

## **In response to the COVID-19 pandemic, what strategies can be effective for helping unemployed individuals return to work?**

With the introduction in many states of shelter-in-place and stay-at-home orders in spring 2020, the unemployment rate in the United States, according to U.S. Bureau of Labor Statistics, jumped from a decade-low 3.5 percent in February to 14.8 percent in April, far exceeding the rate of unemployment experienced during the Great Recession of 2008 and 2009. The number of unemployed individuals declined steadily since this peak; however, the unemployment rate was still 6.7 percent as of the end of 2020, 3.1 percentage points higher than the same period the previous year. Evidence from existing research on government policies and programs that help unemployed individuals return to work and engage in job search may be helpful in tackling joblessness in the COVID-19 context.

This rapid evidence review summarizes relevant programs and potentially promising strategies. CLEAR identified four type of strategies:

1. Reemployment initiatives
2. Employment and hiring subsidies
3. Vocational rehabilitation and job accommodations
4. Strategies to help reopen businesses

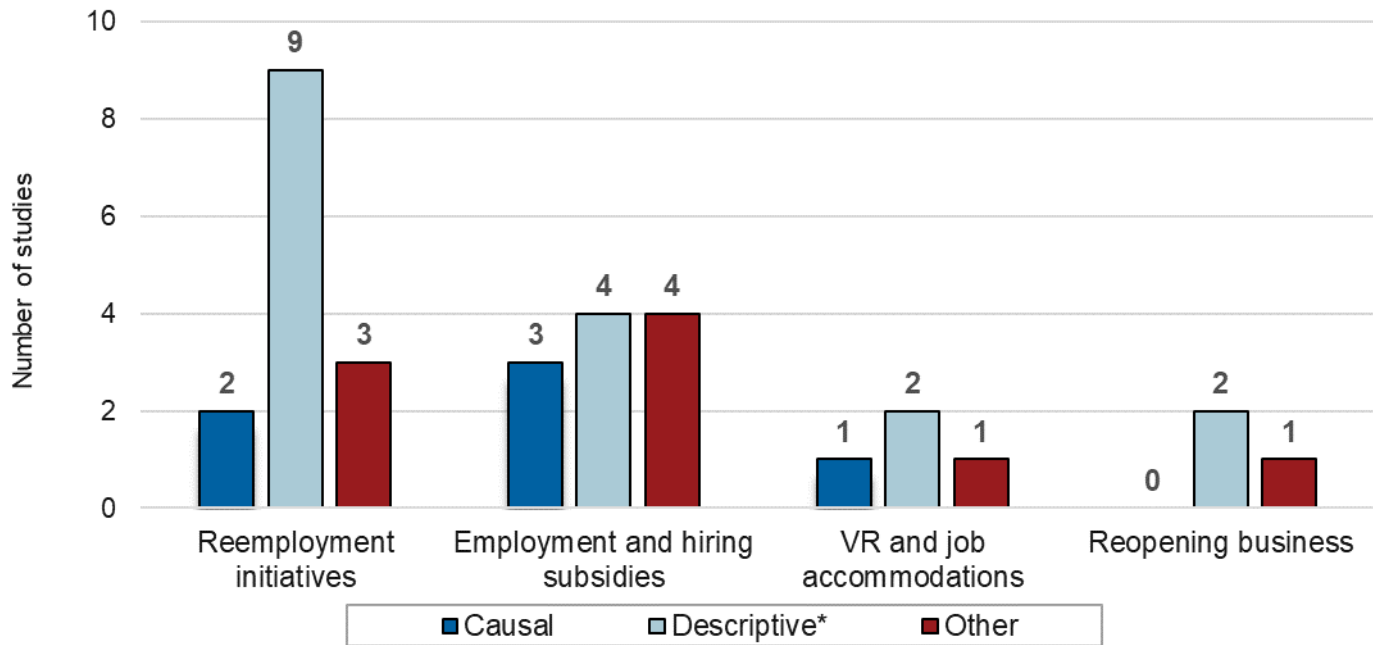
The evidence presented here is based on the Clearinghouse for Labor Evaluation and Research's (CLEAR)<sup>2</sup> rapid review of 32 publications, many of which summarize the findings from multiple studies. Across the 32 publications, 6 were classified as causal, 17 were classified as descriptive (these include evidence reviews of causal and quasi-experimental studies, implementation studies, and descriptive quantitative analyses), and 9 were other types of studies (these include literature reviews, opinion pieces from subject matter experts, and policy papers). Figure 1 shows the number of studies, classified by topic and type of research. A supplement to this rapid evidence review provides citations with links to the publications, further information about study findings, and details about how this rapid review was conducted.

---

<sup>1</sup> This version includes literature published between January 1, 2007 and March 8, 2021. CLEAR continues to search for relevant literature and may update this synthesis as new research emerges.

<sup>2</sup> CLEAR is the U.S. Department of Labor's Clearinghouse for Labor Evaluation and Research. Its mission is to make research on labor topics more accessible to practitioners, policymakers, researchers, and the public, to support evidence-informed decision making. CLEAR does this by conducting systematic evidence reviews, summarizing individual studies of programs, and synthesizing research across individual evidence bases. To date, CLEAR has conducted more than 18 evidence reviews and summarized more than 1,000 studies.

**Figure 1. Types of studies by topic**



\* These 17 descriptive studies synthesize evidence from more than 3,300 individual studies.

VR = vocational rehabilitation.

## 1. Reemployment initiatives

► **Job search assistance programs have employment-promoting effects.** Credible evidence exists on the effectiveness of customized, one-on-one job search assistance programs on employment outcomes within approximately the first year of program participation (Card, Kluve & Weber 2018; Michaelides & Mueser 2018; Wilson et al. 2020) For example, in Nevada, participation in job search assistance programs increased the likelihood of employment by 5 to 8 percentage points, increased earnings by over \$2,500, and decreased the duration of unemployment insurance receipt by 1.9 weeks during the Great Recession (Michaelides & Mueser 2018). Other studies of earlier U.S.-based job search assistance programs also had favorable, though not as strong, impacts on employment or earnings in the short or long term, though these results varied across programs and over time (Park, 2012; Heinrich, Mueser & Troske 2008). Evidence also suggests that the effectiveness of job search assistance depends on the regularity of monitoring of job search activities and the strictness of benefit sanctions (that is, the duration and severity of losses of benefits). In particular, a review of causal studies shows that job search monitoring and sanctions can lead to shorter unemployment duration and higher short-term reemployment rates, but can also potentially lower earnings in the short run (McVicar 2020).

In **job search assistance** programs, unemployment insurance (UI) claimants receive assistance and training in job search techniques, including, for example, job search workshops, preparing a résumé, and interview training.

Positive effects were also found for a job search program for older workers (Perspektive 50plus) and for the long-term unemployed (Berliner Job Offensive) in Germany, as well as in mandatory job search programs in Denmark (Quickly Back to Work), and one-on-one job search support programs delivered

remotely (online or over the telephone) in Sweden (Wilson et al. 2020). The effects of these job search assistance programs are, on average, larger for women and the long-term unemployed, and the impacts are greater during periods of slow growth in the economy and high unemployment (Card, Kluve & Weber 2018).

This evidence suggests that in response to COVID-19, retraining caseworkers to better understand the changing nature of in-demand jobs (for example, contact tracers, warehouse associates, package handlers, and delivery drivers), work (whether done remotely or while meeting social-distance requirements), and industries (essential versus non-essential industries) might increase their capacity in assisting unemployed individuals in finding jobs.

Given the high rates of unemployment that are likely to persist after COVID, policymakers might be interested in improving short-term outcomes, even at the expense of longer-term outcomes. In the context of high-unemployment following COVID, monitoring and sanctions may help increase rates of labor market reentry; however, evidence suggests that these measures may reduce future income and may lead some individuals to withdraw from the labor force (McVicar 2020). Policymakers and program administrators need to assess the trade-offs between short-term and long-term return-to-work effects when designing their job search assistance programs.

► **Despite evidence of effectiveness of job search assistance, most disadvantaged job seekers need additional support.** The extent to which caseworkers can help unemployed people depends on the number or available jobs in the area and the skill set of the person who is unemployed. When there are more job seekers than jobs, job search assistance program participants who are more employable benefit from those programs to a greater extent and those who are less employable have a higher risk of transitioning into disability benefits (Card, Kluve & Weber 2018; Wilson et al. 2020). At the same time, the strictness of eligibility criteria for these programs and the extent to which job seekers perceive participation in them as burdensome can create strong incentives to becoming employed before participating in a reemployment program (Filges & Hansen 2017). Given this, the evidence suggests eligibility requirements for reemployment programs and the consequences to job seekers for failing to meet them need to be carefully designed to meet the needs of more disadvantaged job seekers. Job search is particularly challenging for job seekers with children at home due to school closures during the COVID-19 pandemic. Some European countries (for example, the Netherlands and the United Kingdom) have eased job search requirements, whereas others (such as France, Germany, and Sweden) have suspended such requirements and lifted sanctions (Organisation for Economic Co-operation and Development 2020). These approaches might help put job seekers with child care responsibilities on equal footing with job seekers who do not have those responsibilities.

**Work-based training** can include strategies such as apprenticeships, pre-apprenticeships, career pathways programs, internships, mentoring, on-the-job training, integrating education and training, transitional jobs, and subsidized training and employment. Participants can be incumbent workers, students, or unemployed individuals. Providers of work-based training include employers; educational institutions; and federal, state, or local government agencies.

**Career pathways** strategies include a series of connected education and training programs that enable individuals to secure a job or advance in a high-demand industry or occupation while receiving support services. Implementation of these programs varies.

► **Targeted and demand-led work-based training programs are effective in helping unemployed individuals find jobs.** Studies show that programs can be effective in helping unemployed individuals transition into jobs if they are targeted to specific disadvantaged groups, involve employers in their design and delivery, reflect specific labor market needs, are workplace-based, and build employability skills (Card, Kluve & Weber 2018; Wilson et al. 2020). Evidence suggests that the effects of these more intensive programs are also more effective and more likely to be sustained over time than lighter-touch job search assistance programs whose impact is more immediate but not as lasting (Card, Kluve & Weber 2018). For example, there is strong evidence that apprenticeship and career pathways programs help reduce unemployment (Wilson et al. 2020). A similar program in the United Kingdom—Sector Based Work Academies—introduced in 2011 was found to be associated with an average of 50 more days of work among participants than nonparticipants (Wilson et al. 2020).

Based on the evidence of the effectiveness programs in the past, providing incentives to employers to continue offering workplace training programs and to make use of remote learning and working options to prepare for future demand, both for employees and apprentices, might help maintain and develop the skills of the workers laid off because of the because of COVID-19.<sup>3</sup> Because school closures during the COVID-19 outbreak have disrupted parents' ability to work, especially for women,<sup>4,5</sup> flexible scheduling and offering alternative sessions, which traditionally increase women's retention in training programs (Inanc, Needels & Berk 2017), might help unemployed parents participate in training and apprenticeships during COVID-19. However, the degree to which and when these programs might be effective in response to the pandemic will depend on the pace of economic recovery and job creation, because unemployment increased higher in three months of COVID-19 than it did throughout the Great Recession.<sup>6</sup>

► **Closer collaboration between workforce development agencies and employers can help increase the ability of these programs to match “trained-for” occupations and available jobs.** One of the challenges of the COVID-19 economic crisis is adjusting workforce development programs to rapid and uncertain structural changes in the types of jobs that are in demand, which requires close monitoring of the characteristics of new job openings in real time (Costa Diaz et al. 2020). Descriptive evidence from the Great Recession indicates that some training programs were not well-attuned to the occupational needs of their labor markets (Hyman & Xi 2020). In particular, many training programs still focus on occupations that never completely recovered from the Great Recession, reducing the effects of training.

---

<sup>3</sup> For details, see CLEAR's [rapid evidence review on remote service delivery](#).

<sup>4</sup> Alon, T., Doepke, M., Olmstead-Rumsey, J., & Tertilt, M. (2020). *The impact of COVID-19 on gender equality*. National Bureau of Economic Research. <https://www.nber.org/papers/w26947.pdf>

<sup>5</sup> Amuedo-Dorantes, C., Marcén, M., Morales, M., & Sevilla, A. (2020, October). *COVID-19 school closures and parental labor supply in the United States* (IZA DP No. 13827). IZA Institute of Labor Economics. <http://ftp.iza.org/dp13827.pdf>

<sup>6</sup> Bureau of Labor Statistics. *Labor force statistics from the Current Population Survey, (Seas) unemployment rate*. Database. <https://data.bls.gov/timeseries/LNS14000000>

Descriptive analyses of expansive data on job postings indicates that, even during the COVID-19 pandemic, firms continue to hire for certain jobs (Burning Glass Technologies 2020). Specifically, jobs that are in essential industries<sup>7</sup>, require less skills, and mainly serve to meet the sudden demand for shipping and delivery of goods during social distancing measures continued to expand (Campello & Muthukrishnan 2020). Many countries, including the United States, Canada, the United Kingdom, Australia, and New Zealand took measures to move unemployed workers to these jobs (OECD 2020). According to descriptive evidence, new online platforms that connect workers to nearby jobs might therefore promote reemployment (Burning Glass Technologies 2020; OECD 2020).

## 2. Employment and hiring subsidies

► **Subsidized employment programs are effective in providing income support and skills to disadvantages job seekers who cannot find jobs, particularly in recessionary times.**

A meta-analysis of 207 studies on reemployment programs suggests that countercyclical employment subsidies are particularly effective for longer-term (or hard-to-employ) unemployed who face multiple barriers to employment (Card, Kluve & Weber 2018). For example, subsidized employment programs developed under the Temporary Assistance for Needy Families (TANF) Emergency Fund, such as the Transitional Jobs (TJ) programs, were found to improve employment and earning outcomes in the short and medium term (Cummings & Bloom 2020). Based on this evidence, many subject matter experts argue that strategies such as boosting employment through infrastructure schemes and creating public service jobs may be particularly effective in helping the long-term unemployed return-to-work during the COVID-19 pandemic (Oates & Van Horn 2020, Hershbein & Holzer 2021).

**Subsidized employment programs** provide job opportunities to unemployed individuals by using public funds to pay for all or part of their wages. These programs typically offer skill development and support services to help increase the employability of the long-term unemployed so that they can obtain jobs in the regular labor market after the subsidized portion expires.

**Hiring subsidies and credits** exempt employers from tax or Social Security contribution for new employees hired to incentivize job creation.

► **Hiring subsidies and credits have job creation effects and can help speed up job recovery.**

Evidence on the 2010 Hiring Incentives to Restore Employment Act, which provided payroll tax exemptions to employers for hiring an unemployed worker, suggests that hiring subsidies increased employment after the Great Recession by 1 to 2 percent (Diez et al. 2020; Farooq & Kubler 2015). Evidence also suggests that specific types of hiring credits, such as those targeting unemployed people, those that allow states to recapture credits when job creation goals are not met, and refundable hiring credits, helped boost job growth during the Great Recession (Neumark & Grijalva 2016). Similar programs that subsidize employers' social insurance contributions have been found to be effective in France (Cahuc, Carcillo & Le Barbanchon 2018), where the program was available for small firms to hire low-wage workers, as well as in Turkey, where the largest effects were on low-educated, low-skilled women older than age 30 (Balkan, Baskaya & Tumen 2016). Moreover, extending hiring subsidies to

---

<sup>7</sup> Essential industries in the literature reviewed for this synthesis, such as construction, agriculture, and nursing and residential care, are those producing goods and services deemed essential and in high demand during the pandemic.

start-ups, where all workers are, by definition, new workers, could help absorb some of the excess labor supply (Merkl & Weber 2020). In fact, this strategy was effective in Germany in helping unemployed individuals to start businesses (European Commission 2014).

► **Level of targeting and program oversight can influence program effects.** Highly targeted hiring subsidies, which prevent employers from cream skimming, or choosing the most employable individuals rather than hiring disadvantaged workers, are more effective in avoiding hiring unemployed individuals who would have a job without the subsidy (European Commission 2014). Targeting, therefore, can increase net job creation. However, in a very tight labor market, where job growth is very low, targeted hiring subsidies may prevent employers from hiring the most skilled workers, which then undermines the economic recovery (European Commission 2014). This evidence implies that untargeted hiring subsidies could help job creation and reemployment of skilled workers in the post-COVID19 recovery process but might push disadvantaged workers out of the labor force. The level of targeting, therefore, could be set and then adjusted in accordance with the unemployment levels and the speed of job growth. Moreover, to prevent employers from exploiting the system, states can set eligibility restrictions on these programs and prohibit dismissing and rehiring employees and monitor compliance (Diez et al. 2020; Merkl & Weber 2020).

### 3. Vocational rehabilitation and job accommodations

► **Vocational rehabilitation and employment counseling services can be effective in decreasing unemployment rates among individuals with disabilities.** Evidence suggests that phone-delivered vocational rehabilitation services designed to incrementally change daily routines through behavioral rehabilitation increase the likelihood of returning to work among by reducing the recipient's perception of disability and improving their ability to manage pain and discomfort. Similarly, phone-delivered employment counseling services such as career planning, job search, and referrals increase job search activities among individuals with disabilities. These services, combined with medical care management, increase employment by almost 50 percent (Weathers & Bailey 2014).

**Vocational rehabilitation** programs provide services to individuals with disabilities to help them prepare for, return to, or maintain employment. Vocational and rehabilitative services may include diagnosis, an individualized rehabilitation program, counseling and guidance, training, job placement, and services to support job retention.

A **job accommodation** is an adjustment to a job or work environment that makes it possible for an individual with a disability to perform their job duties. Accommodations may include specialized equipment, modifications to the work environment, or adjustments to work schedules or responsibilities.

As they can be delivered by phone, these services are in line with social-distancing measures and could continue to be effective helping individuals with disabilities during the COVID-19 pandemic. Additionally, since COVID-19 infection may affect physical, cognitive, and psychological functioning, some COVID-19 survivors need rehabilitation to carry out daily activities. Vocational rehabilitation and employment counseling services can help some COVID-19 survivors eventually return to work.

► **There is evidence on the effectiveness of job accommodations in shortening work absences after injury; similar accommodations might help individuals infected or at higher risk of infection**

**with COVID-19 return safely to the workplace.** Job accommodations are found to be effective in shortening work absences (Franché et al. 2007; Lefever et al. 2018). This evidence suggests similar adjustments might be used to facilitate return to work for individuals with higher risk of illness due to COVID-19. Potentially promising accommodations include modified and staggered job schedules to minimize contact with coworkers, provision of personal protective equipment, and continued remote work (Barnes & Sax 2020).

## 4. Strategies to reopen businesses

► **Keeping mobility within local labor markets while restricting it between them might alleviate negative economic consequences of the pandemic on local communities and help creation and preservation of jobs.** Quasi-experimental evidence suggests that a large share of commuting takes place within labor market areas,<sup>8</sup> known as commuting zones. For the median American labor market area, around 7 percent of its residents work outside the area (Monte & Rossi-Hansberg 2018). Based on this evidence, a labor market expert suggests that allowing mobility within local market areas that have lower COVID-19 infection rate while restricting it between them might help reopening of businesses in more quickly in some areas and help laid off individuals return to work (Monras 2020).

► **Two-week cycles of lockdown strategy might suppress the spread of COVID-19, helping accelerate restart economic activity and the return to work.** New and exploratory mathematical models suggest that, as long as rapid testing and contact tracing is available, a cycle of 4 days of work and 10 days of lockdown might be effective because individuals infected by COVID-19 while at work would reach the peak of their own infectiousness while in lockdown (Karin et al. 2020). In addition to supporting the public health goal of suppressing the spread of COVID-19, the authors predict that this strategy could potentially allow businesses to continue work almost continuously with multiple sets of rotating employees on these two-week cycles. They suggest this continuity could have further benefits, such as helping stabilize the supply chain, providing part-time jobs, and reducing unemployment. While this type of cyclic strategy might be applied at any level (a firm, a town, a state, or a country), its effectiveness in practice is unknown, and it has potential public health implications that are also unknown. Its feasibility also is contingent on industries and occupations.

## Where are the gaps in evidence on return-to-work programs and strategies?

- **It is unclear how and to what extent reemployment programs and subsidies can serve the unprecedented number of unemployed individuals.** The existing research does not address the unprecedented context of the COVID-19 pandemic, with a very rapid surge in unemployment and an uncertain path to reopening the economy. While most evidence comes from the period of the Great Recession, the current pandemic not only has affected an unprecedented volume of workers, it also has affected a more diverse set of workers and industries. Existing evidence is largely on programs that tend to target more disadvantaged workers, and evidence is lacking on the scalability

---

<sup>8</sup> Local market areas are geographic units of analysis intended to more closely reflect the local economy where people live and work.

of these programs to serve more and varied types of customers and on their effectiveness in the pandemic context.

- **More causal research is needed on the return to work strategies adopted since the outbreak of the pandemic, and their longer-term effects.** In the context of an ongoing pandemic and high unemployment rate, return-to-work strategies have aimed to help as many unemployed individuals as possible find employment as quickly as possible. Descriptive evidence suggests that these strategies are potentially effective in placing individuals in jobs in essential sectors and in jobs requiring lower skill levels (Burning Glass Technologies 2020, Campello & Muthukrishnan 2020, OECD 2020). More rigorous evidence is needed to assess the degree to which these job placements were due to the adopted strategies versus some other factor. Moreover, subject matter experts point to potential trade-offs in short-term effects, such as higher re-entry rates and lower earnings, versus long-term effects, such as better job quality, higher earnings and skill development, of return-to-work strategies. Therefore, future research should explore the longer-term effects of these strategies (once a sufficient amount of time has elapsed since their implementation).
- **More evidence is needed on the effectiveness of safe workplace practices for infectious diseases.** The ability to help unemployed individuals return to work goes hand in hand with ensuring that return-to-work strategies can be implemented safely so that job finders can work safely, irrespective of their health condition. While studies suggest job accommodations and adjustments are effective in reintegrating individuals with disabilities (for example, musculoskeletal disorders or psychiatric and mental health problems) into the workplace, more evidence is needed on how workplace safety can be ensured during a highly infectious pandemic.



## Rapid Evidence Review Supplement: Citations and Further Information

This supplement to the rapid review, “In response to the COVID-19 pandemic, what strategies can be effective for helping unemployed individuals return to work” provides citations and brief summaries of the studies discussed in the rapid review. The final section describes the approach used to create the rapid review.

### CITATIONS AND STUDY SUMMARIES

---

This supplement presents the citations and summaries using the same organization as the rapid review. Each citation is included in each section in which it was referenced (which could be more than one), though the study is summarized only on first appearance. The subsections are as follows:

1. Reemployment initiatives
2. Employment and hiring subsidies
3. Vocational rehabilitation and job accommodations
4. Strategies to help reopen businesses

#### 1. Reemployment initiatives

Burning Glass Technologies. (2020). *Filling the lifeboats: Getting Americans back to work in the pandemic*. [https://www.burning-glass.com/wp-content/uploads/2020/05/Lifeboat\\_Jobs\\_Burning\\_Glass.pdf](https://www.burning-glass.com/wp-content/uploads/2020/05/Lifeboat_Jobs_Burning_Glass.pdf)

- Type of research: Other (policy paper)
- Summary: This article assesses how best to return workers to employment in the **United States** in the aftermath of the COVID-19 pandemic. Analyzing **data on job postings collected from 40,000 online sources on a daily basis**, the author notes that although posted jobs alone are not sufficient to get all 26 million unemployed Americans back to work, lifeboat jobs (temporary jobs that require little to no training that can hold unemployed workers over until the labor market improves) are an effective way of returning individuals to work, even if temporarily. The author also notes that these jobs can alleviate burdens on families and the unemployment insurance system, and help to circulate money through the economy. To this end, the author recommends that communities do the following to move workers toward lifeboat jobs: (1) provide recently unemployed individuals with an app that highlights adjacencies to available jobs based on skills they already have; (2) adjust licensing requirements to enable more workers to apply for health care jobs; (3) help workers find jobs before their unemployment benefits expire; and (4) provide workers with increased health knowledge to keep them safe in the aftermath of the pandemic.

Campello, M., Kankanhalli, G., & Muthukrishnan, P. (2020). *Corporate hiring under COVID-19: Labor market concentration, downskilling, and income inequality* (NBER Working Paper No. 27208). <https://www.nber.org/papers/w27208.pdf>

- Type of Research: Descriptive (quantitative)

- Summary: This study examines the relationship between the COVID-19 pandemic and the **U.S.** job market. Using **big data on firm job postings from LinkUp**, the authors report a differential decrease in job postings, with high-skill jobs decreasing more than low-skill jobs. Further, smaller firms cut jobs more substantially relative to larger firms, especially firms in rural areas and those outside of the suburbs. The authors note that these results suggest that economic stimulus packages could be provided to firms that hire for high-skill positions in rural areas and areas just outside the suburbs. The results also suggest that income inequality may be exacerbated by disproportionate cuts to jobs in low-income, high-inequality areas.

Card, D., Kluve, J., & Weber, A. (2018). What works? A meta analysis of recent active labor market program evaluations. *Journal of the European Economic Association*, 16(3), 894–931. <https://doi.org/10.1093/jeea/jvx028>

- Type of research: Descriptive (quantitative)
- The authors' objective was to conduct a **meta-analysis** of the effectiveness of active market labor policies (ALMPs) in improving employment outcomes in the short, medium, and long run. One fifth of the 207 studies included in this meta-analysis adopted an experimental design, and studies took place in various settings. The authors group them as **Germanic countries, Nordic countries, Anglo countries, non-OECD countries, and Latin American and Caribbean countries**. They included studies on such policies as classroom or on-the job training, job search assistance, sanctions for failing to search for jobs, subsidized private-sector employment, and subsidized public-sector employment. While no specific target population was set, the authors examined subgroup differences in findings when available. The meta-analysis showed that ALMP's have small effects on employment in the short run but have larger positive effects in the medium or long run. However, the results vary by type of ALMPs. Work first programs such as job search assistance and sanction programs have larger short-run impacts, while training and private-sector employment programs have smaller short-run impacts but larger impacts over medium and long run. Public-sector employment has null or negative impacts at each time point. The effects vary by subgroup, with females and long-term unemployed individuals experiencing greater gains in employment, and young or older workers experiencing less of an impact. With less definitive evidence, the authors found that job search and sanction programs may work better for disadvantaged participants, while training and private-sector employment subsidies may have more of an impact for the long-term unemployed. ALMPs have greater impacts during periods of slow economic growth and high unemployment.

Costa Diaz, M., Joyce, R., Postel-Vinay, F. & Xiaowei, X. (2020). The challenges for labour market policy during the COVID-19 pandemic. *Fiscal Studies*, 41(2), 371–382. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/1475-5890.12233>

- Research type: Descriptive (qualitative)
- Summary: Based on a **qualitative assessment** of the changes in the U.K. labor market, this article outlines policy recommendations to help prevent temporarily laid-off workers from long-term

unemployment during the recovery from the COVID-related economic crisis in the **United Kingdom**. The authors argue that, in the recovery period, temporarily relocating workers in hard-hit sectors to other sectors, or helping them permanently transition into sectors with better prospects and labor shortages, are key solutions to preventing mass long-term unemployment. Another complementary policy recommendation is to take advantage of the low-opportunity cost of public-sector hiring to launch public investment projects that will also provide work experience and skills development for unemployed individuals. Hiring subsidies and job search assistance can also be used to speed up the recovery. The authors suggest that, to increase matches between vacancies and job seekers, it will be necessary to monitor the characteristics of new job openings in close to real time, and to overcome potential mismatches, training in the workplace can be an important part of the solution. Moreover, the authors argue that the government should find ways to further incentivize effective forms of training, such as apprenticeships for young workers and those delivered at work. These actions could help close the gap between the skills of workers and the requirements of new jobs.

Filges, T., & Hansen, A. T. (2017). The threat effect of active labor market programs: A systematic review. *Journal of Economic Surveys*, 31(1), 58–78. <https://onlinelibrary.wiley.com/doi/epdf/10.1111/joes.12134>

- Type of research: Descriptive (quantitative)
- The authors conducted a systematic review of the effects of active labor market programs on unemployed individuals. Specifically, they examined the *threat effect*, which is the induced change in the hazard rate of leaving unemployment prior to program participation. The study conducted a **meta-analysis based on effect estimates** of 20 studies published between 2002 and 2012, which cover a range of countries including the **United States, Australia, Switzerland, Germany, Denmark, Finland, Norway, and Sweden**. The criteria for including a study was that program participants all had to be unemployed individuals who received some sort of benefit during unemployment. The authors observed a hazard ratio of 1.25, corresponds to a 56 percent chance that an unemployed individual threatened with participation in an ALMP finds a job before an individual not threatened with ALMP participation. From this, the authors conclude that active labor market programs constitute a modest statistically significant threat effect.

Heinrich, C., Mueser, P., & Troske, K. (2008). *Workforce Investment Act non-experimental net impact evaluation*. Columbia, MD: IMPAQ International. [Dislocated worker sample] [https://wdr.doleta.gov/research/FullText\\_Documents/Workforce%20Investment%20Act%20Non-Experimental%20Net%20Impact%20Evaluation%20-%20Final%20Report.pdf](https://wdr.doleta.gov/research/FullText_Documents/Workforce%20Investment%20Act%20Non-Experimental%20Net%20Impact%20Evaluation%20-%20Final%20Report.pdf)

- Type of research: Causal (quasi-experimental)
- The authors evaluated the impact of the Adult and Dislocated Worker programs under the Workforce Investment Act (WIA) in the **United States**. The study compared earnings and employment outcomes for 16 quarters after program entry among two different groups: (1) WIA Dislocated Worker Program participants and (2) WIA Dislocated Worker Program participants who received only core or intensive services. The first group was compared with people who registered

for Unemployment Insurance (UI) or Employment Services (ES). The second group was compared both with those individuals and with participants who received training. Using **propensity score matching and difference-in-difference techniques**, the study found that employment levels for those who received services through the WIA Dislocated Worker Program were significantly higher than the matched comparison group of UI and ES recipients in every quarter after the first year following program entry.

Hyman, B., & Ni, K. X. (2020). *Job training mismatch and the COVID-19 recovery: A cautionary note from the Great Recession* (No. 20200527). Federal Reserve Bank of New York. <https://libertystreeteconomics.newyorkfed.org/2020/05/job-training-mismatch-and-the-covid-19-recovery-a-cautionary-note-from-the-great-recession.html>

- Type of research: Descriptive (quantitative)
- Summary: This study uses an **event study model** to examine the role of workforce development programs in helping workers displaced by the Great Recession in the **United States**. Using **wage replacement and job mismatch data** from the Great Recession, the authors found that job training through the Trade Adjustment Assistance Act was ineffective in helping workers recover from their initial layoff. Further, the results show that after the recession, worker–job mismatch was similar to that before the recession, meaning that job training programs were not effective in meeting labor market needs. The authors suggest that, instead of funds for training, the government should provide cash transfers that subsidize wage differences if a new job pays less than one eliminated.

Inanc, H., Needels, K., & Berk, J. (2017). *Gender segregation in training programs and the wage gap*. Issue Brief. Cambridge, MA: Mathematica Policy Research.<sup>9</sup> <https://www.mathematica.org/our-publications-and-findings/publications/gender-segregation-in-training-programs-and-the-wage-gap-issue-brief>

- Type of research: Descriptive (mixed methods)
- The authors explored the barriers that women face in accessing skilled-trade jobs through **U.S. Department of Labor** programs. Using **interview and administrative data from a sample of Registered Apprenticeship participants, Trade Adjustment Assistance participants, and Job Corps participants**, the authors identified child care responsibility as a major barrier to women’s participation and retention to training and apprenticeships. They suggest that, when possible, offering training programs with a flexible schedule could help retain women in these programs.

McVicar, D. (2020). *The impact of monitoring and sanctioning on unemployment exit and job-finding rates*. IZA World of Labor. <https://wol.iza.org/articles/impact-of-monitoring-and-sanctioning-on-unemployment-exit-and-job-finding-rates/long>

- Type of research: Descriptive (evidence review)

---

<sup>9</sup> Although Mathematica produced this evidence review synthesis, it did not assess study quality. Therefore, this listing does not represent a conflict of interest.

- Summary: This study examines the impact of job search monitoring and unemployment sanctioning on job finding rates in the **United Kingdom**. Through an **evidence review of causal and quasi-experimental studies**, the author argues that job search monitoring and unemployment sanctions reduce unemployment duration and increase short-term job entry rates. However, the authors also note that this monitoring imposes costs on individuals and reduces overall income in the short term for workers with low incomes, while also leading to withdrawal from the labor force and reduced post-unemployment earnings.

Michaelides, M., & Mueser, P. (2018). Are reemployment services effective? Experimental evidence from the Great Recession. *Journal of Policy Analysis and Management*, 37(3), 546–570. <https://doi.org/10.1002/pam.22063>

- Type of research: Causal (experimental)
- In this study, authors evaluated the impact of reemployment services provided to Unemployment Insurance (UI) recipients in **Nevada** during the **Great Recession**. The intervention studied was reemployment services funded through the federal Reemployment and Eligibility (REA) Assessment initiative, along with Wagner-Peyser and American Recovery and Reinvestment Act funds. To be eligible for the intervention, individuals had to be new UI recipients; to remain eligible for UI, those in the treatment group had to attend meetings or receive services. The treatment cases participated in mandatory in-person meetings for an eligibility review and received reemployment services, including work plan search, resume assistance, individual needs assessment, and job referrals. The control cases had no requirement to participate in meetings with program staff or receive services but were subject to usual UI rules. The **treatment and control group differences** indicate that the program reduced the average UI duration by nearly 4.4 weeks and average total benefits collected by \$1,145.

Organisation for Economic Co-operation and Development. (2020). OECD policy responses to coronavirus (COVID-19): Public employment services in the frontline for employees, jobseekers and employers. OECD Publishing. <https://www.oecd.org/coronavirus/policy-responses/public-employment-services-in-the-frontline-for-employees-jobseekers-and-employers-c986ff92/>

- Type of research: Other (policy paper)
- This study analyzed the role that public employment services (PES) will need to play in order to mitigate the negative economic effects of the COVID-19 pandemic in **OECD countries**. The authors argue that PES will need to ensure that displaced workers can receive benefits and information without delay and encourage job seekers to remain active in their job search, albeit doing so increasingly by using digital tools and techniques. Further, PES must be quick to adapt to new situations, as they will be facing a surge in job seekers who will need to be reallocated to new positions in new industries.
- Organisation for Economic Co-operation and Development. (2020, July 12). *Skill measures to mobilize the workforce during the COVID-19 crisis*. OECD Policy Responses to Coronavirus (COVID-19). <http://www.oecd.org/coronavirus/policy-responses/skill-measures-to-mobilise-the-workforce-during-the-covid-19-crisis-afd33a65/>

- Type of Research: Other (policy paper)
- Summary: This article highlights the ways in which the governments of the **United States, Canada, the United Kingdom, Australia, and New Zealand** have responded to fluctuations in job availability as a result of the COVID-19 pandemic. The author describes that many jobs in essential industries that required less skill rose in demand as jobs in other sectors declined. The author also notes that many countries took measures to retrain unemployed workers to fill these roles. Further, the author notes that many countries launched new online platforms to connect unemployed workers to jobs, made exceptions to migration policies in order to field more essential workers, and took steps to incentivize mobility in the labor force. The author suggests that countries will need to be prepared in the medium term to extensively reskill workers who will not be able to return to their jobs as a result of COVID-19, specifically by engaging workers who already have foundational skills, easing licensing and registration restrictions, employing career counselors to help workers navigate the new job market, and tailoring reeducation efforts to labor market needs.

Park, J. (2012). Does occupational training by the Trade Adjustment Assistance program really help reemployment? Success measured as occupation matching. *Review of International Economics*, 20(5), 999–1016. <https://onlinelibrary.wiley.com/doi/abs/10.1111/roie.12009>

- Type of research: Descriptive (quantitative)
- This author of this study used **regression analyses** of subjects in the **United States** to compare the reemployment rate among beneficiaries of Trade Adjustment Assistance (TAA) who received TAA-funded employment and case management services, job search assistance and allowances, training, relocation allowances, and some cash income supports. Drawing on a sample from the **Trade Act Participant Report**—the federal data collected on the TAA participants—the author found that TAA beneficiaries had higher reemployment rates than non-TAA beneficiaries.

Wilson, T., Cockett, J., Papoutsaki, D., & Takala, H. (2020). *Getting back to work dealing with the labour market impacts of the Covid-19 recession*. Report no. 547. Institute for Employment Studies, London. [https://www.employment-studies.co.uk/system/files/resources/files/547a\\_0.pdf](https://www.employment-studies.co.uk/system/files/resources/files/547a_0.pdf)

- Type of research: Other (policy paper)
- In this paper, the authors assess the potential impacts of COVID-19 on the economy of the **United Kingdom** and provide potential solutions for the labor market's response, based on a **review of previous research** on the effectiveness of these strategies. Solutions are categorized as follows: investment in new active labor programs for those out of work; refocusing skills and training to support the recovery; an integrated and coherent offer for young people; an orderly withdrawal from the Job Retention Scheme; and a new partnership-based back-to-work campaign. The authors provide evidence for the effectiveness of job search assistance programs and one-on-one caseworker support, citing studies that evaluated the impact of these programs internationally.

## 2. Employment and hiring subsidies

Balkan, B., Baskaya, Y. S., & Tumen, S. (2016). *Evaluating the impact of the post-2008 employment subsidy program in Turkey*. IZA Discussion Paper No. 9993. <https://ssrn.com/abstract=2800490>

- Type of research: Causal (quasi-experimental)
- The authors of this study used a **difference-in-difference approach** based on **Turkish Household Labor Force Survey data** from the first quarter of 2004 to the first quarter of 2012 to estimate the employment effects of an employer-side subsidy scheme implemented in response to the 2008 financial crisis in Turkey. In July 2008 the Turkish government started a program to subsidize employers' social security contributions for young men between the ages of 18 and 29 and all women older than 18. The authors found no significant effects on employment in aggregate, certain subgroups showed increased employment. They saw the largest effect on low-educated or low-skilled older women. This result suggests that the subgroups have different elasticity of labor demand, accounting for programs having different employment effects.

Cahuc, P., Carcillo, S., & Le Barbanchon, T. (2018). *The effectiveness of hiring credits: French evidence from the global crisis*. Vox CEPR Policy Portal. <https://voxeu.org/article/effectiveness-hiring-credits>

- Type of research: Causal (quasi-experimental)
- In this article, the authors summarized a study of the effect on employment of a **2009 French** hiring credit program. The hiring credit was available to businesses with fewer than 10 employees and to low-wage workers from December 4, 2008, to December 31, 2009. Authors used **administrative data** to conduct two evaluations. The first relied on a **difference-in-difference** design to compare the evolution of small and medium firms from November 2008 to November 2009. They found that the hiring credit increased employment at targeted firms by 0.8 percent and that employment effects are concentrated on low-wage jobs. The second strategy **used quasi-experimental variations to simulate the cost per job created** if the hiring credit were implemented in different economic environments, times, and at different scales. The authors found that hiring credits can increase job creation at a low cost if they are temporary and unanticipated.

Card, D., Kluve, J., & Weber, A. (2018). See description in Section 1.

Cummings, D., & Bloom, D. (2020). *Can subsidized employment programs help disadvantaged job seekers? A synthesis of findings from evaluations of 13 programs* (OPRE Report 2020-23). Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. [https://www.acf.hhs.gov/sites/default/files/documents/opre/sted\\_final\\_synthesis\\_report\\_feb\\_2020.pdf](https://www.acf.hhs.gov/sites/default/files/documents/opre/sted_final_synthesis_report_feb_2020.pdf)

- Type of research: Causal (experimental)
- In **2010**, the Department of Health and Human Services launched the Subsidized and Transitional Employment Demonstration and the Department of Labor launched the Enhanced Transitional Jobs Demonstration to build evidence on the effectiveness of subsidized employment models in the **United States**. The programs included three models: (1) a traditional transitional jobs model offering temporary, subsidized jobs not intended to become unsubsidized jobs; (2) wage-subsidy models offering subsidized jobs intended to turn into unsubsidized jobs; and (3) hybrid models offering a mix of both approaches. The authors describe the impact findings from **random assignment studies of 13 subsidized employment programs**. Almost all programs improved employment and earnings. Programs that used the traditional transitional jobs model had higher participation rates

and larger employment and earnings impacts in the first two years compared with the other two models, but none of the models stood out as the best approach for improving outcomes beyond two years. The authors noted that the wage-subsidy programs struggled to recruit enough work sites and that fewer than half of participants were ever placed in subsidized jobs. A San Francisco wage subsidy program had both the lowest rate of placement into subsidized employment and the largest earnings impacts and was relatively less expensive to implement. This suggests that wage-subsidy programs can be highly efficient under some circumstances.

Diez, F., Duval, R., Maggi, C., & Fan, J. (2020). *Options to support incomes and formal employment during COVID-19*. IMF Research, Special Series on COVID-19. [https://roscongress.org/upload/medialibrary/029/en\\_special\\_series\\_on\\_covid\\_19\\_options\\_to\\_support\\_incomes\\_and\\_formal\\_employment\\_during\\_covid\\_19.pdf](https://roscongress.org/upload/medialibrary/029/en_special_series_on_covid_19_options_to_support_incomes_and_formal_employment_during_covid_19.pdf)

- Type of research: Other (Subject Matter Expert opinion piece)
- In this piece, the authors review policy options to mitigate the formal employment impact of COVID-19, many of which were deployed by **various OECD countries**, and present the evidence base behind these options. The authors discuss how these policy programs should be implemented to ensure effectiveness in the COVID context. They also argue that based on the effectiveness of such programs in the Great Recession, hiring subsidies could be used to speed up the post-COVID job recovery.

European Commission. (2014). *Stimulating job demand: The design of effective hiring subsidies in Europe*. EEPO Review. [http://csdle.lex.unict.it/Archive/LW/Data%20reports%20and%20studies/Reports%20%20from%20Committee%20and%20Groups%20of%20Experts/20140701-120548\\_DGEMPL\\_EEO\\_Review\\_Spring\\_2014\\_Accessible\\_v10pdf.pdf](http://csdle.lex.unict.it/Archive/LW/Data%20reports%20and%20studies/Reports%20%20from%20Committee%20and%20Groups%20of%20Experts/20140701-120548_DGEMPL_EEO_Review_Spring_2014_Accessible_v10pdf.pdf)

- Type of research: Descriptive (qualitative)
- The article is a review of the use of hiring subsidies in the **European Union**, drawing on examples of interesting practices and practices in need of improvement and on the results of evaluation reports and academic studies testing the effectiveness of such subsidies. Hiring subsidies are defined as programs aimed at facilitating the creation of new jobs for unemployed persons, including job creation and opportunities for improving employability through work experience, via subsidizing the employers' wage costs or reducing employers' social security contributions. The review found that hiring subsidies tend to be relatively cost effective, are effective in targeting hard-to-employ individuals and the long-term employed, increase sustainable employment due to their emphasis on work experience and training, and reduce labor market segmentation because they are inclusive.

Farooq, A., & Kubler, A. (2015). What factors contributed to changes in employment during and after the Great Recession? *IZA Journal of Labor Policy*, 4(3), 1–28. <https://link.springer.com/article/10.1186/s40173-014-0029-y>

- Type of research: Causal (quasi-experimental)
- The authors' objective in this study was to review past evidence and present some new evidence on the extent to which unemployment during and after the Great Recession can be attributed to cyclical



or structural factors and what policy tools had a positive impact on the recovery from the recession. Using data from the Current Population Survey, the authors conducted **difference-in-difference analysis** that suggests the HIRE program increased employment by 1.6 percentage points, or 2.6 percent. The Hiring Incentives to Restore Employment (HIRE) Act gave a payroll tax exemption to firms in the **United States** that hired people who had been unemployed (or worked less than 40 hours) for at least 60 days from March to December 2010.

Hershbein, B. J., & Holzer, H. J. (2021, February). *The COVID-19 pandemic's evolving impacts on the labor market: Who's been hurt and what we should do* (Upjohn Institute Working Paper 21-341). [https://research.upjohn.org/up\\_workingpapers/341/](https://research.upjohn.org/up_workingpapers/341/)

- Type of research: Descriptive (quantitative)
- Summary: This article examines the trends in the U.S. labor market during the COVID-19 pandemic. Using microdata from the **Current Population Survey** and **state data on virus caseloads, mortality, and policy restrictions**, the authors use **regression models** to analyze the status of the labor market in the **United States** throughout **2020**. The article reports that although employment recovered in summer 2020 after falling dramatically in the spring, this recovery stagnated in fall 2020 and even deteriorated in the winter. Fall 2020 was characterized by rising unemployment duration and increasing permanent job loss. Workers with less education, workers with low income, and service occupation workers experienced the greatest long-term losses in all measures of employment. Based on these results, the authors recommend the following to help workers return to work: (1) spur rapid employment through infrastructure investments, subsidized employment, and marginal employment tax credits and (2) enhance workforce development services to support the chronically unemployed and help individuals find well-paying jobs.

Merkel, C., & Weber, E. (2020). *Rescuing the labour market in times of COVID-19: Don't forget new hires!* Center for Economic Policy Research. <https://voxeu.org/article/rescuing-labour-market-times-covid-19-don-t-forget-new-hires>

- Type of research: Other (Subject Matter Expert opinion piece)
- The authors advocate using hiring subsidies to help encourage hiring and limit long-term unemployment during the pandemic. The authors propose a universal subsidy available to any firm, even those that would have hired in the absence of the subsidy, because deadweight costs for the subsidies are smaller in the pandemic economy than in more normal economic times. The article references one of the co-author's proposal for **Germany**, which advocates that subsidies also be made available to start-ups, which start with all new hires.

Neumark, D., & Grijalva, D. (2017). The employment effects of state hiring credits. *ILR Review*, 70(5), 1111–1145. <https://doi.org/10.1177/0019793916683930>

- Type of research: Causal (quasi-experimental)
- The authors estimated the effect of hiring credits in **the United States** on the employment rate following the Great Recession. Drawing on **an extensive database on state level hiring credits** that the authors constructed, they analyzed the effectiveness of those credits and the type of credits

adopted during and after the Great Recession, as well as earlier, to boost employment. **Difference-in-difference analysis** suggested that some specific types of hiring credits—including those targeting unemployed people, those that allow states to recapture credits when job creation goals are not met, and refundable credits—succeeded in boosting job growth, particularly during the Great Recession period and perhaps during recessions in general.

Oates, J., & Van Horn, C. (2020). Can lessons from the Great Recession guide policy responses to the pandemic-driven economic crisis? *Workforce Currents*. <https://www.frbatlanta.org/cweo/workforce-currents/2020/06/16/can-lessons-from-the-great-recession-guide-policy-responses-to-the-pandemic-driven-economic-crisis.aspx>

- Type of Research: Other (Subject Matter Expert opinion piece)
- Summary: This study examines lessons learned from the **U.S.** federal government’s response to the Great Recession and details policy concerns that will need to be addressed in the economic downturn as a result of COVID-19. Specifically, to help displaced workers return to work as the economy reopens, the authors recommended that Congress consider improving the quality of training for unemployed individuals and create public service jobs for long-term unemployed workers.

### 3. Vocational rehabilitation and job accommodations

Barnes, M., & Sax, P. E. (2020). Challenges of “return to work” in an ongoing pandemic. *New England Journal of Medicine*, 383, 779–786. <https://www.nejm.org/doi/full/10.1056/NEJMSr2019953>

- Type of Research: Other (Subject Matter Expert opinion piece)
- Summary: This article attempts to identify the public health challenges faced by **U.S.** businesses in reopening and explores ways that reopening can be done most effectively. The authors suggest that employers can reopen effectively by staggering work shifts and workers’ return to work, accounting for timing and duration of shifts, degree of necessity of on-site work, feasibility of continued remote work, and risks to personal health. Examples of specific strategies the authors provide include allowing the most essential workers to return to the workplace first, while allowing older, more vulnerable workers to make later returns, and establishing infection-control strategies when meeting face-to-face, such as avoiding crowding, room partitions, and wearing of masks.

Franché, R., Severin, C., Hogg-Johnson, S., Cote, P., Vidmar, M., & Lee, H. (2007). The impact of early workplace-based return-to-work strategies on work absence duration: A 6-month longitudinal study following an occupational musculoskeletal injury. *Journal of Occupational and Environmental Medicine*, 49(9), 960–974. <https://pubmed.ncbi.nlm.nih.gov/17848852/>

- Type of research: Descriptive (quantitative)
- The authors examined the effect of early return-to-work (RTW) disability management strategies on work-absence duration after a musculoskeletal (MSK) injury. The six strategies included (1) early contact with the worker, (2) work accommodation offer and acceptance, (3) contact between a health care provider (HCP) and the workplace, (4) advice from an HCP to the workplace on how to prevent reoccurrence of the disability, (5) ergonomic worksite visits, and (6) presence of an RTW coordinator.

The study included **Ontario workers** from companies with workers' compensation benefits. To be eligible for study participation, workers had to file a lost-time claim for a back- or work-related MSK injury or disorder within the 7 days after injury, be absent from work for at least 5 days within the 14 calendar days after injury, and be at least 15 years of age. Using **Cox proportional hazard analysis** on **administrative and self-reported data**, the authors suggest that early receipt and acceptance of a workplace accommodation and early HCP advice to the workplace on how to prevent reoccurrence were predictors of reduced work absence after six months of injury.

Lefever, M., Decuman, S., Perl, F., Braeckman, L., & Van de Velde, D. (2018). The efficacy and efficiency of disability management in job-retention and job-reintegration. A systematic review. *Work*, 59(4), 501–534. <https://pubmed.ncbi.nlm.nih.gov/29733052/>

- Type of research: Descriptive (qualitative)
- The authors looked at the impact of the disability management (DM) method on job retention for people with occupational disabilities. They used a **systematic review** with two reviewers independently evaluating **28 articles**, which included 7 systematic reviews, 3 randomized controlled trials, 9 clinical trials, 4 mixed-method studies, and 5 qualitative studies. The reviewed studies were conducted in various settings including **the United States, the Netherlands, Sweden, Denmark, and Canada**. The authors suggest that the DM program is effective in increasing the rate in which individuals with disabilities return to work and that job training and workplace accommodation components of DM were particularly effective.

Weathers, R. R., & Bailey, M. S. (2014). The impact of rehabilitation and counseling services on the labor market activity of Social Security Disability Insurance (SSDI) beneficiaries. *Journal of Policy Analysis and Management*, 33, 623–648. <https://pubmed.ncbi.nlm.nih.gov/24988653/>

- Type of research: Causal (experimental)
- The authors examined up to 36 months of employment and earnings impacts of the Accelerated Benefits Demonstration (ABD), an effort to provide immediate health insurance and employment and benefits counseling to new, uninsured Social Security Disability Insurance (SSDI) recipients during the 24-month Medicare eligibility waiting period in **the United States**. The target group was beneficiaries who did not have insurance, had 18 months or more before becoming entitled to Medicare, were ages 18 to 54, and, did not have a representative payee. The **intervention group** received a health care package and additional services that assisted with managing health care and future work activities during the Medicare waiting period. Compared with the control group, the intervention resulted in a 5.6 percentage point increase in those with any earnings two years after random assignment. In addition, the intervention resulted in an increase in average annual earnings of \$736 in the first year and \$1,024 in the second year, though these differences were no longer statistically significant by the third year.

#### 4. Strategies to reopen businesses

Karin, O., Bar-On, Y. M., Milo, T., Katzir, I., Mayo, A., Korem, Y., Dudovich, B., Yashiv, E., Zehavi, A. J., Davidovitch, N., Milo, R., & Alon, U. (2020). *Cyclic exit strategies to suppress COVID-19 and allow economic activity*. MedRxiv. <https://www.medrxiv.org/content/10.1101/2020.04.04.20053579v4>

- Type of research: Descriptive (quantitative)
- The authors suggest a cyclic work-lockdown strategy of 4 workdays to 10 days of lockdown, combined with rapid testing and contact isolation, to suppress COVID-19 and allow for economic activity. They use two **mathematical models (SEIR model and SEIR-Erlang model)** and simulations to show that with the 4-10 work-lockdown cycle those infected at work reach peak infectiousness while in lockdown. The authors predict that this lockdown strategy, combined with rapid testing and contact isolation, could suppress the spread of COVID-19. They also describe the economic implication of this strategy, arguing that it offers market predictability, which can potentially increase consumer and investor confidence, compared to a start-stop lockdown approach triggered by resurgences. They also say that his approach offers part-time employment to millions who would otherwise be out of work. Thus, they say, the strategy can be maintained longer than can a continuous lockdown and allow for time to develop long-term solutions without overwhelming the health care system.

Monras, J. (2020, March 25). *Some thoughts on COVID-19 from a labour mobility perspective: From 'red-zoning' to 'green-zoning.'* VoxEU, Center for Economic Policy Research. <https://voxeu.org/article/some-thoughts-covid-19-labour-mobility-perspective>

- Type of research: Other (Subject Matter Expert opinion piece)
- With this policy proposal, the author argues that during the ongoing COVID-19 pandemic allowing labor mobility within local labor markets but restricting it between them will be more effective than completely locking down an economy in lowering virus transmission rates and achieving minimal economic and social damage. The author references five empirical studies showing that labor mobility in **the United States** is concentrated around work/home locations and economic activity and argues that pandemic restrictions can be similarly divided up into zones across the country.

Monte, F., Redding, S. J., & Rossi-Hansberg, E. (2018). Commuting, migration, and local employment elasticities. *American Economic Review*, 108(12), 3855–3890. <https://www.aeaweb.org/articles?id=10.1257/aer.20151507>

- Type of research: Causal (quasi-experimental)
- Using data from the **American Community Survey (ACS) from 2006 to 2010, the U.S Census from 1960 to 2000, Bureau of Economic Analysis data on employment and wages by workplace, and Geographical Information Systems (GIS) data**, and applying a **quantitative general equilibrium model**, the authors investigated the level of commuting within commuting zones. They found that the majority of residents work and live within the same commuting zone. For the median commuting zone, around 7 percent of residents work outside the zone and around 7 percent of workers live outside the zone. For the commuting zones at the ninety-fifth percentile, 22 percent of residents work outside the zone and around 15 percent of workers live outside the zone.

ABOUT THE RAPID REVIEW

CLEAR’s rapid review of evidence on programs or strategies related to helping unemployed individuals return to work was created by Mathematica under the CLEAR contract with the U.S. Department of Labor (DOL), Chief Evaluation Office (CEO). The contents of the review do not represent the views or policies of DOL.

Due to the rapid turnaround for this review, the evidence scan did not follow CLEAR’s documented systematic approach. The evidence scan for this review had four components. First, CLEAR conducted a literature search using the Business Source Corporate Plus database and Google Scholar covering the dates since 2007. The search terms used for each strategy are provided in Table 1. Second, CLEAR reached out to three experts in labor-related fields to seek input on programs and studies to include in the review. Third, citations from relevant studies were used to identify additional studies for review. Finally, CLEAR has conducted weekly searches to identify additional research released since the initial drafting. This version of the brief was last updated with literature published before March 8, 2021.

**Table 1. Keywords used in database searches by employee retention strategy**

Strategy	Topic search terms <sup>a</sup>
Reemployment initiatives	Reemployment OR re-employment OR "job search assistance" OR "job training" OR jobseek* OR "active labor market" OR "active labour market" OR "work incentive" OR "job placement" OR "job broker" AND Recession OR depression OR COVID OR epidemic OR coronavirus OR pandemic AND Review n3 (literature OR studies OR intervention OR evidence OR systematic OR scoping) OR "meta-analys*" OR metaanalys* OR "research synthesis" <sup>b</sup>
Subsidized employment	"hiring subsidi*" OR "subsidized employment" OR "subsidised employment" AND Recession OR depression OR COVID OR epidemic OR coronavirus OR pandemic AND Review n3 (literature OR studies OR intervention OR evidence OR systematic OR scoping) OR "meta-analys*" OR metaanalys* OR "research synthesis"
Vocational rehabilitation and job accommodations	"job accommodation" OR "work accommodation" OR "vocational rehabilitation" AND Recession OR COVID OR epidemic OR coronavirus OR pandemic AND Review n3 (literature OR studies OR intervention OR evidence OR systematic OR scoping) OR "meta-analys*" OR metaanalys* OR "research synthesis"
Strategies to reopen businesses	Unemploy* OR "job loss" OR jobless OR hiring OR hire OR "labor market" OR "labour market" OR "economic recovery" OR "exit strategy" OR "displaced worker" AND COVID OR coronavirus OR pandemic

<sup>a</sup>Topic search terms are searched in title, abstract, subject, and keyword fields in the Business Corporate Plus searches.

<sup>b</sup>Final set of topic search terms are searched in title and abstract only in the Business Source Corporate Plus database searches. These were not used in the Google Scholar searches.

CLEAR screened the abstracts of these studies to identify studies that examined specific interventions implemented by businesses and governments in the United States and other countries following pandemics or economic downturns such as the Great Recession. Thirty-two studies passed the screening and were summarized.

Due to the rapid nature of this review, studies identified for review were not assessed according to CLEAR's causal evidence guidelines. Instead, reviewers used a short rubric to summarize information for each study. Each citation is classified by study type: causal, descriptive, or other. **Causal** research can assess the effectiveness of a strategy—in other words, whether there is a cause-and-effect relationship between the strategy and the results or impacts. High quality causal research (impact studies) can produce the most credible type of evidence. **Descriptive** research does not determine cause-and-effect relationships but uses quantitative methods to identify trends, correlations, projections, and costs and benefits of actions taken. CLEAR also categorized qualitative studies under the descriptive category for the purposes of this rapid review. CLEAR's rapid reviews also summarize **other** types of evidence and research that describe how, where, and why strategies are implemented, and includes opinion pieces by subject matter experts (SMEs). This type of research does not aim to identify cause-and-effect relationships or use quantitative or qualitative methods but can be useful to identify emerging strategies potentially worthy of future replication and additional study. For more information on how CLEAR reviews and rates different types of studies, see CLEAR's reference documents at <https://clear.dol.gov/about>.

**Mathematica prepared this rapid review for the Chief Evaluation Office of the U.S. Department of Labor under Contract #DOLQ129633249/DOL-OPS-16-U-00086. The views expressed are those of the authors and should not be attributed to the Federal Government or the Department of Labor.**