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DRC BRIEF

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The Prevalence of Obesity Among Recent Applicants to Federal Disability Programs

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Since the 1960s, the prevalence of obesity among adults in the United States has nearly tripled. In 2015, more than one-third of American adults were obese, and another third were overweight (National Institutes of Health 2012a). Obesity increases a person's risk of developing a range of potentially disabling conditions, including heart disease, hypertension, stroke, gallbladder disease, sleep apnea, and adult-onset (Type II) diabetes (Centers for Disease Control and Prevention [CDC] 2013, National Institutes of Health 2012b). In addition, obesity can cause or exacerbate musculoskeletal conditions (Wearing et al. 2006, Viester et al. 2013), and those conditions are increasingly common among disability beneficiaries in the United States. The relationship between obesity and disability can work in the other direction as well, because obesity develops as a consequence of certain disabilities. For example, taking certain psychotropic medications can lead to weight gain (Shrivastava and Johnston 2010), and so can conditions that limit physical mobility.[1] A connection between obesity rates and the prevalence of disability has been documented in both younger and older populations (Sturm et al. 2004; Lakdawalla et al. 2004; Capodaglio et al. 2010).

[1] Although they were not the subject of the literature we reviewed on obesity, it is also important to note that some disabling conditions, such as Parkinson's disease and chronic obstructive pulmonary disorder or their treatments, might result in weight loss or being underweight.

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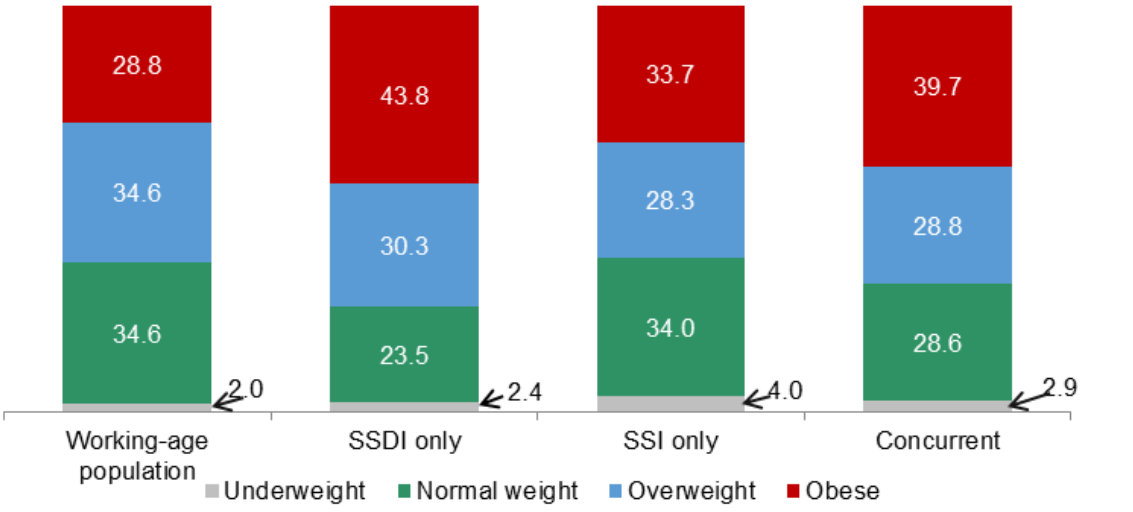
Despite the high prevalence of obesity among working-age adults and obesity's potential effect on functional capacity, relatively little is known about the prevalence of obesity among applicants to federal disability programs. In addition to its effect on disability, obesity has been associated with reduced employment rates (Sturm et al. 2004, Tunceli et al. 2006, Morris et al. 2007). This could be because of functional impairments, a lowered capacity to meet job requirements, or discrimination by employers and co-workers. As a result, in comparison with their thinner counterparts, obese individuals with disabilities may be more likely to seek federal disability benefits and to meet the eligibility criteria.

In this brief, we offer a first look at the prevalence of obesity among individuals who apply for Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI). We use data about height and weight that were provided by individuals who applied for benefits from 2007 through 2013.[2] We constructed a measure of the prevalence of obesity that was based on body mass index (BMI), a commonly used metric for assessing body fat that we describe in more detail in the box on page 4.

Are disability applicants more likely to be obese than others?

In 2013, working-age (ages 18-64) SSI and SSDI applicants were more likely to be obese compared with the general population of adults of the same age (Figure 1). On the whole, disability applicants were about 40 percent more likely to be obese than the general population (40.2 versus 28.8 percent, first number not shown in figure). Obesity was most prevalent among those applying for SSDI only (43.9 percent) and least prevalent among applicants to SSI only (33.7 percent).

Figure 1. BMI profiles for disability applicants and the overall working-age population in 2013



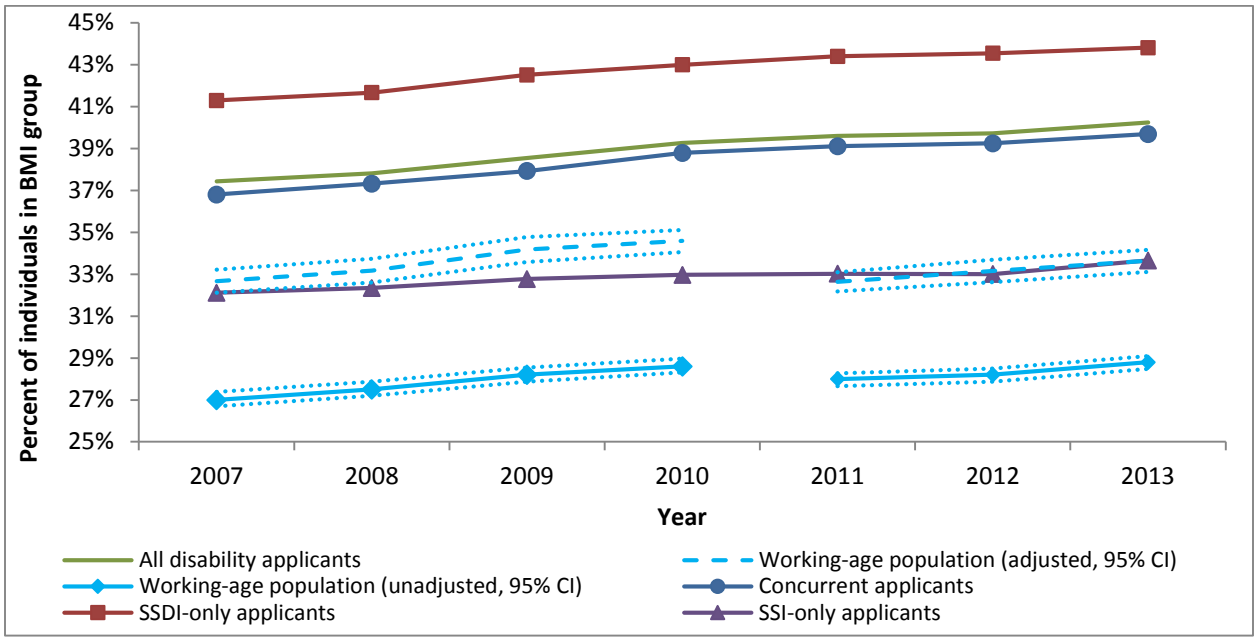
[2] Our sample is limited to those who were found to meet the financial eligibility requirements for the program. We excluded applicants who received "technical denials." More information about our data sources and methods can be found in Schimmel Hyde et al. (2016).

Source: Schimmel Hyde et al. (2016); calculations based on SSDI and SSI applications that did not receive technical denials and were filed in 2013, using data from SSA's Electronic Disability Collect System (EDCS). Statistics from the general population were derived from the Behavioral Risk Factor Surveillance System (BRFSS). In both cases, percentages were calculated among those with BMI data; a small share (2-3 percent) from each source were missing the data necessary to calculate BMI.

Has the prevalence of obesity among applicants changed in recent years?

Obesity in the United States has rapidly become more prevalent in the last few decades, though evidence suggests that this increase has slowed in recent years (Ogden et al. 2014; Finkelstein et al. 2012). From 2007 through 2013, there was an increase of 1.8 percentage points in the working-age population (Figure 2).[3] During the same period, the prevalence of obesity grew more rapidly among disability applicants—from 37.4 to 40.2 percent.

Figure 2. Trends in obesity among disability applicants and the working-age population, 2007–2013



Source: Schimmel Hyde et al. (2016); calculations using the EDCS and BRFSS. Adjusted population estimates correct for differences between the sex, age, education, race, and education of the working-age population and disability applicants.

One possible explanation for the rapidly increasing prevalence of obesity among applicants during this period could be the economic downturn. Obesity prevalence increased faster for SSDI applicants during this time period than it did for applicants to SSI only. Because an applicant must have a substantial and recent experience in the labor force in order to be eligible for SSDI, that applicant pool is more likely than the SSI applicant pool to be influenced by the strength of the labor market. Moreover, we found some evidence (not shown) that the state-level

[3] A change in the sampling methodology for BRFSS between 2010 and 2011 makes the 2007–2010 and 2011–2013 statistics for the working-age population not comparable. A similar analysis based on data from the National Health Interview Survey showed a slightly higher increase (2.4 percentage points) in the prevalence of obesity during this period (from 26.8 to 29.2 percent)—still below that of disability applicants.

unemployment rate was positively correlated with the prevalence of obesity among applicants for disability benefits, and this is consistent with other evidence that workers with disabilities fared badly during the recession (Kaye 2010).

How much of the difference in the prevalence of obesity can be explained by applicants' demographic characteristics?

The basic characteristics of applicants to disability programs differ from those of the overall working-age population in ways that are correlated with obesity. We sought to understand the effect these differences had on the higher incidence of obesity among applicants. The adjusted estimates for the working-age population (with confidence intervals) in Figure 2 show what the prevalence of obesity would have been had its distribution for age, sex, race, and education been the same as for all applicants. Accounting for differences in characteristics explains slightly more than 40 percent of the higher rate of obesity among applicants, but nearly 60 percent of the gap remains.

About Body Mass Index (BMI)

BMI is commonly used by clinicians as a measure of body fat, because it can be easily calculated from a person's height and weight. It is based on a formula that divides a person's weight (in kilograms) by the squared value of his or her height (in meters). Commonly used BMI ranges are underweight (BMI of less than 18.5), normal weight (BMI of 18.5 through 24.9), overweight (BMI of 25.0 through 29.9), and obese (BMI of 30.0 and higher) (CDC undated).

Despite the advantage of convenience, BMI is not a perfect measure (CDC 2014; Prentice and Jebb 2001).For example, BMI can overstate body fat for athletes relative to non-athletes, for African Americans relative to Caucasians, for the young relative to the elderly, and for men relative to women. BMI may also be a less reliable measure of obesity for certain groups of individuals with disabilities, including those whose height or weight cannot be accurately measured due to their inability to stand (Fox et al. 2014).

The data used to construct BMI for disability applicants are based on self-reported information, as are the national estimates we use to make comparisons. Individuals tend to overstate their height and understate their weight when they are asked to report them, leading to an underestimate of their actual BMI (Spencer et al. 2002; Kuczmarski et al. 2001; McAdams et al. 2007). Although individuals who seek disability benefits might be less likely to misrepresent their height and weight than they would be in answering a survey, because they might expect their height and weight to be verified by a medical professional, we cannot confirm whether this is true. We have no reason, however, to expect the effect of misreporting height and weight to be significant.

Will the increasing prevalence of obesity affect the number of disability applications in the future?

Many researchers have debated the reasons why there are more applications for federal disability benefits in recent decades, and have also noted that a larger share of these applicants have mental health or musculoskeletal conditions. Yet, few have made the direct connection to the role that rising rates of obesity play in driving the change. Although our results cannot prove that rising obesity rates caused higher application rates, they are certainly consistent with that hypothesis. Along with demographic shifts in the working-age population over the last half century and changes in the economy and other factors external to disability programs, the increasing prevalence of obesity should be added to the list of factors that deserve consideration by program administrators and policymakers.

Even if the prevalence of adult obesity levels off in the future, there may be lasting impacts on the Social Security disability programs. Many children today are obese, meaning that the effects obesity has on health, functioning, and disability could manifest at younger ages. Provided that SSA does not alter the way in which it factors obesity into the disability determination process, this implies the potential for more applications from applicants with

obesity in the future, starting at younger ages. Of course, we do not know the impact of any future improvements in education, the economy, and medical or assistive technology, all of which could keep more people in the labor force and out of disability programs.

The mechanisms that link obesity to disability are not fully understood, and the multitude of causes of obesity make it difficult to identify a single program, or even a set of programs, that might reverse any effect that trends in weight gain may have on disability program applications. Programs incentivizing weight loss have been found to have only limited success, often involving intense monitoring and financial payments (Jeffery and French 1999). Given this backdrop, it is likely that broad trends in weight gain will continue to be reflected in the applicant population, and SSA's ability to directly influence patterns among applicants will be minimal.

Of course, SSA does have control over how it considers obesity in its review of disability applications, and in the past, the agency has changed these considerations to better capture obesity's effect on functioning. Before 1999, SSA adjudicators could make allowances on the basis of extreme obesity. SSA ended that practice in 1999, thereafter requiring the adjudicator to explicitly consider the effect of obesity on functional ability. The intent was to end allowances based on cases in which obesity did not significantly limit the ability to engage in substantial gainful activity (SGA). In making this change, SSA indicated that no set threshold of BMI automatically limits an applicant's functioning to a level that prevents engagement in substantial work for any given medically determinable condition(s). As discussed in more detail in Stahl et al. (2016), a potential unintended consequence of that policy change may have been that obese applicants now find it harder to obtain allowances without going through multiple levels of appeal that do not necessarily reduce the number of claims that are eventually allowed. Because no electronic data on applicants' height and weight are available before 2004, it is not possible to examine the actual consequences of the policy change on allowances made to applicants with obesity.

Policymakers attempting to limit awards to applicants with obesity might consider adopting an obesity standard that is like the "material to disability" standard that has been applied to drug addiction and/or alcoholism (DAA) since 1995 (SSA 1995). Arguably, and without minimizing the potentially causal role that medical conditions may play, DAA and obesity both involve some level of personal control for many applicants. In contrast with the current process for considering obesity, SSA adjudicators must consider whether DAA is material to disability when they consider an applicant with that condition. In other words, the adjudicator determines whether the applicant would be eligible for benefits if the applicant stopped abusing drugs or alcohol, and denies benefits if the answer is no.

If SSA adopted a standard like the one it uses for DAA, an allowance would be made only if the applicant would be unable to engage in SGA even if he or she were no longer obese. Under such a standard, a meaningful share of applicants might be denied benefits for which they would be eligible under the current regulations. Of course, making such an assessment would involve some level of uncertainty and subjectivity on the part of reviewers, further lengthening the determination process for obese applicants. This would have negative consequences for applicants with obesity, unless they were induced to lose weight and return to work, similar to effects found after the change in DAA policy (Moore 2015). The mechanisms of obesity are not

completely understood, with evidence suggesting that genetic predisposition may play an important role (Bouchard 2010). Concerns about the medical safety of substantial weight loss, even in cases where obesity is material to disability, might also be problematic. Also, such a policy might raise serious equity concerns, as some individuals live in food deserts, have limited incomes, and may suffer from impairments that make it more challenging to plan, procure, prepare, and consume a healthy diet (U.S. Department of Agriculture 2009).

Presumably, adopting a material-to-disability standard for obesity would require an amendment to the Social Security Act; such an amendment was made when the DAA standard was adopted in 1995. The Act's definition of medical eligibility requires SSA to determine if applicants are unable to engage in any SGA because of a medically determinable physical or mental impairment(s) that is expected to last until death or at least 12 months. Like DAA, obesity is a medically determinable condition. Hence, it appears that denying benefits on the basis of a finding that obesity is material to disability would violate the current legal standard for medical eligibility.

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