

**Independent Commissions and Labor Migration:  
The British MAC**

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**Abstract**

Britain’s independent Migration Advisory Committee (MAC) was created in 2007, after a decade that saw the share of foreign-born workers in the labor force double to 13 percent and a policy change that reduced the number of entry channels for foreign workers from over 80 to five. The MAC provides “independent, evidence-based advice to government on specific sectors and occupations in the labor market where shortages exist which can sensibly be filled by migration.” The MAC’s answers to these 3-S questions, viz, is the occupation for which employers are requesting foreign workers *skilled*, are there labor *shortages*, and is admitting foreign workers a *sensible* response, has improved the quality of the debate over the “need” for foreign workers by highlighting some of the important trade offs inherent in migration policy making. The MAC can clarify trade offs, but cannot decide answer the ultimately political question of which competing good deserves higher priority.

Keywords: Migrant workers, labor migration, economic needs tests

**Managing Labor Migration: Supply and Demand**

Three facts about migration often shape economic analyses of labor migration policy. First, adding people and workers via migration is generally associated with demographic and economic growth, so that migration is normally considered an economic good that helps governments to maximize economic growth. Second, the major “winners” from economic migration are migrants who enjoy higher incomes and more opportunities. The economic impacts of migrants on receiving countries are mostly distributional, meaning that migrants slightly enlarge the economy and raise returns to capital and land. However, migrants have relatively small effects, for better or worse, on the wages and employment opportunities of resident workers (Borjas, 1995).

Third, voluntary economic migration involves foreigners who want to enter a country and employers who want to hire them, so “managing migration” generally means spending money to limit or control migration at borders and inside the country. The policy question is how much to spend to reduce migration below levels that would exist with fewer controls.

There are two broad policy approaches to manage labor migration, supply and demand. The supply approach often involves point systems that award immigrant visas to young foreigners who have high levels of education and know the local language, as with those of Australia and Canada. Foreigners must achieve a certain number of points, at least 67 on Canada's 100-point scale, and can receive up to 28 points for English or French language ability, up to 25 points for education, up to 15 points for (non-Canada) work experience, up to 10 points for a Canadian job offer, and up to 12 points for those under 35.<sup>1</sup>

The supply approach to adding human capital can select persons who have more education than similar natives. For example, adult immigrants selected via Canada's point system have on average more education than Canadian-born adults (Reitz, 2013). However, some newly arrived immigrants do not use the credentials they earned abroad in the jobs they can find in their new host country, as when doctors or engineers drive taxis, resulting in "brain waste." The Australian and Canadian governments are trying to reduce brain waste by awarding more points to foreigners who have local job offers and speeding up the local recognition of credentials earned abroad.<sup>2</sup>

The US and most European countries rely on a demand approach to manage the admissions of foreign workers, meaning that employers "sponsor" particular foreigners for temporary worker and immigrant visas. In many cases, the foreigners sponsored for immigrant visas first arrive as temporary workers. For example, foreign students may graduate from US universities, be hired by a US employer with an H-1B visa, and then, after a period of satisfactory performance, the employer may "reward" the foreigner by sponsoring him or her for an immigrant visa.

In the US, it is easy for employers to attest that they are following H-1B regulations and thus receive permission to hire foreigners with H-1B visas. However, employers sponsoring foreigners for immigrant visas must have the US Department of Labor certify that US workers are not available to fill the job that is often already filled by the foreigner being sponsored. Under such circumstances, the advertising for US workers that is required as part of certification rarely finds US candidates.<sup>3</sup> In another irony, as soon as the

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<sup>1</sup> Canada's Federal Skilled Worker Program was revised in 2013 to put more emphasis on English or French language ability and on having a Canadian job offer.  
[www.cic.gc.ca/english/department/media/backgrounders/2012/2012-12-19.asp](http://www.cic.gc.ca/english/department/media/backgrounders/2012/2012-12-19.asp)

<sup>2</sup> Canadian studies in 2005 put "brain waste" at C\$2 billion a year, defined as immigrant earnings would be C\$2 billion higher if they worked in the occupations for which they are educated. In response, the government made grants to professional organizations to enable them to more quickly determine if foreign-trained doctors, nurses, engineers and other professionals are qualified for licenses to work in Canada. Immigrant children educated in Canada have no problems getting licenses. See Migration News. 2005. Canada: Brain Waste. Vol 12. No 1.  
[http://migration.ucdavis.edu/mn/more.php?id=3115\\_0\\_2\\_0](http://migration.ucdavis.edu/mn/more.php?id=3115_0_2_0)

<sup>3</sup> In one case, the Cohen & Grigsby law firm made a promotional film in which its lawyers said they would help employers seeking immigrant visas for foreigners they were sponsoring to advertise for US workers in ways that minimize the chances of finding qualified US workers. Their lawyer said: "Our objective is to NOT find a qualified and interested U.S. worker" during

temporary worker receives an immigrant visa, she has freedom to change jobs, and many foreigners leave the jobs for which they were certified as uniquely qualified to fill as soon as they obtain immigrant visas (Martin and Midgley, 2006).

Almost all temporary foreign workers are admitted under the demand approach, meaning that employers set the admissions process in motion by requesting permission to recruit and employ guest workers to fill vacant jobs. Governments have several options to respond to employer requests for migrant workers, ranging from a “trust-the-employer” extreme of simply admitting the foreign workers requested or taking the opposite approach of assuming that most employers can find local workers to fill vacant jobs and requiring those who request foreign workers to first pass a series of tests to demonstrate local workers are unavailable to fill particular jobs.

The US H-1B program is an example of the “trust-the-employer” policy (Martin, 2012). This program, which admits foreign workers who have at least a first university degree to fill US jobs that require such degrees, was created in 1990 when the IT revolution was just getting underway. Employers were given easy access to foreign university graduates in exchange for an annual cap of 65,000 visas a year, almost three times annual admissions at the time, to protect US workers. Under current regulations, most US employers simply *attest* or promise via the internet that they are offering genuine jobs, that they are paying the prevailing wage, and that there is no strike in progress, and over 99 percent of employer requests are approved by the US Department of Labor within seconds. Most US employers may lawfully lay off US workers and replace them with H-1B workers (Hira, 2009).<sup>4</sup>

The theory when the H-1B program was enacted was that the burgeoning IT industry would request all available visas immediately, and then the demand for H-1B visas would fall as more US workers acquired IT skills. In fact, it took until 2007 for all available visas to be requested. Employer requests for more than 65,000 H-1B visas a year prompted successful efforts to persuade Congress to “raise the cap” several times (Martin, 2012). New industries became closely associated with the “trust-the-employer” H-1B visa, notably Indian-based outsourcers who brought Indian IT workers to the US, learned about a client’s IT needs, and did some of the work in the US with workers on H-1B visas and sent the rest to India. Another business closely related to the H-1B visa involved “body shops” that brought IT workers and nurses from abroad with H-1B visas and sent them from one US employer to another.

The US H-2A program illustrates the opposite approach of labor autarky (Martin, 2009). After the Bracero program that admitted Mexican workers to fill seasonal

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the required recruitment process. See [http://migration.ucdavis.edu/mn/more.php?id=3434\\_0\\_2\\_0](http://migration.ucdavis.edu/mn/more.php?id=3434_0_2_0)

<sup>4</sup> Only H-1B dependent employers, those with high shares of H-1B workers in their workforces and those who have violated H-1B regulations, must try to recruit US workers before hiring H-1B workers.

US farm jobs ended in 1964, government policy assumed that farm employers would normally find US workers to fill the diminishing number of jobs in US agriculture. However, a safety valve was created for farmers anticipating too few US farm workers; they were allowed to request that the US Department of Labor *certify* their need for foreign workers so that they could recruit and employ foreign workers who would come to the US with H-2A visas. Certification involves the employer offering a higher-than-minimum Adverse Effect Wage Rate, housing at no charge to workers, and guaranteeing work for at least three-fourths of the period that the employer wants workers (Martin, 2013).

There is no cap on the number of H-2A visas issued because the certification process aims to ensure that only needed foreign workers are admitted. However, farm employers call the certification process “bureaucratic and cumbersome,” and some assert that they hire unauthorized farm workers because it is too hard to hire legal guest workers (Bruno, 2012). However, many of the farmers who complain loudest of farm labor shortages operate in areas with double-digit unemployment rates, and their assertions of labor shortage suggest few recruitment efforts.<sup>5</sup>

Expert commissions such as the MAC can help to steer a middle course between trust-the-employer attestation and overcome-hurdles certification. Commissions can review top-down labor market wage, unemployment and other data for evidence of labor shortages in an industry or occupation, and then fine-tune their analysis by considering “bottom up” evidence from employers, unions. Commissions can offer binding or advisory recommendations on whether there are labor shortages that should be filled with migrant workers. Under some US proposals, commissions would develop a list of shortage occupations, and employers hiring workers in these occupations could use the trust-the-employer attestation process (Marshall, 2009; Papademetriou et al, 2009).

### **Britain’s MAC**

Britain in 2008 reformed its policy for admitting migrant workers from outside the European Economic Area, which includes the European Union and Iceland, Lichtenstein, and Norway. The number of entry doors was reduced from more than 80 to five major tiers or entry channels, and the independent MAC was created to advise the government on whether there were labor shortages in particular occupations that required skills and whether admitting migrant workers to fill vacant jobs was a sensible policy (MAC, 2008).

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<sup>5</sup>Peach farmers around Marysville, California in July 2012 said: "Usually, each year the migrant workers show up. This year we keep thinking maybe they'll show up tonight, maybe they'll be here tomorrow morning. Nobody's really showing up yet." Word of the shortage of peach pickers attracted 100 local applicants, but growers said that, without experience, local workers could not pick fast enough at the piece rate they offered, \$16 to \$20 per 1,000 pound bin, to earn the minimum wage of \$8 an hour. Migration News. 2012. Labor Shortages: Congress. Vol 18. No 4. October. [http://migration.ucdavis.edu/rmn/more.php?id=1718\\_0\\_4\\_0](http://migration.ucdavis.edu/rmn/more.php?id=1718_0_4_0)

Each entry channel or tier governs the admission of a particular type of foreigner.<sup>6</sup> Tier 1 is for highly skilled workers without a British job offer, and is available to foreigners with personal characteristics that suggest they will be successful in the UK labor market because of their education, high previous earnings, and British work experience, the supply approach to migration management. There are three subcategories: professionals such as doctors and lawyers, foreign graduates of UK universities, and investors and entrepreneurs.<sup>7</sup>

Tier 2 admits skilled non-EU workers (with at least a secondary school education) who have British job offers for up to three years. Foreigners sponsored by British employers under Tier 2 receive points for their education, English language skills, and additional points if they are filling a job in a shortage occupation. In 2009, some 18,800 foreigners arrived in the UK under Tier 1 and 36,400 arrived under Tier 2; two-thirds of Tier 2 arrivals were intra-company transfers.<sup>8</sup>

Tier 3 is for low-skilled migrant workers and is currently closed, Tier 4 governs foreign students, and Tier 5 includes other temporary migrants who are not primarily seeking jobs, such as working holidaymakers in the UK. Tier 4 is controversial. There are more than 200,000 foreign students in the UK who can work at least part time, and some of the colleges and universities who act as sponsors for foreign students have had their authority to sponsor foreign students suspended.

The purpose of the 5-tier entry system was to move from employer-led migrant worker admissions to a policy that maximizes the benefits of migration for the entire British economy. The MAC plays a major role in providing advice on Tier 2 admissions in cases where employers want to hire non-EEA workers (MAC 2009a). There are three major Tier 2 sub-channels: one admits migrants to fill jobs in shortage occupations, one admits migrants after employers try and fail to find local workers, and one admits intra-company transfers employed by a multi-national abroad that the firm wants to move to fill jobs in its British operations.<sup>9</sup>

A first challenge for the MAC was deciding whether particular occupations should be on the shortage list (MAC, 2008). If an occupation is on the shortage list, employers do not have to first try to recruit local workers before receiving permission to hire foreign workers.

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<sup>6</sup> Migration News. 2008. Britain: Five Tiers. Vol 15. No 4. October.  
[http://migration.ucdavis.edu/mn/more.php?id=3440\\_0\\_4\\_0](http://migration.ucdavis.edu/mn/more.php?id=3440_0_4_0)

<sup>7</sup> A November 2010 report found that three-fourths of the South Asians and Nigerians who graduated from UK universities and were admitted under Tier 1 filled low-skilled supermarket jobs in the UK, so only 1,000 visas were made available in 2011.  
[http://migration.ucdavis.edu/mn/more.php?id=3655\\_0\\_4\\_0](http://migration.ucdavis.edu/mn/more.php?id=3655_0_4_0)

<sup>8</sup> [http://migration.ucdavis.edu/mn/more.php?id=3655\\_0\\_4\\_0](http://migration.ucdavis.edu/mn/more.php?id=3655_0_4_0)

<sup>9</sup> Intra-company transfers earning more than £40,000 and transferred from a foreign subsidiary to a UK branch of the same firms are exempt from the Tier 2 cap on admissions, which was 20,700 in 2012.

The MAC examines 12 top-down labor market indicators to determine if a particular occupation in which employers say there are labor shortages should be put on the shortage list (MAC 2008; MAC 2010a, 44), including:

- Three price-based indicators, such as the growth in wages in the occupation,
- Four volume-based indicators, such as the growth in employment or the unemployment rate in the occupation,
- Three employer-based indicators, such as employer reports of labor shortages, and
- Two other indicators, including job vacancy data

The MAC considers an indicator to suggest a labor shortage if the indicator passes a “median plus 50 percent of the median” test. For example, if the median wage increase in all occupations is two percent, the median increase in a shortage occupation must be at least three percent to suggest a shortage. If at least half of the 12 top-down indicators satisfy the 50+50 test, the MAC can conclude there is a “potential labor shortage.”

Top-down analysis of labor market indicators rarely finds labor shortages. For example, Veneri (1999) defined a labor-short occupation as one in which employment increased at least 50 percent faster than the average of all occupations, wages rose at least 30 percent faster than average, and the occupation in question had an unemployment rate at least 30 percent below average, and found few labor shortage occupations in the US at the height of the 1990s economic boom. This 50+30+30 test was satisfied by seven of 62 occupations between 1992 and 1997, but only one, special education teachers, had both top-down and bottom-up evidence of shortages. Notably, computer-related occupations did not satisfy the 50+30+30 test despite rapid employment growth and low unemployment rates because earnings did not rise at least 30 percent faster than overall earnings.

Similarly, MAC analysis of top-down indicators find few labor-shortage occupations. However, the MAC can also consider bottom-up evidence from employers, unions, and others to decide whether there is a labor shortage in a particular occupation, and this bottom-up evidence has been decisive in most cases where the MAC has determined that there are labor shortages. In some cases, the MAC decides that only some of the job titles within a broader occupation have labor shortages.

After almost five years, the MAC has earned a reputation for careful and public analysis of data, prompting the government to expand the MAC’s mandate. The questions posed to the MAC have expanded from whether there are labor shortages in particular occupations to requests to estimate the economic impacts of dependents who accompany migrant workers and the socio-economic effect of non-EEA migrants on the UK, including the potential use of benefit-cost analysis to assess migrant impacts on pre-migration residents (MAC, 2012).

The MAC normally responds to government queries within three to six months, issuing a public report that lays out the questions posed by the government and

its recommendations.<sup>10</sup> The fact that the MAC's advice is public makes it harder for the government to reject MAC recommendations without good reason or further evidence, one reason why the MAC's recommendations have usually been accepted and adopted by the British government.

After almost five years, the MAC has had three major effects on British labor migration policies (Martin and Ruhs, 2012). First, the MAC has earned a reputation for careful analysis of the data and evidence on which it bases its recommendations, which has helped it to win credibility both with the government and the public. There are stakeholders who disagree with some of the MAC's recommendations, but the MAC's willingness to consider both top-down labor market indicators and bottom-up evidence from employers and advocates gives all stakeholders a voice in the process of determining whether there are labor shortages.

Second, even if the MAC concludes there is a labor shortage, it does not always recommend that migrant workers be admitted. The MAC is charged with weighing whether it is "sensible" to admit migrant workers to fill jobs in occupations where it has found labor shortages. This means that, even if the top-down and bottom-up evidence suggests a shortage, the MAC may recommend against opening doors to migrant workers.

This "sensible" question highlights some of the trade off issues that complicate migration policy making. London is one of the most expensive cities in Britain, and two thirds of the care givers who serve the elderly and disabled in their homes or in nursing homes were born outside the UK. Care givers are often employed by private firms and NGOs that have contracts from local governments, whose funds to provide care are from local taxes (Ruhs and Anderson, 2010).

A reluctance to raise taxes helps to keep care givers' wages low, while the desire to provide good care means that care givers must have credentials proving they have undergone training. British workers with credentials can earn more outside the publicly funded care sector, so training more British workers, a common suggestion to curb labor shortages, would not help in this case. The MAC's analysis highlighted the trade off between taxes and care giver wages by concluding that care "budgets need to be larger, or at least better targeted towards those parts of the sector suffering from labour shortage, so that those workers can be paid more." The MAC recommended that only the highest skilled care workers be added to the shortage occupation list to avoid "institutionalising low pay in the care sector." (MAC 2009b, 96).

Third, MAC shortage findings can trigger governmental actions to reduce labor shortages in the future. When the MAC puts an occupation on the shortage list, making it easier for employers to employ foreign workers, there can be a formal review of the training system that trains British workers for the occupation in

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<sup>10</sup> A list of MAC publications is available at: [www.ukba.homeoffice.gov.uk/aboutus/workingwithus/indbodies/mac/](http://www.ukba.homeoffice.gov.uk/aboutus/workingwithus/indbodies/mac/)

question, so that a shortage of carpenters or plumbers prompts expanded training efforts.

Linking labor shortages to training is important in sectors such as construction, where apprenticeship systems that used to train workers to be carpenters and electricians have shrunk (Ruhs and Anderson, 2010). Apprenticeship systems are much stronger in central Europe, which is one reason why many British and other employers turned to “Polish plumbers” to fill skilled manual jobs. By calling attention to the links between labor shortages, migration, and training, the MAC was able to highlight the choices that policy makers must confront.

### **Conclusions**

All governments whose employers request permission to hire migrant workers must decide how to respond. Most governments are not well equipped to assess employer claims of labor shortages. Defining and measuring shortages is not easy, especially in small geographic areas, but the cost of flawed policy decisions can be high. On the one hand, restricting access to foreign workers could adversely affect particular employers and may slow economic growth. However, if local workers are left jobless by an influx of migrants, or if employers delay the productivity-increasing changes necessary to remain competitive in a globalizing world because migrant workers are available, the economy may become less competitive over time.

The British MAC shows that expert commissions can improve decisions on whether to admit foreign workers. The MAC helped to steer the debate over whether migrant workers were “needed” from competing assertions about whether labor shortages were due to faster job than labor force growth or a poor “work ethic” and attitudes of British workers to an analysis of labor market data. Careful analysis of both top-down labor market indicators and bottom-up evidence from employers, unions, and other stakeholders raised the quality of the debate over whether some employers or sectors need foreign workers, and whether employers should continue to have easy access to such workers in the future.

Second, the MAC helped to clarify the various measures of shortages, highlighting the data sources that are most useful in determining whether there are sufficient local workers. The MAC has also been able to move from data to analysis by asking whether migration is a sensible response to labor shortages. For example, finding a shortage of soldiers may not sensibly call for a migration response.

Third, the MAC made trade-offs that underlie competing policy objectives clearer. For example, there is often a trade off between the goals of protecting local workers from “unfair” competition and giving employers easy access to foreign workers they prefer because of migrant attitudes toward (hard) work. Similarly, the London care giver example highlights the trade offs between low council taxes and high-quality care giving services.

Analyzing trade offs does not necessarily mean determining which of two competing goals should have higher priority. Immigration generates uneven benefits, and migration policy making ultimately requires a balancing of competing interests. Deciding whether the optimal response to labor shortage complaints is the admission of migrant workers, higher wages, or some other option is an inherently political decision. The MAC can make the trade-offs between these options and their consequences clearer, but it can not and should not replace an explicit political debate about which competing policy objectives is most important.

### **Bibliography**

- Borjas, George. 1995. The Economic Benefits from Immigration. *Journal of Economic Perspectives*. Vol 9. Spring. Pp3-22.
- Bruno, Andorra. 2012. Immigration of Temporary Lower-Skilled Workers: Current Policy and Related Issues. Congressional Research Service. R42434 March 20.
- Hira, Ron. 2009. H-1B Visas: It's Time for an Overhaul. *Business Week*. April 13.
- Martin, Philip, 2013. Immigration and Farm Labor: Policy Options and Consequences *American Journal of Agricultural Economics* Vol 95. No 2. pp470-475. January <http://ajae.oxfordjournals.org/content/95/2/470.full>
- Martin, Philip. 2012. High-Skilled Migrants: S&E Workers in the United States. *American Behavioral Scientist*. August. Vol 56, pp 1058-1079  
<http://abs.sagepub.com>  
<http://abs.sagepub.com/content/56/8/1058.full.pdf+html>
- Martin, Philip. 2009. *Importing Poverty? Immigration and the Changing Face of Rural America*. Yale University Press.  
<http://yalepress.yale.edu/yupbooks/book.asp?isbn=9780300139174>
- Martin, Philip and Martin Ruhs. 2011. Labor Shortages and US Immigration Reform: Promises and Perils of an Independent Commission. *International Migration Review*. Vol 45. No 1. Pp179-192.  
[www.wiley.com/bw/journal.asp?ref=0197-9183](http://www.wiley.com/bw/journal.asp?ref=0197-9183)
- Martin, Philip and Elizabeth Midgley. 2006. Immigration: Shaping and Reshaping America. Washington D.C. Population Reference Bureau. Vol 61, No 4. December.  
[www.prb.org/Publications/PopulationBulletins/2006/ImmigrationShapingandReshapingAmerica.aspx](http://www.prb.org/Publications/PopulationBulletins/2006/ImmigrationShapingandReshapingAmerica.aspx)
- Marshall, Ray. 2009. Immigration for Shared Prosperity — A Framework for Comprehensive Reform. May. [www.epi.org/publications/entry/book\\_isp](http://www.epi.org/publications/entry/book_isp)

Migration Advisory Committee (MAC). 2008. First recommended shortage occupation lists for the UK and Scotland. Migration Advisory Committee, [www.ukba.homeoffice.gov.uk/sitecontent/documents/aboutus/workingwithus/mac/first-lists/](http://www.ukba.homeoffice.gov.uk/sitecontent/documents/aboutus/workingwithus/mac/first-lists/)

Migration Advisory Committee (MAC). 2009a. Analysis of Tier 1, Tier 2 and dependants under the points-based system. Migration Advisory Committee

Migration Advisory Committee (MAC). 2009b. First review of recommended shortage occupation lists for the UK and Scotland. Migration Advisory Committee

Migration Advisory Committee (MAC). 2010a. Third review of recommended shortage occupation lists for the UK and Scotland. Migration Advisory Committee

Migration Advisory Committee (MAC). 2010b. Limits on Migration. Migration Advisory Committee. November.

Migration Advisory Committee (MAC). 2012. Analysis of the Impacts of Migration. January.

Papademetriou, Demetrios, Doris Meissner, Marc Rosenblum, and Madeleine Sumption. 2009. Aligning Temporary Immigration Visas with US Labor Market Needs: The Case for Provisional Visas. Migration Policy Institute. [www.migrationpolicy.org](http://www.migrationpolicy.org)

Reitz, Jeffrey. 2013. Canada: New Initiatives and Approaches to Immigration and Nation Building. Hollifield, James, Philip Martin and Pia Orrenius. Eds. 2013. Controlling Immigration. A Global Perspective. Stanford University Press. [www.sup.org/book.cgi?id=22520](http://www.sup.org/book.cgi?id=22520)

Ruhs, Martin and Bridget Anderson. Eds. 2010. Who Needs Migrant Workers? Labor Shortages, Immigration and Public Policy. Oxford University Press

Transatlantic Trends. 2009. Immigration. [http://www.gmfus.org/trends/immigration/doc/TTI\\_2009\\_Key.pdf](http://www.gmfus.org/trends/immigration/doc/TTI_2009_Key.pdf)

Veneri, Carolyn. 1999. Can Occupational Labor Shortages be Identified using Available Data? Monthly Labor Review. Vol 122 (3), 15-21. [www.bls.gov/opub/mlr/1999/03/contents.htm](http://www.bls.gov/opub/mlr/1999/03/contents.htm)