

**Who are the Long Term Unemployed in this Recession and What can be Done to Help Them?
Policy Report¹
Jo Anne Schneider
Associate Research Professor
George Washington University
jschneid@gwu.edu**

¹ While this report is written for a general audience, a companion piece with full references is under development and available from the author for interested scholars. I wish to thank James Borbely and Terence McMenamin at the Bureau of Labor Statistics for providing data tables and detailed information on data categories for this report. The report would not have been possible without their prompt and thoughtful help. I am also grateful to Jane Henrici and George Theologus for advice and comments on earlier versions of the report.

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Executive Summary

Policy analysts have noted that the current recession is different, with more college educated people losing jobs and slow job growth. Analyses in the media offer conflicting claims about who is hardest hit by the recession, as well as whether economic stimulus plans are working. This report analyzes publicly available data from the federal government's Current Population Survey (CPS) to look at who has lost jobs and who is having the hardest time finding work again. Statistics are combined with vignettes of experiences of unemployed people and the workforce development system. The report examines trends starting before the current recession and continuing through first quarter 2011.

Most tables compare data series from 2009 to 2011 for the prime working population of 25 to 64 years. The report analyzes the impact of age, education, gender, disability and type of occupation on unemployment rates, labor force participation and employment to population ratio. Final sections summarize current data on self-employment and provide suggestions to ameliorate unemployment.

General Trends in the Experience of those Unemployed in the Current Recession

Looking at unemployment and labor force experience across age, education, gender, disability and types of employment suggests several general trends during this recession:

- **Employers shed older workers and were reluctant to hire them again.** Across all categories, people 55-64 had the highest unemployment rates and the longest durations of unemployment. For the less educated, Blacks/African Americans, and the disabled, loss of work in greater percentages started at age 45. Older workers with long bouts of unemployment were increasingly likely to drop out of the labor force by 2011.

The percentages of those unemployed more than 27 weeks in 2009 to 2010 shows that nearly 40% of people 25-34 had been unemployed more than six months by November 2010 as compared with 60% of those 55-64. Problems finding work for older workers held true across gender, race and ethnicity. Men and women showed almost no differences in duration of unemployment. Blacks/African Americans and Asians had longer spells of unemployment than Whites across all age groups. By November 2010, nearly 70% of Asians 45-54 had been unemployed more than 6 months. Fifty-five percent of whites and over 60% of Blacks/African Americans, Asians and Hispanics/Latinos² between 55 and 65 had been unemployed over 6 months. Hispanics/Latinos in all other age groups found work more quickly than people in other racial or ethnic groups.

Recent studies of income insecurity and the choices of older workers shows that as these established workers are unable to find comparable work in their fields again, this recession could mean strains on the retirement system. Increasing group of workers find no choice but to retire early or dip into their retirement savings to live.³ If many take lower paid work below their qualifications, they are likely to contribute less to retirement during an era when both employers and government increasingly shift retirement contributions onto individuals. Lower wages for middle aged and older workers could also lead to lower contributions to the social security system just as the baby boom population retires.

² The term to identify peoples from Spanish speaking countries and territories is a topic of much debate. As in my other publications, I use Hispanics/Latinos – combining the two most common terms used by people from this group.

³ See Hayes, J and Hartmann, H (2011) *Women and Men Living on the Edge: Economic Insecurity After the Great Recession*. Washington DC: IWPR. and Heidkamp, M, Corre, N and Van Horn (November 2010) *The "New Unemployables" Older Job Seekers Struggle to Find Work During the Great Recession*. The Sloan Center on Aging and Work Issue Brief 25. Boston: Boston College. <http://www.bc.edu/agingandwork>, 14

Further middle aged parents facing income insecurity report saving less for their children's college education, potentially impacting on education for the next generation.⁴

- **Younger workers, those entering the workforce for the first time, and people with disabilities re-entering the labor force had significant difficulty finding work.** This suggests that employers were reluctant to hire people without recent or previous relevant experience. Unemployment and employment ratios for 2009 show some similarities across education levels, but also clear differences between people who have attended college and those without higher education. Except for BA and MA holders, the highest unemployment rates were for people near the beginning of their careers, indicating that last hired may have been first fired, that people entering the workforce for the first time had trouble finding work, or that employers sought workers with some experience.
- **Unlike many previous recessions, higher education did not protect people from unemployment.** While people without a high school diploma or only a high school diploma had higher unemployment rates than those with post-secondary education, with unemployment rates doubling from before the recession, the percentage of people with associate degrees, college and above unemployed nearly tripled during this recession. Further, those with associate degrees had significantly higher levels of unemployment for the duration of the recession.

Recent CPS data shows that, while a greater percentage of people with lower education become unemployed, many with advanced education and strong skills lose their jobs and have trouble finding new ones. Nearly the same percentage of people with less than high school educations worked in 2000 and 2010, while 5% fewer of those with college educations held jobs in 2010 than 2000, and 7% fewer of those with some college were employed. These comparisons indicate that the current recession has meant significant job loss for people with college educations, with proportionally more impact on the middle and upper middle class than in previous economic downturns.

Comparing unemployment rates before and after the recession shows the mixed impact of education on unemployment. As in previous recessions, the already high unemployment rates for people without a high school diploma doubled and increased three fold for those with only a high school diploma. However, the group that experienced the greatest proportional increase in job loss was people with an associates degree or some college. The unemployment rate in 2010 of 8.44% for people with some college, but less than a BA, was over three times the rate of less than 3% in 2000. People who had completed a college education or advanced degree fared almost as badly, going from near full employment levels of less than 2% in 2000 to 4.74% in 2010, or nearly three times pre-recession unemployment levels.

- **Economic trends mattered more than gender in determining who lost jobs in this economy.** This analysis found that men had higher unemployment rates from 2009 through the first quarter of 2011 than women, primarily because industries generally employing more men experienced greater economic upheaval while traditionally female occupations like education have so far been shielded from significant layoffs due to stimulus funds. However, patterns are more complex when looking closely at age and education.

Occupations experiencing high unemployment were in fields associated with housing, banking, hospitality and manufacturing. Social welfare support positions began to disappear as the recession led to lower donations and less funding for non-profits, and is likely to deepen as government at all

⁴ See Hayes, J and Hartmann, H (2011) *Women and Men Living on the Edge: Economic Insecurity After the Great Recession*. Washington DC: IWPR

levels lays of workers affiliated with safety net programs.⁵ Unemployment in these sectors of the economy included everyone from managers to front line workers. Even in sectors of the economy experiencing less unemployment, companies shed people working in assistant positions, from secretaries and paralegals to health care and social service aids, crossing guards, and lab technicians. Some of these changes may reflect permanent changes in work patterns rather than the recession.

Comparing men to women shows that women had lower unemployment rates until examining people with professional degrees and PhDs, where unemployment levels for women exceeds that of men. Some of the differences are due to which sectors of the economy lost jobs during this recession and which have so far been shielded from job loss by recovery act stimulus funds. Economic downturns in construction and manufacturing meant significant unemployment in many predominantly male occupations from construction trades to architects and engineers. Stimulus funds for highway projects and some energy efficiency and conservation projects have put more men in these fields to work. Recent GAO reports indicate that 15% of the Recovery Act funds went to transportation projects and another 10.5% to energy and environment projects. While more than 40% of highway funds had been spent by the end of July 2010, most energy projects were in the early stages.⁶

In contrast, jobs for many women with education above the high school level have been relatively insulated so far because the bulk of stimulus funds have gone to education initiatives. The GAO reports that over 35% of Recovery Act funds went to education, with the majority of dollars used to retain teachers and other positions in local schools. After these funds are used up, education and other local and state government positions may disappear as budget cuts across all levels of government hit hardest on programs for human needs and education that employ more women than men, unemployment rates for college educated women are likely to increase significantly. While some rebound in the service sector and hospitality have brought lower educated women into the economy, their ability to successfully find work remains slim. Both of these potential trends suggest that cuts to government budgets may significantly increase unemployment for women at all levels of education, and mean that those with the least income have even fewer places to turn for support.

- **Stimulus funding saved jobs while it lasted, but the end of stimulus dollars is likely to create additional unemployment.** Perhaps the first indicator of the role of stimulus dollars comes when looking at the low unemployment among people involved in road construction during 2010, followed by nearly 48% unemployment for people working in road paving positions by first quarter 2011. While unemployment for teachers remained low, news reports of layoffs as the stimulus funds end suggest that unemployment will rise in these previously protected positions. The same is true for local and state government employees. As these layoffs commence, the previously lower unemployment rate for women than men may reverse.
- **Self-employment and opening small businesses is less of an option in this recession than in previous economic downturns.** The report summarizes recent reports on self-employment that note that while self-employment increased during the recession, many small businesses found less work, worked part-time and were unable to hire workers given economic conditions.⁷ Lack of credit impeded self-employment and business development.

⁵ See Giving USA Foundation (2011) *Giving USA 2011: The Annual Report on Philanthropy for the Year 2010*. Retrieved from www.GivingUSAreports.org for discussion of the impact of the recession on human services non-profits. Numerous reports document increasing need and decreasing funding for basic needs through reports of increased use of food pantries and other emergency services. Hayes and Hartmann cited above also includes similar data.

⁶ See GAO Recovery Act reports <http://www.gao.gov/recovery/> for details on recovery act allocations and spending.

⁷ See Hipple, Steven (2010) Self-Employment in the United States. *Monthly Labor Review*, September.

Taken together, these patterns suggest that employers shed any group of workers, and then were reluctant to hire potential employees, that were perceived to be more expensive or considered less productive than their ideal workforce. This included older workers who generally use more health care benefits and have higher salaries, the disabled who are often believed to cost more due to accommodations and health costs, and people new to the workforce like younger workers and recent veterans who may require training. Employers were also unlikely to consider employees different from themselves, with women having a harder time finding work in the professions while men in social services faced higher unemployment rates and longer bouts of unemployment. Since veterans benefits proved little incentive to hire returning soldiers and those tracking unemployment for older workers describe rampant age discrimination, current incentives and legislative policy seems to yield little results among employers at present. Funding like stimulus dollars does seem to make a difference, however. This may suggest that solutions to unemployment that worked in previous recessions may need to be retooled or expanded in order to work in this economy.

Suggestions for Policy

These statistics suggest that re-employment programs need to focus both on solutions for people who have completed college or more as well as continued programs for those with less education. The fact that those with an associates degree or some college experienced significant job loss shows that focusing training dollars primarily on short term programs like certificates or associate degree programs may simply add to this pool of workers struggling to find jobs.

Job losses for older workers and challenges they face finding work suggests that states and the federal government need to develop a series of incentives and policies encouraging companies to hire and retain their seasoned workforce. Given that a significant proportion of the unemployed already have completed college and advanced degrees, focusing on training or retraining will do little for a significant portion of the unemployed. Instead, incentives like tax credits and health care cost supports for employers, combined with stronger enforcement of age discrimination statutes may make a difference for this group.

Taken together, this brief outline of policy strategies suggests that some of the standard approaches already tried by government in this recession need to be retooled or expanded, and some other strategies should be tried as well. Many of these are already proven techniques, which could be applied to improve the economy and help put people back to work:

- **Tax incentives to hire older workers combined with educational campaigns to encourage hiring and discourage discrimination.** This recession has hit workers over age 54 the hardest and these workers are having the most trouble finding work again, with age discrimination starting at 45 for some occupations. While tax incentives for workers over age 62 have been proposed, I suggest legislating tax incentives for companies hiring anyone over age 50. In order for tax incentives to work, paper work needs to be simplified and programs need to be combined with public education campaigns to promote their use. Wage insurance for workers taking lower paying jobs, particularly older workers, should help these workers maintain their retirement and other family obligations.⁸

However, none of these initiatives will succeed if employers continue to see older workers as competition for their younger staff or a burden on their pension and health care systems. Since older workers are most likely to lose their jobs, public education campaigns against age

⁸ See <http://www.whitehouse.gov/the-press-office/2011/09/08/fact-sheet-and-overview> for an overview of the proposed jobs legislation.

discrimination and increased enforcement of current age discrimination statutes are also necessary to curb current hiring and lay off trends.

- **Tax incentives and education campaigns to encourage hiring people with disabilities.** People with disabilities have the lowest labor force participation rates of any group of potential workers, even though many would prefer to support themselves through employment. ADA accommodations and the nature of disability are perhaps the least understood issue among U.S. employers. While some education campaigns currently exist for employers, education for the general public and employers on the full range of disabilities occurs infrequently. While tax incentives to hire people with disabilities have been proposed, they should be widely available and advertised to encourage employment of this population.
- **Tax incentives and on-the-job-training (OJT) programs to employ returning veterans.** My earlier research on people using public assistance systems found that many veterans were unable to find work and had training in the military that did not translate to civilian settings. This study indicates that recent veterans have high unemployment rates. These numbers are likely to increase as the number of combat soldiers returning to civilian life as part of planned troop withdrawals rises. Given that current veteran's preferences and incentives appear not to be working, creating new tax incentives and on-the-job training programs, and effective GI bill college opportunities, appear necessary to move this population into the civilian workforce.
- **Tax supports for increased health care costs for more expensive workers.** Some research suggests that employers are cautious about hiring or keeping older and disabled workers because they think they will cost more in health benefits. While most employer costs for health insurance are already deductible, adding some form of tax incentive related to health costs may improve employer willingness to hire workers perceived to use more health care.
- **On-the-job training incentives for workers entering or re-entering the workforce.** On the job training usually includes some form of payment or tax rebate for employers who hire workers with limited experience or no recent work experience for a given position and provide training. Effective OJT programs require employers to keep successful trainees on the job for at least a year after the training program ends. Research on training systems suggests that OJT, or OJT combined with formal classroom training, is the most effective form of workforce development over time. Since younger workers, returning veterans, disabled people re-entering the workforce and the long term unemployed all appear to have extra difficulty finding work, creating OJT opportunities in a wide range of fields may prove effective in moving people into the workforce.
- **Targeted training for a wide range of occupations with expanding employment.** Targeted training generally involves a community college or training provider working directly with an employer or group of employers to develop training programs for occupations needing workers that combine training created to meet the specific needs of the job and some form of OJT. Graduate certificate programs for people who already have completed college can also serve as targeted training if employers are involved in design and implementation. While targeted training has generally proven more successful than generalized training, the most successful targeted training positions include an OJT component and an employer guarantee that they will hire successful trainees on completion of the program. This administration has encouraged training more generally with Pell grants and some funds for its priority occupations. However, to effectively address the mismatch between employer needs and employee qualifications, creating greater funding and promoting true targeted training initiatives would be most effective.

- **New Strategies for Work Search Assistance.** A wide range of research suggests that people find work through connections and in some cases job search and job placement assistance. While the currently proposed jobs bill calls for additional assistance for the long term unemployed through the one stop system, it is likely that understaffed state employment services are more likely to simply require verification of job searches by the unemployed rather than offer useful assistance. This is currently occurring in Maryland's extended unemployment system. The one stop systems are generally self-service centers with few staff equipped to provide job search guidance and limited formal placement systems. Further, most job development systems are designed for blue collar or service sector workers, not the large number of college educated workers among the current long term unemployed. In order to create effective work search assistance I suggest:
 - **Emphasizing increased links to employers and job placement through funding both public and non-profit job placement services.** This may include contracts with recruiters and employment services in the private sector as well as fostering stronger connections to employers by the state employment systems.
 - **Creating mentoring and social network systems to assist people in connecting to employers with jobs.** Given that most people find jobs through connections, assisting those out of work to expand their connections by fostering connections to working professionals in their fields may significantly assist in successful job placements, especially for college educated professionals. This would involve job search and placement systems recruiting volunteers from the private sector who are currently working to provide connections, resume review and information on potential openings for their peers who have lost work. This networking may serve to break down the current assumptions among employers that older professionals are not appropriate for openings by creating more personal connections to those working in the field.
- **Continue stimulus initiatives and expand them to address industries that continue to contribute to the weakened economy.** Current stimulus programs have succeeded in providing jobs in construction and infrastructure development as well as maintaining jobs in education. While additional funds to create jobs or pay for public works may face hurdles in the current congress, job creation initiatives can put people back to work, create needed infrastructure upgrades, and improve the weakened economy if targeted properly. Given analysis of industries with high unemployment and current economic indicators and government priorities, I suggest the following priorities:
 - **Continued support for education.**
 - **Continued infrastructure improvement support.** Numerous studies report deteriorating roads, bridges, schools and public buildings as well as needs for expanded transportation. Funding these projects could continue to improve employment for architects, planners and their staffs as well as construction workers.
 - **Fix the mortgage modification programs and fund neutral contractors to implement them, with priority given to hiring the unemployed for those positions.**

Economic indicators suggest that continued problems with the housing industry, high foreclosure rates, and consumer credit issues related to mortgage lending continue to impact the entire economy. Reports on federal mortgage modification programs show significant problems related both to implementation of the programs by the industry itself and the design of the program. This report

suggests that professionals and clerical staff in the lending industry have been particularly hard hit by this recession.

Using data driven analysis to understand the limited impact of the current home modification programs and the full range of borrowers in need of assistance would be required before creating any new programs. However, if government could create a program that offered modifications to a full range of borrowers in need, run through a government entity focused on consumers rather than the industry like HUD or the new Consumer Financial Protection Bureau and implemented by proven contractors rather than the industry itself, government could both begin to fix the housing crisis and address unemployment. Targeting employment in this program toward unemployed people with related experience could address the unemployment issue. Perhaps this program could be funded either through financial industry bail out profits or charges to the industry which has so far failed to successfully run modification programs.

- **Continue funding for human needs at pre-recession levels.** Funding for human needs such as welfare, training, youth, the elderly and related programs takes up roughly 2% of the federal budget, yet these programs are the first to be cut in a recession. 2011 budget negotiations follow the same patterns. Yet these programs are proven to fill genuine needs that years of research have shown can not be provided by the private sector. In fact, studies of non-profits show them cutting back as both their private and public funding sources dwindled with the poor economy. Funding recreation, food, clothing and health care also reduces costs for police and prisons made necessary as crime increases in poor economies. Returning funds for these initiatives to pre-recession levels and targeting employment toward the unemployed would both improve employment and yield long term economic dividends in many ways.
- **Fix consumer and small business credit through initiatives that address current economic trends.** A wide range of economic indicators and reports suggest that limited lending and tight credit policies have hurt both consumers and multiple sectors of the economy. This report suggests that self-employment is limited by current credit policies as well. Analysis suggests that not only are financial institutions refusing to lend, with encouragement from government they have returned to credit policies from the 1950s and earlier. These include only lending to people with stable jobs and requiring 20% home equity or down payments for housing loans. In a job market where an increasing percentage of the workforce is employed in small firms and change jobs often, where more workers are employed part time or self-employed, credit policy that limits credit to an increasing portion of the population will lead both to limited job creation and lower consumption.

While I would not advocate returning to the policies that lead to the credit crisis, new policy needs to reflect current economic realities. Using current labor market, housing costs and economic data on what constitutes low risk borrowers to create policy would go a long way toward successfully revamping the credit system. Providing incentives for financial institutions to offer low-interest loans of all forms to borrowers with strong credit histories regardless of income source and income to asset ratio could both increase consumption and pave the way for more successful self-employment and small businesses.

These policy suggestions may provide some improvement in employment, but none of the tax credits and other employer targeted mechanisms will work if business confidence does not improve. Addressing these issues are beyond the scope of this report, but impact on any initiative to increase hiring.

By 2011, the United States has had heightened labor unemployment for nearly four years. Policy analysts report that in the current economic context more college-educated people have lost jobs in comparison with past U.S. recessions. At the same time, media coverage offers conflicting claims about the unemployed as well as about whether various economic stimulus plans are working. This policy report will show that older workers are hardest hit by this recession regardless of education. High unemployment hit entire sectors impacted by the economic downturn from managers and professionals to blue collar and service workers. Detailed analysis by industry also shows some jobs saved perhaps in part because of the federal interventions of the stimulus. The analysis for this report is based on Current Population Survey (CPS) data and to qualitative observations and interviews with unemployed workers.

The report begins by comparing the employment situation before the recession to the current labor market, showing how unemployment changed for those with different levels of education. Most of the report then focuses on the period from the end of the recession in 2009 to the first part of 2011, providing a detailed look at unemployment by education, age, gender, race, ethnicity, occupation, industry and disability.

Who are the Unemployed and What Programs are Offered to the Typical Unemployed Worker

Maryland has created an unemployment system which processes most claims electronically and works with its workforce development system to help people find jobs. The newly unemployed are required to sign up with the Maryland Division of Workforce Development within four weeks of applying for unemployment. The application process requires unemployed people to provide some general information on their work experience, education and career goals so that workforce development staff and employers can match them with jobs. The workforce development site also provides job postings and information on other available training and support programs for the unemployed. While the electronic programs appear sophisticated, the limited staff at this agency due to continued budget cuts means that in reality job seekers receive only occasional assistance from counseling staff.

A fall 2010 mandatory workshop for the recently unemployed put on by Maryland's workforce development agency gives one snapshot of who were still losing jobs even as the economy began to recover. This workshop was the first formal introduction to the state employment development system. Participants had been told that they must attend this workshop or lose their unemployment benefits. Since letters were sent out for workshops based on the date that people entered the unemployment system, it drew from the entire pool of those newly on unemployment living in the Baltimore area.

The workshop included 50 people who had applied for unemployment in the last six months, but many had been unemployed longer and had just entered the unemployment system as their severance packages ran out. They were a diverse group of men and women including whites, African Americans, Latinos, and Asians, about equally divided between men and women. Most were between late 30s and late 50s in age, and all but three or four had college educations or advanced degrees. A couple had worked multiple service sector jobs like cashiers, fast food employees or store clerks, but the majority had worked for 10 years or more as administrative assistants, computer programmers, skilled sales people working in insurance, auto sales or industry, middle level

management, or similar professional or administrative positions. Everyone in the room told of sending out many resumes and working their contacts to find work, with little success.

Five people, 10 percent of this group, were very senior, educated organization leaders. This group included a hospital CFO who had been downsized in a recent hospital system merger, a regional director for auto sales for a major car company, and a government department head who had been let go in a change of administration. Each of these people had successful careers for over 20 years, all were over aged 50 with Masters, professional degrees or PhDs.

The workshop was designed to prevent long term unemployment by helping the recently unemployed update their resumes for the new economy, recommend job seeking skills, and offer assistance through programs available from the state and federal government. Conscious of her highly educated and skilled audience, the workshop leader modified a curriculum designed primarily for high school educated service sector and blue collar workers by focusing on developing skills resumes and networking skills. Her primary piece of advice for this audience was to leave off everything but the last 10 years of their work experience because they might appear overqualified or embarrass HR or management staff “who had not been born when you started work.” She went through the available special assistance programs, but those were only for ex-prisoners, Native Americans, and people who had not completed a high school diploma. She explained that the one-stop system, sponsored through the state through federal programs, also offered training, but primarily short term courses in computers, health care and related fields. Given that many of these unemployed workers had college degrees in the same fields, these training programs were of little help to them.

Was this group typical of those who have lost their jobs in the recession? How likely were the people in this room to find work? Given the disconnect between the kinds of assistance available to help these educated, skilled workers find new jobs and programs available through the state and federal government, what could be done differently to help them become employed? Is opening their own businesses or consulting an option? The rest of this report uses census and department of labor statistics to analyze these questions.

Notes on the Data

The CPS is a survey of the U.S. population conducted by the Census Bureau and regularly used by the Department of Labor and many other state, federal and local government agencies to track trends on a number of policy issues. Scholars and policy analysts also use the CPS. At present, the census bureau interviews approximately 55,000 people every month, a representative sample of the U.S. population.

CPS statistics are weighted to approximate the percentages of the entire population for each piece of information. Even in a large sample like the CPS, the actual number of people interviewed who fit certain characteristics, for example Asian men with Phd's age 55-64, may be very small. I note when percentages must be viewed with caution due to small sample size.

An independent analysis developed by the author, I also draw on a wide range of scholarly literature on unemployment, employment and related issues based on my research and others. Vignettes come from my ongoing qualitative research.

How does education and age influence who loses jobs and how long it takes to find another job?

Most analysis of this recession suggests that it is different from past recessions in the U.S. because it appears to take longer than previously for people who lost jobs to find them again. But this workshop vignette suggests that the types of unemployed people may be different too because many more highly educated and skilled people have lost their jobs than in previous recessions. This section analyzes unemployment data from the U.S. Census and Bureau of Labor Statistics reports using the Current Population Survey (CPS) data on education and age to see how typical this workshop group is of the unemployed.

Historically, people with lower educations have higher unemployment and more trouble finding work even in

a good economy. This is particularly true for those lacking a high school diploma or technical skills. As a result, most of the federal and state workforce development system programs focus on helping people complete a high school diploma or offer short term skills training. In recent years, programs for recently released prisoners have been added as a priority given the particular challenges this group faces finding work.

The types of programs the workshop leader had available for the recently unemployed reflect this history. Some of the Recovery Act of 2009 provisions build on these presumptions too, by funding training programs at community colleges and other short term programs for jobs in the new economy. Obama administration initiatives also promote higher education through Recovery Act funding for Pell grants. Increased funding for college builds on years of studies that show that people with college degrees earn more than those without and have more stable careers. All of these programs assume that the cure for unemployment is education in fields with increasing employment.

Recent CPS data shows that, while a greater percentage of people with lower education become unemployed, in this recession many with advanced education and strong skills lose their jobs and have trouble finding new ones. Table 1 compares unemployment rates from the boom years in 2000 through most of 2007 to the current recession by education level for people over 25 years of age. Most statistics in this report focus on workers ages 25-64, the prime working age after many adults have finished postsecondary education. The employment to population rate shows the percentage of the population currently employed for a given education level. Those not working include retirees, people who choose not to work for wages for a variety of reasons, as well as the unemployed and discouraged workers.

Table 1: Unemployment and Educational Attainment, Age 25 and Older

Education	Employment to Population rate 2000	Employment to Population rate 2007	Employment to Population rate 2010	Unemployment Rate 2000	Unemployment Rate 2007	Unemployment Rate 2010	Increase Unemployment 2007 to 2010	Increase Unemployment 2000 to 2010
LT high school	40.75	43.28	39.42	6.3	7.14	14.8	2.07	2.35
High School Graduates	62.19	60.05	55.33	3.45	4.38	10.38	2.37	3.01
Some College	71.93	69.4	64.59	2.68	3.56	8.44	2.37	3.15
BA and above	78.08	76.27	73.1	1.66	2.02	4.74	2.35	2.86

Sources; CPS labor force statistics series LNS11027659, LNS 11027660, LNS11027689, LNS11027662

Comparing these figures across education level shows that nearly double the percentage of people with a college degree were employed than those without a high school diploma. From 2000 on, less than half of the people without a high school diploma worked for wages. While high school graduates have much higher employment rates than those without a diploma, 16 – 18 percent more of people who have completed a BA or advanced degrees were employed. Those with some college were in the middle.

While these statistics suggest that increasing education would help people get jobs, looking at the changes in the employment to population rate after the recession shows that people with higher

education and skills have lost their jobs too. The difference between the percentage of people with less than high school who work between 2000 and 2010 is approximately 1 percent, while 5 percent fewer of those with college educations held jobs in 2010 than 2000, and 7 percent fewer of those with some college were employed. These comparisons indicate that the current recession has meant significant job loss for people with college educations, with proportionally more impact on the middle and upper middle class than in previous economic downturns.

Comparing unemployment rates before and after the recession shows the mixed impact of education on unemployment. As in previous recessions, the already high unemployment rates for people without a high school diploma doubled and increased three fold for those with only a high school diploma. However, the group that experienced the greatest proportional increase in job loss was people with an associates degree or some college. The unemployment rate in 2010 of 8.44 percent for people with some college, but less than a BA, was over three times the rate of less than 3 percent in 2000. People who had completed a college education or advanced degree fared almost as badly, going from near full employment levels of less than 2 percent in 2000 to 4.74 percent in 2010, or nearly three times pre-recession unemployment levels.

These statistics suggest that re-employment programs need to focus both on solutions for people who have completed college or more as well as continued programs for those with less education. The fact that those with an associates degree or some college experienced significant job loss shows that focusing training dollars primarily on short term programs like certificates or associate degree programs may simply add to this pool of workers struggling to find jobs. The highly educated and skilled unemployed people in the Maryland workshop appear similar to an increasing proportion of the unemployed, yet few tangible resources were offered to help them find work.

Table 2: Duration of Unemployment by Age, Sex, Race

Age	Mean 2009	Mean 10/2010	Median 2009	Median 10/2010	% 27+ weeks 2009	% 27+ weeks 10/2010
Total, 25-34 years	23.4	31.6	14.5	18.9	30.4	39.6
Total, 35-44 years	25	36.4	16.4	26.2	33.1	49.4
Total, 45-54 years	27.8	41.4	18.9	30.2	37.5	53.5
Total, 55-64 years	29.3	44.5	19.6	36.6	39.2	57
Men, 25-34 years	23.4	32	14.6	18.9	30.4	40
Men, 35-44 years	24.5	37.2	16.1	17.6	32.3	51.5
Men, 45-54 years	28.2	41.9	19.1	31.3	37.4	53.9
Men, 55-64 years	29.5	44.2	20	36.1	39.6	56.5
Women, 25-34 years	23.4	31	14.4	19	30.3	39
Women, 35-44 years	25.8	35.4	20.3	14.4	34.3	46.9
Women, 45-54 years	27.3	40.6	18.1	29.5	37.6	53
Women, 55-64 years	28.9	44.9	19.1	37.1	38.6	57.8
White, 25-34 years	21.8	29.8	13.7	16.5	27.7	37
White, 35-44 years	23.9	35.7	15.4	25	31.3	48
White, 45-54 years	26.4	40.9	17.8	29.2	35.4	52.4
White, 55-64 years	28.4	43.5	18.8	32.7	37.6	55.3
Black or African American, 25-34 years	28.9	37.5	19.6	27	39.6	48.3
Black or African American, 35-44 years	29.2	40.4	20.7	32.6	40.3	55.2
Black or African American, 45-54 years	34	41.8	23.9	30.9	45.7	53.6
Black or African American, 55-64 years	31	47.7	22.6	49.3	44.6	65.5
Asian, 25-34 years	23.3	37.9	14	24.3	28.8	45.1
Asian, 35-44 years	27.5	38.7	16.9	32.6	35	56
Asian, 45-54 years	32.8	47.3	25	50	48.4	69.5
Asian, 55-64 years	36	49.2	26.8	48.2	50.2	62.5
Hispanic or Latino, 25-34 years	21	30.2	12.5	16.1	26.1	36.6
Hispanic or Latino, 35-44 years	22.1	32.1	13.6	17.1	27.8	37.5
Hispanic or Latino, 45-54 years	27.6	35.2	18.3	23.4	37.1	44.6
Hispanic or Latino, 55-64 years	26.7	47.9	16.3	45.4	32.3	63.6

Sources; CPS labor force statistics series table 31

Education is only one factor contributing to unemployment - age, gender, race and specific types of education and work experience impact on job loss and re-employment too. When the workshop leader suggested that the experienced workers in the 2010 workshop leave off all but the last 10 years of their work history, she acknowledged that older workers have a hard time finding work. CPS statistics show that age discrimination impacts on finding jobs for the unemployed in this recession. Table 2 shows the average length of unemployment by age for the adult working age unemployed

population in 2009 and 2010, as well as the percentage who have been unemployed more than 6 months.⁹

Comparing the percentage unemployed more than 27 weeks in 2009 to 2010 shows that more older workers have remained unemployed as the recession continues than younger workers. While nearly 40 percent of people 25-34 had been unemployed more than six months by November 2010, nearly 60 percent of those 55-64 had still not found work after six months.¹⁰

Problems finding work for more experienced and older workers held true across gender, race and ethnicity. Almost no differences appear in duration of unemployment between men and women. African Americans, and Asians experienced longer unemployment than whites across all age groups. By November 2010, nearly 70 percent of Asians 45-54 percent had been unemployed more than 6 months. Hispanics/Latinos below age 55 found work more quickly than people in other racial or ethnic groups. Fifty-five percent of whites and over 60 percent of African Americans, Asians and Hispanics/Latinos¹¹ between 55 and 65 had been unemployed over 6 months.

Patterns of higher unemployment and longer spells of unemployment for African Americans have been reported uniformly over time, due to a complex combination of historically lower education levels, discrimination, and lack of connections or proximity to stable jobs. Most research suggests that groups with high immigrant populations such as Hispanics/Latinos and Asians find jobs quickly or return to their home countries in times of economic down turns. Longer spells of unemployment for Asians reported here differs from most studies, but growing percentages of people classified as Asians and Hispanics/Latinos are now native born, with increasingly complex labor market experience for both groups based on diverse differences within both of the groups depending on country of origin, education, class, where people live and whether they are immigrants or native born.¹²

⁹ The mean and median number of weeks unemployed increases as people get older, indicating age discrimination in hiring. Means refer to the statistical average, while median gives the mid-point for most people. Medians are often considered more statistically accurate because the statistic is not influenced by people with really long or short spells of unemployment.

¹⁰ While CPS has always tracked long term unemployment, unemployment over 2 years has been reported differently since April 2011. See Duration of unemployment change in Jan 2011. From BLS <http://www.bls.gov/cps/duration.htm>

¹¹ The term to identify peoples from Spanish speaking countries and territories is a topic of much debate. As in my other publications, I use Hispanics/Latinos – combining the two most common terms used by people from this group.

¹² Given small sample sizes, analysis of statistics on age and education by race and ethnicity are not included in this report. Detailed race, ethnic, age and education tables and background literature on employment and unemployment by race and ethnicity are available from the author. An overview of employment for various groups with a discussion of relevant literature is available in Schneider, J.A (2010) *Social capital and social geography*. Annie E. Casey Foundation. Baltimore: Annie E. Casey Foundation.

Table 3A: Age, Education and Unemployment, Adult Working Age Population (25-64 years), 2009 Annual Average

Educational Attainment	Total	25-34	35-44	45-54	55-64
LT high school, unemployment rate	15	18.6	25	13.4	11
LT high school, labor force participation rate	63.3	70.2	71.7	62.9	44.9
LT high school, employment-population ratio	53.7	57.1	61	54.5	39.9
High school only, unemployment rate	9.9	13.2	10.1	8.4	7.4
High school only, labor force participation rate	75.8	79.8	81.7	79.2	60.1
High school only, employment-population ratio	68.3	69.2	74.5	72.5	55.6
Some college or associates degree, unemployment rate	8.0	9.8	7.6	7	7.6
Some college or associates degree, labor force participation rate	80.3	83.7	85.1	83.6	66.3
Some college or associates degree, employment-population ratio	73.9	75.5	78.6	77.7	61.6
Some college, unemployment rate	8.7	10.8	8.2	7.8	7.4
Some college, labor force participation rate	78.5	82	84	81.8	64
Some college, employment-population ratio	71.7	73.2	77.1	75.4	59.2
Associates degree, unemployment rate	6.8	8	6.6	5.9	7
Associates degree, labor force participation rate	83.4	87	86.9	86.4	70.7
Associates degree, employment-population ratio	77.7	80	81.2	81.3	65.8
College degree, unemployment rate	4.6	4.8	4.5	4.4	4.6
College degree, labor force participation rate	85.9	88.9	88.3	89.2	75.3
College degree, employment-population ratio	81.9	84.6	84.3	85.3	71.8
BA degree, unemployment rate	5.2	5.2	5.3	4.8	5.5
BA degree, labor force participation rate	85.1	88.6	87.3	87.8	73.6
BA degree, employment-population ratio	80.7	84	82.6	83.5	69.5
MA degree, unemployment rate	3.9	3.7	3.5	4.3	4.0
MA degree, labor force participation rate	86.2	88.7	89.4	91.4	75.9
MA degree, employment-population ratio	82.9	85.4	86.2	87.5	72.9
Professional degree, unemployment rate	2.3	3.7	2.1	1.8	2
Professional degree, labor force participation rate	90.4	90.9	93.2	93.2	83.5
Professional degree, employment-population ratio	88.3	87.5	91.3	91.6	81.8
Doctoral degree, unemployment rate	2.5	3	2	3	2.1
Doctoral degree, labor force participation rate	90.1	93.1	92.6	94	82.2
Doctoral degree, employment-population ratio	87.9	90.4	90.7	91.2	80.5

Source: Current Population Survey Table 10, Employment Status of noninstitutional population by educational attainment, age, sex, race and Hispanic or non-Hispanic ethnicity

Looking closely at unemployment and labor force participation across different education levels and age reveals that older workers have a harder time finding work across education levels, but re-employment experience differs based on the combination of education and age. Tables 3A through 3C trace unemployment, labor force participation, and employment to population ratio from 2009 through March 2011. The labor force participation rate includes both the employed and people

Table 3B: Age, Education and Unemployment, Adult Working Age Population (25-64 years), November 2010

Educational Attainment	Total	25-34	35-44	45-54	55-64
LT high school, unemployment rate	15.6	18.9	14	16.5	10.9
LT high school, labor force participation rate	62.9	70.8	69.9	63.7	44.9
LT high school, employment-population ratio	53.1	57.4	60.1	53.1	40
High school only, unemployment rate	9.7	12.9	9.9	8.5	7.3
High school only, labor force participation rate	74.7	79.9	81	78.7	57.9
High school only, employment-population ratio	67.5	69.6	73	72	53.6
Some college or associates degree, unemployment rate	8.3	9.8	7.5	7.9	7.7
Some college or associates degree, labor force participation rate	79.4	82.4	84.3	82.9	66.1
Some college or associates degree, employment-population ratio	72.8	74.4	77.9	76.3	61.1
Some college, unemployment rate	9	10.5	8.4	8.3	8.2
Some college, labor force participation rate	77.8	80.6	83	81.3	64.5
Some college, employment-population ratio	70.8	72.1	76.1	74.5	59.2
Associates degree, unemployment rate	7.2	8.4	6.1	7.3	6.8
Associates degree, labor force participation rate	82.2	86	86.3	85.6	68.9
Associates degree, employment-population ratio	76.3	78.7	81	79.3	64.2
College degree, unemployment rate	4.8	5.1	4	4.7	5.5
College degree, labor force participation rate	85.2	87.4	88.1	88.9	75.3
College degree, employment-population ratio	81.2	83	84.7	84.7	71.1
BA degree, unemployment rate	5.5	5.7	4.6	5.5	6.8
BA degree, labor force participation rate	84.4	87.1	86.8	87.4	73.4
BA degree, employment-population ratio	79.7	82.2	82.9	82.6	68.4
MA degree, unemployment rate	3.8	3.5	3.4	3.7	4.5
MA degree, labor force participation rate	85.7	87.6	90.4	90.7	75.2
MA degree, employment-population ratio	82.5	84.5	87.4	87.4	71.8
Professional degree, unemployment rate	2.1	6.9	0	1.2	.7
Professional degree, labor force participation rate	89.6	90	90.2	94.5	83.8
Professional degree, employment-population ratio	87.7	83.7	90.2	93.4	83.2
Doctoral degree, unemployment rate	2.5	1.5	2.1	2.7	3.3
Doctoral degree, labor force participation rate	90.8	91.5	92.8	93.9	86.3
Doctoral degree, employment-population ratio	88.5	90.2	90.8	91.4	83.5

Source: Current Population Survey Table 10, Employment Status of noninstitutional population by educational attainment, age, sex, race and Hispanic or non-Hispanic ethnicity

looking for work, while the employment to population ratio includes the entire population except prisoners and people in other forms of institutions. Table 3A provides averages for 2009, while 3B gives a snap shot of November 2010, when the economy was reported in the beginning of recovery. Table 3C provides similar statistics for January through March 2011. Quarterly data evens out small changes across months; analysis of monthly CPS statistics for January through March 2011 not reported here show little change in monthly rates over the quarter.

Table 3C: Age, Education and Unemployment, Adult Working Age Population (25-64 years), Quarter 1 2011

Educational Attainment	Total	25-34	35-44	45-54	55-64
LT high school, unemployment rate	16.3	18.6	16.2	17.7	10
LT high school, labor force participation rate	61.3	69.1	68.3	61.6	43.4
LT high school, employment-population ratio	51.3	56.3	57.3	50.6	39
High school only, unemployment rate	10.9	14.6	10.3	9.6	8.7
High school only, labor force participation rate	74.5	79.1	81.1	78.1	59.2
High school only, employment-population ratio	66.4	67.6	72.7	70.7	54.1
Some college or associates degree, unemployment rate	8.1	9.9	7.8	7	7.7
Some college or associates degree, labor force participation rate	79.1	81.6	84	83.2	86
Some college or associates degree, employment-population ratio	72.7	72.7	73.6	77.4	60.9
Some college, unemployment rate	9	10.9	8.9	7.8	8
Some college, labor force participation rate	77.2	78.7	82.2	81.6	65
Some college, employment-population ratio	70.2	70.1	74.8	75.2	59.8
Associates degree, unemployment rate	6.7	8.1	6.2	5.8	7.1
Associates degree, labor force participation rate	82.4	87.1	86.8	85.7	67.1
Associates degree, employment-population ratio	76.8	80	81.5	80.8	62.9
College degree, unemployment rate	4.3	4.4	4.1	4.2	4.9
College degree, labor force participation rate	85.2	87.5	88.5	88.3	74.9
College degree, employment-population ratio	81.5	83.6	84.9	84.7	71.2
BA degree, unemployment rate	4.9	4.8	4.4	4.8	6.1
BA degree, labor force participation rate	84	86.7	87.3	86.4	72.9
BA degree, employment-population ratio	79.9	82.5	83.4	82.2	68.4
MA degree, unemployment rate	3.5	3.3	4	3.1	3.6
MA degree, labor force participation rate	86.4	88.9	90.3	91.8	75.2
MA degree, employment-population ratio	83.4	86	86.7	89	72.5
Professional degree, unemployment rate	2.7	4.4	2.4	2.7	1.4
Professional degree, labor force participation rate	88.3	88.5	90.7	91.5	82.5
Professional degree, employment-population ratio	85.9	84.6	88.5	89	81.4
Doctoral degree, unemployment rate	2.6	2.8	1.9	2.8	2.9
Doctoral degree, labor force participation rate	91.8	95.4	94.3	92.7	86.4
Doctoral degree, employment-population ratio	89.5	92.8	92.5	90.1	83.9

Source: Current Population Survey Table 10, Employment Status of noninstitutional population by educational attainment, age, sex, race and Hispanic or non-Hispanic ethnicity

Unemployment and employment ratios for 2009 show some similarities across education levels, but also clear differences between people who have attended college and those without higher education. Except for BA and MA holders, the highest unemployment rates were for people near the beginning of their careers, indicating that last hired may have been first fired, that people entering the workforce for the first time had trouble finding work, or that employers sought workers with some experience.

Labor force participation and the percentage employed decreases significantly for people over 55 across all groups, suggesting that older workers either become discouraged and give up looking for work or have been unemployed so long that they are no longer counted as unemployed. However, patterns differ for those with some college education and those without. People without a high school diploma leave the labor force in their late 40s, with a labor force participation rate of approximately 63 percent, dropping to nearly 45 percent for those 55 to 64. This suggests a combination of early retirement, disability, and lack of jobs for this group. For all other groups, the labor force participation and employment/population ratio drop off occurs after 55. However, people with some college or more continue to look for work after age 55, but with less success than younger workers.

These same patterns persist across all three time periods, suggesting continued age discrimination for both younger workers with less than a BA degree and all older workers. Comparisons across the three time periods suggest little change in all three measures, confirming a jobless recovery. Combining these detailed statistics on education with the duration of unemployment data from tables one and two indicates that the group having the greatest trouble finding work after unemployment are older workers. These findings are consistent with a recent report comparing unemployment between younger and older workers, which found that over two-thirds of workers age 55 and older had been looking for work for over a year, and only 14 percent of the older workers in their sample had found jobs by the end of their study. This compares to 37 percent of younger workers who had returned to work. The same report noted that age discrimination was prevalent during the recession, leading to longer spells of unemployment for older workers¹³

While younger workers may experience higher initial unemployment, they find work more quickly. Challenges for younger workers, particularly those with college degrees, may indicate new graduates taking longer to find first jobs. Continued high unemployment for those with a high school degree or less suggest workers losing jobs as sectors of the economy contract, but an ability to find work eventually when openings occur.

The pattern for middle aged and older workers suggests that employers shed their most experienced and most expensive workers, with companies reluctant to hire from this age group again. While some may view this loss of experience as an opportunity for new ideas with a generational shift, downsizing experienced workers also means a significant loss of long-term perspective on issues as well as knowledge from years of working in a field.

Given that this increase in unemployment starts at age 45 for most education levels, this recession means that a significant number of the middle and upper middle class in their prime earning years have lost income. Given that middle age is when many adults are responsible simultaneously for supporting their children and elders, lower income for this group impacts not only on housing and other needs for themselves, but ability to fund their children's education and contribute to elder care if necessary. As states cut funding for higher education, loss of income for middle and upper middle class parents may contribute to higher student loan ratios and hinder ability of some of the next generation to complete their education. A recent report on economic insecurity after this recession

¹³ See Heidkamp, M, Corre, N and Van Horn (November 2010) *The "New Unemployables" Older Job Seekers Struggle to Find Work During the Great Recession*. The Sloan Center on Aging and Work Issue Brief 25. Boston: Boston College. <http://www.bc.edu/agingandwork>, Statistics on return to work, page 9, comments on age discrimination, page 19.

supports this concern, showing people failing to save for children's educations and drawing from their retirement and other savings to make ends meet.¹⁴

If these established workers are unable to find comparable work in their fields again, this recession could mean strains on the retirement system if an increasing group of workers find no choice but to retire early or dip into their retirement savings to live. Recent research on older workers shows 67 percent using savings for retirement or other things to live on while unemployed.¹⁵ This potential trend comes at a time when some policy makers suggest raising the retirement age. If many take lower paid work below their qualifications, they are likely to contribute less to retirement during an era when both employers and government increasingly shift retirement contributions onto individuals. Lower wages for middle aged and older workers could also lead to lower contributions to the social security system just as the baby boom population retires. Lower retirement savings in both the private and public system could potentially have long term implications.

All of this suggests that states and the federal government need to develop a series of incentives and policies encouraging companies to hire and retain their seasoned workforce. Given that a significant proportion of the unemployed already have completed college and advanced degrees, focusing on training or retraining will do little for a significant portion of the unemployed. Media reports of college educated people taking expensive training courses for certificates in supposedly emerging markets like electronic medical records, only to find few jobs, suggest that retraining may not be the answer for this group. Instead, incentives like tax credits and health care cost supports for employers, combined with stronger enforcement of age discrimination statutes may make a difference for this group.

Do men and women have different experiences in the labor market?

Patterns of higher unemployment and trouble finding work again for both the younger and older workers occur for both men and women during this recession and recovery. However, due to differences in the types of jobs that many men and women work in, as well as other factors, experience differs between men and women across all age groups.

Tables 4A-C and 5A-C look closely at unemployment and labor force participation at different ages and across education levels for the same time periods as above. As with a recent Institute for Women's Policy Research brief on unemployment during this recession, this analysis found that men had higher unemployment rates from 2009 through the first quarter of 2011 than women.¹⁶ However, patterns are more complex when looking closely at age and education.

¹⁴ See Hayes, J and Hartmann, H (2011) *Women and Men Living on the Edge: Economic Insecurity After the Great Recession*. Washington DC: IWPR.

¹⁵ See Heidkamp, M, Corre, N and Van Horn (November 2010) *The "New Unemployables" Older Job Seekers Struggle to Find Work During the Great Recession*. The Sloan Center on Aging and Work Issue Brief 25. Boston: Boston College. <http://www.bc.edu/agingandwork>, 14.

¹⁶ See Hartmann, H., English, A. and Hayes, J. (February 2010) *Women and Men's Unemployment in the Great Recession*. IWPR publication C373. Washington DC: IWPR.

Table 4A: Age, Education and Unemployment, Adult Men 25-64 years, 2009 Annual Average

Educational Attainment	Total	25-34	35-44	45-54	55-64
LT high school, unemployment rate	15.2	17.4	15.2	14.1	12.1
LT high school, labor force participation rate	75.8	85	84.9	73.4	53.5
LT high school, employment-population ratio	64.2	70.2	72	63	47
High school only, unemployment rate	11.2	14.3	11	9.8	8.7
High school only, labor force participation rate	83.3	88.3	89.5	85.3	65.2
High school only, employment-population ratio	74	75.7	79.7	77	59.5
Some college or associates degree, unemployment rate	8.8	10.7	8.3	8.2	7.5
Some college or associates degree, labor force participation rate	86.1	91.2	91.9	88.2	70.6
Some college or associates degree, employment-population ratio	78.5	81.4	84.2	81	65.3
Some college, unemployment rate	9.3	11.5	8.6	8.8	7.3
Some college, labor force participation rate	84.9	90.2	91.2	87	68.7
Some college, employment-population ratio	77	79.8	83.3	79.4	63.7
Associates degree, unemployment rate	7.9	9.1	7.8	6.9	7.9
Associates degree, labor force participation rate	88.3	93.4	93	90.4	74.3
Associates degree, employment-population ratio	81.3	85	85.7	84.1	68.4
College degree, unemployment rate	4.7	4.9	4.5	4.8	4.8
College degree, labor force participation rate	91.4	94.1	96.3	94.8	79.6
College degree, employment-population ratio	87.1	89.5	92	90.2	75.8
BA degree, unemployment rate	5.3	5.2	5.3	5.2	5.8
BA degree, labor force participation rate	91.2	94.1	95.9	94.3	77.6
BA degree, employment-population ratio	86.3	89.3	90.8	89.4	73.2
MA degree, unemployment rate	4.5	4.5	3.5	5.5	4.3
MA degree, labor force participation rate	91.3	94.1	97	95.3	80
MA degree, employment-population ratio	87.2	89.9	93.6	90.1	76.7
Professional degree, unemployment rate	1.8	3.3	1.4	1.3	1.7
Professional degree, labor force participation rate	93.9	92.7	98	97.1	87.6
Professional degree, employment-population ratio	92.2	89.7	96.7	95.8	86.1
Doctoral degree, unemployment rate	2.4	3	1.9	2.5	2.6
Doctoral degree, labor force participation rate	92.3	95.1	95.7	95.3	85.3
Doctoral degree, employment-population ratio	90.1	92.3	93.9	93	83.1

Source: Current Population Survey Table 10, Employment Status of noninstitutional population by educational attainment, age, sex, race and Hispanic or non-Hispanic ethnicity

Looking first at shifts in unemployment for men from 2009 to first Quarter 2011 shows that unemployment levels differ across education groups. The snapshot picture of one month in November 2010 may indicate seasonal changes rather than overall trends as the figures for first quarter of 2011 appear more similar to the 2009 annual average than this one month's rates. Higher unemployment levels for men in November 2010 may reflect slow periods in out door work that may employ many lower skilled men.

Table 4B: Age, Education and Unemployment, Adult Men 25-64 years, November 2010

Educational Attainment	Total	25-34	35-44	45-54	55-64
LT high school, unemployment rate	15.7	18.4	11.8	17.8	13.5
LT high school, labor force participation rate	75.4	84.8	84.1	73.9	53.4
LT high school, employment-population ratio	63.6	69.2	74.2	60.8	46.2
High school only, unemployment rate	10.2	12.2	10.1	9.7	7.7
High school only, labor force participation rate	81.5	87.8	88.8	83.7	62.1
High school only, employment-population ratio	73.2	77.1	79.8	75.6	57.4
Some college or associates degree, unemployment rate	8.7	9.4	7.5	8.7	9.2
Some college or associates degree, labor force participation rate	84.8	89.3	91.5	86.8	69.8
Some college or associates degree, employment-population ratio	77.5	80.9	84.6	79.2	63.3
Some college, unemployment rate	9.4	9.7	9.1	9.2	9.7
Some college, labor force participation rate	83.7	88.3	90.9	85.5	68.5
Some college, employment-population ratio	75.8	79.7	82.7	77.7	61.9
Associates degree, unemployment rate	7.4	8.7	5	7.8	8.4
Associates degree, labor force participation rate	87	91.5	92.4	89.4	72.3
Associates degree, employment-population ratio	80.6	83.5	87.8	82.4	66.2
College degree, unemployment rate	4.9	5.1	4	4.8	5.9
College degree, labor force participation rate	90.9	91.7	95.9	94.7	80.4
College degree, employment-population ratio	86.4	87.1	92.1	90.1	75.7
BA degree, unemployment rate	5.8	5.9	4.7	6	7.3
BA degree, labor force participation rate	90.9	92.4	95.8	94.2	78.5
BA degree, employment-population ratio	85.6	87	91.3	88.6	72.7
MA degree, unemployment rate	3.9	3.1	3.6	3.2	5.7
MA degree, labor force participation rate	89.4	87.7	96.2	94.5	80
MA degree, employment-population ratio	85.9	85	92.7	91.4	75.4
Professional degree, unemployment rate	1.3	3.8	0	1.8	.2
Professional degree, labor force participation rate	93.5	97.3	95.7	97.5	86.3
Professional degree, employment-population ratio	92.3	93.6	95.7	95.7	86.1
Doctoral degree, unemployment rate	1.6	1.4	0	1.9	2.4
Doctoral degree, labor force participation rate	93.7	92.4	96.4	96.7	90
Doctoral degree, employment-population ratio	92.2	91.1	96.4	94.9	87.8

Source: Current Population Survey Table 10, Employment Status of noninstitutional population by educational attainment, age, sex, race and Hispanic or non-Hispanic ethnicity

Table 4C: Age, Education and Unemployment, Men 25-64 years, Quarter 1 2011

Educational Attainment	Total	25-34	35-44	45-54	55-64
LT high school, unemployment rate	16.7	17.7	15.8	18.7	12.6
LT high school, labor force participation rate	84.4	89.2	91.1	86.1	69.3
LT high school, employment-population ratio	61.6	68.6	71.1	57.7	45.2
High school only, unemployment rate	12.1	15.2	11.5	10.6	10.6
High school only, labor force participation rate	70.7	81.9	88	88.4	83.9
High school only, employment-population ratio	71.9	74.7	78.2	75	57.3
Some college or associates degree, unemployment rate	8.8	10.5	7.9	8.2	8.4
Some college or associates degree, labor force participation rate	84	88.3	90.8	87	68.4
Some college or associates degree, employment-population ratio	76.6	79	83.7	79.8	62.7
Some college, unemployment rate	9.6	11.4	9	9.2	8.1
Some college, labor force participation rate	82.6	86.4	89.7	85.4	67.8
Some college, employment-population ratio	74.7	76.6	81.6	77.5	62.3
Associates degree, unemployment rate	7.5	8.9	6	6.7	8.9
Associates degree, labor force participation rate	86.7	92	92.8	89.6	69.6
Associates degree, employment-population ratio	80.2	83.9	87.3	83.7	63.4
College degree, unemployment rate	4.6	4.6	4.2	4.3	5.4
College degree, labor force participation rate	91.2	93.7	96.2	93.8	80.3
College degree, employment-population ratio	87	89.4	92.2	89.8	75.9
BA degree, unemployment rate	5.2	5	4.5	5.1	6.9
BA degree, labor force participation rate	90.7	93.2	96.3	93.1	77.8
BA degree, employment-population ratio	86	88.6	91.9	88.4	72.5
MA degree, unemployment rate	4.1	3.5	4.6	3.4	4.6
MA degree, labor force participation rate	91.4	94.8	96	95.1	81.2
MA degree, employment-population ratio	87.6	91.5	91.5	91.8	77.5
Professional degree, unemployment rate	1.8	4	1.1	2.1	.6
Professional degree, labor force participation rate	93.5	95.9	97.4	95.3	87.7
Professional degree, employment-population ratio	91.8	92.1	96.4	93.3	87.2
Doctoral degree, unemployment rate	2.1	2.7	.6	2.4	3
Doctoral degree, labor force participation rate	93.4	96.9	95.7	84.7	88.6
Doctoral degree, employment-population ratio	91.4	94.3	95.1	92.5	85.9

Source: Current Population Survey Table 10, Employment Status of noninstitutional population by educational attainment, age, sex, race and Hispanic or non-Hispanic ethnicity

For men with less than a high school diploma, unemployment levels remain about the same at over 17 percent for men 25-34, 14-15 percent for men ages 35-44, and 12-13 percent for men ages 55-64 over the two and a quarter year period. Unemployment for men ages 44-54 rises significantly from 14 to nearly 19 percent over the same time period. While high unemployment persists across time periods, in the first quarter of 2011, more men with less than a high school education start looking for work as the labor force participation rate rises across all age groups. But the employment to population ratio continues to decline for men in this group over age 45.

High school educated men fare worse, with unemployment rates going up over time. Younger men, age 25-35 with a high school diploma, dropped out of the labor market in greater numbers than for older men in this group, with labor force participation rates dropping from 88 to 81 percent between 2009 and 2011. This may represent younger adults returning to school for advanced education, as well as some discouraged workers. As with men with less than a high school diploma, labor force participation rates went up for all other age groups, although the employment to population ratio dropped. This means more high school educated men were looking for work, but failing to find it.

Unemployment rates for men with some college remained about the same or rose slightly over this time period. But labor force participation and the employment to population ratio continued to decline through first quarter 2011. These shifts may indicate that employers that in earlier times would hire someone who had not finished college, now increasingly want a Bachelors degree as a basic criteria to get a skilled job. Declines in labor force participation for this group could reveal some men returning to complete degrees while others may become discouraged and either retire early or drop out of the labor market.

Patterns for men with associates degrees vary by age. Unemployment rates for the youngest group stay about the same at approximately 9 percent over this time period. The labor force participation rate drops slightly from 93.5 to 92 percent, with similar trends for the unemployment to population ratio. This suggests men who have completed technical training, but find it difficult to find work in their chosen fields. Drops in labor force participation for this group may suggest younger men returning to school to complete a BA or additional technical training. In contrast, the unemployment rate goes down for men ages 35-44 and their labor force participation rates remain the same. At nearly 7 percent, unemployment levels for men ages 45-54 are almost the same between 2009 and 2011, with little change in labor force participation or employment to population rates. In contrast, the oldest group sees a rise in unemployment rates from nearly 8 to nearly 9 percent over the two year period, with drops in labor force participation from 74 to under 70 percent. This trend would suggest that older men with only an associates degree can not compete with younger workers with a BA or better when looking for work. While some may return to school for training in new fields, it is equally likely that they dropped out of the labor force.

Unemployment rates for men with a bachelors degree or more are half or less than the unemployment rates for those with less than a college education during the entire recession. This suggests that focusing re-employment training on associates degrees or certificate programs will only partially succeed in leading to stable employment during economic downturns. A bachelors degree appears to be a minimum credential for many jobs, with still others preferring graduate training for their workers. Unemployment for men with bachelors degrees remained the same at approximately 5 percent for men under age 55 across this time period, but rose from nearly 6 to nearly 7 percent for the oldest workers, suggesting age discrimination combined with expectations for advanced degrees for mature workers who may hold management positions. Labor force participation dropped slightly or stayed the same for most men with BA degrees during this recession.

Male Masters degree holders saw some shifts, with unemployment rates declining slightly from 4 ½ to 3 ½ percent for the youngest workers and dropping from 5.5 percent to 3.4 percent for those 45-54 from 2009 through March 2011. But unemployment rates went up from 3.5 to 4.6 percent for men ages 35-44 and stayed the same at more than 4 percent for the oldest workers. Labor force participation and the employment to population rate remained steady across all age groups.

Men with professional degrees – doctors, lawyers, architects, and other licensed professions - faced fewest layoffs in this recession, mostly because most of these professions are organized into professional practices where employees become part-owners of their firms or obtain significant job security once through the early stages of their careers. Men near the beginning of their professional careers showed the highest unemployment rates, at over 3 percent in 2009 rising to 4 percent by first quarter 2011. This suggests that established firms are not adding workers in a tough economy.

Similar patterns appear for PhD's, with trends also echoing the employment patterns for academic careers for this group. Unemployment is comparatively low for men with Phd's, ranging from less than one percent to 3 percent across age groups. Unemployment is highest at the beginning of careers for men ages 25-34 as they seek first jobs in a declining market, very low from 35-44, when most academics hold their first positions, and rises again to nearly 3 percent after 45, when academics may lose positions if they do not get tenure or do not find stable careers in the applied market. While the unemployment trends for this group fit the declining number of academic positions and tenure patterns, these statistics must be viewed with some caution due to small sample size.

Comparing men to women shows that women had lower unemployment rates until examining people with advanced degrees. Some of the differences are due to which sectors of the economy lost jobs during this recession and which have so far been shielded from job loss by recovery act stimulus funds. Economic downturns in construction and manufacturing meant significant unemployment in many predominantly male occupations from construction trades to architects and engineers. Stimulus funds for highway projects and some energy efficiency and conservation projects have put more men in these fields to work. Recent GAO reports indicate that 15 percent of the Recovery Act funds went to transportation projects and another 10.5 percent to energy and environment projects. While more than 40 percent of highway funds had been spent by the end of July 2010, most energy projects were in the early stages.¹⁷ Stimulus funds will only provide short-term jobs for specific sectors of the economy, with remaining job growth depending on other economic factors such as conditions in private sector markets and cuts in government positions at the federal, state and local level.

In contrast, jobs for many women with education above the high school level have been relatively insulated so far because the bulk of stimulus funds have gone to education initiatives. The GAO reports that over 35 percent of Recovery Act funds went to education, with the majority of dollars used to retain teachers and other positions in local schools. After these funds are used up, education and other local and state government positions may disappear. In fact, media reports suggest that local school districts are already laying off workers. Simultaneously, state and local government positions that disproportionately hired women are also facing significant cuts. A recent Institute for Women's Policy Research study suggests that while the number of jobs are going up for men, employment for women is not increasing as quickly.¹⁸

¹⁷ See GAO Recovery Act reports <http://www.gao.gov/recovery/> for details on recovery act allocations and spending.

¹⁸ See *Monthly Number of Women and Men on Payrolls (Seasonally Adjusted, December-April 2011)*, IWPR Quick Figures brief Q005, May 2011 and *Women and Men in the Public Sector* IWPR Quick Figures brief # Q001. Washington © Jo Anne Schneider 2011

Table 5A : Age, Education and Unemployment, Women 25-64 years, 2009 Annual Average

Educational Attainment	Total	25-34	35-44	45-54	55-64
LT high school, unemployment rate	14.7	21.2	14.5	12.2	9.4
LT high school, labor force participation rate	49	50.5	56.5	51.5	36.5
LT high school, employment-population ratio	41.8	39.8	48.3	45	33
High school only, unemployment rate	8.2	11.4	8.8	6.8	6.1
High school only, labor force participation rate	67.8	68.8	72.9	72.8	56
High school only, employment-population ratio	62.3	61	66.5	67.8	52.5
Some college or associates degree, unemployment rate	7.1	8.9	6.9	6	6.9
Some college or associates degree, labor force participation rate	75.3	77	79.3	79.7	62.6
Some college or associates degree, employment-population ratio	69.9	70.1	73.9	74.9	58.3
Some college, unemployment rate	8	9.9	7.8	6.8	7.4
Some college, labor force participation rate	72.6	74.2	77.5	77	59.7
Some college, employment-population ratio	66.8	66.8	71.5	71.8	55.3
Associates degree, unemployment rate	5.9	7.1	5.5	5	6.1
Associates degree, labor force participation rate	79.6	81.9	82.1	83.6	67.7
Associates degree, employment-population ratio	75	76.1	77.5	79.4	63.6
College degree, unemployment rate	4.4	4.7	4.6	4	4.4
College degree, labor force participation rate	80.7	84.6	81.1	83.9	70.6
College degree, employment-population ratio	77.1	80.7	77.4	80.6	67.4
BA degree, unemployment rate	5.1	5.3	5.3	4.5	5.3
BA degree, labor force participation rate	79.6	84	79.4	82	69.2
BA degree, employment-population ratio	75.6	79.5	75.2	78.4	65.6
MA degree, unemployment rate	3.3	3.2	3.4	3	3.6
MA degree, labor force participation rate	82	85.3	83.3	78.8	72
MA degree, employment-population ratio	79.3	82.6	80.4	85.1	69.4
Professional degree, unemployment rate	3.2	4.1	3	2.7	3.1
Professional degree, labor force participation rate	85.3	89.3	87.4	86.7	73.2
Professional degree, employment-population ratio	82.6	85.6	84.8	84.4	71
Doctoral degree, unemployment rate	2.6	3	2.2	3.9	1.2
Doctoral degree, labor force participation rate	86.8	91.2	88.5	91.6	76.8
Doctoral degree, employment-population ratio	84.5	88.5	86.5	87.9	75.8

Source: Current Population Survey Table 10, Employment Status of noninstitutional population by educational attainment, age, sex, race and Hispanic or non-Hispanic ethnicity

Table 5B: Age, Education and Unemployment, Women 25-64 years, November 2010

Educational Attainment	Total	25-34	35-44	45-54	55-64
LT high school, unemployment rate	15.6	19.9	18.2	14.5	7.5
LT high school, labor force participation rate	48.9	52.9	53	52.3	37.2
LT high school, employment-population ratio	41.3	42.4	43.3	44.7	34.4
High school only, unemployment rate	9.2	14.1	9.6	7	7
High school only, labor force participation rate	67.2	69.3	72.1	73.3	54.1
High school only, employment-population ratio	61.1	59.5	65.1	68.2	50.4
Some college or associates degree, unemployment rate	7.9	10.2	7.5	7.3	6.2
Some college or associates degree, labor force participation rate	74.8	76.1	78.3	79.8	63
Some college or associates degree, employment-population ratio	68.9	68.4	72.4	74	59.1
Some college, unemployment rate	8.5	11.5	7.8	7.5	6.6
Some college, labor force participation rate	72.3	72.9	76.5	77.4	60.7
Some college, employment-population ratio	66.2	64.5	70.5	71.6	56.7
Associates degree, unemployment rate	7.1	8.2	7.2	7	5.5
Associates degree, labor force participation rate	78.6	81.7	81.2	83.1	66.4
Associates degree, employment-population ratio	73.1	75	75.4	77.3	62.7
College degree, unemployment rate	4.6	5.1	3.9	4.6	5
College degree, labor force participation rate	80.1	84	81.1	83.4	69.9
College degree, employment-population ratio	76.4	79.8	77.9	79.5	66.4
BA degree, unemployment rate	5.2	5.5	4.4	5	6.2
BA degree, labor force participation rate	78.6	82.7	78.6	81.4	68.2
BA degree, employment-population ratio	74.5	78.2	75.2	77.3	64
MA degree, unemployment rate	3.6	3.7	3.2	4.1	3.4
MA degree, labor force participation rate	82.8	87.5	85.9	87.5	71.1
MA degree, employment-population ratio	79.8	84.3	83.2	84	68.7
Professional degree, unemployment rate	2.4	10.7	0	0	2.1
Professional degree, labor force participation rate	83.4	82.5	83.2	89.2	78
Professional degree, employment-population ratio	80.6	73.7	83.2	89.2	76.3
Doctoral degree, unemployment rate	4.4	1.5	5.3	4.9	5.8
Doctoral degree, labor force participation rate	85.5	90.4	87.9	86.7	77.8
Doctoral degree, employment-population ratio	81.7	89	83.2	82.5	73.3

Source: Current Population Survey Table 10, Employment Status of noninstitutional population by educational attainment, age, sex, race and Hispanic or non-Hispanic ethnicity

Table 5C: Age, Education and Unemployment, Women 25-64 years, Quarter 1 2011

Educational Attainment	Total	25-34	35-44	45-54	55-64
LT high school, unemployment rate	15.8	20.6	16.9	16.2	6.3
LT high school, labor force participation rate	71.4	73.8	75.1	75.7	59.7
LT high school, employment-population ratio	39.7	40.1	42.4	42.5	33.2
High school only, unemployment rate	9.2	13.6	8.7	8.3	6.8
High school only, labor force participation rate	66.6	67.3	72.3	72.1	55
High school only, employment-population ratio	60.4	58.2	66	66.1	51.3
Some college or associates degree, unemployment rate	7.5	9.2	7.7	5.9	7
Some college or associates degree, labor force participation rate	74.9	75.6	78.4	80.2	63.9
Some college or associates degree, employment-population ratio	69.3	68.7	72.3	75.4	59.4
Some college, unemployment rate	8.4	10.4	8.8	6.5	7.8
Some college, labor force participation rate	72.2	71.4	75.6	76.3	62.2
Some college, employment-population ratio	66.2	64	68.9	73.2	57.4
Associates degree, unemployment rate	6.1	7.4	6.3	5.1	5.7
Associates degree, labor force participation rate	79.1	83	82.4	82.8	66.4
Associates degree, employment-population ratio	74.3	76.8	77.2	78.6	62.6
College degree, unemployment rate	4.1	4.2	4.1	4	4.2
College degree, labor force participation rate	79.6	82.5	81.6	83.1	69.2
College degree, employment-population ratio	76.4	79	78.3	79.8	66.3
BA degree, unemployment rate	4.6	4.6	4.3	4.6	5.2
BA degree, labor force participation rate	77.8	81.1	79.2	80.1	67.7
BA degree, employment-population ratio	74.2	77.4	75.7	76.5	64.1
MA degree, unemployment rate	3	3.1	3.5	2.8	2.6
MA degree, labor force participation rate	82.6	85.3	85.9	89.1	70
MA degree, employment-population ratio	80.1	82.7	82.9	86.6	68.2
Professional degree, unemployment rate	4.1	4.8	4	3.8	3.4
Professional degree, labor force participation rate	81.1	82.7	83.7	84.5	71.3
Professional degree, employment-population ratio	77.8	78.7	80.3	81.3	68.9
Doctoral degree, unemployment rate	3.2	2.8	3.9	3.5	2.7
Doctoral degree, labor force participation rate	89.4	93.8	92.2	89.7	82.4
Doctoral degree, employment-population ratio	86.5	91.2	88.6	86.6	80.2

Source: Current Population Survey Table 10, Employment Status of noninstitutional population by educational attainment, age, sex, race and Hispanic or non-Hispanic ethnicity

Tables 5A to 5C show the same comparisons from 2009 through first Quarter 2011 for women as for men above. Taken as a whole, these figures suggest lower unemployment rates for women at most

age levels and education, although unemployment is higher for the most vulnerable women – those under age 35 with no high school diploma across the entire time period. Traditionally, fewer adult women worked for wages than men, instead focusing on unpaid work in the home and caring for children and elders. The labor force participation and employment to population ratios for women with less than a high school education is much lower than for men with the same education level at the beginning of the recession up to age 45, with a 30 percent gap between women and men.

However, the labor force participation rate gap drops to less than 20 percent for older workers without a high school diploma as men drop out of work too. By the first quarter of 2011, the labor force participation rate for women without a high school diploma had dropped to approximately 10 percent less than men before age 45 and approached even for older age groups. This difference was probably due to more low income, lower education women re-entering the workforce as part of welfare to work programs as the economy began to improve.

The gap in labor force participation between women and men steadily drops as education levels increase, even in a poor economy. For workers under age 54, women's labor force participation is between 10- 15 percent lower than men for people with a high school diploma, and drops to 10 percent or less as education levels increase. For high school educated people over age 54, early retirements, discouraged workers and increasing disability means almost the same labor force participation levels for men and women. At higher education levels, women drop out of the paid labor force after age 55 at greater percentages than men. Part of this shift may be due to differences in expectations across generations, while lack of positions for older workers and women choosing to care for grandchildren may account for other older women dropping out of the workforce.

Women with less than a high school education experienced the greatest unemployment rate of all age and education levels throughout this recession, with higher rates than men across all age groups. In 2009, unemployment rates were over 21 percent, and have dropped less than one percent by the first quarter of 2011. While unemployment rates for older women without a high school diploma started out lower than men, by first quarter of 2011 rates had risen to closely match or higher than male rates for the same education level and age. The exception is women 55 to 64, where the unemployment rate dropped to 6 percent, but only 33 percent of the population was employed.

As with men with low education levels, labor force participation suddenly jumped 20 percent in the first quarter of 2011 for approximately 50 percent to over 70 percent for all groups except those over age 55. Labor force participation also jumped over 20 percent for this group, to slightly under 60 percent. Combining unemployment rates with labor force participation and employment/population ratios suggest that unemployment remains high because an increasing number of people have entered the labor force. This sudden shift may come from improvements in the number of jobs in the hospitality and service sectors that employ many women from this group. More women with less than a high school diploma may also seek work as they reach the stage in a welfare to work program where they begin searching for jobs. Depending on the state and the age of their children, low income working women in this group who lost jobs with the recession may have spent time in education or job preparation courses before job placement activities.

The same trends in unemployment occur for younger women with a high school diploma from 2009 through 2011, with unemployment rates for women 25-34 rising from over 11 percent to nearly 14 percent by 2011. Women ages 35-44 and 55-64 maintain roughly the same unemployment rate over the entire time period, although monthly figures show slight rises depending on the season. Unemployment steadily rises from nearly 7 to over 8 percent for women in this group between 45-54.

However, unlike the women without a high school diploma, labor force participation rates remain steady for this group across all age groups. Comparisons to men show that men have higher unemployment rates in 2009, a trend that continues through March 2011.

Women with some college start out with unemployment rates ranging from nearly 10 percent for ages 25-34, with other groups 7 to 8 percent. While the unemployment rate rises slightly for women under age 44, it stays roughly the same for older women. Labor force participation rates remain roughly the same across the time period for all groups. Unlike men in this group, women appear not to be going back to school to continue their education.

Women with associates degrees show similar patterns, starting out with unemployment rates about 2 percent below men in each age group, and remain about the same or rise slightly over the time period. The youngest and oldest workers have unemployment rates of approximately 7 percent with those ages 35-54 with unemployment rates around 5 percent. Labor force participation and employment/population ratios change little during this time period as well. This suggests the same challenges facing other workers at the beginning of their careers and mature workers. It also suggests that the fields that women with associates degrees work in – often allied health, education or child care, may have been relatively insulated from economic shifts so far.

The unemployment rate for women with a bachelors degree is almost the same across age groups, roughly 5 percent. Unemployment levels drop about 1 percent from 2009 through first quarter 2011. Labor force participation and employment to population ratios show only slight changes throughout the recession. Unemployment rates for women are about the same as men with similar education, except for the oldest group, where male unemployment increased to 3 percent above women. These patterns also suggest that the kinds of jobs held by women with college degrees have experienced some economic downturn, but not the level of job loss as predominantly male occupations.

Similar patterns appear for women with masters degrees. Starting out with unemployment rates at a little over 3 percent in all age groups in 2009, by March 2011 unemployment rates for women under age 45 had remained about the same but dropped about a half a percent for older women. Labor force participation and employment to population ratios remained steady. These unemployment rates approach full employment levels, suggesting most women at this education level were in careers so far shielded from the economic down turn by stimulus funds or other factors. As with other categories, male unemployment was higher as was labor force participation rates for men. However, labor force participation rates for men and women 55-64 are roughly the same.

Unemployment for women with professional degrees is much higher for women across all age ranges throughout the entire time period. At the beginning of careers, ages 25-34 women's unemployment started off at over 4 percent in 2009, with a high rate of nearly 11 percent in November 2010 and returning to nearly 5 percent in first quarter 2011. Other age groups start out with unemployment rates around 3 percent, with unemployment rising slightly by 2011. Compared to the very low unemployment rates for men in these fields, these figures suggest that professional women have much less job security than men.

Some similar patterns occur for women with PhDs as men. Like men, unemployment is higher at the beginning and in the middle of prime working ages – with 2009 figures of 3 percent for women with PhDs between 25 and 34, and 3.9 percent 45-54 when some may lose jobs due to tenure decisions. The 45-54 age group also includes more new PhDs for women as many complete their education after their children reach school age. Unemployment is slightly higher by 2011 across all groups

except the youngest, with unemployment for PhDs age 25-34 about the same as in 2009. Rates are about the same for both men and women. Labor force participation is slightly lower for women than men, but less than a 10 percent gap across all age groups by 2011. Labor force participation increases for women in the oldest age group in the first quarter 2011, suggesting either an improving job market or women returning to work as their husbands or partners lose their jobs.

Taken together, unemployment and labor force participation trends for men and women suggest that relative shifts in rates for different gender, age and education levels reflects primarily shifts in different sectors in the economy. Women with college and advanced degrees have been relatively sheltered from the economic down turn by working in fields like health care that experienced less job loss or education or government positions where jobs have been retained through stimulus funds. As budget cuts across all levels of government hit hardest on programs for human needs and education that employ more women than men, unemployment rates for college educated women are likely to increase significantly. While some rebound in the service sector and hospitality have brought more lower educated women into the economy, their ability to successfully find work remains slim. Both of these potential trends suggest that cuts to government budgets may significantly increase unemployment for women at all levels of education, and mean that those with the least income have even fewer places to turn for support.

What kinds of jobs were hardest hit by this recession and have any of them started hiring again?

Gender trends reflect the relative unemployment levels for different jobs. The next section looks at this final factor in detail. Table 6 compares unemployment rates across specific occupations. The table includes all workers over age 16, so figures may not be comparable to the other tables in this study because it includes the youngest and oldest workers, both groups that had even more trouble finding work in this recession than those age 25-64. In addition to listing unemployment rates for all workers by the major occupational categories used by the Census Bureau and Bureau of Labor Statistics, the table reports unemployment rates over time for occupations within each major group that had unemployment rates at least one percent above the unemployment rate for that group of occupations as a whole. Each general category includes many other occupations with unemployment rates near or below the rate for that group. For example, within legal occupations, lawyers had a lower or similar unemployment rate to everyone in that profession and were not reported here, but positions like paralegal with much higher unemployment rates were listed.

The table compares the annual average unemployment rates for 2009 to the 3rd quarter of 2010, when the economy had begun to recover and the first quarter of 2011. BLS and the Census instituted a new categorization scheme for employment within major categories in 2011, with a few new categories and some jobs moved between detailed occupational group. In a few of cases, this table includes new categories experiencing high unemployment in 2011.

Within management categories, unemployment rates across most job titles stayed about the same at over 4 ½ percent from 2009 to 2011. However, general managers experienced increasing unemployment, from nearly 6 to over 6 percent in the two year period. Management positions in marketing and advertising were significantly higher than other managers, with unemployment rates in 2009 nearing 8 percent, dropping to around 7 percent by first quarter 2011. Managers in industries hardest hit by the recession experienced significant unemployment too, with industrial production, construction, food service managers and lodging managers experienced significantly higher unemployment than other managers. However, factory production managers quickly rebounded, dropping from 8 percent in 2009 to 3.3 percent in the 3rd quarter of 2010, then moving up to 5.4

percent. For all the other groups, unemployment dropped in 2010 but had returned to higher rates than in 2009 by the first quarter of 2011. For construction and lodging managers high unemployment may reflect seasonal variations as these were slow periods for these industries.

Business and financial occupations had higher unemployment rates than other workers in the general management, business and professional operations categories, with unemployment rates of over 5 percent from 2009 through first quarter 2011. While a number of specific occupations started out with extremely high unemployment rates, most had dropped significantly by 2011. This was particularly true of tax preparers, with a drop from nearly 16 percent in 2009 to 5.2 percent in 2011 and other financial specialists with unemployment dropping from 11.5 percent to 6.5 percent.

As with managers, financial and business specialists working in industries hardest hit by the economy reflected these challenges. For example, the troubles within credit and the banking industry led to unemployment rates for loan counselors and officers of 9.5 percent in 2009, with rates dropping to 5.2 percent with Obama administration stimulus packages for first time home buyers and loan modifications increasing employment, only to rebound to 9.5 percent in 2011 when the first time home buyers credits ended and financial institutions remain reluctant to lend funds. Financial examiners also were tied to this industry, with increasing unemployment rates, but that category was combined with another by 2011 so changes for the final period were not available.

Table 6: Unemployment Rate by Job Title, All Workers 16 years old and older

Job Category	Annual Average 2009	3rd Quarter 2010	1st Quarter 2011
Total, 16 years and over	8.6	8.7	8.8
Management, Professional and Related Occupations	4.6	4.8	4.5
Management, business and financial operations	4.9	4.7	5.0
<i>Management Occupations</i>	4.6	4.4	4.9
General and operations managers	5.9	4.4	6.4
Advertising and promotions managers	7.9	10.9	7.3
Marketing and sales managers	7.7	7.6	6.8
Industrial production managers	8	3.3	5.4
Construction managers	7.9	6.9	7.5
Food service managers	6.5	5.3	6.8
Lodging managers	6.4	5.1	9.4
<i>Business and financial operations</i>	5.7	5.2	5.2
Agents, business managers for artists, performers and athletes	11.8	6.7	4.2
Purchasing agents	7.6	-	2.5
Cost estimators	7.2	9	3.2
Human resources, training and labor relations	6.9	5.4	5.7
Meeting and convention planners	7.6	2.2	3.1
Financial examiners	6.9	7.7	-
Loan counselors and officers	9.7	5.7	9.5
Tax preparers	15.9	18.5	5.2
Financial specialists, other	11.5	5.2	6.5

Job Category	Annual Average 2009	3rd Quarter 2010	1st Quarter 2011
Professional and related occupations	4.4	5	4.1
<i>Computer and mathematical occupations</i>	5.2	4.4	4.6
Computer support specialists	6.2	4.1	7.6
<i>Architecture and engineering occupations</i>	6.9	6.1	4.6
Architects, except naval	10.8	6.1	8.9
Surveyors, cartographers, and photogrammetrist	7.1	1.9	14.7
Materials engineers	8.7	9.2	-
Drafters	15.2	14.7	6.6
Engineering technicians	8.7	6.8	8.6
Surveying and mapping technicians	11.5	8.8	14.4
<i>Life, physical and social science occupations</i>	4.5	4.3	3.8
Market and survey researchers	7.3	5.7	-
Biological technicians	10.9	10.7	2.3
Chemical technicians	6.7	12.2	1
Geological and petroleum technicians	6.4	4	-
Other life, physical and social science technicians	7.4	5	3.8
<i>Community and social services occupations</i>	4.3	4.8	4.7
Counselors	6.1	6.1	4.3
Social Workers	4	5.1	6.3
Social and human service assistants	-	-	8.8
Miscellaneous community and social service specialists	6.3	8.3	12.5
<i>Legal Occupations</i>	3.4	2.5	4.7
Judicial law clerks	-	-	49.3
Paralegals and legal assistants	4.4	5.1	10.6
Miscellaneous legal support workers	7.2	3.6	3.1
<i>Education, training and library occupations</i>	4.1	6.4	3.8
Other teachers and instructors	7.1	10.1	7
<i>Arts, design, entertainments, sports, and media occupations</i>	8.4	8.2	8
Designers	9.7	6.9	7.7
Actors	36.8	33	27.7
Dancers and choreographers	20.8	-	2.1
Entertainers, Other	10.3	2.4	22.5
Announcers	10	7.9	13.4
Technical writers	9.9	14.4	16.2

Source: CPS Table 3: Employed and experienced unemployed person by detailed occupation and class of worker, Annual average 2009, Quarter 3 2010, Quarter 1 2011

Unemployment rates for professionals were similar to managers ranging from 4 to 5 percent from 2009 to 2011. Professional jobs often require a college education or better, and unemployment rates reflect similar rates for most jobs to unemployment rates for people with college or more in the general population. As with some other employment categories, unemployment in this general category had dropped slightly by 2011. Across all more specific occupations in this category, this

recession saw employers shedding people in paraprofessional and assistant positions in favor of keeping the most highly trained workers employed. For instance, law offices started cutting paralegals in 2009 with an unemployment rate of 4.4 percent in 2009 and increasingly limited hiring assistants, with unemployment for paralegals increasing to 10.6 percent in the first quarter of 2011. While unemployment for professionals in education remained low, at roughly 4 percent, other teachers and instructors maintained unemployment rates of 7 percent or more over this time period. The high unemployment rate for educators in the 3rd quarter of 2010 reflects the fact that many teachers were laid off over the summer.

Shifts in other professional occupations reflected challenges faced by specific sectors of the economy. Unemployment levels for architecture and engineering professional reflect both general trends and industry related unemployment. While most engineering professions experienced unemployment at or below the average for this category, firms cut engineering technicians with unemployment rates of 8.7 percent in 2009 and almost the same in 2011. Slow downs in construction meant high unemployment for architects, with firms especially cutting drafts people in 2009. While the unemployment rate for architects dropped slightly from 10.8 percent in 2009 to 8.9 percent in 2011, firms began rehiring drafters in 2011, with rates dropping from 15.2 percent in 2009 to 6.6 percent in the first quarter of 2011.

Surveyors and similar occupations were not as lucky, as fewer new projects were started during this time. In 2009, surveyors had an unemployment rate of 7.1 percent and nearly 15 percent in 1st quarter 2011, while unemployment rates for surveying technicians went from 11.5 percent in 2009 to 14.4 percent in 2011. Drops in unemployment across all occupations in this category in 3rd quarter 2010 reflect higher seasonal employment while high unemployment in 1st quarter 2001 for surveyors may reflect either economic conditions or seasonal employment.

High unemployment for several technician jobs in the sciences also reflects organizations cutting back on assistants as funding for projects dwindle. The dramatic drop in unemployment in these categories in first quarter 2011 may reflect stimulus funds for alternative energy and related occupations.

Increasing unemployment in community and social service positions reflects increasing cuts in funding for non-profits and government positions providing supports for those in need. Numerous reports indicate decreased funding for human services as need increases with the recession.¹⁹ While unemployment across this category only increased from 4.3 to 4.7 percent across this time period, miscellaneous community and social service specialists unemployment increased from 6.3 percent in 2009 to 12.5 percent in 2011. Social and human services assistants, a new category in 2011, had an unemployment rate of 8.8 percent. Perhaps most troubling, social workers saw their unemployment rate increase from 4 to 6.1 percent. While some social workers have BA degrees, most have an MSW, indicating social service organizations either hiring less qualified workers for these positions or cutting them as funding decreased. The drop in unemployment for counselors from roughly 6 to roughly 4 percent may reflect this trend. Counseling jobs often require only a bachelors and may hire people with a wide range of college backgrounds.

High unemployment rates of 8 percent or more in the arts reflect downturns in the economy which further impact occupations with generally high unemployment. Shifts in print media and media generally were also reflected by unemployment rates double that of other professional categories. The

¹⁹ See Giving USA Foundation (2011) *Giving USA 2011: The Annual Report on Philanthropy for the Year 2010*. Retrieved from www.GivingUSAreports.org.

increasing unemployment rates for announcers, technical writers, and broadcast technicians suggest challenges in broadcast media and a broad range of industries that employ technical writers.

While workers in health care were relatively insulated from the recession with unemployment rates of a little over 2 percent, discretionary health care and support staff were impacted by the recession. Unemployment rates for Dieticians, at 4.6 percent in 2009 and 6.6 percent in 2010 indicated that people were seeking less support for discretionary health care. The sudden drop to less than 1 percent in 2011 may suggest a combination of sampling issues, increased funding for programs to address obesity and practitioners dropping out of the field after two years of unemployment. Likewise, opticians had an unemployment rate of nearly 7 percent in 2009 and the same rate in 2011.

High unemployment for emergency medical staff may suggest cuts in local government budgets. As with other technician positions in health care, high unemployment rates for EMTs begin to drop by 2011. Perhaps the biggest surprise was unemployment rates of 9.5 percent for medical records specialists in 2009, which increases to 14.6 percent in 2010 before dropping to 3.3 percent in 1st quarter 2011. This may suggest a glut in this emerging market as people retrain for these positions before funding begins. A wide range of healthcare support occupations show increasing unemployment, rising from 6.8 percent in 2009 to 7.4 percent in 1st quarter 2011. As with other industries, health care cut assistant positions. Service sector support positions like nursing assistant showed increasing unemployment as fewer families could afford home care and institutions cut staff with decreasing funds.

Table 6, continued

Job Category	Annual Average 2009	3rd Quarter 2010	1st Quarter 2011
Broadcast technicians	9.6	15.7	10.1
Media and equipment operators	9.8	-	-
<i>Health care practitioner and technical operators</i>	2.3	2.8	2.4
Dieticians	4.6	6.6	.7
Clinical lab technologists and technicians	3.6	1.8	1.3
Dental hygienists	4.5	4	2.8
Emergency medical technicians and paramedics	4.9	4.3	3.8
Medical records and health information technicians	9.5	14.6	3.3
Opticians	6.9	5.5	6.9
Miscellaneous technicians	4.5	2.2	2.6
Service Occupations	9.6	10.4	10.4
Healthcare support occupations	6.8	7.6	7.4
Protective services occupations	5.3	5.9	6.2
Fire inspectors	9.4	18	10
Security guards and gaming surveillance officers	9.7	11.9	11.8
Crossing guards	9.7	17.4	21.1
Lifeguards and other protective services	9.3	8.5	12.5
Food preparation and related occupations	11.6	12.7	12.9
Cooks	12.7	13.2	15

Job Category	Annual Average 2009	3rd Quarter 2010	1st Quarter 2011
Counter attendants, cafes and fast food restaurants	14.4	14.1	10
Dishwashers	20	20.6	12.9
Combined food preparation and serving, including fast food	12	20.8	16.2
Building, grounds cleaning, maintenance occupations	12.1	12.4	13.1
Grounds maintenance workers	17.8	15.5	24.4
Personal care and service occupations	8	9.3	8.1
Ushers, lobby attendants and ticket takers	19.5	9.8	16.1
Miscellaneous entertainment attendants and related workers	19.7	12.7	16.8
Tour and travel guides	16.7	18.7	25.3
Personal and home care aids	9.9	10.1	9.1
Personal care and service workers, others	12.7	15.8	11.9
Sales and office occupations	8.5	9.2	8.8
<i>Sales and related occupations</i>	<i>8.5</i>	<i>9.5</i>	<i>9</i>
Cashiers	12.5	13.9	13.5
Counter and retail clerks	10.4	13.7	11.3
Parts sales persons	11.2	9.3	1.7
Retail sales persons	11.2	12.5	11.3
Advertising sales agents	10.4	12.5	6.2
Travel agents	12.9	9.3	5.1
Sales representatives and services, all other	10.4	8.7	8.7
Models, demonstrators and product producers, all others	15.2	20.3	18.4
Telemarketers	23.8	36.5	36.2
Door to door sales and outside vendors	11.3	11.2	13
Office and Administrative support occupations	8.3	9	8.6
Telephone operators	9.6	5.5	7.6
Communications and equipment operators, all others	17.7	-	-
Bill and account collectors	14.1	10.4	13.5
Brokerage clerks	47.6	10.7	-
Customer service representatives	10.6	8.8	9
Hotel and motel desk clerks	12.2	8	9.4
Interviewers, except eligibility and loan	16.6	28.4	32.2
Order clerks	11.4	11.2	15.6
Human resources assistants	14.6	12.3	6
Receptionists and information clerks	10	12.3	7.2
Reservation and transportation ticket agents and travel clerks	9.5	8.9	6
Cargo and freight agents	11.7	4.3	-
Couriers and messengers	9.7	5.8	12.6

Job Category	Annual Average 2009	3rd Quarter 2010	1st Quarter 2011
Shipping, receiving and traffic clerks	12.6	11.8	13.8
Stock clerks and order filers	13.4	14	12.6
Computer operators	9.6	13.6	8.3
Data entry clerks	10.3	10.5	17.1
Mail clerks and mail machine operators, except postal service	11	21.6	9.9
Office machine operators, except computer	14.8	4.7	12.1
Statistical assistants	10.9	4.2	-

Service occupations saw high unemployment rates across the board, as both companies and families cut discretionary spending on people performing tasks they could perform themselves.

Unemployment in this category starts at 9.6 percent in 2009 and climbs to 10.4 percent by the 1st quarter of 2011. While relatively low unemployment for police kept unemployment rates for all protective services workers at roughly 5 to 6 percent, companies cut security guards and other protective services workers with unemployment rates rising from over 9 percent in 2009 to around 12 percent by 2011 in these categories. Perhaps the first casualty of increasingly tight budgets in education were crossing guards, with their unemployment rate increasing from nearly 10 percent in 2009 to over 21 percent in 1st quarter 2011.

Limited discretionary income among U.S. consumers led to high unemployment among food preparation and related categories throughout this period with unemployment starting at 11.6 percent in 2009 rising to nearly 13 percent in 1st quarter 2011. Unemployment rates were even higher for cooks, counter attendants, and people working in fast food restaurants. As in other industries where helpers face the biggest cuts, dishwashers faced unemployment rates of 20 percent or more until 1st quarter 2011, when the rate dropped to 12.9 percent. Similar trends occurred in grounds maintenance occupations and a variety of personal care jobs.

High unemployment rates in sales reflected similar trends, with unemployment starting out at 8.5 percent in 2009 and slightly higher at 9 percent in 1st quarter 2011. Most categories of sales clerks and cashiers saw slight rises in unemployment over this period. Given that these jobs tend to turn over quickly, unemployment in these kinds of jobs mostly reflects a continued large pool of workers while fewer jobs were created. Positions that saw significant drops in unemployment in 1st quarter 2011 like travel agents and advertising sales agents may reflect discouraged workers or seasonal workers who had dropped out of the labor force.

Increased automation and relying on professional staff to do their own clerical work may account for sustained high unemployment rates in office and administrative support occupations, with an unemployment rate hovering between 8 to 9 percent over this time period. The various secretaries, receptionists computer operators and others who had held long term, stable positions that attended the unemployment workshop described at the beginning of this report provide the human voice to this trend. These middle aged women described offices where they were downsized because professionals were expected to do their own typing, scheduling and answer their own phones. Voice mail and automated phone systems had replaced phone operators. The same was true for some customer service specialists, who found their jobs outsourced overseas. Unemployment rates that increased or remained stubbornly high across many of these jobs possibly reflect these realities for many jobs in this category.

Other clerical positions, like hotel clerks, shipping clerks, order clerks and cargo and freight agents reflect problems in particular industries. As orders for durable goods fell, fewer positions were available for people who process orders. Likewise, when fewer people travel, unemployment rose for hotel and motel clerks. However, the slight rebound in the travel industry was reflected in drops in unemployment for hotel and motel clerks from 12.2 percent in 2009 to 9.4 percent in 1st quarter 2011, a usually slow time for this industry. Unemployment for this job category was at 8 percent during the summer months of 3rd quarter 2010, peak time for travel.

Table 6, continued

Job Category	Annual Average 2009	3 rd Quarter 2010	1 st Quarter 2011
Natural resources, construction and maintenance occupations	15.6	13.6	17
Farming, fishing and forestry occupations	16.2	10.8	21.3
Graders and sorters, agricultural products	22.5	10.4	28.7
Forest and conservation workers	24.8	-	5.3
Logging workers	23	8.5	16
Construction and extraction occupations	19.7	16.6	21.7
Brickmasons, blockmasons and stonemasons	28.8	21.2	35
Carpenters	21	20	20
Construction laborers	23.8	20.9	29
Paving and surfacing workers	24.2	8.3	47.9
Dry wall installers and related	27.7	17.9	24.5
Painters	21.2	12.8	21.8
Plasterers and stucco masons	29.4	1.3	45.4
Roofers	24.1	23.9	29.8
Structural iron and steel workers	20.3	18.3	37.8
Helpers, construction trades	33.5	34.9	35.4
Fence erectors	24.3	10.1	30.6
Roustabouts, oil and gas	52.5	23.2	16.8
Other extraction workers	28.6	11.2	13.7
Installation, maintenance and repair occupations	8.5	9.4	8.2
Electronic equipment installers and repairers, motor vehicles	18.4	38.7	11.1
Electronic home entertainment equipment installers and repairers	11.3	20.7	14.9
Small engine mechanics	12.5	13	11.6
Maintenance and repair workers, machinery	15.1	5.6	6.5
Millwrights	26.1	27.6	7.8
Telecommunication line installers and repairers	12.1	13.6	9.1
Manufactured building and home installers	24.4	33.6	44.6
Riggers	28	4.5	-
Helpers-installation, maintenance and repair workers	14.8	30.8	22.4

Job Category	Annual Average 2009	3rd Quarter 2010	1st Quarter 2011
Other installation and repair workers	13	4.3	11
Production, transportation and material moving occupations	14.7	11.4	12.7
Production occupations (36 of 81 occupations (44%) substantially above average for this category, 2009; 30 out of 81 (37%), 2010; 27 of 80 (34%) in 2011)	14.7	12	12.1
Transportation and material moving occupations	12.3	10.8	13.3
Railroad brake, signal and switch operators	19.8	-	-
Railroad conductors and yard masters	16.4	-	12.9

Economic conditions in blue collar positions were much worse than for the white collar and pink collar positions in the professions and service sector . Unemployment in job categories including farming, fishing, construction and factory work start out at 15.6 percent in 2009. While unemployment in this general category dropped to 13.6 during the summer months when most construction and outdoor work occurs, unemployment rose in 1st quarter 2011 to 17 percent. Figures for individual categories were even higher. Farming and fishing occupations had unemployment rates of 16.2 percent as the annual average of 2009, only dropping to nearly 11 percent in summer 2010. During the off period of 1st quarter 2011, unemployment in this industry was 21.3 percent.

Likewise, unemployment in construction was nearly 20 percent in 2009, only dropping to 16.6 percent during the peak season in 2010. Individual job categories were much higher, with skilled trades like brick masons nearly 30 percent in the annual average of 2009 and 21 percent in summer 2010. As with the professions and service sector, unskilled positions had much higher unemployment rates with construction helpers showing unemployment rates over 30 percent even during peak periods. The impact of stimulus money shows only with paving and surfacing workers, with unemployment rates of roughly 24 percent in 2009 dropping to 8 percent 3rd quarter 2010. Unemployment for this group then rose to nearly 50 percent in 1st quarter 2011 as people moving into these jobs to work on stimulus funded paving projects found themselves out of work during the winter months.

Production and transportation occupations show a much rosier picture, with unemployment declining slightly from nearly 15 percent in 2009 to nearly 13 percent in 1st quarter 2011. Factory employment dominates this trend, with an overall average of nearly 15 percent in 2009 which steadily drops to 12 percent in 1st quarter 2011. Still many factory production jobs had much higher unemployment rates, with 36 out of 81 occupations (44 percent) substantially above this category average in 2009. The number of job categories with higher than average unemployment dropped to 30 categories in 3rd quarter 2010 (37 percent) and 27 out of 80 categories (34 percent) in 1st quarter 2011. As with construction, transportation and material moving jobs reflect some seasonal differences with unemployment in 2009 at roughly 12 percent, dropping to nearly 11 percent in 3rd quarter 2010 and moving back up to over 13 percent during the 1st quarter of 2011.

Table 7: Duration of Unemployment by Occupation, 2009-2011

Occupation, Both Sexes	Duration 2009		% 27+ weeks	Duration 11/2010		% 27+ weeks	Duration 3/2011		% 27+ weeks
	Mean	Median	2009	Median	Mean	11/2010	Mean	Median	3/2011
Total, 16 years and over	24.4	15.1	31.5	34.5	21.7	43.8	39.8	22.7	44.5
Management, professional and related occupations	25.7	16	33.2	36.4	25.1	48.5	44.4	28.2	50.8
Management, business and financial operations Occupations	27	18.4	36.6	37.7	26.3	50.1	42.8	28.2	51.1
Management Occupations	27.9	18.8	38	38.2	28	52.6	44.8	28.7	52
Professional and related occupations	26.4	14.1	30.5	35.3	24.1	47	45.7	28.2	50.5
Computer and mathematical occupations	26.4	16.4	32.1	48.5	50.2	64.2	57.2	47.2	59.9
Architecture and engineering occupations	30.7	19.7	40.1	46.8	30.1	56.7	47.2	32.6	55.4
Life, Physical and Social Sciences	25.4	14.7	31	30.1	14.8	36.6	51.4	24.1	51.5
Community and Social Service Occupations	29.2	17.1	36.1	35.8	33.4	53.1	53.8	45.7	58.3
Legal Occupations	27.5	12.9	33.4	26.5	21.5	33.6	29.7	22.4	45
Service Occupations	22.8	13.6	28.8	30.4	17.4	38.9	38.5	21.6	41.2
Health care support occupations	23.2	12.6	29.6	31.1	23.1	47.3	35.9	16.4	39.1
Protective services occupations	25.1	13.5	33.6	29.1	18.4	36.9	55.3	51.5	66.9
Sales and office occupations	25.8	16.4	33.9	36.1	23.2	45.5	42.9	23	41.3
Office and administrative	26.7	17.1	34.7	37	23.1	45.7	41.2	25.2	49

Occupation, Both Sexes	Duration 2009		% 27+ weeks	Duration 11/2010		% 27+ weeks	Duration 3/2011		% 27+ weeks
occupations									
Natural resources, construction and maintenance occupations	22.9	14.4	29.4	34.7	21.6	44.3	36.3	19.5	22.8
Installation, maintenance and repair occupations	26.4	17.7	34.9	36	26	48.8	42.2	26.3	47.5
Production, transportation and material moving occupations	24.9	16.3	33.2	37.8	24.3	47.4	42.4	24.1	47.3
Production occupations	25.6	17.3	34.7	39.8	27.3	50.3	46.3	26.1	49.3
No previous work experience	23.6	12.9	27.5	29.3	18.9	32.9	36.6	20	43.8
Armed forces (last job)	30.4	26	49.2	38.4	26	40.9	44.5	26.2	43.8

Source: Current population survey Table 37

Note: Occupation categories changed slightly in 2011, new categories are marked with – for earlier years

Bold = major occupational category

Italic = below average for major occupation category for time period

Tables 7 through 9 show the duration of unemployment from 2009 to 1st quarter 2011 across major employment categories and selected smaller job categories with higher than average unemployment duration for each larger employment category. These tables echo the trend shown on table 2, which indicates an increasing percentage of people unemployed in 2009 were not finding jobs quickly, with 30.4 percent overall having been unemployed more than 27 weeks in 2009 and nearly 40 percent in November 2010. These tables show that the percentage unemployed over 27 weeks has continued to increase to 44.5 percent of all workers over age 16 by 1st quarter 2011. This suggests that people that lose jobs have a hard time finding new ones. Table 2 shows that older workers have an even harder time finding work again, with 57 percent unemployed over 27 weeks by November 2010.

Table 7 shows that while people in all kinds of jobs are having trouble finding new ones, the most highly educated and paid positions show the longest duration of unemployment. Over 50 percent of people with work experience in the general management, professional and related occupations had been unemployed over 6 months. Unemployment over 6 months is slightly higher for management, business and financial occupations at 51 percent, with management occupations showing 52 percent unemployed over 27 weeks.

While professional occupations had about the same general unemployment duration with slightly over 50 percent unemployed over 27 weeks by 1st quarter 2011, several smaller categories showed much higher percentages. Nearly 60 percent of people previously employed in computer and mathematical occupations had been out of work over 6 months. This may indicate older workers

losing out to younger employees better skilled in newer computer technology and programs. Duration of unemployment rates of over 55 percent unemployed over 27 weeks in architecture and engineering probably reflected the continued downturn in construction and related industries. An unemployment duration rate of nearly 60 percent unemployed more than 6 months for community and social service occupations suggests that non-profits and governments that hire workers to provide social services and human services were still cutting positions. Only the legal occupations had less than the average unemployed over 6 months, with 45 percent of workers trained primarily in legal support fields still out of work after 27 weeks.

Service and sales occupations had a significantly lower percentage still unemployed after 6 months, but still 41 percent of people in both categories were still looking for jobs after this time period. Looking at some of the subcategories shows that hiring of health care workers had begun to pick up by 1st quarter 2011 with the percentage unemployed over 6 months dropping from 47.3 percent in 3rd Quarter 2010 to 39 percent in 2011. However, protective services occupations, particularly security guards and related occupations, had risen dramatically to nearly 67 percent unemployed over 6 months. Likewise, nearly 49 percent of office and administrative workers were still looking for work after 6 months in 2011. The high number of office workers failing to find work reinforces earlier suggestions that job losses in these occupations represent shifts in the nature of office work.

While slightly lower than for professional positions, manufacturing and transportation still showed 47 percent of the unemployed out of work after 6 months. Out of work factory workers had been unemployed the longest with nearly 50 percent out of work over 27 weeks. Only natural resources, construction and maintenance occupations had bounced back by 1st quarter 2011, with roughly 23 percent unemployed over 3 months. However, this lower percentage may indicate more discouraged workers rather than more work. Even those with no previous work experience and former soldiers were having trouble finding work again, with nearly 44 percent in each category unemployed over 6 months.

Tables 8 and 9 provide the same statistics for women and men. They show a mixed picture regarding who is finding work again more quickly. Overall, women have a slightly lower percentage of the long term unemployed, with nearly 43 percent of women unemployed over 6 months in 1st quarter 2011 compared to nearly 45 percent for men. But these figure shift depending on the job category. More men (nearly 51 percent) than women (nearly 47 percent) in management occupations were out of work for over 6 months by 1st quarter 2011. But percentages were nearly identical for management occupations at slightly over 52 percent and reversed in the larger category of management, business and financial categories with 50.2 percent of men and 51.4 of women unemployed over 6 months.

Table 8: Duration of Unemployment by Occupation, Women 2009-2011

Occupation, Women	Duration 2009		% 27+ weeks	Duration 11/2010		% 27+ weeks	Duration 3/2011		% 27+ weeks
	Mean	Median	2009	Median	Mean	11/2010	Mean	Median	3/2011
Total, 16 years and over	24.1	14.5	31.2	38.8	22.5	44	33.6	21.2	42.8
Management, professional and related occupations	24.2	14,6	31	42.5	28.2	50.9	36	24.5	46.9
Management,	26.4	18	35.9	41.4	30.2	52.4	39.1	28.3	51.4

Occupation, Women	Duration 2009		% 27+ weeks	Duration 11/2010		% 27+ weeks	Duration 3/2011		% 27+ weeks
business and financial operations Occupations									
Management Occupations	27.1	18.2	36.4	42.5	28.8	51.5	39.2	29.3	52.6
Professional and related occupations	22.8	12.9	27.6	43.2	27.2	50	33.6	22.1	43.4
Computer and mathematical occupations	27.1	17.2	30.7	56.9	41.6	57	59.5	55.3	79.3
Architecture and engineering occupations	24.2	16.3	34.6	55	31.3	50.8	37.3	29	57.3
Life, Physical and Social Sciences	22.9	14.7	28.2	74.8	53.3	75.6	43.5	27.3	55.5
Community and Social Service Occupations	29.7	17.4	35.5	51.2	36.2	56.1	38.2	32.4	52
Legal Occupations	30.4	13.3	34.6	30.9	18.6	46.1	35.7	26.8	50.2
Service Occupations	22.3	13.2	28.1	37.5	20	39.6	31.4	18.6	41.7
Health care support occupations	25.5	10.6	31.2	65.8	49.8	58.8	37.4	25.1	51.2
Protective services occupations	25.5	16.3	32.4	43.6	26.9	47.6	35.2	20.8	47.2
Sales and office occupations	21.5	13.4	27.3	41.6	22.3	40.2	27.2	13.6	34.1
Office and administrative occupations	25.5	16.1	33.8	37.8	21.6	44.9	35.8	23	44.8
Natural resources, construction and maintenance occupations	24.1	14.4	32	39.6	24.1	47.7	37.4	24.2	46.8
Installation, maintenance and repair occupations	26.6	17.3	35.1	26.9	17.4	20.7	18.3	10	19.9
Production, transportation and material moving	19.9	12.3	24.4	46.5	22.1	39.6	24.7	20.9	30

Occupation, Women	Duration 2009		% 27+ weeks	Duration 11/2010		% 27+ weeks	Duration 3/2011		% 27+ weeks
occupations									
Production occupations	21	14.4	29	52.6	31.8	51.7	28.3	4.3	45.2
No previous work experience	25.7	17.1	35.7	38.4	22.9	44.7	37.5	24.8	47.8
Armed forces (last job)	26.8	18.6	32.1	44.8	27.4	36.2	39	25.4	45.2

Source: Current population survey Table 37

Bold = major occupational category

Italic = below average for major occupation category for time period

Comparisons across professional occupations show even more diversity, with overall rates of over 43 percent of women and 51 percent of men unemployed over 6 months in the general professional category. However, women have much more trouble finding work again in computer professions (61 percent men, 79 percent women), architecture (56 percent men, 57 percent women), life, physical and social sciences (nearly 36 percent men, over 55 percent women), and legal occupations (men nearly 43 percent, women over 50 percent). The large difference in the sciences may suggest that male dominated science jobs may be benefiting from stimulus dollars for new energy related initiatives while the more female dominated fields are seeing funding cuts. On the other hand, more men are having trouble finding work in community and social service occupations with nearly 70 percent unemployed over 6 months than women, with 52 percent unemployed for that period of time.

Women have lower percentages unemployed over 6 months in service, sales and production occupations. Nearly 42 percent of women working in service sector jobs have been unemployed over 27 weeks compared to over 48 percent for men. The biggest gap is in re-employment in healthcare, with over 70 percent of men unemployed over 6 months by 1st Quarter 2011 compared to 51 percent of women. Likewise, over 52 percent of men in office and administrative occupations were still unemployed after 6 months by 2011 while nearly 45 percent of women in the same field had been out of work that long. Women also had an easier time finding production, transportation and material moving jobs, with 30 percent of women in the larger category still out of work after 6 months compared to over 48 percent of men. But the gap was lower for factory production jobs, with 49 percent of men and 45 percent of women unemployed over 6 months in 1st quarter 2011. Women working in natural resources also had a harder time finding work than men, with nearly 47 percent of women and 40 percent of men unemployed over 6 months. Men with no previous work experience found work more quickly than women, with 37 percent of men and nearly 48 percent of women with no work experience unemployed over 6 months.

Table 9: Duration of Unemployment by Occupation, Men 2009-2011

Occupation, Men	Duration 2009		% 27+ weeks	Duration 11/2010		% 27+ weeks	Duration 3/2011		% 27+ weeks
	Mean	Median	2009	Median	Mean	11/2010	Mean	Median	3/2011
Total, 16 years and over	24.6	15.5	31.7	35.2	22.1	44.6	40.5	22.9	44.9
Management, professional and related occupations	27.1	17.4	35.4	36.9	26	50.1	46.3	28.3	50.7
Management, business and financial operations Occupations	27.5	18.8	37.2	36.3	24.7	48.9	43.8	27.3	50.2
Management Occupations	28.5	19.3	31.8	37.6	27.1	52.6	46.1	28.6	52.3
Professional and related occupations	26.7	16.1	33.9	37.4	27.5	51.3	49.1	29.9	51.2
Computer and mathematical occupations	26.1	15.9	32.7	42.6	47.5	55.9	57.3	48.6	61.3
Architecture and engineering occupations	31.9	20.5	41.2	37.6	27.1	52.6	45.5	33.2	56.3
Life, Physical and Social Sciences	27	14.7	37.2	49	30.4	56.5	36.1	17.1	35.9
Community and Social Service Occupations	28.3	16.7	31	16.2	9	17	66.4	60.2	69.6
Legal Occupations	23.3	14	31.8	31.9	35	54.9	39.5	23	42.9
Service Occupations	24.7	11.9	34.5	29.2	16.5	61.2	41.4	29.8	48.4
Health care support occupations	24.9	14.7	27.8	25.4	24.6	61.2	51.1	51.9	70.1
Protective services occupations	26.5	12.8	31.9	24.4	15.6	28.7	47	25.9	45.3
Sales and office occupations	26.2	16.9	34.4	36.5	23.6	46.7	42.5	27.1	49.9
Office and administrative occupations	27	16.8	33.8	37	25.5	49.4	44.1	27.4	51.5

Occupation, Men	Duration 2009		% 27+ weeks	Duration 11/2010		% 27+ weeks	Duration 3/2011		% 27+ weeks
Natural resources, construction and maintenance occupations	23.1	14.5	29.6	35.7	22.5	45.8	26.9	19.8	40.3
Installation, maintenance and repair occupations	26.7	17.9	35.4	36.3	26.3	49	41.8	25.9	47.4
Production, transportation and material moving occupations	24.6	16	32.3	37.9	24	47.3	43.7	24.6	48.2
Production occupations	25	16.8	20.5	40.2	28.3	51	47.1	24.9	49
No previous work experience	24.6	13.5	50.5	33.1	21.4	48.9	32.9	15.9	37.4
Armed forces (last job)	31.1	26.9	50.5	44	30	48.9	45.8	26.1	46.8

Source: Current population survey Table 37

Bold = major occupational category

Italic = below average for major occupation category for time period

Taken together, these tables on unemployment rates and duration by job category suggests that both short and long term economic conditions fostered unemployment in various fields. While unemployment overall was lower for people with higher education, the duration of unemployment in many professional occupations suggests that firms in these fields are slower to hire again. In some cases, job losses reflect permanent shifts in the nature of work, particularly when clerical workers are eliminated in favor of technology, outsourcing or having professionals do their own clerical work or certain computer related jobs are discontinued. The impact of the economic downturn also profoundly impacted on community and human service positions where government cuts and lower charitable contributions have cut many positions at both non-profit and government firms. While manufacturing declined, a slow rebound appeared to be occurring by 1st Quarter 2011. Stimulus funds appeared to make a difference in some occupations, especially the sciences. Differences in unemployment duration between men and women suggest that employers are hiring along traditional gender lines, an issue discussed in more detail later in this report.

How has the recession affected employment for people with disabilities?

Continued high unemployment rates have consistently been one of the challenges facing both people with disabilities and the government and private agencies providing services to this population. Disability researchers consistently note that employment levels for people with disabilities have dropped since passage of the Americans with Disabilities Act of 1990, but causes for this drop remain the subject of much debate. Scholars note that unemployment rates vary by age, education, and the

way disability is measured.²⁰ Much of the debate has focused on how disability is measured in national surveys, leading a working group from the U.S. Census Bureau, Bureau of Labor Statistics and others to develop a set of six questions designed to measure disability for use in ongoing surveys like the Current Population Survey (CPS) and American Community Survey (ACS).²¹ This report uses this most current definition of disability to see how the people with disabilities have fared in the most recent recession.

Table 10: Unemployment Rate by Disability

Age	Unemployment Rate 2008		Unemployment Rate 2009		Unemployment Rate 2010		Unemployment Rate 1 st quarter 2011	
	Disabled	Not disabled	Disabled	Not disabled	Disabled	Not disabled	Disabled	Not disabled
Total, 25-34 years	17.8	6.6	20.1	9.6	21.5	9.8	21.1	9.8
Total, 35-44 years	13.3	5.2	16	7.7	15.3	7.9	16.5	7.7
Total, 45-54 years	10.4	4.7	13.4	6.9	14.2	7.4	15.7	7.4
Total, 55-64 years	8	4.3	10.1	6.4	11.1	6.8	10	6.9
Men, 25-34 years	15.8	7.1	19.2	10.7	22.4	10.8	19.7	10.8
Men, 35-44 years	12.6	5.4	16.5	8.4	14.3	8.3	16.9	8.3
Men, 45-54 years	11.8	5.1	14.5	7.9	14.9	8.3	15.5	8.5
Men, 55-64 years	7.8	4.6	10.2	6.9	11.9	7.7	9.5	8.1
Women, 25-34 years	20.8	5.9	21.2	8.3	20.6	8.9	23.1	8.5
Women, 35-44 years	14	5	15.4	6.9	16.3	7.4	16.2	7
Women, 45-54 years	9	4.3	12.3	5.7	13.5	6.5	15.8	6.3
Women, 55-64 years	8.1	4.1	9.9	5.7	10.2	6	10.5	5.6
White, 25-34	14	5.7	17.5	8.6	19.5	8.7	20.4	8.4

²⁰ See Stapelton, D and Burkhauser, R, editors (2003) *The Decline in Employment of People with Disabilities: A Policy Puzzle*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

²¹ See Hale, T (2001) The lack of disability measures in today's Current Population Survey. *Monthly Labor Review*, 38-40 and Weathers, R and Wittenberg, D (2009) Employment. In A. Houtenville, D Stapelton, R Weathers and R Burkhauser, Editors, *Counting Working-Age People with Disabilities*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 101-144 for discussion of these issues. Information on the current CPS disability questions is available at http://www.bls.gov/cps/cpsdisability_faq.htm.

years								
White, 35-44 years	13.5	4.9	14.9	7.2	14.1	7.3	14.9	7
White, 45-54 years	10.3	4.2	12.5	6.5	13.2	6.9	14.3	6.8
White, 55-64 years	7.7	4	10	6.1	10.9	6.5	10.1	6.6
Black or African American, 25-34 years	33.6	12.3	17.5	8.6	33.1	17.3	27.9	17.8
Black or African American, 35-44 years	18.4	7.8	14.9	7.2	20.2	12.9	29.9	13.4
Black or African American, 45-54 years	11.7	8.3	12.5	6.5	22	11.2	31.4	11.3
Black or African American, 55-64 years	12.6	7	10	6.1	13.4	9.4	7.6	9.8
Asian, 25-34 years	9.5	4	11.8	6.8	24.7	6.8	11.2	8
Asian, 35-44 years	3.8	4.2	13.2	6.6	5.7	6	15.4	5.1
Asian, 45-54 years	3.9	3.8	13.6	6.2	9.4	6.7	6.5	6.2
Asian, 55-64 years	11.1	5	5.3	6.8	12.8	7.3	7.1	7.1
Hispanic/Latino, 25-34 yrs	22.4	7.8	24.4	11.1	23.8	11.1	23.2	11.2
Hispanic/Latino, 35-44 yrs	12.6	6.6	22.8	9.9	13.4	10.3	11.9	10
Hispanic/Latino, 45-54 yrs	17	6.8	17.7	9.9	16.2	10.6	19.4	11.2
Hispanic/Latino, 55-64 yrs	5.4	6.7	8.6	10.1	15	10	17.4	10.1

Source CPS disability series table 1, 4th quarter 2008, annual average 2009, annual average 2010, 1st quarter 2011

Tables 10 - 12 present the unemployment rate, labor force participation rates and employment to population ratios for people with and without disabilities at different ages. The tables start with the last quarter of 2008, when the new measure for disability went into use for the CPS. At this point, the economy was in the midst of the recession.

Looking first at totals for age, these figures show generally significantly higher unemployment rates for people with disabilities than people without disabilities. During the last quarter of 2008, the

unemployment rate for people with disabilities ranged from nearly 18 percent for people 25-34 to 8 percent for those 55-64. This indicates young adults having difficulty entering the labor force, a problem noted for the general population in this age group throughout the recession. The 25-34 age group continued to have the most trouble finding work in the recession, with unemployment rates ranging from 20 to over 21 percent through the 1st quarter of 2011.

Lower unemployment rates of 10-11 percent for the group over 55 does not indicate less trouble finding work, however. Instead, figures on labor force participation and employment to population ratio suggests that older people with disabilities dropped out of the labor force, with only 27 percent of people 55-64 working or looking for jobs before the recession starts, a figure that only drops slightly as the recession progresses. Employment to population ratio shows only 25 percent working in the last quarter of 2008, dropping to 24 percent as the recession continued in the 1st quarter of 2011. This pattern of older workers becoming discouraged echoes the experience people without disabilities, as older workers had the hardest time finding work as the recession continued.

In contrast to the people without disabilities, people with disabilities began leaving the labor force in greater numbers after age 45, with labor force participation rates of 35 ½ percent in 2008 for people with disabilities age 45-54, dropping in 1st quarter 2011 to under 32 percent. In contrast, people without disabilities persisted to look for jobs, with labor force participation rates of 87 percent in 2008, only dropping one point to 86 percent through first quarter 2011. The same is true for all other younger age groups, with the labor force participation rate for people without disabilities ages 25-54 consistently above 80 percent. Comparing labor force participation between people with disabilities to those without shows that the younger workers with disabilities were most eager to find jobs, with a labor force participation rate of nearly 50 percent in 2008. While this rate is nearly 35 points below those without disabilities, for other age groups the percentage of people with disabilities working or looking for work is half of that for people in comparable age groups without disabilities, dropping to significantly less than half as people got older.

However, as the recession continued, people with disabilities across all age groups grew discouraged and dropped out of the labor force in higher percentages than those without disabilities. The younger age groups saw the biggest drops, with labor force participation for people with disabilities ages 25-34 dropping 6 points from 2008 to 2011 and 6.4 percent for those 35-44. In contrast, already low labor force participation rates of 35 ½ percent for people with disabilities ages 45-54 dropped less than 4 percent from 2008 to 1st quarter 2011 and drop less than 1 percent for the same time period for people ages 55-64.

Comparing unemployment rates across all age groups between those with disabilities and people with no disabilities shows differences of approximately 3 percent across all age groups. This suggests that the same economic factors influenced employment for everyone regardless of disability during this recession. The oldest and youngest workers faced the most difficulty finding work. But in contrast to people without disabilities, people with disabilities at younger prime working ages were more likely to drop out of the labor force altogether.

Table 11: Labor Force Participation Rate by Disability

Age	Participation Rate 2008		Participation Rate 2009		Participation Rate 2010		Participation Rate 1 st quarter 2011	
	Disabled	Not disabled	Disabled	Not disabled	Disabled	Not disabled	Disabled	Not disabled
Total, 25-34 years	49.2	84.6	46.1	84.2	44.5	83.6	43.1	83.1
Total, 35-44 years	43.6	86.6	41.8	86.1	38.4	85.8	37.2	85.7
Total, 45-54 years	35.5	87.3	35.3	86.4	35	86	31.6	86
Total, 55-64 years	27.3	72.5	27.9	71.7	27.9	71.6	26.8	71
Men, 25-34 years	54.8	92.9	48.1	92.1	46	91.4	46.6	91
Men, 35-44 years	47.1	95	45.9	94.2	42.3	94.1	43.1	93.8
Men, 45-54 years	38.2	92.9	38.4	92.3	38.8	91.9	33.3	91.5
Men, 55-64 years	30.4	78.4	30.6	77.6	31	77.2	29.3	76.6
Women, 25-34 years	42.8	76.4	44.1	76.3	42.9	75.9	39.2	75.1
Women, 35-44 years	40.2	78.4	38.1	78.1	35	77.6	31.9	77.8
Women, 45-54 years	33.1	81.8	32.5	80.7	31.5	80.5	30	80.6
Women, 55-64 years	24.4	67	25.3	66.3	25	66.4	24.4	65.8
White, 25-34 years	51.1	85.3	48.2	84.9	45.8	84.6	46.4	84.1
White, 35-44 years	45.7	86.9	44.2	86.4	40.7	86.1	39.3	86.1
White, 45-54 years	38.5	87.9	37.4	87.2	37.4	86.7	34.4	86.7
White, 55-64 years	30	73.2	29.7	72.6	29.5	72.3	28	71.8
Black or African American, 25-34 years	41.5	84.5	37.1	79.1	37.7	82.3	29.1	80.5
Black or African American, 35-44 years	27.4	86.4	49.7	82.9	28.7	85.5	28.9	85.3
Black or African American, 45-54 years	22.5	83.8	39.9	85.2	22.8	82.1	16.8	81.9
Black or African American, 55-64 years	13.3	67.7	29.8	70.2	19.1	65.6	18	64.2

Asian, 25-34 years	40.5	77.6	36.9	82.9	40.9	75.7	44.9	75.9
Asian, 35-44 years	66.7	83.1	32	85.5	42	82.6	31.9	82.4
Asian, 45-54 years	40.8	85.1	24.8	82.8	38.5	85	44.6	84.8
Asian, 55-64 years	22.2	70	18.2	65.7	27.2	70.2	38.3	70.3
Hispanic/Latino, 25-34 yrs	47.4	81.5	41.6	80.6	40.8	81.7	47	80.3
Hispanic/Latino, 35-44 yrs	42.2	83.5	39.3	83.1	36.4	83.2	39.9	81.4
Hispanic/Latino, 45-54 yrs	25.4	83	31.1	83.4	37.3	83.2	24.9	81.9
Hispanic/Latino, 55-64 yrs	22.9	68.5	20.3	69.4	23.5	67.6	16.7	69.5

Source CPS disability series table 1, 4th quarter 2008, annual average 2009, annual average 2010, 1st quarter 2011

Comparing men to women shows that women with disabilities had a consistently harder time finding work than men, with unemployment rates in 2008 ranging from nearly 21 percent for women with disabilities ages 25-34 while men in the same age group experienced an unemployment rate of nearly 16 percent. The gap in unemployment rate dropped as people got older, approximately 1 ½ to 2 percent gap for ages 35-54 and about even at the oldest ages. As the recession progressed, these trends began to reverse for all but the youngest ages, where women continued to have unemployment rates 1 to 2 percent more than men. In all other groups, women with disabilities experience a slower rise in unemployment than men for all age groups above 35, but women's unemployment continued to go up while men's showed more variation. These patterns show some similarities to unemployment for people without disabilities. Women experienced less unemployment than men across the board in the general population as jobs traditionally employing men have so far been harder hit in this recession than those traditionally hiring women. The same trends are reflected in figures for people without disabilities.

Comparing labor force participation rates for men and women show that across the board, men are more likely to seek work than women, but gaps between the percentage of men with disabilities working or looking for work and women are smaller than for the non-disabled population. Nearly 55 percent of men with disabilities ages 25-34 participated in the labor force before the recession compared to roughly 43 percent of women. The gap becomes smaller as people get older, with only a 5 to 7 percent difference in older age groups. As the recession continues, people with disabilities of all age groups and both genders increasingly become discouraged and drop out of the labor force. By 1st quarter 2011, only 37 percent of men with disabilities and 30 percent of women ages 25-34 were employed, with rates steadily dropping as people age. Only 26 ½ percent of men ages 55-64 and roughly 22 percent of women the same age worked by 1st quarter 2011.

Table 12: Employment-Population Ratio by Disability

Age	Employment-population ratio 2008		Employment-population 2009		Employment-population ratio 2010		Employment-population ratio 1 st quarter 2011	
	Disabled	Not disabled	Disabled	Not disabled	Disabled	Not disabled	Disabled	Not disabled
Total, 25-34 years	40.4	79.1	36.8	76.1	34.9	75.4	34	75
Total, 35-44 years	37.8	82.1	35.1	79.4	32.6	79	31.1	79.1
Total, 45-54 years	31.8	83.2	30.6	80.5	30	79.6	26.7	79.6
Total, 55-64 years	25.1	69.4	25.1	67.2	24.8	66.7	24.1	66.1
Men, 25-34 years	46.2	86.3	38.9	82.2	35.7	81.7	37.4	81.2
Men, 35-44 years	41.2	89.9	38.3	86.3	36.3	86.3	35.9	86
Men, 45-54 years	33.7	88.2	32.8	85	33.1	84.2	28.1	83.8
Men, 55-64 years	28.1	74.8	27.5	72.2	27.3	71.3	26.5	70.4
Women, 25-34 years	33.9	71.9	34.7	70	34.1	69.2	30.1	68.7
Women, 35-44 years	34.6	74.5	32.2	72.8	29.3	71.8	26.8	72.3
Women, 45-54 years	30.1	78.3	28.5	76.1	27.3	75.3	25.3	75.6
Women, 55-64 years	22.4	64.3	22.8	62.5	22.4	62.4	21.9	62.1
White, 25-34 years	43.9	80.4	39.8	77.6	36.9	77.2	46.4	84.1
White, 35-44 years	39.6	82.7	37.6	80.2	34.9	79.9	39.3	86.1
White, 45-54 years	34.5	84.2	32.7	81.5	32.5	80.7	34.4	86.7
White, 55-64 years	27.7	70.3	26.7	68.1	26.3	67.6	28	71.8
Black or African American, 25-34 years	27.6	74.1	24.2	69.5	25.2	68.1	29.1	80.5
Black or African American, 35-44 years	22.3	79.7	25.3	75.8	22.9	74.5	28.9	85.3
Black or African American, 45-54 years	19.8	76.8	20.3	74.5	17.8	72.9	16.8	81.9
Black or African American, 55-64 years	11.6	63	16.1	60.3	16.5	59.4	18	64.2

Asian, 25-34 years	36.6	74.6	32.8	73.7	30.8	70.6	39.9	69.9
Asian, 35-44 years	64.2	79.6	43.1	77.5	39.6	77.6	27	78.2
Asian, 45-54 years	39.1	81.8	34.5	79.9	34.8	79.2	41.7	79.5
Asian, 55-64 years	19.8	66.6	28.2	65.5	23.7	65.1	35.6	65.3
Hispanic/Latino, 25-34 yrs	36.8	75.1	31.5	71.7	31.1	72.6	36	71.4
Hispanic/Latino, 35-44 yrs	36.9	78.1	30.4	74.9	31.5	74.6	35.1	73.3
Hispanic/Latino, 45-54 yrs	21.1	77.4	25.6	75.2	31.2	74.4	20.1	72.8
Hispanic/Latino, 55-64 yrs	21.6	63.9	18.5	62.4	20	60.9	13.8	62.5

Source CPS disability series table 1, 4th quarter 2008, annual average 2009, annual average 2010, 1st quarter 2011

Comparisons across race both echo patterns for people without disabilities and show that people of color with disabilities have even greater difficulty finding work than those who are white. Across the board, whites have lower unemployment rates than Blacks or African Americans, due to a combination of historically lower education levels, discrimination and a combination of lower proximity to jobs and fewer connections to good jobs. Figures for Asians and Hispanics/Latinos must be viewed with extreme caution due to small sample sizes. Among the disabled population, unemployment for whites in 2008 was 14 percent for people 25-34, dropping to nearly 8 percent at 55-64 as people with disabilities dropped out of the labor force. These percentages gradually rose as the recession continued, particularly for younger workers, with unemployment for whites with disabilities ages 25-34 over 20 percent by 1st quarter 2011.

Compare this to Blacks/African Americans, with unemployment rates for those with disabilities age 25-34 at nearly 34 percent in 2008, a figure that remains steady until 1st quarter 2011. While unemployment in this age group for Blacks/African Americans drops to roughly 28 percent in 1st quarter 2011, the shift was due to a nearly 9 percent drop in labor force participation from nearly 38 percent in 2010 to 29 percent in the first quarter 2011. While older African Americans/Blacks with disabilities had less trouble finding work than those under age 45, their labor force participation rates started out much lower than whites and continued to drop as people got older. The gap in labor force participation between whites and Blacks/African Americans ranged from 10 percent for ages 25-34 to 17 percent for ages 55-64. By 1st quarter 2011, the gap between whites and Black/African Americans was 17 percent for ages 25-34 and 10 percent ages 55-64. Under age 45, Black/African American labor force participation rates were slightly less than 30 percent but under 20 percent over age 45.

Why the differences across races? While further research would be needed to explain these trends, it is likely that the other factors that lead to disparities between whites and others are compounded for Blacks/African Americans with disabilities by lower access to programs that assist with job placement, particularly for older people. Looking closely both at program access and types of disability might clarify these differences.

Table 13: Duration of Unemployment and Disability

Year	4 th Quarter 2008		Annual Average 2009		Annual Average 2010		1 st Quarter 2011	
	Disabled	Not disabled	Disabled	Not disabled	Disabled	Not disabled	Disabled	Not disabled
Total	30.5	22.2	36.3	31.2	46.7	43.1	45.4	42.6
Men	28.1	21.9	36.2	31.5	49.4	44.3	45.6	42.4
Women	33.5	22.5	36.4	30.8	43.4	41.3	45.2	43

Source CPS disability series table 13a, 4th quarter 2008, annual average 2009, annual average 2010, 1st quarter 2011

Table 13 shows the duration of unemployment for people with and without disabilities before and during the recession. In 2008, people with disabilities experienced more difficulty finding work once unemployed, with work searches taking over 30 weeks, compared to approximately 22 weeks for people without disabilities. As the recession continued, people with disabilities persisted in having difficulty finding work. However, differences between those with disabilities and those without gradually dropped as time on unemployment keeps rising for those without disabilities. This suggests that the same factors influenced finding work for everyone and that all workers facing unemployment continued to have difficulty finding new jobs as this recession continues.

This final table compares unemployment rates for veterans and non-veterans with and without disabilities. Veterans status confers several benefits, including priority status for employment and services to assist veterans with disabilities re-enter the workforce. On the other hand, veterans with disabilities acquire their disabilities as part of their service experience and may need time to recover not needed by people with longer term disabilities. Unlike the previous tables, this table includes people over age 18, with younger adults who may seek education instead of employment and older retired people included in labor force participation and unemployment rates. As such, participation rates will be lower for the total population, total population of disabled people and total figures for all veterans than in the previous tables that only included prime working age adults. For this reason, the veterans figures focus on people who served in the military during the gulf war era (1990-present), adults most likely to be in their prime working ages.

Analysis of this table shows that both disabled and non-disabled veterans had higher labor force participation rates than their civilian peers. This is true even when comparing labor force participation rates on this table for Gulf era veterans to the general population on table 2. In 2008, the unemployment rate for Gulf era veterans with disabilities was only 2 percent above that of non-disabled veterans. Gulf era veterans with disabilities from the first gulf war period (1990-2001) had unemployment rates of only 4.2 percent, less than the general unemployment rate, but only 54 percent chose to work. This suggests that for veterans who had adjusted to their disabilities over an approximately 10 year time period, those who looked for work had a good chance of finding it. However, more recent gulf war veterans both with and without disabilities had higher unemployment rates than the civilian population. With an unemployment rate of nearly 14 percent in 2008, Gulf War era 2 disabled veterans had more trouble finding work than civilian people with disabilities. However, with a labor force participation rate of over 60 percent, disabled Gulf War era 2 were more eager to find work than their civilian counterparts with disabilities.

Table 14: Unemployment and Labor Force Participation Rates Veteran/Nonveteran Age 18 and Over

Year	4 th Quarter 2008		Annual Average 2009		Annual Average 2010		1 st Quarter 2011	
	Participation Rate	Unemployment Rate	Participation Rate	Unemployment Rate	Participation Rate	Unemployment Rate	Participation Rate	Unemployment Rate
Total 18 and over	67.5	6.3	67	9	66.4	9.4	65.7	9.3
Disabled total	23.2	11.1	22.5	14.2	21.9	18.7	20.6	14.8
Disabled Veterans	20.7	7.6	19.6	11	19.5	13.9	17.1	11.9
Disabled Veterans Gulf War total²²	56.5	7.7	59.7	13.3	50.6	20.1	40.9	17.5
Disabled Veterans Gulf War era 1	54.3	4.2	58.3	8.1	48.8	16.9	41.3	14.3
Disabled Veterans Gulf War era 2	60.7	13.9	61.6	20.5	53	24.2	40.4	21.6
Non disabled Veterans Gulf War total	89.9	6	88.1	8.4	87.5	8.7	86.5	9.8
Non disabled Veterans Gulf War era 1	91.2	5.4	90	7.6	89.6	7.3	88.4	7.7
Non disabled Veterans Gulf War era 2	87.8	7.2	85.3	9.6	84.6	10.9	84.1	12.4
Non disabled Non-Veterans	74.4	6.2	73.8	8.9	73.1	9.2	72.6	9.1

Source CPS disability series table 16, 4th quarter 2008, annual average 2009, annual average 2010, 1st quarter 2011

All of this changed as the recession continued. Unemployment rates for veterans shot up across the board, while labor force participation gradually dropped. This was particularly true with veterans

²² Gulf war veterans include veterans who served from August 1990 to the present. Gulf War era 1 includes service years from August 1990-August 2001 while Gulf War era 2 include service years from September 2001 to the present.

with disabilities, with the unemployment rate nearly doubling at 13 percent in 2009 and rising to 17 ½ percent for all Gulf era veterans with disabilities by 1st quarter 2011. At the same time, labor force participation dropped from nearly 60 percent in 2009 to roughly 41 percent in 1st quarter 2011. More recent Gulf era veterans had the hardest time, with unemployment for Gulf era 2 disabled veterans climbing to over 20 percent in 2009 and continuing to rise. At the same time, more Gulf era 2 disabled veterans became discouraged and dropped out of the labor force, with labor force participation dropping from nearly 62 percent in 2009 to 40 percent in 1st Quarter 2011. Even recent Gulf era veterans without disabilities had more trouble finding work than the civilian population, with unemployment rates for Gulf era 2 veterans without disabilities rising from 7.2 percent in 2008 to 12.4 percent in 12.4 percent. Labor force participation for these non-disabled veterans only dropped slightly to under 4 percent, suggesting a population still eager to find work but with few opportunities.

These high unemployment rates for veterans suggests that employers were not responding to veterans preferences during the recession. Placement programs were having little success placing the more recently disabled veterans attempting to re-enter the workforce. Given that non-disabled recent veterans were also having great difficulty finding work, these statistics suggest that employers were reluctant to hire anyone re-entering the labor market, with disability compounding already poor prospects for these workers without recent employment history in their chosen fields.

Taken together, these tables on disability suggest that while people with disabilities had even fewer opportunities with the recession, they did not experience disproportionate problems to others of the same age without disabilities. While unemployment is higher for people with disabilities both before and during the recession, their unemployment rate went up roughly the same number of points when compared to people of similar age without disabilities. The exception appears to be veterans with disabilities, who experienced steep climb in unemployment rates as the recession began that continued through first quarter 2011. This suggests that people with limited work experience due to disability had a harder time finding work in an even tougher job market.

General Trends in the Experience of those Unemployed in the Current Recession

We are looking for candidates with experience, but not too much experience. If I received a resume that had more years of experience than the manager for that unit I would discard it because you don't want the manager to feel bad or have to work with someone who knows more than they do. And besides, someone with a lot of experience would not like to do that kind of job [with less responsibility] (Response of HR staff person to older worker).

This quote from an HR professional is typical of many reported by job seekers in today's labor market. It reflects faulty logic that experienced workers are in competition with managers and would not be interested in positions that use their skills. It also shows that companies are looking for people with some experience related to positions, not those entering the labor force or attempting to move into different fields with comparable skills. Looking at unemployment and labor force experience across age, education, gender, disability and types of employment suggests several general trends during this recession:

- **Employers shed older workers and were reluctant to hire them again.** Across all categories, people 55-64 had the highest unemployment rates and the longest duration of unemployment. At lower educational levels, for African Americans/Blacks, and among the disabled, loss of work in greater percentages started at age 45. Older workers with long bouts of unemployment were

increasingly likely to drop out of the labor force by 2011, leading to potential future additional burden on retirement systems and fewer resources to pay for education of the next generation.

- **Younger workers, those entering the workforce for the first time, and disabled re-entering the labor force had significant difficulty finding work.** This pattern suggests that employers were reluctant to hire people without previous experience in their fields.
- **Unlike many previous recessions, higher education did not protect people from unemployment.** While people without a high school diploma or only a high school diploma had higher unemployment rates than those with post-secondary education, higher proportions of people with associates degrees, college and above were unemployed in this recession. Further, those with associates level had significantly higher levels of unemployment for the duration of the recession, suggesting that the standard focus on sending the unemployed for training in certificate programs and associates degree programs may no longer succeed.
- **Economic trends mattered more than gender or other characteristics in determining who lost jobs in this economy.** Occupations experiencing high unemployment were in fields associated with housing, banking, hospitality and manufacturing. Social welfare support positions began to disappear as the recession led to lower donations and less funding for non-profits, and is likely to deepen as government at all levels lays off workers affiliated with safety net programs. Unemployment in these sectors of the economy included everyone from managers to front line workers. Even in sectors of the economy experiencing less unemployment, companies shed people working in assistant positions, from secretaries and paralegals to health care and social service aids, crossing guards, and lab technicians. Some of these changes may reflect permanent changes in work patterns rather than the recession.
- **Stimulus funding saved jobs while it lasted, but the end of stimulus dollars is likely to create additional unemployment.** Perhaps the first indicator of the role of stimulus dollars comes when looking at the low unemployment among people involved in road construction during 2010, followed by nearly 48 percent unemployment for people working in road paving positions by first quarter 2011. While unemployment for teachers remained low, news reports of layoffs as the stimulus funds end suggest that unemployment will rise in these previously protected positions. The same is true for local and state government employees. As these layoffs commence, the previously lower unemployment rate for women than men may reverse.

Taken together, these patterns suggest that employers shed any group of workers, and then were reluctant to hire potential employees, that were perceived to be more expensive or considered less productive than their ideal workforce. This included older workers who generally use more health care benefits and have higher salaries, the disabled who are often believed to cost more due to accommodations and health costs, and people new to the workforce like younger workers and recent veterans who may require training. Employers were also unlikely to consider employees different from themselves, with women having a harder time finding work in the professions while men in social services faced higher unemployment rates and longer bouts of unemployment. Since veterans benefits proved little incentive to hire returning soldiers and those tracking unemployment for older workers describe rampant age discrimination, current incentives and legislative policy seems to yield little results among employers at present. Funding like stimulus dollars does seem to make a difference, however. This may suggest that solutions to unemployment that worked in previous recessions, like retraining or tax credits may need to be retooled or expanded in order to work in this economy.

Is self-employment an option for the long term unemployed?

Self employment has long been considered an alternative for people who have trouble finding work in existing firms. A variety of small business development programs have been created for low income and disabled populations, with special tax support, loans and mentoring from the Small Business Administration and other sources. In Kenosha, Wisconsin, a small city on the Illinois, Wisconsin border largely dependent on the auto industry until plant closings in the 1980s, the community's successful economic plan included support for entrepreneurship in construction and other fields. By 1997, when the Kenosha economy had rebounded to an unemployment rate of 3.5 percent, fully 1/3rd of Kenosha companies were single proprietor or family businesses with no employees. One local survey found that 71 percent of companies had 0 to 9 employees, while another survey that did not count the self-employed noted 52 percent of businesses with less than 10 employees.²³ Clearly self-employment and small business formation can be important in a changing economy.

Has self-employment served as an alternative in this most recent recession? A recent Bureau of Labor Statistics (BLS) report noted that 15.3 million individuals were self employed in 2009, or 10.9 percent of the population. The report showed two trends in self-employment during a recession. While, people out of work tended to start their own business as an alternative, many either already self employed or starting new businesses found less work because of over all economic conditions. The report noted that non-agricultural self employment had dropped from 2007 to 2010, with the non-agricultural unemployment rate edging down to 10.1 percent by the second quarter of 2010. Further, many of the self-employed were involuntarily working part-time. For example, the report indicated that in 2007, 33.5 percent of the unincorporated self-employed were working part-time and 6 percent of those were working part-time because they could not find enough work. In 2009 those figures had jumped to 41 percent working part-time and 12.8 percent only with part-time work because of economic reasons.²⁴

The unincorporated self-employed includes anyone who has not formally incorporated their business. People with lower education were more likely to have unincorporated businesses in fields like construction while people with advanced degrees usually incorporated. The incorporated businesses also ran a wide range of occupations, but for those with college or better, mostly included professions like architecture, business services or other kinds of consulting.²⁵

This BLS report indicated that some of the older workers who could not find work developed their own businesses. In the 45 to 54 age group, 8.2 percent of workers had unincorporated self-employment as their primary source of employment in 2009 while another 5.3 percent had incorporated their own business. During the same time period, 10 percent of those ages 55-64 had unincorporated self-employment income with another 6.2 percent had self-employed incorporated businesses. Older workers were more likely to start their own business than younger people, with only 4.6 percent of people age 25-34 reporting unincorporated self-employment in 2009 and 1.9 percent with incorporated businesses. Men were also more likely to be self-employed than women.²⁶

²³ See Schneider, JA (2001) *The Kenosha Social Capital Study Education Report*, 30-31. Available at home.gwu.edu/~jschneid.

²⁴ Hipple, Steven (2010) Self-Employment in the United States. *Monthly Labor Review*, September 17-32. Figures on overall self-employment, page 17, drops in self employment, page 19, and part-time work for the self-employed, page 28.

²⁵ Hipple, Steven (2010) Self-Employment in the United States. *Monthly Labor Review*, September, 21-25.

²⁶ See Hipple, Steven (2010) Self-Employment in the United States. *Monthly Labor Review*, September, table 4, page 24.

Unemployed older workers in the workforce development workshop described at the beginning of this report followed the same strategies. This was particularly true of those with advanced degrees. For example, an unemployed hospital CFO reported talking to his colleagues about consulting as well as work. Several others echoed that they were doing the same thing. None reported much success with this strategy.

Theoretically, new businesses can lead to employment for others in addition to the owner. But BLS reported that 84.7 percent of the self-employed had no paid employees in 2007, with the percentage increasing to 86.4 percent in 2009. The recession also hurt the ability of these very small businesses to provide jobs. Small business owners who did hire others cut employees with the recession, with the percentage hiring 1-4 employees steadily rising from roughly 76 percent in 2007 to 80 percent in 2009. While the percentage with 5-9 employees declined from 15.4 percent in 2007 to 9.7 percent in 2009, slightly larger businesses did better. Self-employed businesses with 10-19 employees inched up from 5.1 percent to 6.2 percent while those with more than 20 employees rose from 3.3 percent to 4 percent.²⁷

What factors led to limited success for the self-employed in this recession and its aftermath? The general economic downturn clearly remains a factor, particularly for self-employed people in jobs associated with the construction and financial industries. Both media reports and my research suggests that changes in credit policy account for the other major barrier for self-employment. Interviews with bankers in 2009 and 2010 revealed that changes in credit rules stemming from the housing collapse meant that financial industries could no longer count self-employment income in many applications for credit.

Further, small business owners or unincorporated self-employed people who took standard business deductions like depreciation deductions for business use of their home and car, health insurance and other business expense deductions, found that credit companies and banks only looked at the bottom net income figures on tax returns instead of monthly profit and loss statements. Since these deductions usually reduce self-employment income significantly, people were denied credit based on a much lower income figure than their actual monthly income. This was also true for people with a combination of self-employment and employment income, as the self-employment income was discounted or counted as a negative on credit applications. The result meant that self-employed people with solid credit histories were routinely denied credit for both personal and business related expenses.

While media reports have focused on the ways that the credit crunch has hurt small business ability to expand, this research suggests that credit policies discouraged people from self employment. If the self-employed do not have access to consumer credit or can not modify home loans because their income is discounted, more will seek regular employment than before. Recent policy meant to improve credit for small businesses appears to be focused on businesses with larger resources and more employees. The small upticks in employment for small businesses with 10 employees or more may come in part from these special loan programs, although the most recent statistics that would reflect these changes are not yet available.

This brief analysis of self-employment suggests that it is less of an option in this recession than others both because the industries hardest hit by the recession tend to include many of the self-employed

²⁷ Hipple, Steven (2010) Self-Employment in the United States. *Monthly Labor Review*, September, table 9, page 30.
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and because of recent monetary policy. In order to encourage self-employment and business starts as an option, policy makers would need to provide credit and other supports for single proprietor and very small businesses as well as those with significant income and employees.

Suggestions for Policy

Historically, government has had a limited tool kit to improve employment during a recession. Government can stimulate the economy by cutting interest rates or providing tax incentives for individuals and companies to spend more or increase hiring. Both of these strategies have been used in this recession, but still the economy has not created many jobs.

Government can also support sectors of the economy at risk, as in the recent bail outs of the auto industry and financial sector firms. It can provide income to unemployed workers, like the extended unemployment payments which have kept many people who have lost their jobs from losing their homes and falling further into poverty. These measures have had some success, but not led to significant recovery.

Government can also create jobs by funding public works or creating jobs programs. While the best known of these job creation initiatives were the Roosevelt era WPA and other jobs programs, similar strategies were used in the 1970s through CETA and funding for public works, rural and inner city improvement projects as well as ongoing initiatives funding employment for certain categories of workers. These range from summer youth employment to the employment programs for low income elderly, to on-the-job training programs that subsidize people in specific jobs. This administration created a stimulus program to fund badly needed public works, promote new energy initiatives and keep education programs at current levels. This analysis suggests that these programs succeeded in putting some people to work and keeping others from losing jobs, but these short term program provided temporary fixes that did not stem job losses when funding ended and the economy did not improve. The jobs bill currently under consideration continues these stimulus policies and provides additional protection for teachers and some other government workers. If trends noted in this report continue, these policies should succeed in creating some short term jobs and saving positions in education, public safety and other targeted activities.

Another standard approach to battling unemployment is providing training so that the unemployed can move into better or different jobs. Since people with lower educations have higher unemployment and more trouble finding work even in a good economy, most of the federal and state workforce development system programs focus on helping people complete a high school diploma or offer short term skills training. In recent years, programs for recently released prisoners have been added as a priority given the particular challenges this group faces finding work. Some of the Recover Act of 2009 provisions build on these presumptions too, by funding training programs at community colleges and other short term programs for jobs in the new economy. Obama administration initiatives also promote higher education through Recovery Act funding for Pell grants. Increased funding for college builds on years of studies that show that people with college degrees earn more than those without and have more stable careers. All of these programs assume that the cure for unemployment is education in fields with increasing employment.

The particularly high unemployment levels for people with associates degrees suggest that continuing a strategy of focusing on short term technical training may not work in the new economy. Continuing relatively high unemployment levels for people with college and advanced degrees,

particularly middle aged and older workers, suggests that training or retraining may only help some of the unemployed.

Taken together, this brief outline of policy strategies suggests that some of the standard approaches already tried by government in this recession need to be retooled or expanded, and some other strategies should be tried as well. Many of these are already proven techniques, which could be applied to improve the economy and help put people back to work. Many rely on tax incentives, a technique that has worked in the past to encourage hiring of particular groups of workers. Others incorporate proven training techniques like on-the-job training (OJT):

- **Tax incentives to hire older workers combined with educational campaigns to encourage hiring and discourage discrimination.** This recession has hit workers over age 54 the hardest and these workers are having the most trouble finding work again, with age discrimination starting at 45 for some occupations. While tax incentives for workers over age 62 have been proposed, I suggest legislating tax incentives for companies hiring anyone over age 50. In order for tax incentives to work, paper work needs to be simplified and programs need to be combined with public education campaigns to promote their use. Wage insurance for workers taking lower paying jobs, particularly older workers, should help these workers maintain their retirement and other family obligations.²⁸

However, none of these initiatives will succeed if employers continue to see older workers as competition for their younger staff or a burden on their pension and health care systems. Since older workers are most likely to lose their jobs, public education campaigns against age discrimination and increased enforcement of current age discrimination statutes are also necessary to curb current hiring and lay off trends.

- **Tax incentives, direct job placement and education campaigns to encourage hiring people with disabilities.** People with disabilities have the lowest labor force participation rates of any group of potential workers, even though many would prefer to support themselves through employment. ADA accommodations and the nature of disability are perhaps the least understood issue among U.S. employers. While some education campaigns currently exist for employers, education for the general public and employers on the full range of disabilities occurs infrequently. Since research suggests that employers are more likely to employ people with disabilities if they have direct positive experience, expanding job placement and internship opportunities for this population may make a significant difference.²⁹ While tax incentives to hire people with disabilities have been proposed, they should be widely available and advertised to encourage employment of this population.
- **Tax incentives and on-the-job-training (OJT) programs to employ returning veterans.** My earlier research on people using public assistance systems found that many veterans were unable to find work and had training in the military that did not translate to civilian settings. This study indicates that recent veterans have high unemployment rates. These numbers are likely to increase as the number of combat soldiers decreases in planned troop withdrawals. Given that current veteran's preferences and incentives appear not to be working, creating new tax

²⁸ See <http://www.whitehouse.gov/the-press-office/2011/09/08/fact-sheet-and-overview> for an overview of the proposed jobs legislation.

²⁹ See Luecking, Richard (2011) Connecting Employers with People who have Intellectual Disability. *Intellectual and Developmental Disabilities* 49 (4), 261-273.

incentives and on-the-job training programs, and effective GI bill college opportunities, appear necessary to move this population into the civilian workforce.

- **Tax supports for increased health care costs for more expensive workers.** Some research suggests that employers are cautious about hiring or keeping older and disabled workers because they think they will cost more in health benefits. While most employer costs for health insurance are already deductible, adding some form of tax incentive related to health costs may improve employer willingness to hire workers perceived to use more health care.
- **On-the-job training incentives for workers entering or re-entering the workforce.** On the job training usually includes some form of payment or tax rebate for employers who hire workers with limited experience or no recent work experience for a given position and provide training. Effective OJT programs require employers to keep successful trainees on the job for at least a year after the training program ends. Research on training systems suggests that OJT, or OJT combined with formal classroom training, is the most effective form of workforce development over time. Since younger workers, returning veterans, disabled people re-entering the workforce and the long term unemployed all appear to have extra difficulty finding work, creating OJT opportunities in a wide range of fields may prove effective in moving people into the workforce.
- **Targeted training for a wide range of occupations with expanding employment.** Targeted training generally involves a community college or training provider working directly with an employer or group of employers to develop training programs for occupations needing workers that combine training created to meet the specific needs of the job and some form of OJT. Graduate certificate programs for people who already have completed college can also serve as targeted training if employers are involved in design and implementation. While targeted training has generally proven more successful than generalized training, the most successful targeted training positions include an OJT component and an employer guarantee that they will hire successful trainees on completion of the program. This administration has encouraged training more generally with Pell grants and some funds for its priority occupations. However, to effectively address the mismatch between employer needs and employee qualifications, creating greater funding and promoting true targeted training initiatives would be most effective.
- **New Strategies for Work Search Assistance.** A wide range of research suggests that people find work through connections and in some cases job search and job placement assistance. While the currently proposed jobs bill calls for additional assistance for the long term unemployed through the one stop system, it is likely that understaffed state employment services are more likely to simply require verification of job searches by the unemployed rather than offer useful assistance. This is currently occurring in Maryland's extended unemployment system. The one stop systems are generally self-service centers with few staff equipped to provide job search guidance and limited formal placement systems. Further, most job development systems are designed for blue collar or service sector workers, not the large number of college educated workers among the current long term unemployed. In order to create effective work search assistance I suggest:
 - **Emphasizing increased links to employers and job placement through funding both public and non-profit job placement services.** This may include contracts with recruiters and employment services in the private sector as well as fostering stronger connections to employers by the state employment systems.

- **Creating mentoring and social network systems to assist people in connecting to employers with jobs.** Given that most people find jobs through connections, assisting those out of work to expand their connections by fostering connections to working professionals in their fields may significantly assist in successful job placements, especially for college educated professionals. This would involve job search and placement systems recruiting volunteers from the private sector who are currently working to provide connections, resume review and information on potential openings for their peers who have lost work. This networking may serve to break down the current assumptions among employers that older professionals are not appropriate for openings by creating more personal connections to those working in the field.
- **Continue stimulus initiatives and expand them to address industries that continue to contribute to the weakened economy.** Current stimulus programs have succeeded in providing jobs in construction and infrastructure development as well as maintaining jobs in education. While additional funds to create jobs or pay for public works may face hurdles in the current congress, job creation initiatives can put people back to work, create needed infrastructure upgrades, and improve the weakened economy if targeted properly. Given analysis of industries with high unemployment and current economic indicators and government priorities, I suggest the following priorities:
 - **Continued support for education.**
 - **Continued infrastructure improvement support.** Numerous studies report deteriorating roads, bridges, schools and public buildings as well as needs for expanded transportation. Funding these projects as proposed in the current jobs bill could continue to improve employment for architects, planners and their staffs as well as construction workers.
 - **Fix the mortgage modification programs and fund neutral contractors to implement them, with priority given to hiring the unemployed for those positions.**

Economic indicators suggest that continued problems with the housing industry, high foreclosure rates, and consumer credit issues related to mortgage lending continue to impact the entire economy. Reports on federal mortgage modification programs show significant problems related both to implementation of the programs by the industry itself and the design of the program. This report suggests that professionals and clerical staff in the lending industry have been particularly hard hit by this recession.

Using data driven analysis to understand the limited impact of the current home modification programs and the full range of borrowers in need of assistance would be required before creating any new programs. However, if government could create a program that offered modifications to a full range of borrowers in need, run through a government entity focused on consumers rather than the industry like HUD or the new Consumer Financial Protection Bureau and implemented by proven contractors rather than the industry itself, government could both begin to fix the housing crisis and address unemployment. Targeting employment in this program toward unemployed people with related experience could address the unemployment issue. Perhaps this program could be funded either through financial industry bail out profits or charges to the industry which has so far failed to successfully run modification programs.

- **Continue funding for human needs at pre-recession levels.** Funding for human needs such as welfare, training, youth, the elderly and related programs takes up roughly 2 percent of the federal budget, yet these programs are the first to be cut in a recession. 2011 budget negotiations follow the same patterns. Yet these programs are proven to fill genuine needs that years of research has shown can not be provided by the private sector. In fact, studies of non-profits show them cutting back as both their private and public funding sources dwindled with the poor economy. Funding recreation, food, clothing and health care also reduces costs for police and prisons made necessary as crime increases in poor economies. Returning funds for these initiatives to pre-recession levels and targeting employment toward the unemployed would both improve employment and yield long term economic dividends in many ways.
- **Fix consumer and small business credit through initiatives that address current economic trends.** A wide range of economic indicators and reports suggest that limited lending and tight credit policies have hurt both consumers and multiple sectors of the economy. This report suggests that self-employment and business development is limited by current credit policies as well. Analysis suggests that not only are financial institutions refusing to lend, with encouragement from government they have returned to credit policies from the 1950s and earlier. These include only lending to people with stable jobs and requiring 20 percent home equity or down payments for housing loans. In a job market where an increasing percentage of the workforce is employed in small firms and change jobs often, where more workers are employed part time or self-employed, credit policy that limits credit to an increasing portion of the population will lead both to limited job creation and lower consumption.

While I would not advocate returning to the policies that lead to the credit crisis, new policy needs to reflect current economic realities. Using current labor market, housing costs and economic data on what constitutes low risk borrowers to create policy would go a long way toward successfully revamping the credit system. Providing incentives for financial institutions to offer low-interest loans of all forms to borrowers with a strong credit histories regardless of income source and income to asset ratio could both increase consumption and pave the way for more successful self-employment and small businesses.

These policy suggestions may provide some improvement in employment, but none of the tax credits and other employer targeted mechanisms will work if business confidence does not improve. Addressing these issues are beyond the scope of this report, but impact on any initiative to increase hiring.