the outputs of the nation's higher education system, especially at the community college level. A key question is how soon the job market will recover sufficiently to begin effectively re-absorbing newly minted graduates.

Since the mid-1970s the demand for college graduates has steadily increased as the structure of technological change and economic growth favored those with college degrees. Rising earnings advantages for those with a college degree were a signal to both high school seniors and adults to enroll in and complete college. In 1974, young employed college graduates earned just 17 percent more per year than their high school graduate counterparts. However, by 2001, this earnings advantage had increased to a remarkable 66 percent (Fogg). Colleges and universities have grown used to operating in labor market environments where the demand for their graduates has been consistently strong.

For most of the last fifteen years, until the current crisis, the US economy has operated at or near full employment condition. The 1990s US labor market was characterized by rapid gains in payroll employment levels and comparatively slow growth in the size of the nation's labor force, resulting in sharp drops in unemployment. By the end of the decade there was near equality between unemployment and job vacancies. Indeed, during the second half of the 1990s the nation's labor markets were operating essentially at full employment levels. Labor shortages were frequent in many college labor market occupations, especially in scientific, engineering, and information technology fields. After 2000, shortages in many health professions became widespread. A major challenge to the higher education system over the past decade-and-a-half has been responding effectively to the rising demand for workers in a number of technical, business, and health specialties.

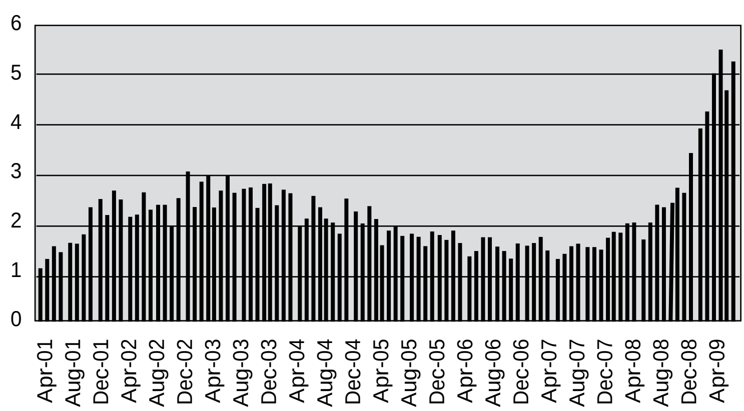

Chart 5. Ratio of unemployed to job vacancies in the US 1999–2009

While economic activity declined in 2001, causing the unemployment-to-vacancy ratio to rise as high as three unemployed workers for every vacant job, by the first quarter of 2003 the rate declined quickly and returned to near full employment conditions by the end of 2005. The current economic crisis has created a sharp and continuously deteriorating unemployment-to-vacancy ratio. By August 2008, before the September financial meltdown, the nation's unemployment-to-vacancy ratio was still in the 1.5 to 2.0 range. Since then, unemployment levels and rates have shot up while vacancy levels and rates have plunged. The result is that by the second quarter of 2009, we had five unemployed workers for every job vacancy.

The outlook for quick recovery in the labor market is not positive. Many analysts expect at best weak growth in GDP, continued job losses as firms continue to downsize inventories, and higher savings rates as consumers and businesses "deleverage." The chances of a quick recovery in the labor market appear remote. While earlier in spring 2009 there was some talk of "green shoots" signaling the beginnings of an economic recovery, this view has now given way to a more pessimistic view of future GDP growth, especially growth in the job market.

Recently the Federal Reserve announced that it expected the national unemployment rate to top 10 percent next year, and the high rate of unemployment is likely to be sustained for a considerable period of time (Irwin). GDP growth is expected to be insufficient to create new payroll jobs. Firms will remain cautious as they have in earlier downturns and will not engage in new hiring activity at an accelerated pace until they are assured that a strong recovery is well underway. Fear of a "double dip"—a second sharp reduction in GDP following the recent GDP decline—may fuel business anxieties about hiring new workers (Silva). The Federal Reserve has said that the labor market will not fully recover for up to a five-year period. Since the recession of the early 1980s, a large gap has emerged between the time when GDP begins to grow and the unemployment rate begins to fall. In the recession of 2001, GDP began to grow during the fourth quarter of 2001, but payroll employment levels continued to decline for two years after the GDP recovery. The nation's unemployment rate began to decline at the same time as payroll employment levels increased, causing the unemployment-to-vacancy ratio to fall.

The outlook for next year would suggest slow GDP growth that is insufficient to create new wage and salary jobs; continued job losses, but at a rate that is slower than what has characterized the deflationary job market crash that has occurred in the past three quarters; and unemployment rates continuing to rise and remain in the 10 percent to 12 percent range. Given past historical trends in the nature of recovery, it appears likely that little to no net new job creation will occur in the nation through 2012.[6]

Higher education's link to the job market has become quite important in recent years, as rising returns to college endowments have fueled increases in both enrollment and real tuition and fees. Over the foreseeable future, it appears likely that the earnings levels and the size of the earnings advantages among new college graduates will fall as the excess labor supply—even in the college labor market—becomes the basic economic and labor market context in which higher education operates. The context of excess supply in the college labor market means that institutions can no longer assume that providing a solid education in a given major field of study will lead to success for graduates. Large labor surpluses in the coming years will mean intense competition for jobs among recent graduates, much higher unemployment among recent graduates, a sharp increase in underemployment (graduates taking part-time work because they cannot find a full-time job), and a sharp rise in mal-employment (graduates unable to find college labor market jobs settle for positions that do not use skills developed at the postsecondary level). Part-time enrollment is likely to rise in the future. A large number of individuals will seek to re-skill because massive worker dislocation creates permanent destruction of jobs in many goods-producing industries.

Colleges and universities must adjust to a new labor market environment that is different in fundamental ways by regrouping and re-organizing their resources to more effectively respond to the new labor surplus context that will characterize the nation's labor markets in the next decade.

ENDNOTES

1. Only Alaska and North Dakota have experienced payroll employment gains over the past 16 months, and these have been quite modest. Together both states increased employment levels by 6,000 jobs.
2. For a clear and insightful discussion of this event, see John Makin's "Panic."
3. The Congressional Budget Office expects nominal GDP to decline by 0.4 percent during 2009, See their most recent economic projections at www.cbo.gov.
4. Douglas Elmendorf, *The State of the Economy*, Statement before the Committee on the Budget, US House of Representatives, May 21, 2009. Elmendorf found that between 2003 and 2008 the share of GDP devoted to petroleum exports rose from 1.3 percent to 3.7 percent.
5. Seasonally adjusted data on occupational employment are not available; consequently we compare data from June 2007 to June 2009 to account for the seasonal nature of employment fluctuations during different months of the year.
6. For a discussion the nature of the lag between GDP growth and net job creation see: John Schmitt and Dean Baker, "Recession: How Bad Will It Get," *Challenge: The Magazine of Economic Affairs*, May-June 2008.

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