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Stephen A. Wandner*
Responding to the Needs
of Workers during the
Great Recession



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Randall W. Eberts and Stephen A. Wandner

Responding to the Needs of Workers during the Great Recession

During the Great Recession of 2007–2009, the number of unemployed seeking assistance from the public workforce system more than doubled from prerecession levels. The unprecedented number of public workforce participants tested the capacity of the system to serve their needs. Before the recession, the federal workforce programs had been funded at fairly constant levels, and there appeared to be little excess capacity in the programs to accommodate a sizable

The majority of ARRA funds were spent long before the number of workforce system participants peaked.

influx of participants. This article examines the response of the three major public workforce programs and the Unemployment Insurance (UI) system in meeting the needs of workers during and immediately following the recent recession. It summarizes the findings of one chapter of a much larger study supported by and prepared for the U.S. Department of Labor (Eberts, Wandner, and Cai 2012).

To help meet the challenges of a deepening recession, Congress passed the American Recovery and Reinvestment Act (ARRA) in the first quarter of 2009,

a year after the recession began. The bill appropriated more than \$800 billion to be used over a two-year period from 2009Q2 through 2011Q2 to help stimulate the economy and provide funding to support essential services. The U.S. Department of Labor received roughly \$66 billion, of which \$45 billion supported and expanded the UI system by extending benefits and modernizing the system. The three federal workforce programs that provide most of the job search assistance and training services—the Workforce Investment Act Adult and Dislocated Worker programs and the Wagner-Peyser Employment Service (ES)—received \$2.1 billion, about 75 percent of the PY2009 appropriations for the three programs.

Even with these additional funds, the question facing the public workforce system was how fast and effectively could it use these funds, along with the regular annual appropriations, to respond to the needs of the influx of unemployed workers? A complicating factor was the partnership among the federal, state, and local entities in providing these services, since it is the local entities that actually spend the funds to provide job search assistance and training services. The U.S. Department of Labor issued several directives to states and local Workforce Investment Boards to encourage them to spend the money as quickly as possible and to focus on training services to

the extent financially feasible (U.S. Department of Labor 2009).

The Need

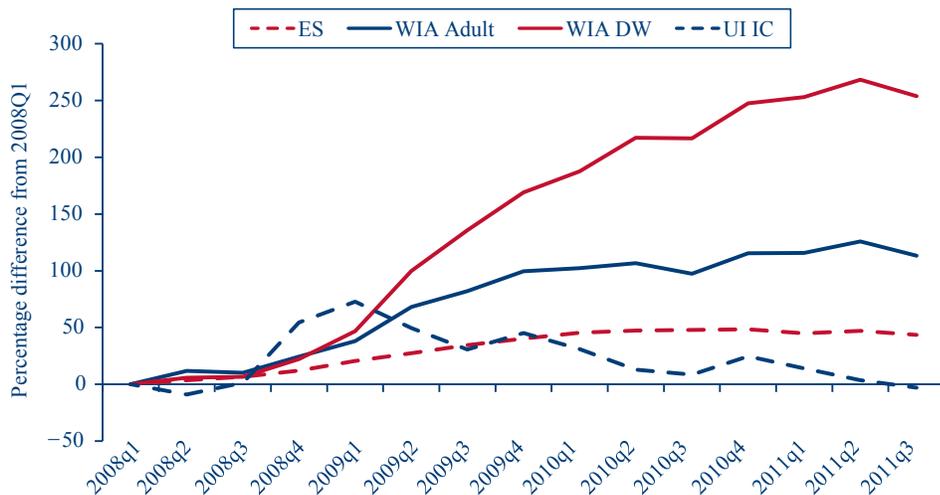
Soon after the economy began to slip into a recession at the end of 2007, the number of unemployed rose dramatically. Within four quarters, the number of workers who lost their jobs climbed 7.7 million in 2008Q1 to 12.8 million in 2009Q1—a 66 percent increase. By the end of 2009, unemployment peaked at 15.2 million, or 10.0 percent of the labor force, more than double the number before the recession began.

As the number of unemployed escalated, the major public workforce programs quickly became inundated with people seeking short-term income support, job search assistance, and training. The first line of support for the unemployed is typically the UI system. The number filing for UI benefits (initial claims) surged from 4.9 million a quarter in 2008Q1 to 8.5 million a quarter in 2009Q1—a 73 percent increase within the first year of the recession (Figure 1). All three workforce programs experienced large jumps in the number of participants, but the influx into these programs did not start until later. By 2010Q1, the number of ES participants increased 45 percent, WIA Adult participants jumped 102 percent, and WIA Dislocated Worker participants surged 188 percent. During that quarter, ES served 4.9 million participants, WIA Adult served 560,000, and WIA Dislocated Worker served 410,000. In total, the three programs were serving 2 million more customers during that quarter than they were two years prior to that time.

The Response

The three programs offering job search assistance and training made relatively quick use of the supplemental funds from ARRA. The ES spent the ARRA funds the fastest, with 85 percent of the available funds expended in the first five quarters. If the funds were spent evenly over the nine quarters, 55 percent of the funds would be expended during the first five quarters. The WIA Adult

Figure 1 Percentage Change in the Number of Participants of the ES, WIA Adult, WIA Dislocated Worker (DW) Programs, and the Number of UI Initial Claims (IC) from 2008Q1



program spent 72 percent of its available supplemental funds the first five quarters, and the WIA Dislocated Worker program spent 60 percent.

However, the level of funding was not enough to match the influx of participants. For example, while total

The ability to expand capacity to provide the additional services speaks well of the responsiveness of the workforce system, as evidenced by the sheer numbers served.

expenditures for the WIA Adult program grew 30 percent from the prerecession period to the ARRA funding period, that increase was eclipsed by the 157 percent increase in the number of participants during that same period (Table 1). Thus, expenditures per participant fell

by 49 percent. The WIA Dislocated Worker program experienced the same percentage decline in expenditures per participant. The ES program saw a 30 percent decline in the funds available per participant. Furthermore, the timing of the expenditure of funds was out of sync with the increase in participants. As shown in Figure 1, the number of participants in the three programs did not peak until 2011Q2, even though a majority of the funds were spent before 2009Q3. Therefore, in addition to fewer funds per participants overall, the desire to spend the ARRA money as quickly as possible left even fewer resources for those who entered the programs at a later date.

The bunching of expenditures in the first half of the ARRA funding period is evident in the timing of the provision of services. Three types of WIA services are tracked over time:

Table 1 Percentage Changes in Number of Participants and Expenditures from the Prerecession Period to the Recovery Act Period, by Program

Percent change from prerecession period to Recovery Act period	Program		
	ES	WIA Adult	WIA DW
Participants	58.9	156.7	183.5
Expenditures with Recovery Act funds	11.2	30.3	40.7
Average expenditure/participant with Recovery Act funds	-30.0	-49.3	-50.3

NOTE: Percentage changes are calculated between the time periods 2005Q3–2007Q4 and 2009Q2–2011Q2, based on quarterly averages within each period.

1) Intensive services, which include staff-assisted job search assistance, such as comprehensive reemployment assessments, development of individual employment plans, and counseling and career planning.

2) Training services, such as occupational training and basic skills training.

3) Supportive services, which offer transportation, child care, housing, and needs-related payments to those who need assistance in order to participate in the programs.

Not tracked in this study are core services, which are typically self-assisted services with little staff intervention. For both the WIA Adult and WIA Dislocated Worker programs, a higher percentage of participants received the higher-cost intensive and training services once the ARRA funding became available than was the case before the recession. However, this increase was short lived. By 2010Q2, the percentages had returned to their prerecession levels and after that time fell even lower.

The ability to expand capacity to provide the additional services speaks well of the responsiveness of the workforce system, as illustrated by the sheer numbers served. The number of WIA Dislocated Worker customers receiving intensive services increased from 46,000 in 2008Q3 to 114,000 in 2009Q3. During that same time period, the number receiving training increased from 21,000 to 56,000, and those receiving supportive services grew from 12,500 to 26,000. However, the heightened service receipt lasted only one quarter before starting to decline. By the following quarter, service receipt among the three types of services fell by as much as 30 percent and continued to decline throughout the remainder of the ARRA funding period. For example, the percentage of entrants receiving high-cost training services reached 30 percent as ARRA funding became available in the middle of 2009, but within a year the percentage fell back to 10 percent. Furthermore, as the influx of participants taxed the system’s capacity to provide services, customers had to wait longer before they received services. For

example, the number of days between the time a person registered for the WIA Dislocated Worker program and the time he or she first received training services increased dramatically, from 54 days in 2007Q3 to 95 days in 2008Q3.

The WIA Adult program exhibited a similar pattern. From 2008Q3 through 2009Q3, the number receiving intensive services grew from 103,000 to 156,000, those receiving training jumped from 37,000 to 60,000, and those receiving supportive services increased from 23,000 to 33,000. Similar to the availability of WIA Dislocated Worker services, the surge in WIA Adult services lasted only a few quarters. The increase in waiting time for services was also similar, increasing by 35 days between 2007Q3 and 2008Q3.

The Effect

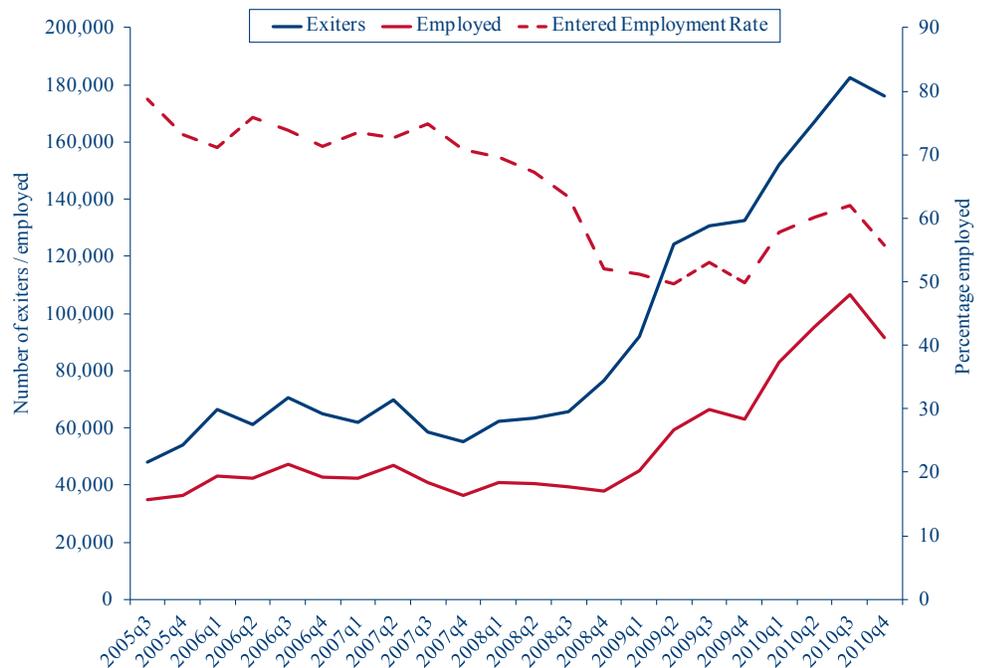
The number of WIA program participants who found employment immediately after exiting the programs steadily increased throughout the ARRA funding period. From 2009Q1 through 2010Q3, the number of WIA Adult exiters who found employment increased

from 107,000 in 2008Q3 to 159,000 in 2010Q3, an increase of 50 percent. The WIA Dislocated Worker program registered even larger percentage gains: exiters who found employment grew from 45,000 to 106,000, an increase of 135 percent. These increases stand in sharp contrast to the national trends in hiring and job creation. Nationwide, the number of hires declined by 2.8 percent and the number of private sector jobs fell by 2.2 percent during that period. However, much of the increase in job placement can be attributed to the greater number of people in the program. When looking at the rate of employment (exiters finding work divided by the total number of exiters), the rate for WIA Adult exiters stayed roughly the same, as the number of exiters rose at about the same rate as those employed. However, the employment rate for WIA Dislocated Worker customers fell, as the number of exiters outpaced those finding work (Figure 2).

Summary

The analysis suggests that the U.S. workforce system responded to the needs

Figure 2 Number of Employed and Entered Employment Rate of Those Leaving the WIA Dislocated Worker Program



of workers during the recent recession, but the resources available, even with the ARRA funding, were insufficient to provide the same level of services throughout the two-year ARRA funding period that the system provided before the recession. Calculations, described in the larger study, estimate that an additional \$8.5 billion, on top of the \$2.03 billion appropriated under ARRA, would have been needed to provide prerecession-level services to the influx of participants into the three programs. A conscious decision was made to spend money on passive policies, such as extending UI benefits, instead of providing additional dollars for more active policies, such as job search assistance and training. Furthermore, the desire to spend the ARRA funds as quickly as possible left fewer resources available later on when the largest numbers of participants were still in the programs. Nonetheless, the system exhibited a capacity to expand services, albeit for a short period of time, and to help people get back to work.

References

Eberts, Randall W., Stephen A. Wandner, and Jing Cai. 2012. *Implementation of the American Recovery and Reinvestment Act: Workforce Development and Unemployment Insurance Provisions*, Burt S. Barnow and Richard A. Hobbie, project codirectors. Final report. Washington, DC: Center for Employment Security Education and Research, the National Association of State Workforce Agencies.

U.S. Department of Labor, Employment and Training Administration. 2009. Training and Employment Guidance Letter No. 13-08, March 6, p. 2. Washington, DC: U.S. Department of Labor.

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Burt S. Barnow, John Trutko, and Jaclyn Schede Piatak

How Do We Know Occupational Labor Shortages Exist?

The term *labor shortage* has no universally agreed upon definition. It sometimes refers to a shortfall in the total number of individuals in the labor force, and sometimes denotes the possible mismatch between workers and jobs in the economy. In our recently published book, *Occupational Labor Shortages: Concepts, Causes, Consequences, and Cures*, we define an occupational labor shortage as a sustained market disequilibrium between supply and demand in which the quantity of workers demanded exceeds the supply available and willing to work at the prevailing wage and working conditions at a particular place and point in time. (Please see www.upjohn.org/Publications/Titles/OccupationalLaborShortages for more information about the book.) In general, the quantity of labor that workers are willing to provide is an increasing function of the wages (i.e., price) they can obtain, and the relationship between wages and the amount that workers are willing to provide at various prices, with other factors held constant, is referred to as the labor supply curve.

Figure 1 shows a typical upward-sloping supply curve for labor. As the wage rate is increased, more workers are willing to enter a particular occupation, and current workers are generally willing to provide more labor. In Figure 1, the amount of labor that employers wish to hire at alternative prices is indicated by the downward-sloping demand curve. The point labeled *E* in Figure 1 is the market equilibrium point. If the wage is equal to W_E , then the quantity of labor that workers are willing to supply at that wage (Q_E) is exactly equal to the quantity of labor that employers will wish to hire. The market is in equilibrium because the quantity supplied is equal to the

quantity demanded. If, for some reason, the prevailing wage rate in the market is W_0 rather than W_E , then the quantity of labor that workers are willing to supply is equal to Q_S —the point on the supply curve corresponding to W_0 . Employers, however, would like to hire Q_D at that wage rate. The difference between the amount of labor that employers wish to hire and the amount that workers are willing to provide ($Q_D - Q_S$) is the amount of the shortage.

Unfortunately, identifying a shortage is not easy. Just as the concept of “full employment” does not mean zero unemployment, a labor market is likely to have some vacancies in equilibrium; thus, the question is: When are there

How long must a market have excess vacancies before it is considered to have a shortage?

excess vacancies that signify a shortage? Likewise, markets do not adjust instantaneously to shocks, so how long must a market have excess vacancies before it is considered to have a shortage? Drawing the line between a shortage and a tight labor market is not easy. The Bureau of Labor Statistics does not publish data on vacancies by occupation, so even if there was agreement on what constitutes a shortage, the data needed to identify shortages do not exist.

Economists and other analysts have proposed alternative definitions of occupational shortages. Early studies by Arrow and Capron (1959) and Blank and Stigler (1957) defined shortages as situations where demand for labor increases faster than supply can grow—a condition sometimes observed in the market for engineers during economic booms. Although rapid increases in

demand can lead to labor shortages, there are other potential causes as well. As baby boomers reach retirement age, some occupations may experience swift drops in labor supply, and if sufficient workers do not enter the occupation to replace them, a shortage may result. Shortages can also result when there are long periods required for employers or workers to become aware of or make adjustments to changes in supply or demand. For example, it takes many years to train physicians, so even when an increase in demand becomes apparent, there is no way for the supply to increase quickly. Finally, shortages can result when the labor market does not operate freely. Examples include where the wage is set by a third party, such as often occurs for health occupations, or when supply is limited by entry restrictions, such as teacher certification.

In the absence of vacancy measures, shortages can only be identified by employer actions to obtain additional labor. If a shortage exists, the first thing we would expect to see is employers increasing their recruiting efforts. Specifically, we would expect employers to take one or more of the following actions to expand recruiting:

- increase advertising in usual outlets
- advertise in other media

- expand the recruiting area
- use public or private employment agencies
- pay bonuses to employees who bring in workers

Employers might take other actions to eliminate a shortage:

- increase use of overtime
- reduce minimum qualifications for the job
- restructure work to use less of “shortage” occupations
- substitute machinery and equipment for labor
- train workers for the jobs
- improve working conditions
- offer bonuses to new workers
- offer stock options to workers
- improve pay and fringe benefits
- contract out work
- turn down work

These options are not always available; for example, reducing the minimum qualifications is not feasible for a licensed occupation. Some of the actions can be undertaken quickly, such as increasing the use of overtime, but others, such as substituting capital for labor, might require several years to implement. Some of the options, such as use of overtime, are easy to reverse,

but others, such as increasing pay and benefits, are likely to be hard to reverse. In the case studies we conducted for our book, we did not expect employers to undertake all the actions described above, but if there was a shortage, we expected employers to take some of these actions to alleviate the shortage.

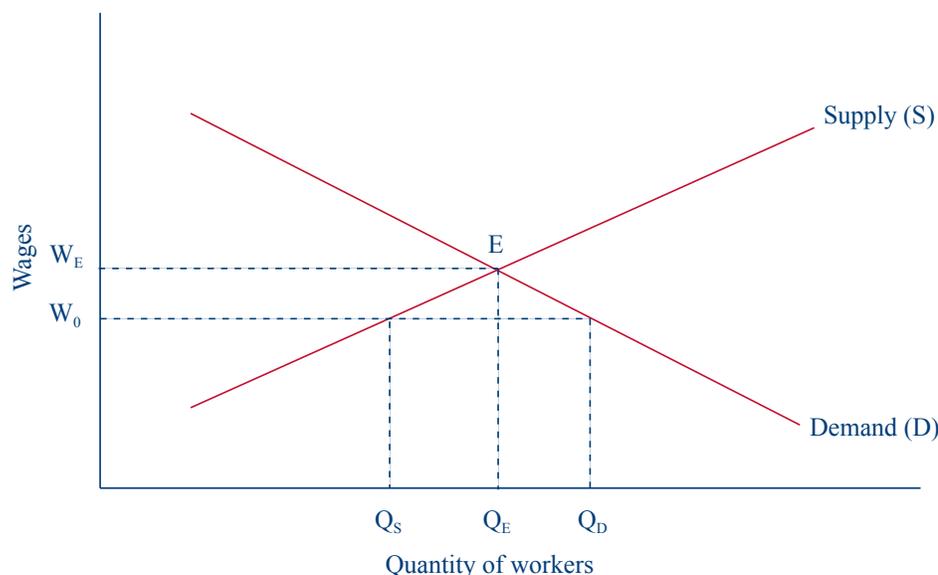
We decided not to use a quantitative measure to define a shortage because there is no simple way to aggregate the signs of a shortage, but others have developed specific measures. Cohen (1990) developed an index for the U.S. Department of Labor for determining a labor shortage based on the following indicators:

- employment change in the recent past
- occupational unemployment rate in the recent past
- wage change in the recent past
- training required for the occupation
- replacement demand
- projected increase in occupational demand
- immigrants certified in the recent past

The Migration Advisory Committee in the United Kingdom uses 14 measures related to vacancies, change in salaries, and change in employment as input in determining if there is an occupational shortage that warrants admission of immigrants in a particular occupation (Downs 2009).

We conducted case studies of four occupations where we had seen press reports of shortages or where we found evidence of shortages in previous research: home care workers, pharmacists, physical therapists, and special education teachers. Identifying occupational labor shortages in the absence of vacancy data is challenging. In our case studies, we relied on interviews with employers, worker organizations such as unions, and academics and other researchers who studied the occupation, as well as analysis of data published by the Bureau of Labor Statistics, the Department of Education, and trade associations. In looking at published data, we expected that if there was a

Figure 1 Illustration of a Labor Shortage



shortage, wages in the occupation should generally rise relative to occupations with similar requirements; exceptions to this expectation include situations where the wages are not market determined (such as many health care occupations) and if the comparison occupations are also experiencing a tight labor market. In the interviews with employers and trade associations, we looked for evidence that employers were undertaking some of the actions described above to deal with shortages. Interviews with worker associations and unions provide some balance, as employers sometimes claim there is a shortage, and workers counter that they are unwilling to use the extant workforce efficiently.

Perhaps in large part because the economy was experiencing the worst recession since the Great Depression when we conducted our research we did not find shortages in any of the four occupations. Even industry representatives, who often complained of shortages in our previous studies of home care workers and special education teachers, made no claims of a current shortage. Industry representatives indicated that there were shortages of pharmacists in the recent past when grocery stores began adding pharmacy sections and pharmacies extended their hours dramatically; however, as wages increased and it became increasingly difficult to fill positions, the demand for pharmacists declined. The labor market for home care workers is tight, but there was no evidence of widespread inability of people in need of such services to obtain them. Because home care is a relatively low-skill occupation with a short training period, one might not expect labor shortages, but in our prior work we found that government regulations on reimbursement for Medicare and Medicaid patients often led to difficulty in recruiting and retaining workers. Finally, our study of the market for physical therapists indicates that the market is very tight, but because of the severe recession, a shortage was not observed.

Several key conclusions emerge from our study, in addition to the conclusion

that there are no current shortages in the occupations studied.

Measuring occupational shortages is difficult. There are many reasons why it is difficult to determine if a shortage is present. First, the best indication of a shortage is an increase in the number and duration of vacancies, but in the United States occupational vacancy data are not available for most occupations. Second, there is no precise dividing line between a tight labor market and a shortage. Third, the Standard Occupational Classification (SOC) system used in the United States measures occupations too coarsely for measuring shortages; for example, all computer programmers are included in a single occupation, but employers want programmers with specific skills, such as Java or HTML. Finally, using interviews to assess the presence of a shortage is imprecise.

For policy purposes, it is important to go beyond the economic definition of a shortage. Sometimes labor markets do not provide the socially optimal number of workers in an occupation. This is particularly the case when the labor market is highly regulated by government. If rates of pay are set at a low level, the labor market will clear in an economic sense, but there may be what Arrow and Capron (1959) call a “social demand shortage,” that is, the market produces less than what society would like.

Paradoxically, many occupations with persistently tight labor markets have recently increased or are considering increasing entry requirements. Pharmacists recently began requiring that entrants hold a doctorate degree, the American Physical Therapy Association is striving to have all new physical therapists enter with a doctorate, and some are advocating that the minimum education for registered nurses be increased to a bachelor’s degree. Although there may be good reasons for increasing the educational requirements, the extra costs of gaining qualifications could exacerbate tight labor markets.

Because of the importance of gathering good information and gathering data on shortages, consideration should be given to improving data on job vacancies and the detail of occupational measurement. Occupational labor market information is crucial for activities such as career guidance and immigration decisions. The lack of adequate vacancy data and combining occupations at too high of a level make it difficult to sort out the situation for specific occupations. Because increased government funding is currently difficult, collaboration with industries to alleviate these problems should be explored.

References

- Arrow, Kenneth J., and William M. Capron. 1959. “Dynamic Shortages and Price Rises: The Engineer-Scientist Case.” *Quarterly Journal of Economics* 73(2): 292–308.
- Barnow, Burt, John Trutko, and Jaclyn Schede Piatak. 2013. *Occupation Labor Shortages: Concepts, Causes, Consequences, and Cures*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Blank, David J., and George J. Stigler. 1957. *The Demand and Supply of Scientific Personnel*. New York: National Bureau of Economic Research.
- Cohen, Malcolm S. 1990. *Study on the Feasibility of Using Labor Market Information for Alien Certification Determination*. Ann Arbor, MI: Institute of Labor and Industrial Relations, University of Michigan.
- Downs, Anna. 2009. “Identifying Shortage Occupations in the UK.” *Economic and Labour Market Review* 3(5): 23–29.
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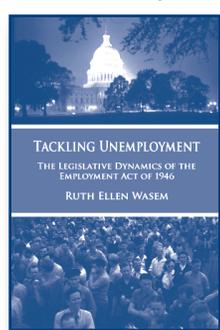
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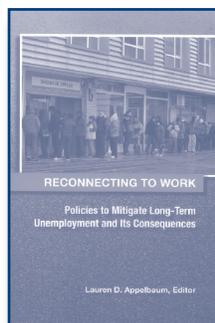
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Reconnecting to Work

Policies to Mitigate Long-Term Unemployment and Its Consequences

Lauren D. Appelbaum, Editor

By all accounts, the Great Recession had a devastating impact on the U.S. labor market—both in the short and long term. Relatively high unemployment lingers, millions are either underemployed or have voluntarily dropped out of the labor market, and the economy is growing but not at the pace needed to return the nation to precession employment levels any time soon. The result is that millions of workers have experienced the persistent and painful economic and psychological consequences that result from experiencing long-term unemployment.



This book addresses these consequences in order to promote a better understanding of the effects of long-term unemployment and the policies that are needed to address it. Lauren D. Appelbaum gathers an international group of researchers who present work that focuses on the economic and psychological consequences resulting from lengthy detachment from the workforce and on policies that might ameliorate long-term unemployment.

–[This book] deserves to be read by all who are concerned with the workings of labour markets.”

–Labour Studies

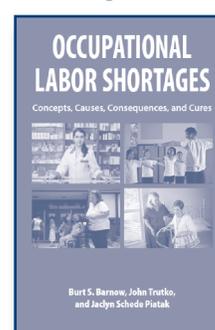
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Occupational Labor Shortages

Concepts, Causes, Consequences, and Cures

Burt S. Barnow, John Trutko, Jaclyn Schede Piatak

Barnow, Trutko, and Piatak focus on whether persistent occupation-specific labor shortages might lead to inefficiencies in the U.S. economy. They describe why shortages arise, the difficulty in ascertaining that a shortage is present, and how to assess strategies to alleviate the shortage.



Four occupations are used as test cases: 1) special education teachers, 2) pharmacists, 3) physical therapists, and 4) home health and personal care aides. For each of these occupations the authors summarize evidence that reveals whether it is currently or has recently experienced a labor shortage and suggest possible ways to alleviate the shortage if it is present.

The authors close with a chapter discussing their conclusions and potential uses for occupational shortage data, including in helping determine immigration policy. They also discuss the limited nature of the occupational data currently collected by the Bureau of Labor Statistics and how the federal and state governments could expand their data collection efforts to assist policy formation.

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