

Issue BRIEF

The Promise of Better Economic Outcomes for Workers with Musculoskeletal Conditions

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Introduction

Disability due to musculoskeletal (MSK) conditions is a serious and growing problem among American workers. Since 1981, the number of individuals with MSK conditions who enter Social Security Disability Insurance (SSDI)—a federal social insurance program that provides cash benefits to workers if they meet certain work and disability criteria—has more than quadrupled. In 2015, about 270,000 individuals were awarded SSDI disabled worker benefits based on an MSK condition, representing 36 percent of all new beneficiaries that year (Social Security Administration 2016). This growth is taking place even as jobs are becoming safer in general, the overall rate of job-related MSK disorders is declining (Drudi 2015), and there is a stable trend in self-reported persistent back pain (King et al. 2016).

The growth in the number of workers who exit the labor force due to MSK conditions has negative implications for all affected parties. Workers who exit the labor force due to disabling conditions see substantially reduced earnings, with only a fraction of their lost earnings offset by the cash support they may receive from SSDI (Schimmel and Stapleton 2012). Employers see their profits suffer, not only because of lower worker productivity, but also because they pay higher premiums for workers' compensation, private disability insurance, and health insurance. Federal and state governments lose tax revenues and pay more in disability benefits and related health care benefits, as well as on other programs such as the Supplemental Nutrition Assistance Program (Ben-Shalom and Burak 2016).

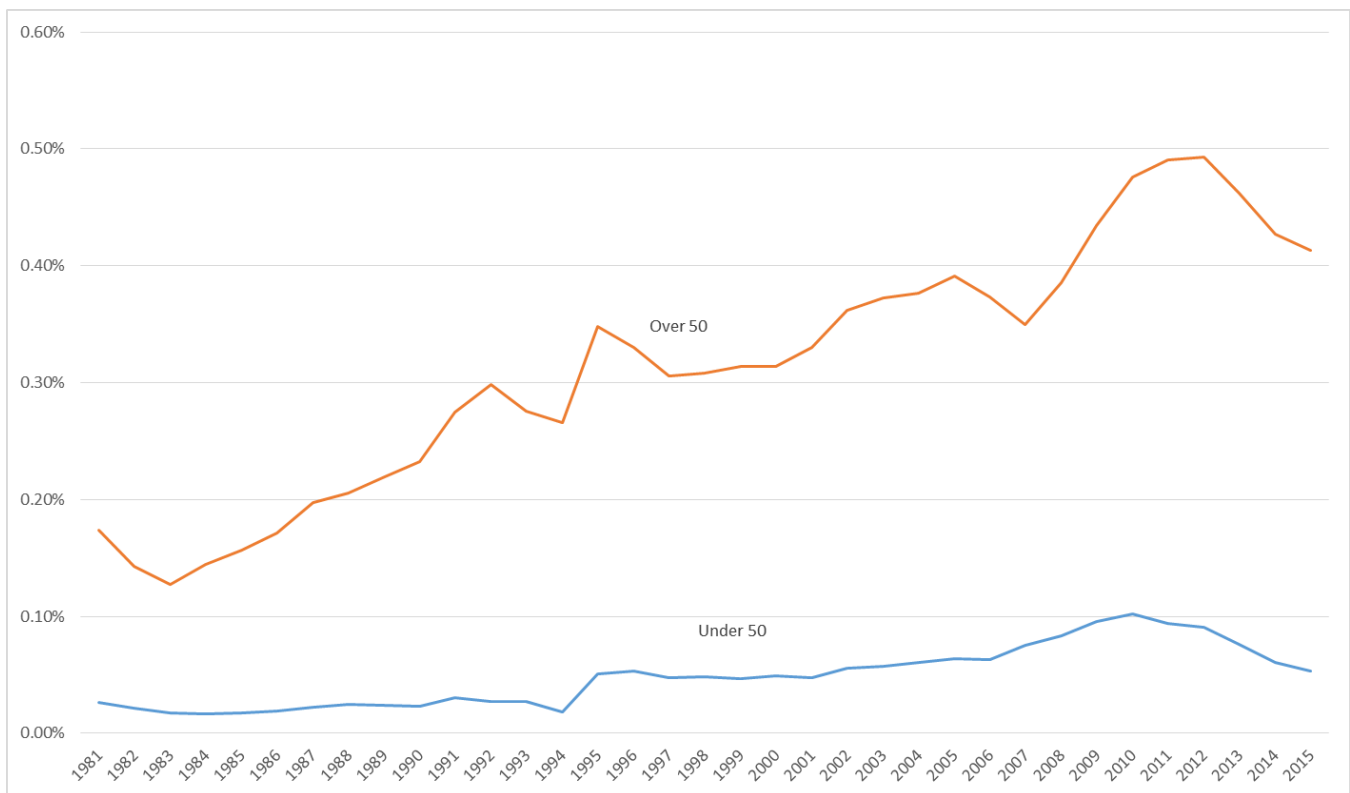
In this brief, we explore the possible reasons for the growth in the number of SSDI claimants with MSK conditions, present a range of evidence-based interventions that might help workers stay in the labor force after experiencing the onset of such conditions, and discuss the importance of examining whether these interventions would be effective in different environments than the ones already tested.

Possible reasons for MSK-related growth in SSDI

Several factors have likely contributed to the increase in SSDI entry due to MSK conditions. The aging of the population does not fully explain this increase, because older people are entering SSDI due to these conditions at a rate faster than aging alone would account for. Figure 1 shows the rate of SSDI entry based on an MSK condition (excluding injury) among people who are insured for SSDI benefits in the case of disability onset ("disability insured"), by age group. From 1981 to 2015, this percentage increased by 140 percent for people over age 50 (from 0.17 to 0.41 percent). Furthermore, the number of older SSDI entrants with MSK conditions (the numerator) increased by almost 500 percent from 1981 to 2015, whereas the disability-insured population (the denominator) increased by 140 percent during that same period. This shows that the growth in SSDI entrants with MSK conditions has greatly outpaced the growth in the disability-insured population among those age 50 or older.

Factors other than an aging population that may be contributing to the higher incidence of SSDI entry based on MSK conditions include fewer well-compensated jobs for workers with limited educations (Autor 2014), tightened eligibility standards for workers’ compensation (Guo and Burton 2012), the rise in the value of SSDI benefits for low-skilled workers (Autor and Duggan 2003), and the rise in health care costs. There has also been a trend toward more job displacement, particularly in manufacturing (Schmitt 2004; Herzenberg et al. 2005; [Acemoglu et al. 2016](#)), an industry in which MSK conditions may be more likely to interfere with the ability to work. Obesity has become more prevalent, and it can lead to or aggravate MSK conditions (Schimmel Hyde 2016; Viester et al. 2013). The increased use of opioid painkillers and other practices, such as invasive spine surgery, to treat those with MSK conditions (Deyo et al. 2009) may keep people out of the workplace longer and ultimately increase their likelihood of applying for SSDI benefits. The 1984 Social Security Administration amendment, which made it easier to get an award based on the effect of pain on function when there is no medically determinable cause of the pain, may have also contributed to the rise in MSK-related SSDI awards (Autor and Duggan 2003).

Figure 1. Percentage of disability-insured workers who entered SSDI based on an MSK condition, by age group: 1981–2015



Source: Social Security Administration Annual Statistical Report on the Social Security Disability Insurance Program, 2015; and Social Security Administration Office of the Chief Actuary Estimates from the 2016 Trustees Report.

Evidence on effective treatment of MSK conditions

Evidence reveals that it is possible to help workers with MSK conditions achieve better outcomes by helping them stay in the labor force and reducing the medical costs associated with their condition. This is especially true for workers who experience lower back pain. Notably, Washington State’s Centers for Occupational Health and Education (COHEs) have demonstrated considerable success in keeping workers’ compensation claimants with MSK conditions in the workforce. These independent centers assign each claimant a health services coordinator who monitors the services received by the worker, identifies

relevant programs, communicates with stakeholders, and educates providers and stakeholders on best practices (Stapleton and Christian 2016). Rigorous evaluations of the COHE program have found that the program lowered medical costs by 7 percent and disability payment costs by 24 percent, and also reduced the jobless rate of workers by 21 percent over a 12-month period; reductions in the latter two measures were even greater among workers with back sprains—34 and 37 percent, respectively (Wickizer et al. 2011). A preliminary analysis by Franklin et al. (2014) suggests that the COHE program reduced SSDI entry among participants by 25 percent in the eight years after they filed their workers' compensation claim.

As another example, the Australian state of Victoria, as part of a public information campaign, aired prime-time television commercials about appropriate treatment of lower back pain (Contreary and Perez-Johnson 2016). As part of the campaign, physicians received evidence-based guidelines for managing patients with lower back pain. This intervention resulted in a 15-percent decline in the number of workers' compensation claims for back pain and a 20-percent reduction in the medical costs per claim; claims for other conditions also decreased during the period, but those reductions were much smaller (Buchbinder et al 2001). In a separate effort, the Australian Behavioural Insights Unit, Allianz (an insurance carrier), and the Australian Government Department of Education and Training implemented a suite of interventions with the goal of creating a more collaborative relationship between the worker, the Department, and Allianz. They found that Department workers in the treatment group returned to full capacity 27 percent faster in the first 90 days compared with workers in the control group (Behavioural Insights Unit et al. 2016).

Many other interventions designed to improve functional and work outcomes among workers with MSK conditions have been evaluated in small-scale randomized controlled trials. Those that have shown promise include stratifying care by risk group for low back pain management (Hill et al. 2011), using a multidisciplinary model of back pain management that includes both clinical and ergonomic approaches (Loisel et al. 1997), offering people with MSK conditions a program of education and protocol-based clinical management at their regular physician visits (Abasolo et al. 2005), providing communication and problem-solving skills to workers with back pain and their immediate supervisor (Linton et al. 2016), and trying psychosocial interventions for individuals with disabling back pain (Sullivan and Adams 2010).

There have also been systematic reviews of specific small-scale interventions that have been found to be effective for people with MSK conditions in more than one study. Each of these interventions offer the promise of better work and health outcomes for people with MSK conditions. For example, Nicholas et al. (2011) find evidence in the literature that targeting "yellow flags" (defined as psychological, social, and environmental risk factors for prolonged disability and failure to return to work due to MSK conditions) appears to lead to more consistently positive results compared with ignoring the flags or providing a suite of standardized interventions, regardless of risk factors. This is particularly effective when the flags are at high levels. Richmond et al. (2015) conclude from a review of the literature that, compared with no treatment or with other guideline-based active treatment approaches, cognitive behavioral interventions—evidence-based psychological treatments that target inaccurate or negative thinking that may stand in the way of positive outcomes—tend to yield long-term improvements in outcomes for people with lower back pain. Williams et al. (2007) found evidence in the literature that clinical interventions combined with occupational interventions, together with early return to work and modified work interventions, were effective in improving work and health outcomes for those with low back pain.

The literature consistently favors early over late intervention (Franche et al. 2005; Tompa et al. 2008; OECD 2015). This typically means intervening before workers apply for SSDI, ideally while they are still attached to their employer. Targeting the interventions to the right people is also critical to success, because providing these interventions to everyone with MSK conditions is not financially feasible. There is little evidence that the success of early interventions varies by age or gender; instead, motivation appears to be an important determinant of success (Stapleton et al. 2015). Furthermore, Stapleton et al. (2015) highlight the importance of identifying people who (1) do not already have access to evidence-based early interventions, (2) are at high risk of exiting the labor force and entering SSDI without such interventions, and (3) are likely to stay in the labor force as a result of the interventions.

Will these interventions work in different environments?

Evidence reveals that early intervention has a strong potential to help keep people in the labor force and off SSDI. The potential for success seems especially high for people with MSK conditions, particularly lower back pain. Given the strong evidence base, a valuable next step would be to examine whether these interventions are effective in contexts other than those that have already been tested. Specifically, the federal government, state governments, and other stakeholders (such as philanthropic foundations) could take advantage of near-term opportunities to build on existing private sector capabilities in order to pilot-test these promising, evidence-based innovations in different environments. Such pilots are needed not only to test whether these interventions are effective in a broad variety of environments, but also to ensure that the right intervention is used for the right workers at the right time.

One possibility for a future pilot intervention is a COHE-style program tested outside of the workers' compensation system, as suggested by Stapleton and Christian (2016)—possibly in the context of a state-administered, temporary disability insurance system (such as those currently available in California, Hawaii, New Jersey, New York, and Rhode Island), a large self-insured employer (including the federal and state governments), or public and private workers' compensation insurers in states other than Washington. Another possible intervention could be for states, insurers, and entities such as large hospital systems to experiment with an information campaign like the one implemented in Victoria, Australia. These interventions are not limited to use in MSK conditions; therefore, it might make sense to start by using them for workers with MSK conditions first, and to use them for workers with other conditions later.

Such pilots are not likely to take place, however, unless federal policymakers lead the way. Relevant state agencies, such as workforce and vocational rehabilitation agencies, have not traditionally focused on workers at risk of job loss; they have to make difficult decisions on competing priorities, and face considerable constraints on their capacity (Ben-Shalom 2016). The federal government could encourage more states to act by adopting at least two policies: (1) ensuring the cooperation of federal agencies, such as the Department of Labor and the Social Security Administration, as needed; and (2) using appropriate funding mechanisms to give states and the private sector the ability to capture a share of the savings likely to accrue to SSDI, Medicare, and other federal programs.

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