



## Disability Policy Issue Brief

Michael Anderson, Yonatan Ben-Shalom, David Stapleton, and David Wittenburg

# The RETAIN Demonstration: Practical Implications of State Variation in SSDI Entry

The Retaining Employment and Talent After Injury/Illness Network (RETAIN) demonstration, a joint initiative of the U.S. Department of Labor (DOL) and the Social Security Administration (SSA), aims to help workers with recently acquired injuries and disabilities remain in the labor force. In Phase 1 of the RETAIN demonstration, eight states are conducting planning and start-up activities, including the launch of small pilots of the demonstration; DOL will select a subset of these states for full implementation and evaluation in Phase 2. As part of the process, each RETAIN state is developing an approach to identifying a target population that is at risk of applying for disability benefits, including Social Security Disability Insurance (SSDI), which could vary by geography, age, impairment, and other factors.

This brief presents findings on state- and county- level SSA administrative data with two goals in mind: (1) to introduce the RETAIN demonstration and its objectives to a broad audience and (2) to support RETAIN states in their planning for Phase 2 of the demonstration. SSDI application rates vary substantially by geography and other characteristics, such as age. This variation underscores that the size and risk profile of the working-age population varies across states. County-level data on SSDI awards also show substantial geographic variation within states. As states plan their intervention and evaluation designs for RETAIN, they might want to adjust their approach to recruiting and screening based on this variation. More broadly, the findings here emphasize the benefits of developing state-based intervention approaches given the large geographic and demographic variation in disability application outcomes by state.

## Introduction

Each year, millions of Americans experience medical conditions that put them at risk of losing their jobs or leaving the workforce. Workers who leave the workforce often experience adverse effects on their health, family finances, and quality of life. Of those workers, hundreds of thousands go on to receive federal disability benefits such as SSDI and Supplemental Security Income (SSI). A major challenge for policymakers is how to help more of these workers keep their jobs and stay in the workforce.

The RETAIN demonstration, a joint initiative of DOL and SSA, aims to help workers with recently acquired injuries and disabilities remain in the labor force. RETAIN has two major goals: (1) help workers return to work; and (2) reduce their future need for federal disability benefits—especially SSDI, the main social insurance program for workers with long-term disabilities. To test approaches for achieving these goals, eight states received grants to launch small pilot demonstrations in Phase 1 of RETAIN (see highlight).

## The RETAIN demonstration

The RETAIN demonstration includes two phases. In Phase 1, DOL funds the implementation and programmatic technical assistance for eight states to conduct planning and start-up activities, including the launch of a small pilot demonstration. SSA provides evaluation technical assistance for this phase. Based on the pilot experience in Phase 1, DOL will select a subset of states for full implementation and evaluation in Phase 2. The eight states in Phase 1 are California, Connecticut, Kansas, Kentucky, Minnesota, Ohio, Vermont, and Washington. ▲

A central challenge in planning interventions to support the RETAIN demonstration is identifying a target population at risk of applying for SSDI, which could vary by geography, age, impairment, and other factors. Many workers will return to work following an injury or illness without any intervention beyond standard medical care, and applications to SSDI are rare events—even among those who take some time off work due to injury or illness. Effective targeting of services to those who need them (and would not have returned to work without them) is therefore critical to maximizing RETAIN’s potential to improve outcomes for workers and reduce their future need for federal disability benefits.

This brief presents findings on state and county-level SSA administrative data to support RETAIN states in their planning for Phase 2 of the demonstration. We show substantial variation in SSDI application rates by geography and other characteristics, such as age. The findings provide insights into the early development considerations for how the states in the RETAIN demonstration might have to take differing approaches to identifying and potentially screening target populations. There is a strong need for varied approaches by state given the large variation in outcomes. For example, smaller states with relatively few SSDI applications and awards might need to recruit from a large catchment area, potentially the entire state, to identify enough workers likely to benefit from RETAIN services. In contrast, larger states with higher volumes of SSDI applications and awards might want to

focus their recruiting efforts on geographic locations where SSDI application and award rates are relatively high.

The brief includes an appendix that shows county-level statistics on SSDI awards. This detailed information is potentially useful in understanding geographic variation in SSDI entry within the eight RETAIN states.<sup>1</sup>

## Background

Workers with recently acquired injuries and disabilities might be able to stay in the labor force if they receive well-targeted interventions during the first few weeks after the onset of their medical condition (Ben-Shalom et al. 2018). A promising model with evidence of success is Washington State’s Centers for Occupational Health and Education (COHE) program, which helps workers’ compensation claimants return to work quickly by providing them with timely, evidence-based services (Stapleton and Christian 2016). A rigorous evaluation of the COHE pilot found that the program substantially reduced joblessness (Wickizer et al. 2011) and, over a longer period, entry into SSDI (Franklin et al. 2015).<sup>2</sup>

An important component of designing these early interventions is the process of matching services by screening for people who might most benefit from intervention supports. For example, the COHE program assigns a health services coordinator to every workers’ compensation claimant seeing a COHE-affiliated provider. However, these coordinators intervene in just a minority of cases they assess to be at high risk of long-term disability or that for some reason are not progressing as expected (Stapleton and Christian 2016). This process of screening workers is important to matching the intervention services to the patient’s needs.

In addition to screening, an intervention must recruit a large sample to potentially detect an impact. All else equal, the larger the total sample size, the higher the chances for the evaluation to detect an impact. However, there is an important potential tradeoff between screening and sample size that makes it difficult to hold all else equal: in some

cases, increasing the sample size can be done only by relaxing screening. For example, if relaxing the screening process leads to a larger sample of individuals with a lower average risk for some outcomes (such as applying for SSDI), it will reduce the evaluation's ability to detect an impact for those outcomes. Conversely, aggressive screening could create challenges for program teams to recruit sufficient sample members.

The findings from the Demonstration to Maintain Independence and Employment (DMIE) illustrate the potential importance of considering both screening and sample size in developing evaluations that can detect statistically significant impacts. The DMIE intervention tested whether providing enhanced medical services and employment supports to workers with potentially disabling conditions could improve their health and reduce enrollment in federal disability benefits. The intervention team attempted to screen workers who were at risk of losing employment and applying for SSDI and SSI. The evaluation showed lower rates of job loss and applications for SSDI or SSI two years after enrollment for the treatment group versus the control group, but the impact estimates were not statistically significant (Whalen et al. 2012). One potential screening challenge to detecting impacts was that many people in the control group did not lose a job or apply for disability benefits.<sup>3</sup> Given the outcomes of the control group, the evaluation required a much larger sample to detect statistically significant impacts. Put differently, it is possible that either more screening or additional sample size could have increased the evaluation's ability to detect a statistically significant finding. We cannot tease out whether just screening or sample size contributed to the statistically insignificant findings. Nonetheless, taken together, these findings underscore the importance of considering both screening and sample sizes for any evaluation.

As designed, the goal of RETAIN is to test promising approaches to improve the return-to-work outcomes of workers and reduce their future need for SSDI and SSI. Building on the evidence from the COHE program and other early intervention models, RETAIN aims to provide services to workers very soon after

they first experience medical problems that interrupt work, at least temporarily. In Phase 1, eight states received grants to develop and test approaches to identifying and serving relevant target populations. Although the approaches varied,<sup>4</sup> each state must identify workers at risk of dropping out of the labor force and applying for SSDI.

One of the challenges states face in developing their intervention approaches is balancing screening and sample size. In the initial stages of the design, we provided guidance to the eight RETAIN states about the implications of screening and sample size for detecting statistically significant impacts on key outcomes of interest for RETAIN—non-employment and SSDI application. However, another challenge states face is they must screen workers who might have an unknown risk of SSDI application. A further complication is that the risk of SSDI application varies substantially by state and potentially regions within states. For this reason, states could benefit from more information about the risks of SSDI application, which they can potentially use to screen workers and identify promising substate areas for implementation.

Our analysis presents data on the risk of SSDI application in the eight RETAIN states. We analyzed SSA administrative data to show the number of SSDI applications in each state, and we used data from the American Community Survey (ACS) to estimate the number of working-age individuals who could possibly apply for SSDI in each state. This estimate is important in understanding how many potential SSDI applicants are in the eligible pool, which is especially important in states with smaller overall populations. We then calculated SSDI applicants as a percentage of the SSDI-eligible population using information from both data sources. The findings provide estimates for the overall number of SSDI applications and the incidence per capita, which could inform states' eventual screening efforts. In general, there is likely to be a need for more screening when there are fewer SSDI applicants and it might be challenging to identify SSDI applicants from a large pool of workers (that is, low SSDI application rates).

## State variation in SSDI applications

We examined SSDI application patterns by several characteristics, including state, age, and impairment. For RETAIN states, understanding the level and incidence of SSDI applications indicates the size of the target population and the amount of screening that might be necessary to identify those needing RETAIN services. The comparison across all states provides context for the policy problem the RETAIN demonstration will begin to address and information to help understand RETAIN states' experiences and their potential for replication in other states. Understanding how the risk of SSDI entry varies across states is particularly important given the DMIE experience, in which many people in the initial target populations were not substantially at risk for some of the key outcomes of interest.

### Variation in SSDI applications can inform approaches to screening state target populations

The RETAIN grantees can use information on the volume and per-capita rate of SSDI applications in their state, along with the county-level award data we provide in the appendix, to select a promising target population who can benefit from RETAIN services.<sup>5</sup> This information can help RETAIN grantees understand the number of workers who might be likely to apply for SSDI in their respective states, and where they are located within the state, which is relevant to the states' planning activities for Phase 2 of the demonstration.

To illustrate why these state statistics on applications and awards matter to planning, consider a state that has a sample size goal of 3,000 enrollees. If the state enrolls many workers who have low risk of applying to SSDI, the evaluation of that intervention will likely not find a statistically significant effect on applications even if there is an effect for the small number of the 1,500 assigned to treatment who would have applied in the absence of the intervention. Hence, the per-capita rates shown in this brief provide an at-a-glance perspective of the risk for key outcomes of the demonstration—SSDI applications and awards. States with generally

low-risk populations (that is, their SSDI per capita application rates are low) would need to carefully screen workers to identify those who are truly at risk for SSDI relative to a high-risk state that might require less screening.

In the following analysis, we attempt to illustrate the potential pool of workers for RETAIN states using population and per capita statistics, including breakdowns by age and impairment. The population statistics show the overall number of SSDI applications or, in the appendix, SSDI awards. These numbers are relevant for understanding how states differ in their volume of at-risk workers. We then show per capita statistics for the working age population in each state. We define this population as individuals ages 20 to 64, which approximates how many working-age people in each state might apply for benefits. These per capita statistics might be useful to states in understanding the scale of their screening effort (that is, how many workers they might potentially have to screen to identify a person who might apply for SSDI).<sup>6</sup> These statistics could be especially applicable in considering state tools for screening the population of workers before delivering RETAIN services.

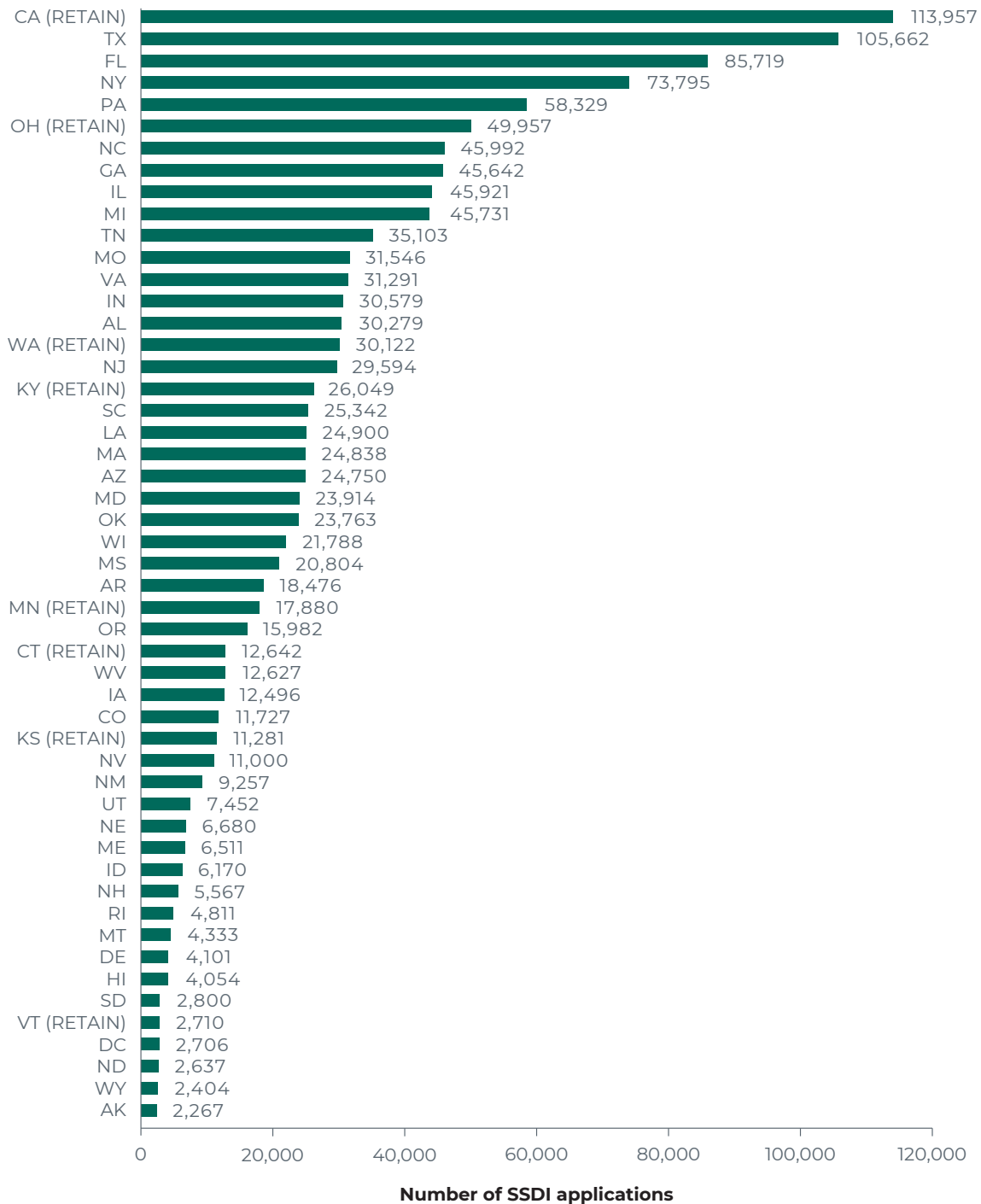
Figure 1 presents the total number of SSDI applications in 2017 for each state. The number of SSDI applications varied considerably across states. California, which had the most applications, had about 50 times as many as Alaska, the state with the fewest. This variation is to be expected, given differences in state population size. The 5 states with the most applications—California, Texas, Florida, New York, and Pennsylvania—all had more than 50,000 applications in 2017. In that year, 16 states had fewer than 10,000 applications. The remaining 30 states (including Washington, DC) each had 10,000 to 50,000 applications.

The eight RETAIN states generally reflected the national variation across states. California and Ohio were among the six states with the largest number of applications in 2017. Washington and Kentucky were in the top half of the national distribution. Minnesota, Connecticut, Kansas, and Vermont were in the bottom half of the national distribution. Vermont had the fifth-fewest applications of all states.

States with a larger number of SSDI applications have more latitude than those with fewer applications to target those within-state regions with a relatively high incidence of SSDI applications. However, both

types of states could implement eligibility criteria to increase the likelihood of recruiting those most likely to apply for SSDI. In the next section, we consider two such criteria—age and impairment.

**Figure 1. Number of SSDI applications, by state, 2017**



Note: Based on authors' calculations using data from SSA administrative records for applicants age 20 to 64. Application totals do not include those denied for nonmedical reasons.

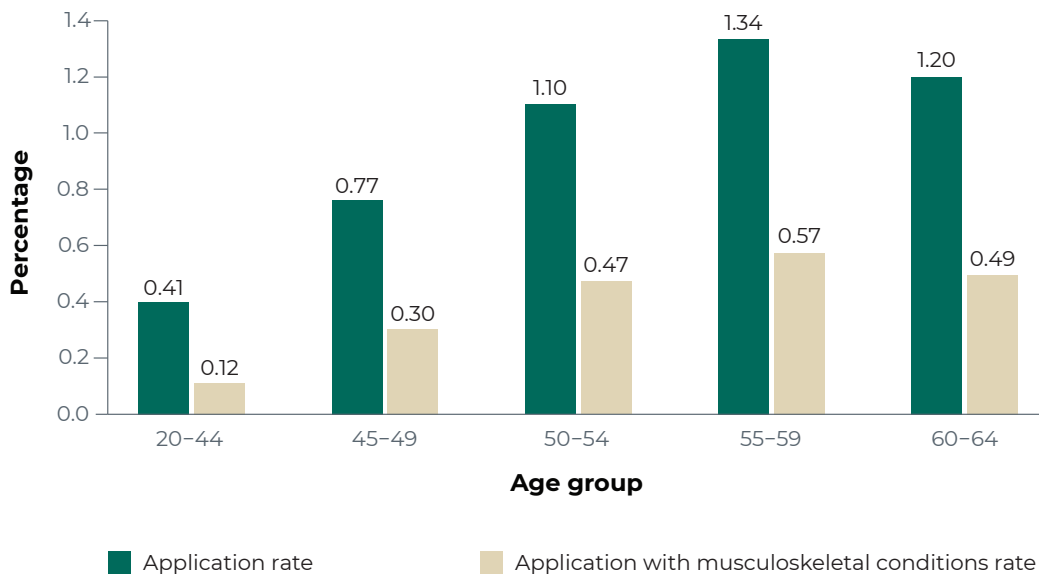
### Risk of SSDI application varies by age and impairment

RETAIN states might choose to try to engage certain subgroups of workers to recruit those at higher risk of applying for SSDI, especially subgroups defined by age or impairment (Figure 2). The risk of SSDI application substantively increases with age. For example, the SSDI application rate ranges from a low of 0.41 percent in the youngest age category (ages 20 to 44) to a high of 1.34 percent in an older age category (ages 55 to 59).

Musculoskeletal conditions are the most commonly cited primary diagnoses in initial claims for disability benefits (Meseguer 2018) and are a key

potential screening condition in many states. Over the past several decades, there has been a large increase in SSDI awards to those with musculoskeletal impairments. In addition, a growing body of evidence suggests the efficacy of early interventions for those with musculoskeletal impairments (Anand and Ben-Shalom 2017). According to the figure, workers with musculoskeletal conditions as their primary impairment make up about one-third of SSDI applicants within each age category. Not surprisingly, six of the eight RETAIN states refer to services for people with musculoskeletal conditions in summarizing their intervention approaches.<sup>7</sup>

**Figure 2. SSDI application rates, by age and musculoskeletal impairment, 2017**



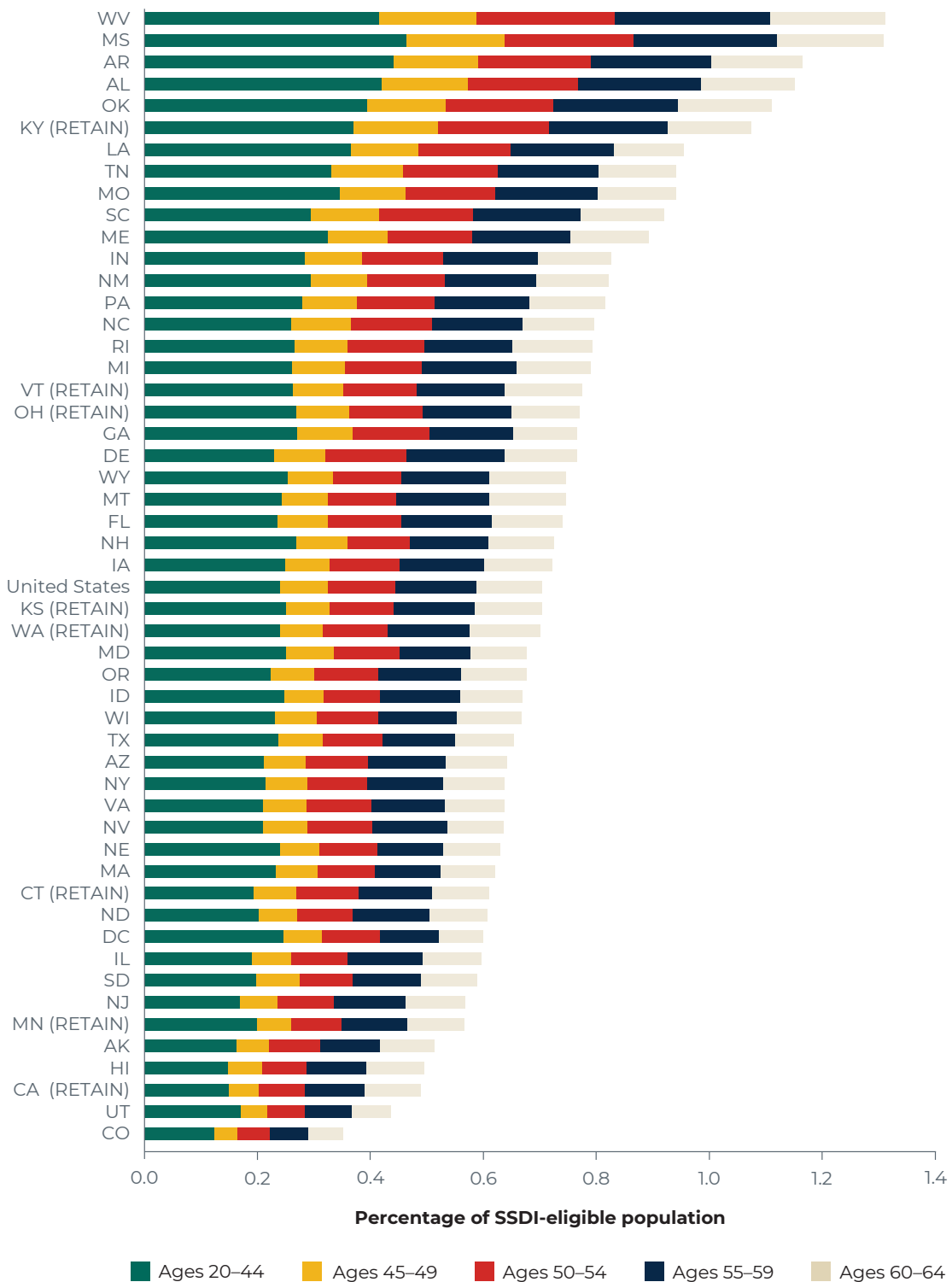
Note: Based on authors' calculations using data from SSA administrative records and the ACS. The SSDI-eligible population is the ACS-based estimate for the size of the population ages 20 to 64 for the state minus the number of SSDI beneficiaries ages 20 to 64 who reside in that state.

### Risk of SSDI application varies by state

States' strategies for identifying and recruiting workers most likely to benefit from an early intervention might consider state-specific population characteristics. Although SSDI applications are rare events, states vary considerably in the proportion

of individuals who apply for SSDI in a given year. Nationally, 0.70 percent of the population ages 20 to 64 not already receiving SSDI applied for SSDI benefits in 2017; in states, that figure ranged from a low of 0.35 percent in Colorado to a high of 1.31 percent in West Virginia and Mississippi (Figure 3).

**Figure 3. SSDI applications as a percentage of the SSDI-eligible population, by state and age group, 2017**



Note: Based on authors' calculations using data from SSA administrative records and the ACS. The SSDI-eligible population is the ACS-based estimate for the size of the population ages 20 to 64 for the state minus the number of SSDI beneficiaries ages 20 to 64 who reside in that state.

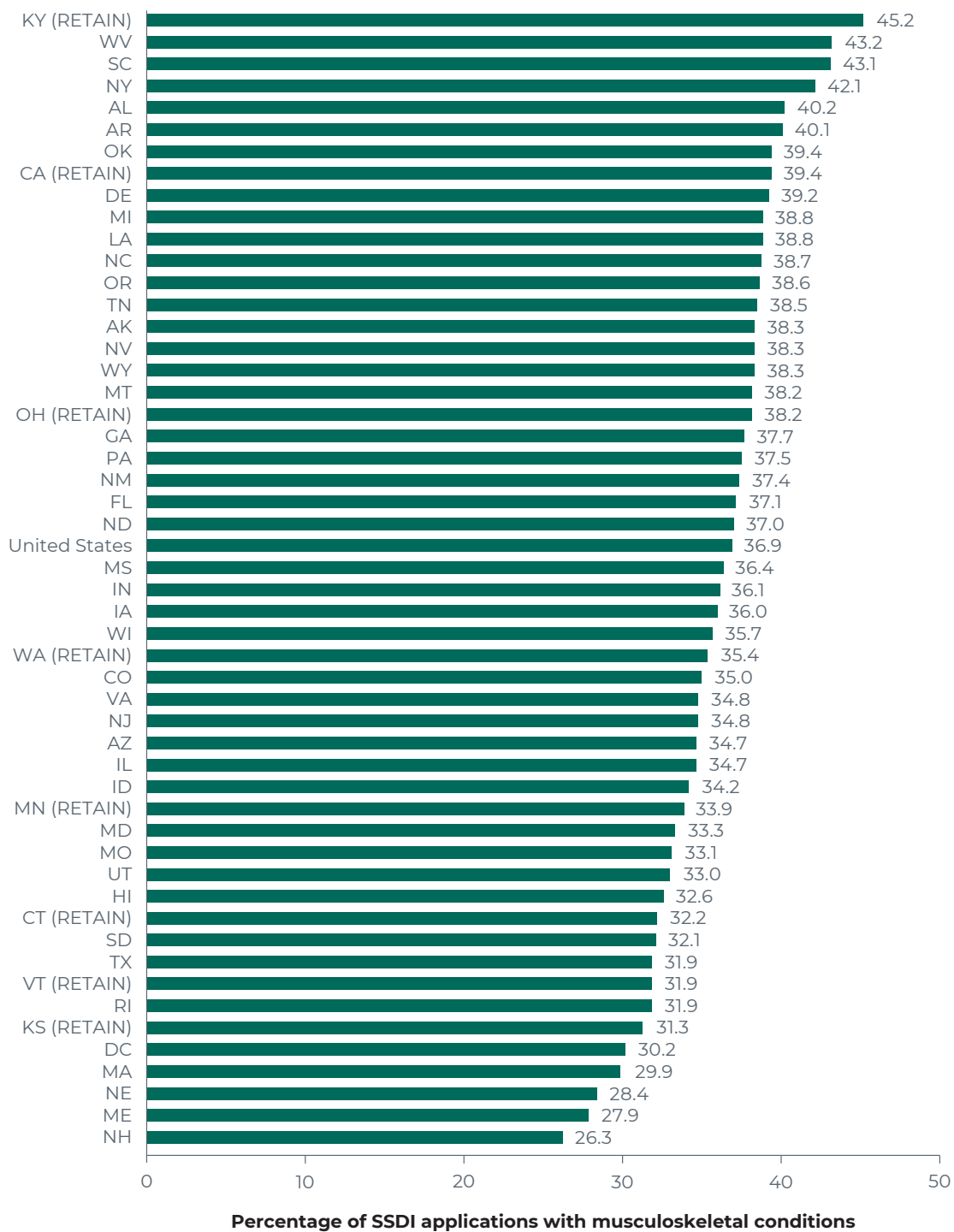
SSDI application rates were highest in the so-called disability belt states of Appalachia, the mid-South, and the Mississippi Delta (Romig 2018)—Alabama, Arkansas, Kentucky, Mississippi, Missouri, Tennessee, and West Virginia, with the notable addition of Oklahoma. In these states, the SSDI application rate ranged from 0.94 to 1.31 percent. SSDI application rates were lowest in the western states of Alaska, California, Colorado, Hawaii, and Utah.

The eight RETAIN states generally reflected the national variation across states. California, Minnesota, and Connecticut were at the lower end of the distribution, with SSDI application rates of 0.49, 0.56, and 0.61 percent, respectively. Kansas and Washington had an application rate similar to the United States as a whole (0.70 percent), and Ohio and Vermont had rates slightly above that (0.77 percent). Kentucky had by far the highest application rate of all RETAIN states (1.07 percent). States with relatively low application rates might choose to implement stricter eligibility requirements for RETAIN participation to recruit workers more likely to benefit from the intervention (for example, those with more severe conditions, poorer access to supports, or less transferrable skills).

The distribution of SSDI applications across age groups was similar across states. Nationally, 46 percent of applicants were younger than 50; 54 percent were 50 and older. In all states, the older group of applicants was about evenly split among the 50 to 54, 55 to 59, and 60 to 64 age groups. Compared to age, there was more state variation in the share of applications with musculoskeletal conditions. Nationally, 37 percent of SSDI applications claimed that a musculoskeletal condition was the primary impairment causing disability. The proportion of SSDI applicants alleging such a condition ranged from a low of 26 percent in New Hampshire to a high of 45 percent in Kentucky (Figure 4). States with a relatively large share of applications based on musculoskeletal conditions might choose to focus early intervention on this type of impairment. In contrast, those with a smaller share of such applications might want to broaden their targeting to a wider set of impairments.



**Figure 4. Percentage of state SSDI applications alleging musculoskeletal conditions, 2017**



Note: Based on authors' calculations using data from SSA administrative records for applicants ages 20 to 64 and the ACS. The SSDI-eligible population is the ACS-based estimate for the size of the population ages 20 to 64 for the state minus the number of SSDI beneficiaries ages 20 to 64 who reside in that state.

## Discussion

To develop an intervention that might produce an eventual impact on the key outcome of SSDI applications, a state's target population for RETAIN must include enough people who are at risk of applying to SSDI. Lessons from previous demonstrations underscore the importance of selecting a target population that is both sufficiently large and indeed at risk for the central outcomes to generate impacts that are both meaningful and detectable.

Our analysis indicates that the eight RETAIN states vary substantially in terms of SSDI application volumes and rates, which are relevant to the current planning activities. Specifically, in Phase 1 of the RETAIN demonstration, DOL and SSA are working with RETAIN states to develop intervention and evaluation approaches for potential implementation at a larger scale in Phase 2. The findings here highlight that the RETAIN states differ substantially in terms of the size and risk profile of their target populations (that is, the percentage of the worker population that applies for SSDI). The variation in SSDI application volume and rates among the eight RETAIN states reflects an even broader variation across all 50 states.

We anticipate that RETAIN states will be able to use the findings to better understand their potential target populations. Specifically, the SSDI award rates and counts by county provide some indication about the potential pool of workers who might benefit from RETAIN within each county. Thus, a state seeking to expand enrollment could use these data to identify counties where there are substantive numbers of SSDI awardees. Where per capita award rates are relatively low, a state might have to do more extensive screening to identify workers who would most benefit from RETAIN. Based on the county-level data on SSDI awards, RETAIN states are not running their Phase 1 pilots in particularly high-risk areas, which suggests that taking account of these data can indeed make a difference in states' plans for expansion in Phase 2. Similarly, state recruitment plans for Phase 2 could take into account how the risk of SSDI entry varies by age.

More broadly, the findings underscore the large variation across states in the potential target population for early intervention supports. For example, the incidence of SSDI application among those ages 20 to 64 population not already receiving SSDI in the state with the highest SSDI application rate (West Virginia) was more than triple the rate of the state with the lowest rate (Colorado). These large state differences suggest a potential need for customizing approaches to identify and support workers following the onset of a disability in ways that might vary substantially by state. The RETAIN demonstration represents one approach to testing state-led interventions that allows for such customization combined with federal support through programmatic and evaluation technical assistance.

## Endnotes

<sup>1</sup> We also provided detailed county-level tabulations for each county within the eight states. We anticipate that this information can be especially useful in helping states assess counties that might be most promising for identifying populations who are at risk of applying for SSDI in Phase 2. In the appendix, we present information on awards for the counties with the most awards in each state. We provide county-level information on awards, instead of applications, because reliable information on county of application was not available at the time that we assembled these data.

<sup>2</sup> Overall, COHE patients' relative risk of being out of work and still receiving workers' compensation disability benefits at one year was 21 percent lower than for comparison group patients; for COHE participants with back sprains, the relative risk was 37 percent lower than the comparison group (Wickizer et al. 2011). The COHE evaluators did not have access to SSA data they estimated SSDI entry by identifying workers' compensation claims that received an offset from SSA. Based on those data, 2.5 percent of COHE patients received SSDI within eight years after their injuries, compared to 3.4 percent of patients in the comparison group—a 26 percent difference (Franklin et al. 2015).

<sup>3</sup> The estimated impacts for the percentage not employed and the percentage applying for SSDI or SSI within two years after enrollment were not statistically significant; both estimates were small relative to their control percentages (3.3 and 15.2 percent relative reductions, respectively, based on control means of 6.1 and 13.8 percent, respectively). In contrast, the evaluation did find a statistically significant decrease of 1.4 percentage points in SSDI and/or SSI awards within one year after enrollment

(3.2 versus 1.8 percent). The estimated impact on awards was statistically significant despite the small control group percentage for awards because of its large relative size—a reduction of 44 percent.

<sup>4</sup> Information about each state's RETAIN program is available at <https://www.dol.gov/odep/topics/SAW-RTW/grant-recipients.htm>.

<sup>5</sup> Ideally, we would provide states with county-level information on SSDI applications as well as awards, because applying to SSDI within 12 months of enrollment is a primary outcome for the RETAIN demonstration. However, reliable county-level information for applications was not retrievable at the time that we assembled these data. Although the appendix includes information on the 10 counties with the most SSDI awards in each state, we have provided information on awards for all counties in the state directly to RETAIN grantees.

<sup>6</sup> The numerator for the per capita statistics is SSDI applications from SSA administrative records. The denominator is the SSDI-eligible population. The SSDI-eligible population includes those ages 20 to 64, which we estimate from the ACS, minus the number of current SSDI beneficiaries ages 20 to 64.

<sup>7</sup> For reference to state grant summaries, see U.S. Department of Labor. "S@W/R2W Research & RETAIN Demonstration Projects." Available at <https://www.dol.gov/odep/topics/SAW-RTW/grant-recipients.htm>.

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## Appendix: SSDI Application and Award Information for RETAIN States

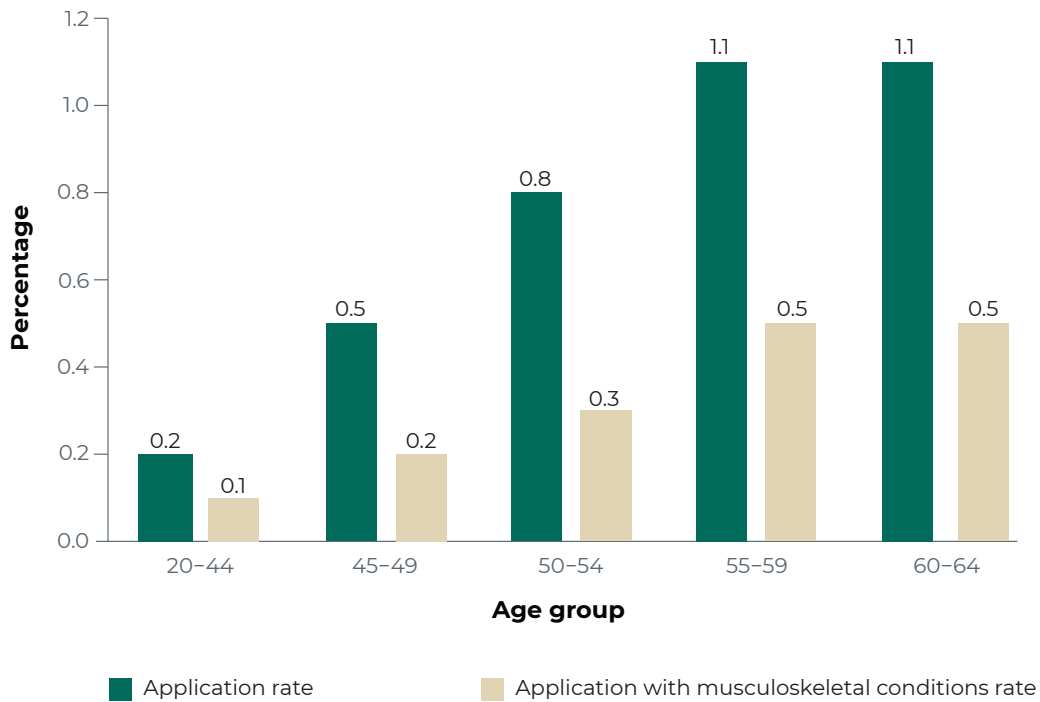
## SSDI application and award information: California

### SSDI applications and awards in California, ages 20–64, 2017

	Overall	With musculoskeletal condition
Applications	113,956	44,869
Awards	49,454	18,858

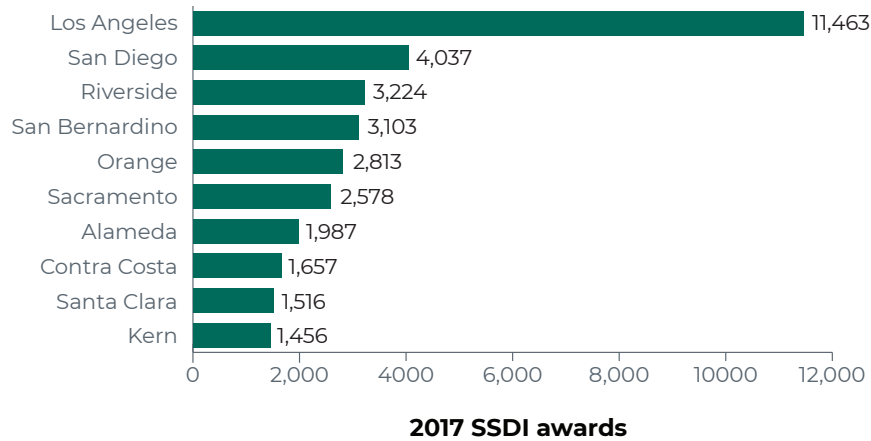
Note: Based on authors' calculations using data from SSA administrative records. Application totals do not include those denied for nonmedical reasons.

### California SSDI application rates, by age and musculoskeletal impairment, 2017



Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by age group are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the age group.

### 10 California counties with the most SSDI awards, ages 20–64, 2017



Note: Based on authors' calculations using data from SSA administrative records. We have provided information for all counties directly to the state.

### SSDI awards for 10 California counties with the most awards, ages 20–64, 2017

County	Number of SSDI-eligible people	Number of SSDI awards	SSDI award rate	Number of SSDI awards with musculoskeletal condition	SSDI award rate with musculoskeletal condition
Los Angeles	6,164,824	11,463	0.19	4,280	0.07
San Diego	1,995,485	4,037	0.20	1,415	0.07
Riverside	1,317,778	3,224	0.24	1,255	0.10
San Bernardino	1,223,836	3,103	0.25	1,234	0.10
Orange	1,898,652	2,813	0.15	957	0.05
Sacramento	868,957	2,578	0.30	982	0.11
Alameda	1,014,597	1,987	0.20	710	0.07
Contra Costa	653,855	1,657	0.25	674	0.10
Santa Clara	1,173,804	1,516	0.13	460	0.04
Kern	490,007	1,456	0.30	615	0.13

Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by county are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the county. We have provided information for all counties directly to the state.

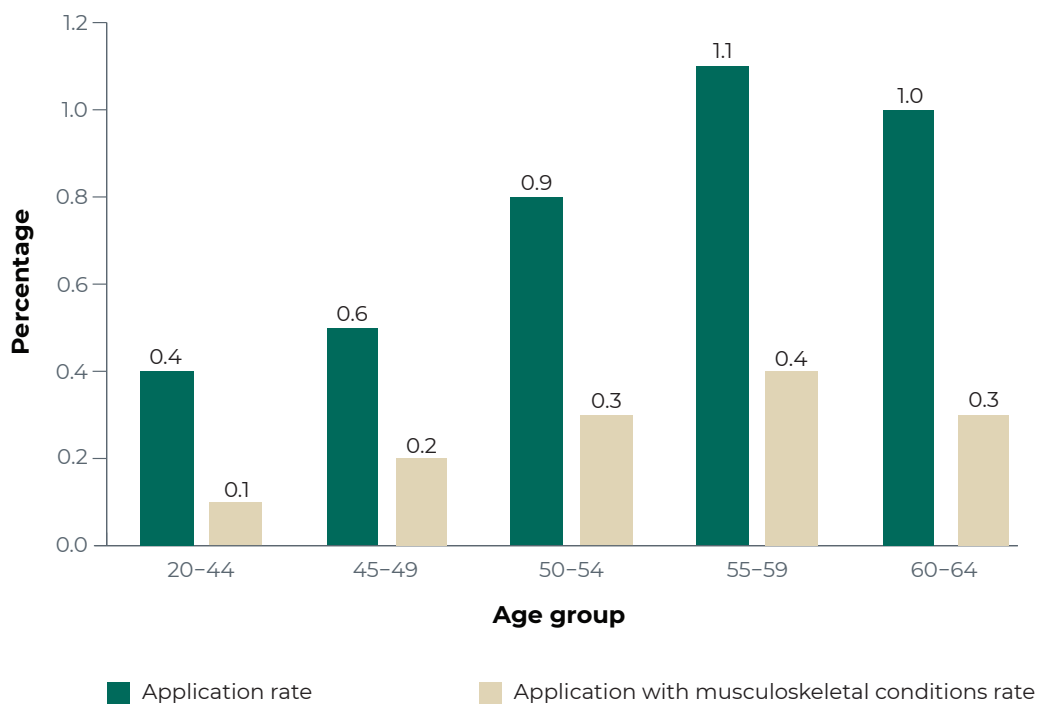
## SSDI application and award information: Connecticut

### SSDI applications and awards in Connecticut, ages 20–64, 2017

	Overall	With musculoskeletal condition
Applications	12,642	4,067
Awards	6,291	2,205

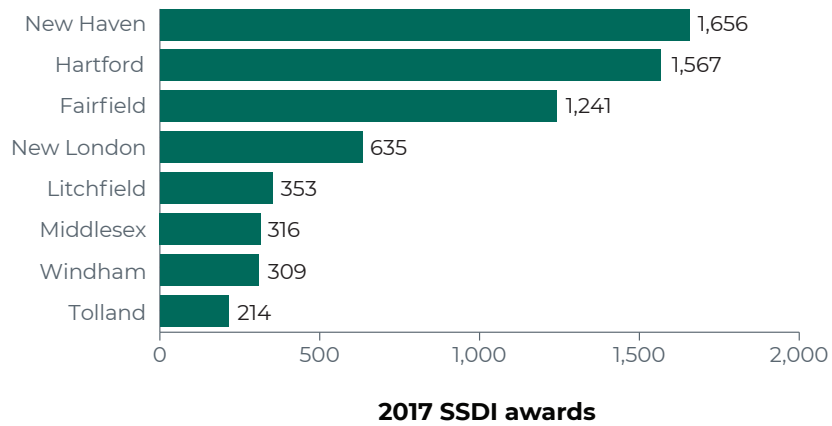
Note: Based on authors' calculations using data from SSA administrative records. Application totals do not include those denied for nonmedical reasons.

### Connecticut SSDI application rates, by age and musculoskeletal impairment, 2017



Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by age group are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the age group.

**8 Connecticut counties with the most SSDI awards, ages 20–64, 2017**



Note: Based on authors' calculations using data from SSA administrative records. We have provided information for all counties directly to the state.

**SSDI awards for 8 Connecticut counties with the most awards, ages 20–64, 2017**

County	Number of SSDI-eligible people	Number of SSDI awards	SSDI award rate	Number of SSDI awards with musculoskeletal condition	SSDI award rate with musculoskeletal condition
New Haven	497,420	1,656	0.33	599	0.12
Hartford	517,808	1,567	0.30	516	0.10
Fairfield	548,153	1,241	0.23	433	0.08
New London	157,346	635	0.40	240	0.15
Litchfield	105,732	353	0.33	127	0.12
Middlesex	95,627	316	0.33	112	0.12
Windham	67,773	309	0.46	112	0.17
Tolland	90,331	214	0.24	66	0.07

Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by county are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the county. We have provided information for all counties directly to the state.



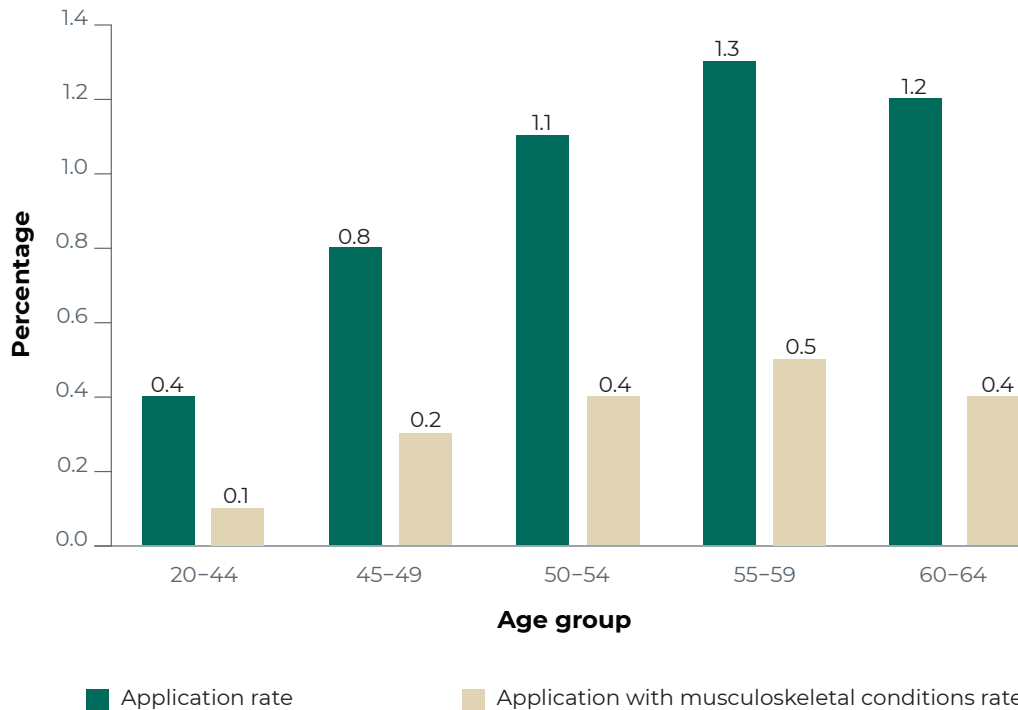
## SSDI application and award information: Kansas

### SSDI applications and awards in Kansas, ages 20–64, 2017

	Overall	With musculoskeletal condition
Applications	11,281	3,532
Awards	5,394	2,292

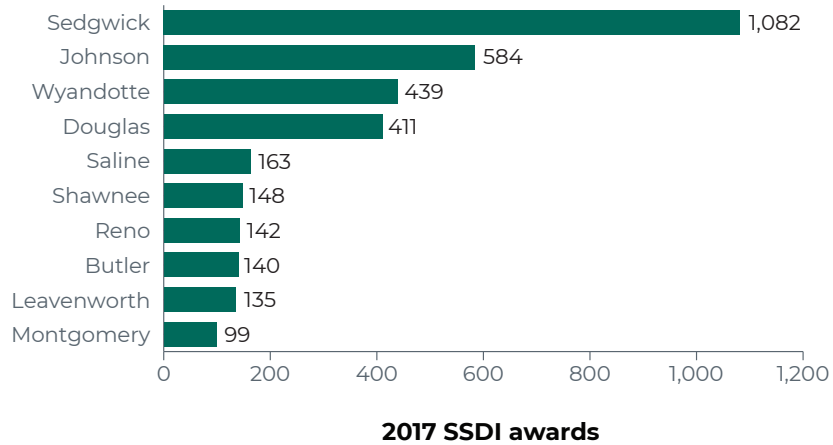
Note: Based on authors' calculations using data from SSA administrative records. Application totals do not include those denied for nonmedical reasons.

### Kansas SSDI application rates, by age and musculoskeletal impairment, 2017



Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by age group are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the age group.

**10 Kansas counties with the most SSDI awards, ages 20–64, 2017**



Note: Based on authors' calculations using data from SSA administrative records. We have provided information for all counties directly to the state.

**SSDI awards for 10 Kansas counties with the most awards, ages 20–64, 2017**

County	Number of SSDI-eligible people	Number of SSDI awards	SSDI award rate	Number of SSDI awards with musculoskeletal condition	SSDI award rate with musculoskeletal condition
Sedgwick	283,991	1,082	0.38	376	0.13
Johnson	337,830	584	0.17	157	0.05
Wyandotte	89,921	439	0.49	153	0.17
Shawnee	96,062	411	0.43	135	0.14
Douglas	73,512	163	0.22	59	0.08
Saline	30,189	148	0.49	54	0.18
Leavenworth	46,323	142	0.31	59	0.13
Reno	33,690	140	0.42	60	0.18
Butler	36,461	135	0.37	55	0.15
Montgomery	17,020	99	0.58	40	0.24

Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by county are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the county. We have provided information for all counties directly to the state.

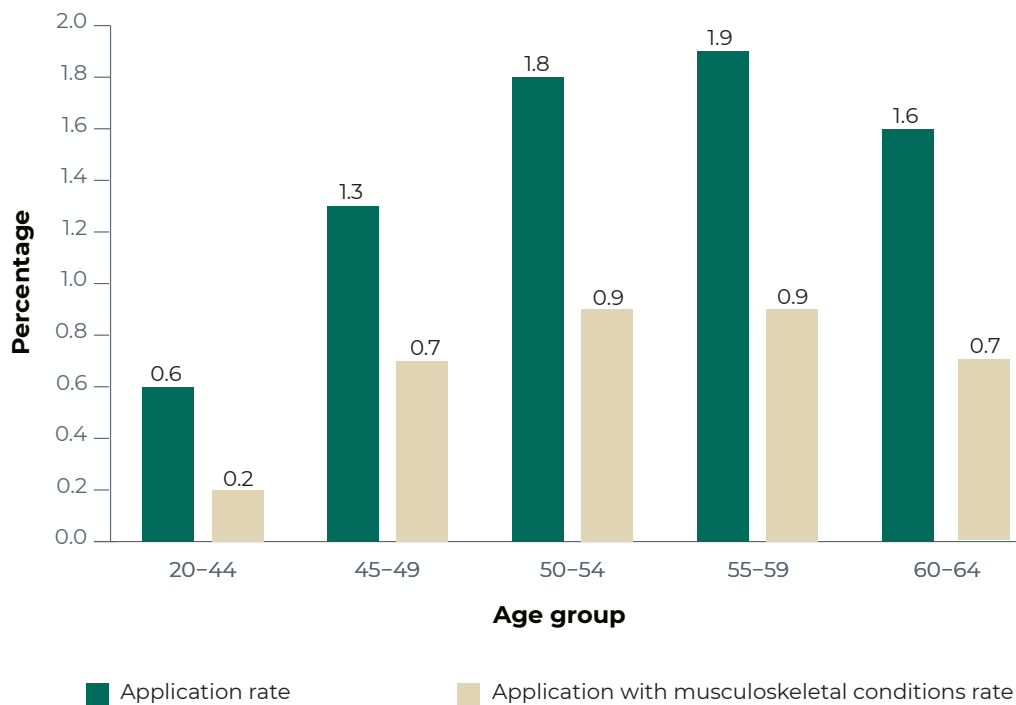
## SSDI application and award information: Kentucky

### SSDI applications and awards in Kentucky, ages 20–64, 2017

	Overall	With musculoskeletal condition
Applications	26,049	11,779
Awards	12,431	5,974

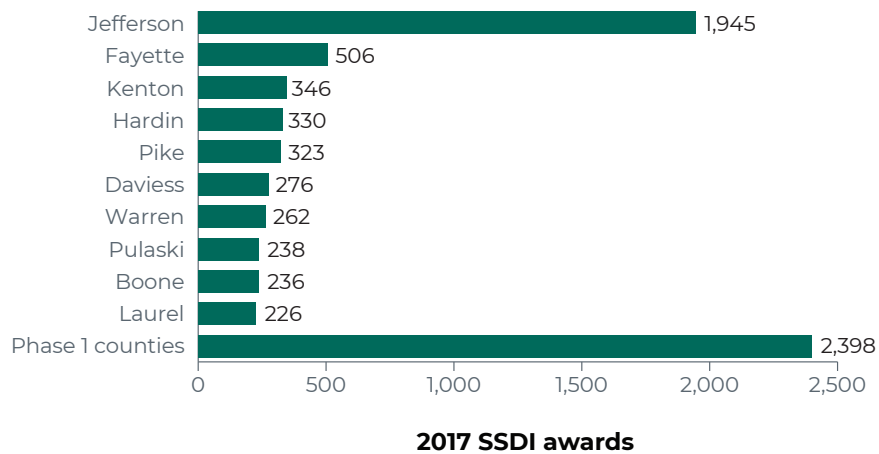
Note: Based on authors' calculations using data from SSA administrative records. Application totals do not include those denied for nonmedical reasons.

### Kentucky SSDI application rates, by age and musculoskeletal impairment, 2017



Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by age group are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the age group.

**10 Kentucky counties with the most SSDI awards, ages 20–64, 2017**



Note: Based on authors’ calculations using data from SSA administrative records. Phase 1 counties include: Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer, and Trimble. We have provided information for all counties directly to the state.

**SSDI award information for the Kentucky counties with the most awards, ages 20–64, 2017**

County	Number of SSDI-eligible people	Number of SSDI awards	SSDI award rate	Number of SSDI awards with musculoskeletal condition	SSDI award rate with musculoskeletal condition
Jefferson	436,300	1,945	0.45	749	0.17
Fayette	192,435	506	0.26	185	0.10
Kenton	94,793	346	0.37	132	0.14
Hardin	60,409	330	0.55	135	0.22
Pike	31,676	323	1.02	192	0.61
Daviess	52,685	276	0.52	102	0.19
Warren	70,329	262	0.37	99	0.14
Pulaski	33,281	238	0.72	119	0.36
Boone	72,604	236	0.33	100	0.14
Laurel	32,518	226	0.69	134	0.41
Phase 1 counties	564,903	2,398	0.42	979	0.17

Note: Based on authors’ calculations using data from SSA administrative records and the ACS. Rates by county are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the county. Phase 1 counties include: Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer, and Trimble. We have provided information for all counties directly to the state.

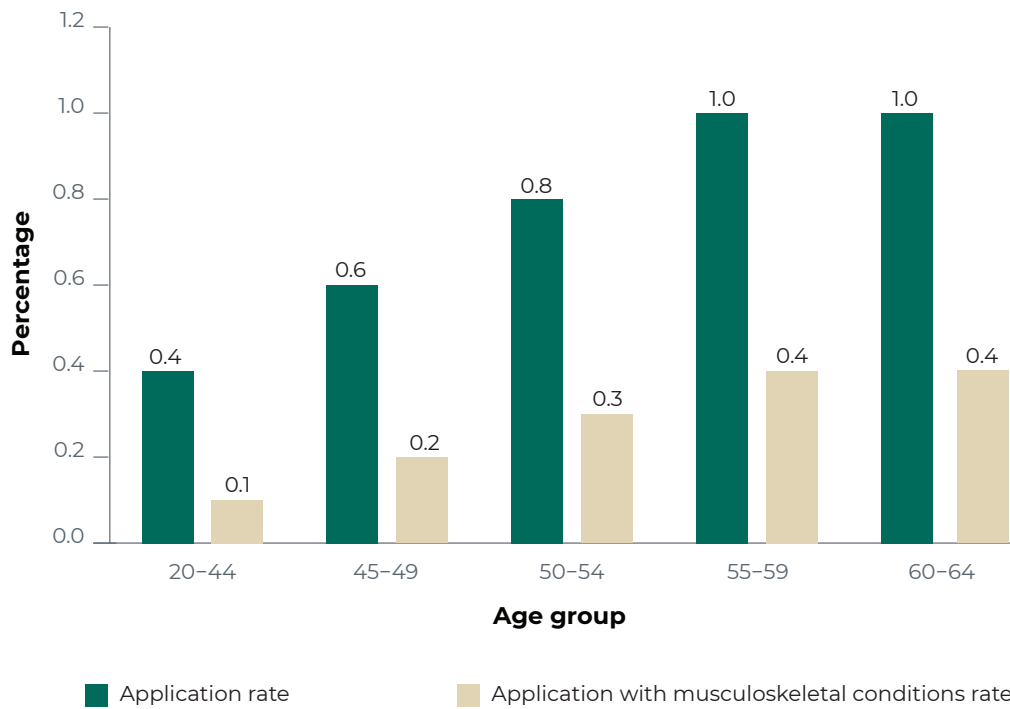
## SSDI application and award information: Minnesota

### SSDI applications and awards in Minnesota, ages 20–64, 2017

	Overall	With musculoskeletal condition
Applications	17,880	6,054
Awards	8,353	3,229

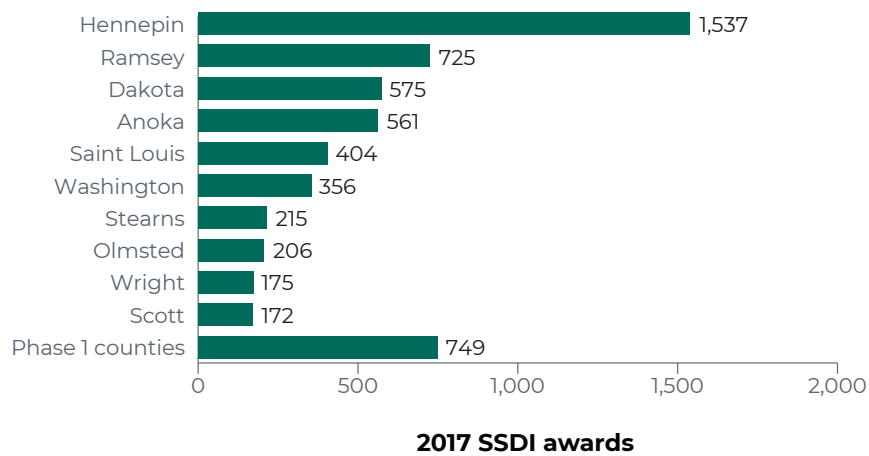
Note: Based on authors' calculations using data from SSA administrative records. Application totals do not include those denied for nonmedical reasons.

### Minnesota SSDI application rates, by age and musculoskeletal impairment, 2017



Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by age group are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the age group.

**10 Minnesota counties with the most SSDI awards, ages 20–64, 2017**



Note: Based on authors’ calculations using data from SSA administrative records. Phase 1 counties include: Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer, and Trimble. We have provided information for all counties directly to the state.

**SSDI awards for 10 Minnesota counties with the most awards, ages 20–64, 2017**

County	Number of SSDI-eligible people	Number of SSDI awards	SSDI award rate	Number of SSDI awards with musculoskeletal condition	SSDI award rate with musculoskeletal condition
Hennepin	746,999	1,537	0.21	401	0.05
Ramsey	313,913	725	0.23	214	0.07
Dakota	243,627	575	0.24	173	0.07
Anoka	203,805	561	0.28	195	0.10
Saint Louis	113,066	404	0.36	177	0.16
Washington	145,223	356	0.25	128	0.09
Stearns	88,173	215	0.24	93	0.11
Olmsted	87,322	206	0.24	61	0.07
Wright	73,687	175	0.24	75	0.10
Scott	82,715	172	0.21	54	0.07
Phase 1 counties	278,358	749	0.27	304	0.11

Note: Based on authors’ calculations using data from SSA administrative records and the ACS. Rates by county are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the county. Phase 1 counties include: Dodge, Fillmore, Freeborn, Goodhue, Houston, Mower, Olmsted, Rice, Steele, Wabasha, and Winona. We have provided information for all counties directly to the state.

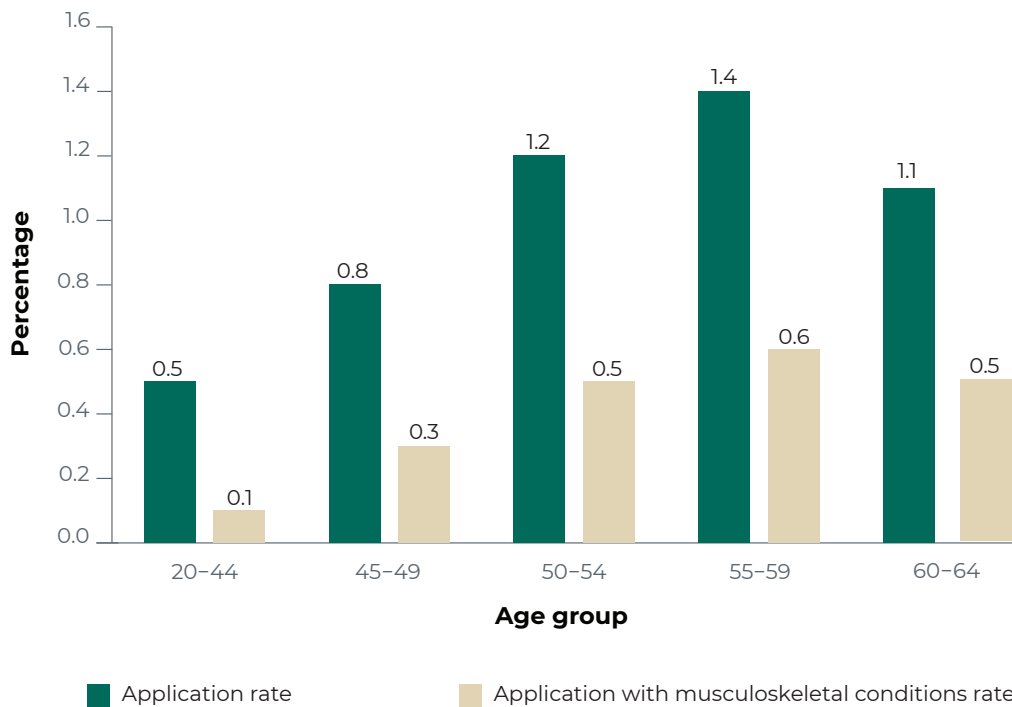
## SSDI application and award information: Ohio

### SSDI applications and awards in Ohio, ages 20–64, 2017

	Overall	With musculoskeletal condition
Applications	49,957	19,066
Awards	49,957	10,096

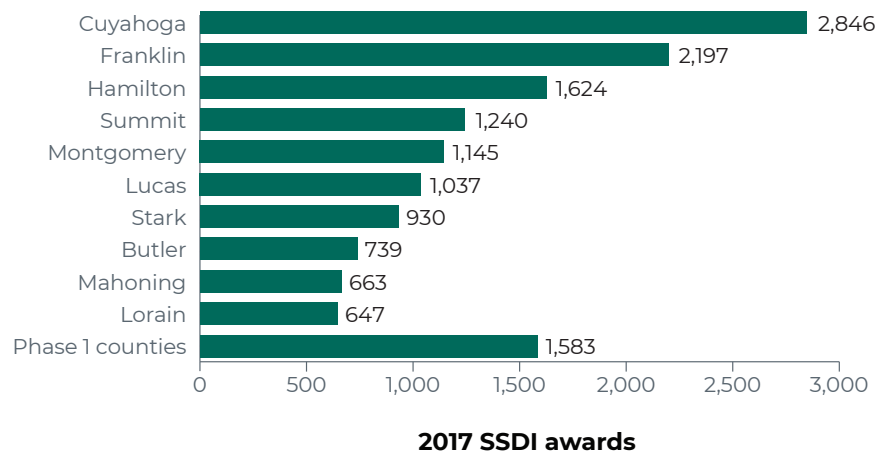
Note: Based on authors' calculations using data from SSA administrative records. Application totals do not include those denied for nonmedical reasons.

### Ohio SSDI application rates by age and musculoskeletal impairment, 2017



Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by age group are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the age group.

**10 Ohio counties with the most SSDI awards, ages 20–64, 2017**



Note: Based on authors' calculations using data from SSA administrative records. Phase 1 counties include: Columbiana, Mahoning, and Trumbull. We have provided information for all counties directly to the state.

**SSDI awards for 10 Ohio counties with the most awards, ages 20–64, 2017**

County	Number of SSDI-eligible people	Number of SSDI awards	SSDI award rate	Number of SSDI awards with musculoskeletal condition	SSDI award rate with musculoskeletal condition
Cuyahoga	711,170	2,846	0.40	1,020	0.14
Franklin	756,257	2,197	0.29	729	0.10
Hamilton	461,682	1,624	0.35	562	0.12
Summit	308,614	1,240	0.40	431	0.14
Montgomery	294,872	1,145	0.39	433	0.15
Lucas	243,130	1,037	0.43	375	0.15
Stark	203,965	930	0.46	332	0.16
Butler	211,583	739	0.35	286	0.14
Mahoning	126,356	663	0.52	266	0.21
Lorain	168,982	647	0.38	263	0.16
Phase 1 counties	293,021	1,583	0.54	655	0.22

Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by county are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the county. Phase 1 counties include Columbiana, Mahoning, and Trumbull. We have provided information for all counties directly to the state.



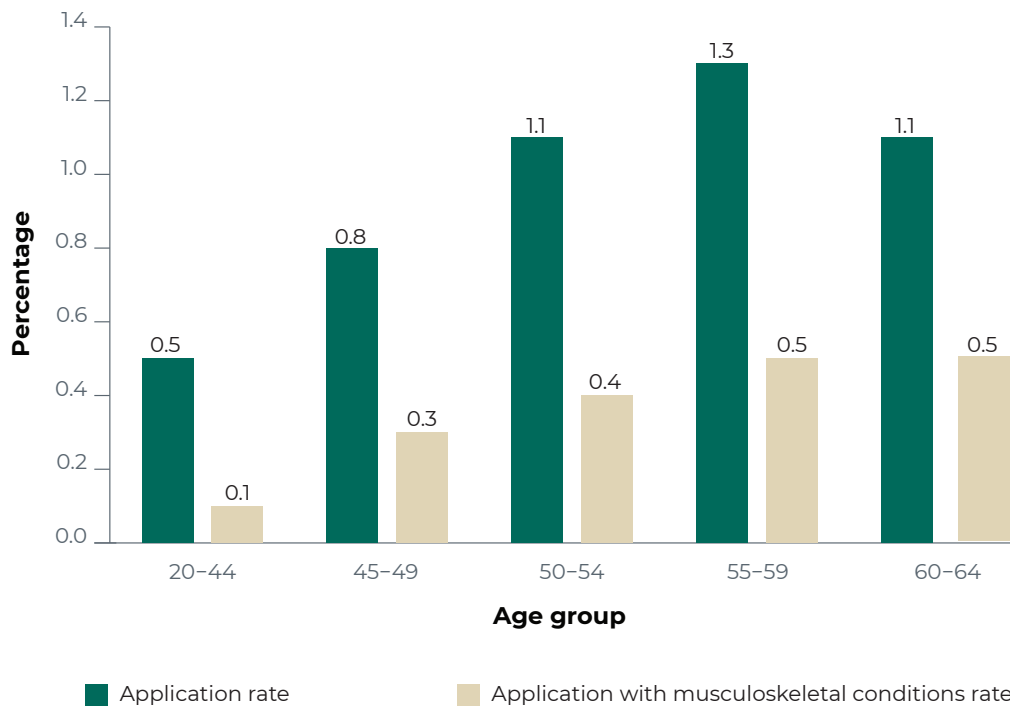
## SSDI application and award information: Vermont

### SSDI applications and awards in Vermont, ages 20–64, 2017

	Overall	With musculoskeletal condition
Applications	2,710	864
Awards	1,523	602

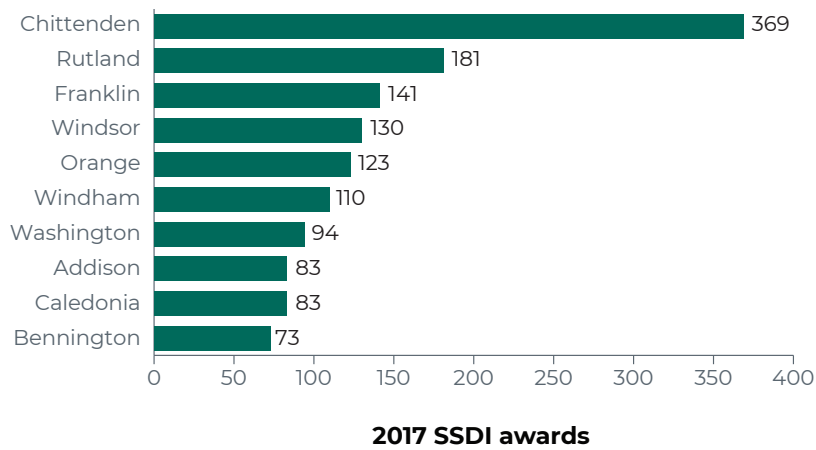
Note: Based on authors' calculations using data from SSA administrative records. Application totals do not include those denied for nonmedical reasons.

### Vermont SSDI application rates, by age and musculoskeletal impairment, 2017



Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by age group are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the age group.

**10 Vermont counties with the most SSDI awards, ages 20–64, 2017**



Note: Based on authors' calculations using data from SSA administrative records. We have provided information for all counties directly to the state.

**SSDI awards for 10 Vermont counties with the most awards, ages 20–64, 2017**

County	Number of SSDI-eligible people	Number of SSDI awards	SSDI award rate	Number of SSDI awards with musculoskeletal condition	SSDI award rate with musculoskeletal condition
Chittenden	97,633	369	0.38	109	0.11
Rutland	32,607	181	0.56	63	0.19
Franklin	26,483	141	0.53	76	0.29
Windsor	30,499	130	0.43	59	0.19
Orange	15,582	123	0.79	49	0.31
Windham	23,941	110	0.46	39	0.16
Washington	33,871	94	0.28	39	0.12
Addison	21,018	83	0.39	44	0.21
Caledonia	16,679	83	0.50	27	0.16
Bennington	19,079	73	0.38	30	0.16

Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by age group are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the age group. We have provided information for all counties directly to the state.

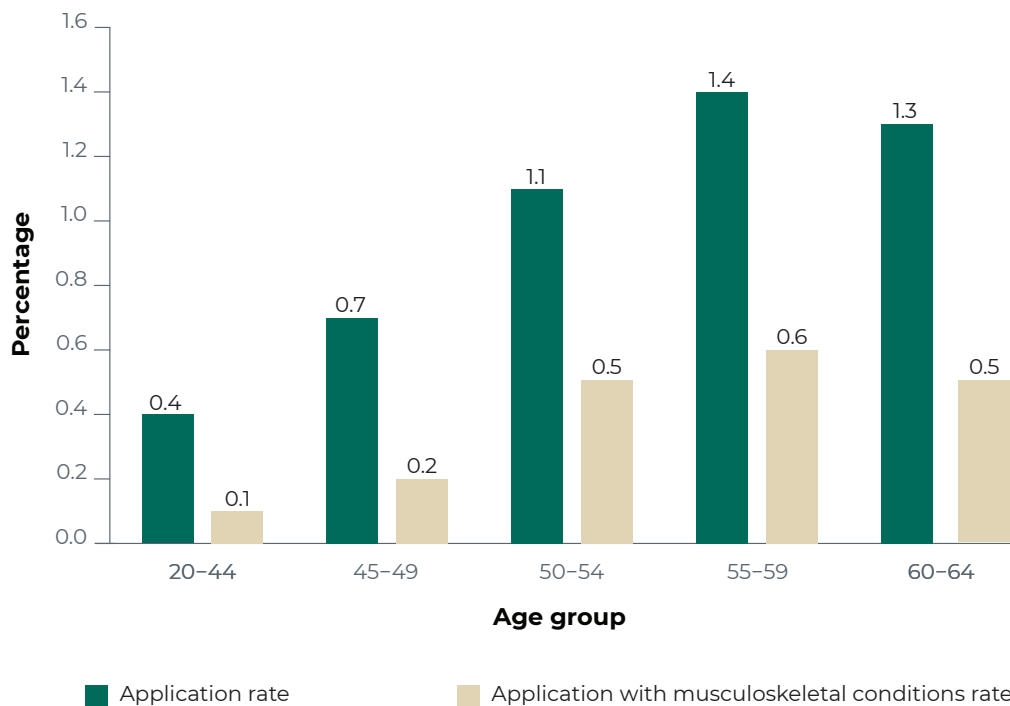
## SSDI application and award information: Washington

### SSDI applications and awards in Washington, ages 20–64, 2017

	Overall	With musculoskeletal condition
Applications	30,122	10,665
Awards	13,125	4,990

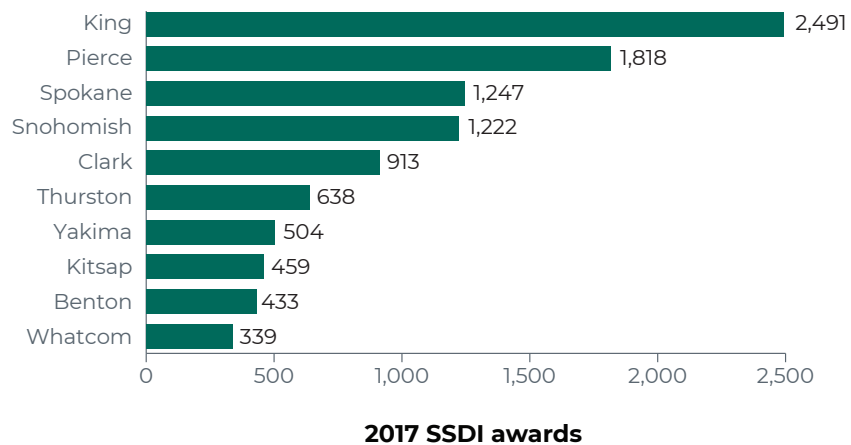
Note: Based on authors' calculations using data from SSA administrative records. Application totals do not include those denied for nonmedical reasons.

### Washington SSDI application rates by age and musculoskeletal impairment, 2017



Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by age group are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the age group.

**10 Washington counties with the most SSDI awards, ages 20–64, 2017**



Note: Based on authors' calculations using data from SSA administrative records. We have provided information for all counties directly to the state.

**SSDI awards for 10 Washington counties with the most awards, ages 20–64, 2017**

County	Number of SSDI-eligible people	Number of SSDI awards	SSDI award rate	Number of SSDI awards with musculoskeletal condition	SSDI award rate with musculoskeletal condition
King	1,340,489	2,491	0.19	737	0.05
Pierce	493,470	1,818	0.37	664	0.13
Spokane	279,091	1,247	0.45	478	0.17
Snohomish	468,176	1,222	0.26	427	0.09
Clark	259,046	913	0.35	319	0.12
Thurston	155,275	638	0.41	219	0.14
Yakima	128,783	504	0.39	232	0.18
Kitsap	150,924	459	0.30	179	0.12
Benton	104,224	433	0.42	166	0.16
Whatcom	124,170	339	0.27	120	0.10

Note: Based on authors' calculations using data from SSA administrative records and the ACS. Rates by age group are denominated by an approximation of the size of the SSDI-eligible population: the ACS estimate of the size of the population minus the number of SSDI beneficiaries in the age group. We have provided information for all counties directly to the state.