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February 2022

# OLDER WORKERS

## Opioid Misuse and Employment Outcomes

# GAO Highlights

Highlights of [GAO-22-104491](#), a report to congressional requesters

## Why GAO Did This Study

Opioid misuse has been a persistent problem in the U.S. In 2017, the Department of Health and Human Services (HHS) declared the opioid crisis a public health emergency. The Department of Labor (DOL) awarded grants to help address this crisis. While some research sheds light on the relationship between opioid misuse and workforce participation among workers of all ages, questions remain about the employment experiences of older workers affected by opioid misuse, as well as the experiences of workers during the COVID-19 pandemic. GAO was asked to explore recent trends among older adults and opioid misuse.

This report examines (1) how individual characteristics and employment experiences differ between older workers who do and do not misuse opioids and (2) challenges that selected local workforce agencies identified in helping workers—including older workers—affected by opioid misuse during the COVID-19 pandemic.

GAO analyzed HHS's Substance Abuse and Mental Health Services Administration's National Survey on Drug Use and Health data from 2015 to 2019 (the most recent 5 years of data available at the time of GAO's review); interviewed officials from eight local workforce agencies and four state workforce agencies that received certain DOL grant funding; and interviewed DOL and HHS officials.

View [GAO-22-104491](#). For more information, contact Thomas Costa at (202) 512-4769 or [costat@gao.gov](mailto:costat@gao.gov) or Lawrence L. Evans, Jr. at (202) 512-8678 or [evansl@gao.gov](mailto:evansl@gao.gov).

February 2022

## OLDER WORKERS

### Opioid Misuse and Employment Outcomes

#### What GAO Found

Older adults (ages 50 and older) who reported having misused opioids were more likely to be unemployed or experience employment instability, according to GAO's analysis of the National Survey on Drug Use and Health data from 2015 through 2019. Higher percentages of those who misused opioids were male, unmarried, and did not have a college degree, compared with older adults who did not misuse opioids. Additionally, GAO conducted regression analyses and found that, when compared with all older adults who did not misuse opioids:

- *older adults* who misused opioids were an estimated 22 percent less likely to be in the labor force (either employed or actively seeking work);
- *older adults in the labor force* who misused opioids were an estimated 40 percent less likely to be employed; and
- *employed older workers* who misused opioids were twice as likely to have experienced periods of unemployment.

The data did not allow GAO to determine causality as there are challenges to isolating the effect of opioid misuse from other factors that could affect older adults' employment experiences.



Source: Kimberly Boyles/stock.adobe.com. | GAO-22-104491

Officials from selected local workforce agencies that provide services to help adults enter or re-enter the labor force said that the COVID-19 pandemic had mixed impacts on workers who had been affected by opioid misuse, including older workers. In particular, officials pointed out challenges and benefits to providing services in a virtual environment. For example, local workforce officials discussed how disruptions and changes to their operations during the pandemic made it difficult for adults with a history of opioid misuse to stay involved with their programs, and dampened some agencies' ability to enroll new individuals. Officials also said that their agencies' transition to virtual service delivery posed some challenges for program participants as they struggled to access and use the technology required to participate in workforce services like training. In contrast, officials also noted that virtual services offered flexibility for some participants, such as those who lacked reliable transportation.

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## Abbreviations

DOL	Department of Labor
ETA	Employment and Training Administration
HHS	Department of Health and Human Services
NSDUH	National Survey on Drug Use and Health
SAMHSA	Substance Abuse and Mental Health Services Administration
WIOA	Workforce Innovation and Opportunity Act

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February 23, 2022

The Honorable Robert P. Casey, Jr.  
Chairman  
The Honorable Tim Scott  
Ranking Member  
Special Committee on Aging  
United States Senate

The Honorable Susan M. Collins  
Ranking Member  
Subcommittee on Primary Health and Retirement Security  
Committee on Health, Education, Labor and Pensions  
United States Senate

Drug misuse—the use of illicit drugs and the misuse of prescription drugs—has been a long-standing and persistent problem in the United States. It represents a serious risk to public health and has resulted in significant loss of life and negative effects on society and the economy, including billions of dollars in costs. According to the Centers for Disease Control and Prevention, nearly 841,000 people died of a drug overdose from 1999 to 2019.<sup>1</sup>

The COVID-19 pandemic has exacerbated drug misuse and the number of drug overdose deaths. According to the most recent provisional data available from the Centers for Disease Control and Prevention’s National Center for Health Statistics, a predicted record high of about 100,300 drug overdose deaths occurred in the United States during the 12-month period ending in April 2021.<sup>2</sup> Of those deaths, opioid-related drug

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<sup>1</sup>Centers for Disease Control and Prevention, National Center for Health Statistics, Wide-ranging online data for epidemiologic research (WONDER) (Atlanta, GA: 2020), accessed October 2021, available at <http://wonder.cdc.gov>.

<sup>2</sup>The Centers for Disease Control and Prevention’s National Center for Health Statistics provisional counts are adjusted to account for reporting delays. Provisional data are underreported, due to incomplete data. These data represent the Centers for Disease Control and Prevention’s predicted number of overdose deaths.

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overdoses accounted for approximately 75,700 deaths, which was a 35 percent increase compared to the same period the year before.<sup>3</sup>

Recent research has highlighted the negative effects that opioid misuse—including the use of illicit opioids and the misuse of prescription opioids—can have on workforce participation. Researchers at the Federal Reserve Bank of Cleveland, for example, found that individuals who live in areas with higher than average opioid prescription rates are less likely to participate in the labor force, after accounting for standard demographic and regional factors.<sup>4</sup> While this research sheds light on the relationship between opioid misuse and workforce participation among workers of all ages, questions remain about the employment experiences of older workers affected by opioid misuse specifically, including employment and training services available to such workers during the COVID-19 pandemic.

You asked us to explore recent trends of opioid misuse and older workers. This report examines (1) how individual characteristics and employment experiences differ between older workers who do and do not misuse opioids; and (2) challenges that selected local workforce agencies identified in helping workers—including older workers—affected by opioid misuse during the COVID-19 pandemic.

To examine how individual characteristics and employment experiences differed between older workers who did and did not misuse opioids, we conducted both descriptive and regression analyses using the National

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<sup>3</sup>Centers for Disease Control and Prevention, National Center for Health Statistics. The provisional data do not provide information by specific age groups. However, using the most recent available data from 2019, older adults ages 50 and over have made up an increasing share of all opioid-related deaths. While in 1999 overdose deaths among older adults accounted for 15 percent of all opioid-related deaths, by 2019 they accounted for 31 percent. Centers for Disease Control and Prevention, National Center for Health Statistics, Multiple Cause of Death 1999-2019 on CDC WONDER Online Database, released in 2020, accessed October 28, 2021. <http://wonder.cdc.gov/mcd-icd10.html>.

<sup>4</sup>Dionissi, Aliprantis, Kyle Fee, and Mark E. Schweitzer, *Opioids and the Labor Market*, Working Paper no. 18-07R2 (Federal Reserve Bank of Cleveland, 2019), <https://doi.org/10.26509/frbc-wp-201807r2>. Similarly, researchers from the University of Tennessee found that a high rate of opioid prescriptions in a county had strong adverse effects on the county's labor force participation rates, employment-to-population ratios, and unemployment rates, meaning that fewer people were in the labor force and were employed. Matthew C., Harris, Lawrence M. Kessler, Matthew N. Murray, and Beth Glenn, "Prescription Opioids and Labor Market Pains: The Effect of Schedule II Opioids on Labor Force Participation and Unemployment," *Journal of Human Resources*, vol. 55, no. 4 (2020): 1319-1364.

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Survey on Drug Use and Health (NSDUH) data from the Department of Health and Human Services' (HHS) Substance Abuse and Mental Health Services Administration (SAMHSA). Our analyses covered 2015 through 2019—the most recent 5 years of data available at the time of our study. NSDUH is a nationwide annual study that provides up-to-date information on drug use and other health-related issues in the United States and whose results are designed to be representative of the nation as a whole and for each of the 50 states and the District of Columbia.

For the purposes of our analyses—examining the relationship between opioid misuse and work dynamics—we defined older individuals as those ages 50 and older.<sup>5</sup> We analyzed 5-year estimates for demographic characteristics, such as gender, marital status, educational attainment, household income, and whether living at or below the federal poverty level. We also conducted multivariate regression analyses to examine the association between labor market outcomes and opioid misuse, while controlling for other factors that may affect labor market outcomes.<sup>6</sup> We assessed the reliability of the data elements we used by reviewing documentation, interviewing or obtaining information from agency officials responsible for the data, and testing the data for inaccuracies. We determined that these data were sufficiently reliable for the purposes of this report.

To describe challenges that selected workforce agencies identified in helping workers affected by opioid misuse during the COVID-19 pandemic, we interviewed officials from eight local workforce agencies from five states. We selected these workforce agencies to achieve a mix of urban and rural areas. Seven of the eight local workforce agencies were receiving funding from certain Department of Labor (DOL) grants related to opioid misuse, while the eighth local workforce agency was referred to us by a regional grant-making organization that receives federal funding and has worked with DOL.<sup>7</sup> We also spoke with officials from four state workforce agencies to discuss issues related to opioid

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<sup>5</sup>We defined older adults as 50 and older for this report because the public-use file of NSDUH data categorizes older adults as those ages 50 to 64 and those ages 65 and older.

<sup>6</sup>In addition, SAMHSA officials conducted a similar analysis using the restricted file of the NSDUH data, which contains more data and allows for different age categories. Their results were consistent with ours.

<sup>7</sup>The two grants were DOL's National Health Emergency Dislocated Worker Demonstration Grants (also known as Phase 1 grants) and Disaster Recovery National Dislocated Worker Grants (also known as Phase 2 grants).

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misuse and employment, as well as identify local workforce agencies to interview.

Additionally, we interviewed representatives of four organizations that conduct work in the area of opioids, employment, and older individuals to obtain background and context for our work. We also interviewed two groups of economists who had conducted work in the area of opioid misuse and employment outcomes. For a detailed description of our objectives, scope, and methodology, including our selection criteria for states and local workforce agencies and our regression analysis with associated limitations, see appendix I.

We conducted this performance audit from August 2020 to February 2022 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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## Background

### Older Adults in the Workforce

The rate of adults ages 55 and older who participate in the labor force rose from about 30 percent in 1991 to about 40 percent prior to the pandemic.<sup>8</sup> Improved health and heightened concerns about the ability to retire have boosted labor force participation rates for older Americans. However, challenges—such as age discrimination, inadequate training opportunities, working while managing health conditions and disabilities—may make it difficult for some older workers to thrive in the workplace.<sup>9</sup> For older workers who are affected by opioid misuse, it may be harder to continue or regain work, a situation that may have been further complicated by the public health and economic crises brought on by the COVID-19 pandemic. According to the Current Population Survey, the labor force participation rate for adults ages 55 and older had remained around an estimated 40 percent since 2008, but fell to an estimated 38.5

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<sup>8</sup>Department of Labor, Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey, *Department of Labor* (2021). Older workers are categorized as 55 and older in the Current Population Survey.

<sup>9</sup>See, for example: United States Senate Special Committee on Aging, *America's Aging Workforce: Opportunities and Challenges* (December 2017).

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percent in April 2020 during the COVID-19 pandemic and stayed at 38.4 percent as of November 2021.<sup>10</sup>

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## DOL's Grant Funding to Address the Opioid Epidemic

In October 2017, HHS declared a public health emergency due to the prevalence of opioid misuse. DOL's Employment and Training Administration (ETA) subsequently announced two funding opportunities specifically designed to address the opioid crisis through the workforce system—a network of federal, state, and local agencies that administer and carry out an array of federal employment and training programs.<sup>11</sup> The National Health Emergency Dislocated Worker Demonstration Grants (also known as Phase 1 grants) and the Disaster Recovery National Dislocated Worker Grants (also known as Phase 2 grants), which were authorized under the Workforce Innovation and Opportunity Act (WIOA), were available to states, tribes, and outlying areas in two phases.<sup>12</sup> As of November 2020, six states were awarded Phase 1 grants and 16 states and one tribe were awarded Phase 2 grants.<sup>13</sup> ETA administers both phases of the grants, which are intended in part to serve dislocated

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<sup>10</sup>Department of Labor, Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey, *Department of Labor* (2020).

<sup>11</sup>Department of Labor, Employment and Training Administration, Training and Employment Guidance Letter 12-17 (Mar. 20, 2018), and Department of Labor, Employment and Training Administration, Training and Employment Guidance Letter 4-18 (Sept. 14, 2018). In October 2019, ETA announced another funding opportunity for \$20 million in grants under the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act. This Act directs DOL to conduct a pilot grant program to address the economic and workforce effects associated with substance use disorder. We did not include this grant program in our review because these grants started in 2020, which would not have allowed for sufficient time to compare experiences prior to the pandemic with experiences during the transition and during the pandemic.

<sup>12</sup>Phase 1 and Phase 2 grants are carried out under sections 169(c) and 170 of WIOA, respectively. See 29 U.S.C. §§ 3224(c) and 3225. According to DOL officials, these grants have different legal requirements and capabilities, and because of this, the grants serve different populations and have different programmatic components.

<sup>13</sup>In November 2021, DOL officials told us that two additional states and one additional tribe had received Phase 2 grants since November 2020.

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workers—including adults whose jobs have been terminated, who have been laid-off, or who were self-employed.<sup>14</sup>

According to DOL, one goal of these grants is to deliver timely career training and support activities to dislocated workers in communities that have been affected by opioid misuse. These grants allowed states to provide training for participants affected by the opioid crisis, as well as encourage individuals to enter professions that could provide relief to those affected by the crisis, including addiction treatment services. These grants serve, in part, both individuals who have personally misused opioids, as well as those who have been affected by the opioid crisis in other ways, including opioid misuse by a family member. However, participants are not required to have a history of opioid use disorder or otherwise be personally affected by the opioid crisis to participate in grant-funded employment training, activities, and services. When states apply for these grants, they must provide a statement of need about how the opioid crisis has affected their communities and which communities they plan to target with this grant. They must also provide the type of disaster-relief employment they will offer and their anticipated employment and training services for eligible participants.<sup>15</sup>

Phase 1 and 2 grant funds are awarded to states, tribal governments, or outlying areas that, in turn, may work with local workforce development boards to administer the grants.<sup>16</sup> Grant recipients generally have two years to expend their funds. Both grants require that grantees partner with community organizations, such as those in the health care and justice systems, and with at least one local workforce development board

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<sup>14</sup>Dislocated workers include (1) individuals who have lost their job, are eligible for unemployment insurance, and who are unlikely to return to their previous industries or occupations; (2) workers who have lost their job as a result of plant closings or mass layoffs; (3) formerly self-employed individuals who are unemployed as a result of general economic conditions in the community; and (4) displaced homemakers.

<sup>15</sup>Employment and training services can include supportive services that help ensure individuals can participate in certain activities. Supportive services can include health care, mental health treatment, addiction treatment, or other forms of outpatient treatment and assistance with childcare and dependent care, among other services. For the purposes of this report, we only focused on employment and training services, not supportive services.

<sup>16</sup>State and local workforce development boards serve as connectors between DOL and local American Job Centers that deliver services to workers and employers. Workforce development boards' role is to develop regional strategic plans and set funding priorities for their area.

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or American Jobs Center.<sup>17</sup> For the four selected state grantees, the states' corresponding local workforce development boards or agencies handled the facilitation of employment and training services funded through ETA's Phase 1 or 2 grants, or both.

Prior to the COVID-19 pandemic, local workforce boards and agencies predominantly provided these employment and training services in-person. Using ETA's Phase 1 and 2 grant funding, local workforce boards can serve eligible participants with the following employment and training services: career counseling, workforce preparation, soft skill development, upskilling, occupational training, preparation classes to obtain a high school equivalency diploma, English as a Second Language courses, and job placement. Common industries that local workforce agency officials said their agencies targeted for job placement included manufacturing, commercial driving, retail, health care, agriculture, information technology, construction, and hospitality.

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## Older Adults Who Reported Misusing Opioids Were More Likely to Be Unemployed or Experience Employment Instability

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<sup>17</sup>The WIOA-funded workforce development system provides services through a national network of approximately 2,400 American Job Centers. State and local entities deliver WIOA-funded employment and training activities and coordinate with partner programs via the American Job Centers.

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## Higher Percentages of Older Adults Who Misused Opioids Were Male, Unmarried, or Did Not Have a College Degree

Overall, an estimated 2 percent of older adults (an estimated 2.7 million older adults),<sup>18</sup> defined for this report as age 50 or older, reported misusing opioids in the year prior to being surveyed, according to our analysis of the most recent five years of data from the National Survey on Drug Use and Health (NSDUH), 2015 through 2019.<sup>19</sup> Moreover, our descriptive analyses showed that opioid misuse accounted for slightly more than half of all drug use, excluding marijuana, among older adults in the year prior to being surveyed.<sup>20</sup> Approximately 4 percent of all older adults reported drug use, excluding marijuana.<sup>21</sup> By comparison, a higher share of younger adults, or about 5 percent of those ages 26 to 49, reported misusing opioids and 11 percent reported drug use, excluding marijuana.

Compared with older adults who did not misuse opioids, we found that higher percentages of those who misused opioids were male, unmarried, did not have a college degree, or were living at or below the federal poverty level.<sup>22</sup> Figure 1 shows how the demographic characteristics of older adults who misused opioids compared with those who did not.

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<sup>18</sup>Unless otherwise specified, the relative margin of error for all estimates presented in this section is 8.1 percent or less.

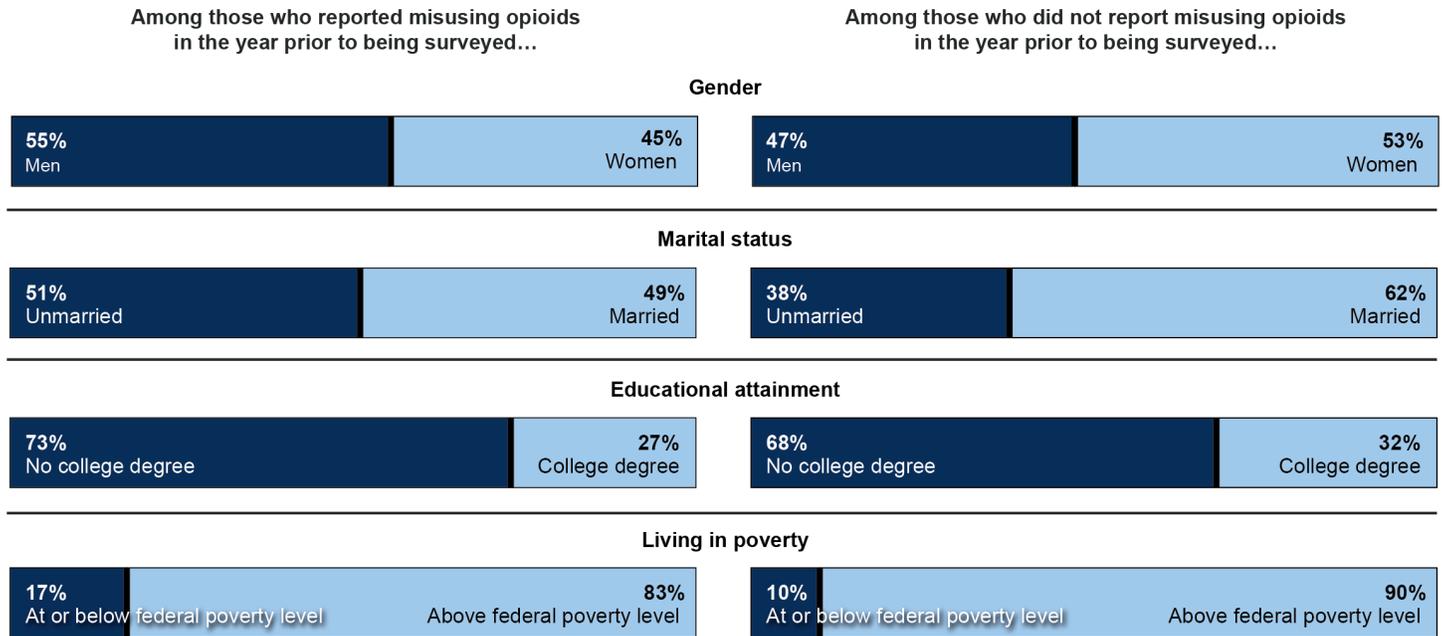
<sup>19</sup>All percentages presented in this report are estimates, unless otherwise noted. Unless otherwise specified, noted differences between estimates are all statistically significant at the 95 percent confidence level. We defined individuals as having misused opioids if they reported misusing prescription pain relievers or heroin in the year prior to being surveyed. For clarity, we refer to "opioid misuse" in this and the following section. Our analysis in this and the next section aggregates the most recent 5 years of NSDUH data, 2015 through 2019. As a result, all percentages presented in this section are annual estimates of the number of adults who misused opioids during the 2015 through 2019 period. Because we focused on older adults who misused opioids in the year prior to responding to the survey in 2015 through 2019, the prior year could refer to as early as 2014.

<sup>20</sup>Similar to opioid misuse, the time period for drug use was any drug use in the year prior to being surveyed.

<sup>21</sup>When including marijuana, just over 10 percent of older adults reported misusing illicit drugs in the prior year.

<sup>22</sup>We did not observe statistically significant differences among older adults by other characteristics, such as race and ethnicity, region, and veteran status.

**Figure 1: Estimated Percentages of Older Individuals Who Reported Misusing and Not Misusing Opioids in the Year Prior to Being Surveyed, by Selected Subgroups, 2015-2019**



Source: GAO analysis of National Survey on Drug Use and Health data. | GAO-22-104491

Notes: All percentages presented in this figure are estimates. The relative margin of error for all estimates presented in this figure is 8.1 percent or less, unless otherwise noted. The relative margins of error for older college graduates who misused opioids is 13.8 percent and for those living in poverty who misused opioids is 16.1 percent. The differences between estimates in this figure are all statistically significant at the 95 percent confidence level. We defined older individuals as ages 50 and older. We defined individuals as having misused opioids if they reported misusing prescription pain relievers or heroin in the year prior to being surveyed. Our analysis in this figure aggregates the most recent 5 years of the National Survey on Drug Use and Health data, 2015 through 2019, which is administered by the Department of Health and Human Services' Substance Abuse and Mental Health Services Administration. As a result, all percentages presented in this figure are annual estimates of the number of adults who misused opioids during the 2015 through 2019 period. Because we focused on older adults who misused opioids in the year prior to being surveyed in 2015 through 2019, the prior year could refer to as early as 2014.

### Older Workers Who Misused Opioids Were More Likely to Experience Employment Instability, Including Unemployment, Missed Work Days, and Job Changes

We analyzed the effects of opioid misuse among older adults regardless of labor force participation; older adults in the labor force; and those older adults who were employed.

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## Older Adults

Compared to younger adults, adults ages 50 and older are generally more likely to be out of the labor force for reasons such as retirement and poor health. Overall, we estimated that about half of all older adults were not in the labor force—meaning they were neither working nor actively seeking work.<sup>23</sup>

We also found that opioid misuse was associated with a lower likelihood of older adults being in the labor force in the week prior to being surveyed.<sup>24</sup> Based on our multivariate regression analyses where we controlled for a number of variables, including age, gender, race and ethnicity, marital status, and education, we found that opioid misuse was associated with an estimated 22 percent decline in the likelihood of labor force participation, compared to those who did not misuse opioids. While we controlled for as many variables as we could, our analyses could not identify the causality between opioid misuse and labor force participation and employment of older adults.<sup>25</sup>

When we analyzed the effects of opioid misuse by selected subgroups, we found strong associations between opioid misuse and certain groups' labor force participation. For example, among older workers in the labor force, we examined the effects of opioid misuse on labor force participation by:

- **gender**, and found that older men who misused opioids were 23 percent less likely to participate in the labor force, as compared to those who did not misuse opioids;<sup>26</sup>

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<sup>23</sup>This percentage is an annual estimate of the number of adults who were not in the labor force during the 2015 through 2019 period. The relative margin of error for these estimates is less than 6.7 percent.

<sup>24</sup>The time period specified for labor force participation status was the week prior to being surveyed.

<sup>25</sup>For more information about our regression analysis of the NSDUH data and associated limitations, see appendix I.

<sup>26</sup>We found no statistically significant differences in the likelihood of labor force participation among older women who did and did not misuse opioids.

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- **age groups**, and found that older individuals between the ages of 50 and 64 who misused opioids were 26 percent less likely to participate in the labor force, as compared to those who did not misuse opioids;<sup>27</sup>
  - **race and ethnicity**, and found that older White adults who misused opioids were 21 percent less likely to participate in the labor force, as compared to older White adults who did not misuse opioids;<sup>28</sup> and
  - **marital status**, and found that unmarried older adults who misused opioids were 22 percent less likely to participate in the labor force, as compared to those who did not.<sup>29</sup>

Older adults who misused opioids were less likely to be out of the labor force because of retirement and more likely to report not having a job due to a disability.<sup>30</sup> We found that older adults who misused opioids were 29 percent less likely to be retired compared to those who did not misuse opioids.<sup>31</sup> On the other hand, older adults who misused opioids were 80 percent more likely to report not having a job due to a disability. However, due to the nature of the data we used, we could not determine whether opioid misuse contributed to a disability, a disability contributed to opioid misuse, or an individual with a disability who did not have a job later misused opioids without it being directly related to the disability.

## Older Adults in the Labor Force

We found that for older workers in the labor force, opioid misuse was associated with an estimated 40 percent decline in the likelihood of being

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<sup>27</sup>We found no statistically significant differences in the likelihood of labor force participation among adults ages 65 and older who did and did not misuse opioids.

<sup>28</sup>We found no statistically significant differences in the likelihood of labor force participation among older Hispanic and older Black workers who did and did not misuse opioids.

<sup>29</sup>We found no statistically significant differences in the likelihood of labor force participation among older married adults who did and did not misuse opioids.

<sup>30</sup>NSDUH asked respondents about their status of working in the prior week of them completing the survey. If respondents said they did not work in the prior week, respondents were asked a question about the reasons for not working in the prior week which included an option for respondents to report having a disability.

<sup>31</sup>NSDUH asked respondents about their status of working in the prior week of them completing the survey. If respondents said they did not work in the prior week, respondents were asked about the reasons for not working which included an option to report being retired. We controlled for a number of variables for this regression analysis, including whether an individual was between the ages of 50 to 64 or 65 and older. For additional information on the variables we controlled for in this analysis, see appendix I.

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employed in the week prior to being surveyed, as compared to older workers who did not misuse opioids.<sup>32</sup>

Older workers who misused opioids were twice as likely to have experienced some period of unemployment in the year prior to being surveyed, compared to older adults who did not misuse opioids.<sup>33</sup> These spells of unemployment can have significant impacts on a worker's ability to gain employment, and achieve or maintain financial stability.

We also analyzed the effects of opioid misuse on employment for selected subgroups. For example, among older workers in the labor force, we examined the effects of opioid misuse on employment by:

- **gender**, and found that older male workers who misused opioids were 46 percent less likely to be employed compared to those who did not misuse opioids;<sup>34</sup>
- **age groups**, and found that individuals ages 65 and older who misused opioids were 83 percent less likely to be employed compared to those who did not misuse opioids;<sup>35</sup>
- **race and ethnicity**, and found that older Hispanic and non-Hispanic White workers who misused opioids were 64 percent and 43 percent, respectively, less likely to be employed compared to those who did not misuse opioids;<sup>36</sup> and

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<sup>32</sup>The time period specified for employment status was the week prior to being surveyed.

<sup>33</sup>The time period specified for experiencing some time of being unemployed was the year prior to being surveyed.

<sup>34</sup>We found no statistically significant differences in the likelihood of employment among older female workers who did and did not misuse opioids.

<sup>35</sup>We found no statistically significant differences in the likelihood of employment among adults between the ages of 50 and 64 who did and did not misuse opioids.

<sup>36</sup>Workers who were non-Hispanic other races including Pacific Islanders, native Hawaiians, Asians, and multi-racial workers constituted a small sample, and we found that those who misused opioids were more likely to be employed compared to those who did not misuse. We found no statistically significant differences in the likelihood of employment among older Black workers who did and did not misuse opioids.

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- **marital status**, and found that among unmarried older workers, those who misused opioids were 59 percent less likely to be employed than those who did not misuse opioids.<sup>37</sup>

## Employed Older Adults

Employed older adults who misused opioids worked fewer hours in the week prior to being surveyed.<sup>38</sup> Specifically, opioid misuse was associated with an 8 percent decline in the number of hours worked, relative to those who did not misuse opioids.

**Missing days of work.** We found that older workers who misused opioids were more likely to have skipped work in the month prior to being surveyed.<sup>39</sup> Specifically, these older workers were three times as likely to report skipping days, as compared to those who did not misuse opioids. Moreover, for those older workers who reported skipping at least one day, we found that those who misused opioids generally reported skipping more days of work compared to those who did not.

Older workers who misused opioids were also more than two times as likely to report missing work in the month prior to being surveyed due to sickness or injury compared to older adults who did not misuse opioids. Our analysis cannot distinguish whether missing work was due to injuries or sickness that led to opioid misuse, or to opioid misuse that led to injuries or sickness.

**Having multiple employers.** Among older workers, we found that opioid misuse was associated with having more employers in the year prior to being surveyed.<sup>40</sup> Working for more than one employer could indicate that a worker chose to change jobs, or had to (such as after being fired from a prior job), or that a worker held multiple jobs concurrently.

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<sup>37</sup>We found no statistically significant differences in the likelihood of employment among married older workers who did and did not misuse opioids.

<sup>38</sup>The time period specified for hours worked was the week prior to being surveyed. Our analysis did not find a statistically significant association between opioid misuse and being employed full-time.

<sup>39</sup>The time period specified for missed work—both skipping work as well as missing work due to sickness or injury—was the month prior to being surveyed.

<sup>40</sup>The time period specified for number of employers was the year prior to being surveyed. This question was asked of all respondents who had at least one employer in the prior year, which could include those who were not in the labor force in the prior week.

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## Selected Local Workforce Agencies Identified Challenges Related to the Pandemic and Virtual Services for Individuals Affected by Opioid Misuse, Including Older Workers

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### The Pandemic Had Mixed Implications for Workers Who Have Traditionally Struggled to Obtain and Retain Employment

Local workforce agencies provide services to various populations of workers, including workers who have been affected by opioid misuse.<sup>41</sup> The eight selected local agencies we spoke with continued providing services during the COVID-19 pandemic and reported mixed effects of the pandemic on the people they served.<sup>42</sup>

**Barriers to employment.** Older workers and individuals who have misused opioids have historically faced barriers gaining employment.<sup>43</sup> For example, one local workforce official said that individuals who have misused opioids generally must explain any criminal records and employment gaps to employers every time they try to re-enter the workforce. The official explained that such disclosures may dissuade employers from hiring individuals affected by opioid misuse, resulting in a pool of talented individuals who cannot find employment. Another local

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<sup>41</sup>One of the goals of DOL's National Health Emergency Dislocated Worker Demonstration Grants (Phase 1) and Disaster Recovery National Dislocated Worker Grants (Phase 2) is to serve individuals affected by the opioid crisis, which includes individuals who have misused opioids themselves, as well as those who have had family members who have misused opioids. However, these grants can serve individuals who have not been personally affected by the opioid crisis.

<sup>42</sup>Officials from the local workforce agencies told us that older workers made up a small percentage of their clients, so knowledge of older worker experiences was limited. Examples in this section refer to workers of all ages, unless otherwise specified.

<sup>43</sup>We have conducted work in this area and found barriers to employment for individuals affected by opioid misuse. See GAO, *Workforce Innovation and Opportunity Act: Additional DOL Actions Needed to Help States and Employers Address Substance Use Disorder*, [GAO-20-337](#) (Washington, D.C.: May 21, 2020).

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official told us that their agency has identified employers in certain industries, such as manufacturing, that are more open to hiring workers despite any criminal records, and targets jobs for participants accordingly.

Officials from three local workforce agencies told us that, in their view, barriers to employment, including age discrimination and hesitancy to hire people with a history of drug use, persisted during the pandemic. For example, officials from one local workforce agency told us there was very low interest in hiring people with prior drug use, based on a low response rate to a survey that the workforce agency conducted in partnership with a local university. The survey was intended to gauge interest among employers in hiring and supporting people affected by opioid misuse. Fourteen of the approximately 1,000 local businesses surveyed responded and, of these, two said they were interested in learning more about resources and other information about hiring those affected by opioid misuse.<sup>44</sup>

In contrast, we heard that some employers who had difficulty hiring or retaining workers during the pandemic may have been more willing to hire job seekers regardless of age and prior drug use. Most state and local officials we interviewed said their areas experienced high unemployment during the pandemic, driven largely by workers being unable to work due to various factors, including workplace closures, lack of childcare, and health concerns related to COVID-19. Four local workforce officials told us that they thought enhanced unemployment benefits provided a disincentive to returning to work.<sup>45</sup> For example, one local workforce agency official stated that he had heard of small businesses in his state shutting down because they could not find workers, which this agency official attributed to enhanced unemployment benefits. Officials from five

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<sup>44</sup>This survey was conducted by students and instructors at Bucknell University. We are using the results of the survey for illustrative purposes only and did not assess if the survey results are generalizable.

<sup>45</sup>According to our prior report on a number of issues related to the CARES Act, including unemployment insurance programs during the pandemic, in public announcements, states generally cited labor shortages among their reasons for withdrawing from the CARES Act unemployment insurance programs. However, preliminary data from DOL's Bureau of Labor Statistics do not show an association between termination of participation in these programs and reductions in states' unemployment rates. Also, initial results from our review of the economic literature suggest that expanded unemployment insurance benefits during the pandemic generally did not discourage unemployed workers from returning to work; however, this conclusion could shift over time with changes in economic conditions. See GAO, *COVID-19: Additional Actions Needed to Improve Accountability and Program Effectiveness of Federal Response*, [GAO-22-105051](#) (Washington, D.C.: October 27, 2021).

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local workforce agencies said that job seekers, including older individuals and those who have misused opioids, may have had an easier time finding work due in part to employers struggling to fill job openings during the pandemic. Two local workforce agencies told us that employers eagerly hired in certain industries, including manufacturing and health care. According to one local workforce agency official, some businesses waived drug tests in an effort to hire more workers.

We also heard from local workforce agency officials that concerns over contracting COVID-19, as well as juggling childcare and virtual schooling, led participants to halt their job searches, training activities, work-based learning placements, and overall connection to employment and training services. Four local workforce agency officials said that during the pandemic, participants—including older participants—were hesitant to work due to fears of getting sick with COVID-19. One local workforce agency surveyed their current participants to assess how many people were willing to work during the pandemic. While the agency found that some participants were willing to change careers in order to meet the current needs (such as working in health care or manufacturing), other participants were worried about working, especially after seeing COVID-19 outbreaks at facilities like meatpacking plants.

**Disruptions in recovery and support.** Local workforce officials from four agencies discussed how disruptions and changes with their agencies' operations due to the pandemic may have made it more difficult for individuals with a history of opioid misuse to stay involved with their recovery programs, including employment and training services. According to some of these officials, individuals who have misused opioids were also prone to relapses during the pandemic due to a lack of support, social isolation, and other factors.<sup>46</sup> Local workforce agency officials in all five selected states said they witnessed increases in substance misuse during the pandemic. For example, one official said that trends of opioid misuse and overdoses among the agency's program participants were declining prior to the pandemic; however, the official witnessed a dramatic increase in opioid-related overdoses and deaths since the pandemic began in March 2020.

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<sup>46</sup>For example, see Benjamin P. Linas, Alexandra Savinkina, Carolina Barbosa, Peter P. Mueller, Magdalena Cerdá, Katherine Keyes, and Jagpreet Chhatwal, "A clash of epidemics: Impact of the COVID-19 pandemic response on opioid overdose," *Journal of Substance Abuse Treatment*, Vol. 120 (October 6, 2020).

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One local workforce agency official told us that it takes a tremendous amount of support to help an individual complete a recovery program and return to work. He said that because a number of recovery and treatment facilities closed early in the pandemic, primarily due to state stay-at-home orders and concerns over spreading COVID-19, many individuals in recovery were left without adequate support—which he said may have set his area’s progress back by a number of years in terms of addressing opioid misuse and overdoses. Another local workforce official representing an urban area said that disruptions in services made it difficult to serve participants, especially when they had other needs such as stable housing. He said that his staff had challenges staying connected with program participants prior to the pandemic, and that the disruptions and shift from in-person to virtual services during the pandemic compounded these challenges.

**New enrollments.** The pandemic also introduced enrollment challenges for individuals seeking services at local workforce agencies. Five local workforce agencies we interviewed experienced declines in enrollment at the beginning of the pandemic, followed by increases in enrollment starting in the summer and into the fall of 2020.<sup>47</sup> One local workforce agency official said the agency had to develop a new outreach strategy to enroll participants because the central center that bundled workforce and other services for the large urban population it served shut down during the pandemic. Officials from one of the four state workforce agencies we spoke with said they intended to enroll individuals in local workforce programs from program coordinators strategically placed in drug court offices. However, when courts moved online during the pandemic, the local workforce agencies lost their primary method of enrolling participants and had to re-think their enrollment strategy, according to state officials. In contrast, one local workforce agency told us that their partnership with a recovery center that provided telehealth services during the pandemic drove referrals to the workforce program, thus connecting individuals to the services they needed.

Despite changes in enrollment and participation, states reported that DOL was supportive and provided technical assistance for changes to their operations during the pandemic. According to DOL officials, throughout the pandemic DOL held regular calls with state grantees, allowing states

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<sup>47</sup>State workforce agencies submit quarterly performance data to DOL. DOL provided us with quarterly performance data for 2020 through the second quarter of 2021. This data generally showed slower growth in enrollment and participation during 2020, as compared to the first two quarters of 2021.

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to share pandemic-related challenges and concerns with their peers as well as strategies to address them. According to the state workforce agencies, DOL also provided guidance on service delivery during the pandemic to the states, which the states communicated to their local workforce agency partners.

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### Virtual Services Offered by Local Workforce Agencies Posed Both Challenges and Benefits for Those Accessing and Using Services, Including Older Workers

Due to the pandemic, local workforce agency officials said they had to transition their in-person services to a virtual format (phone, videoconferencing, etc.). This presented several challenges, as well as some benefits, for participants depending on their circumstances during the pandemic. One local workforce agency official said their agency served many participants who required housing services, which meant that employment and training services may have been a lower priority for these participants during the pandemic and it was harder to stay connected with them. Other local workforce agencies served participants in rural areas, some of whom lacked reliable transportation and potentially benefited from virtual services when they had access to high-speed internet and computers.

#### Challenges

**Virtual format.** Local workforce agency officials said their agencies generally had to pause some services while they worked on the transition to virtual services. While these local agency officials said their agencies were able to offer many services virtually, some services were difficult to provide in a virtual environment. For example, one local workforce agency official said that a number of trainings had to be delayed or canceled as a result of the pandemic, including on-site training for factory linemen. Another local workforce agency official said they halted their workforce re-entry program that offered job training in local jails, as jails they worked with were not allowing visitors or non-essential staff inside early in the pandemic. As a result, this particular re-entry service stopped in March 2020.

**Access to and familiarity with technology.** The transition to virtual services amplified challenges related to participants' computer and internet access and comfort using technology. Two local workforce agency officials said that technology was a major barrier to serving participants. According to seven local workforce officials we interviewed, some participants did not have reliable access to computers or high-speed internet, especially in rural areas. Officials from one local workforce agency told us that some program participants in rural areas had to drive to access high-speed internet. Another agency that serves both urban and rural communities supplied laptops and Wi-Fi hotspots for some program participants so they could access services remotely.

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Further, a number of participants—especially older participants—were not sure of or did not feel comfortable with using technology and had a difficult time with the transition, according to six local workforce agency officials we interviewed. For example, according to a local workforce agency official, participants had to learn how to digitally upload relevant documents to prove program eligibility, when they had typically shown these documents in person before the pandemic. One local official said that they also faced low digital literacy among participants, and have now incorporated classes focused on using software like Microsoft Word and applying online for jobs into their adult education curriculum, in addition to other employment skills.

**Engagement with participants and employers in the virtual environment.** We heard from two local workforce agency officials that it was difficult to engage both participants and employers virtually.

- *Participant engagement.* Assistance for individuals who have misused opioids tends to be tailored to the individual, necessitating significant support, according to two local workforce agency officials. One official emphasized that some of the workforce services state and local agencies provide—whether in-person or virtual—are predicated on building trust with the participant and noted the difficulty of doing so using virtual platforms.
- *Employer engagement.* Two local workforce agencies told us that their efforts to maintain regular communication with potential employers using virtual meeting platforms during the pandemic were not successful. One of these agencies reported difficulty engaging employers in their recovery-friendly workplace initiative as employers were instead focused on trying to survive as a business and navigate layoffs.<sup>48</sup> The other local workforce agency told us that they reverted to limited in-person engagement as employer engagement declined.

**Competing demands.** Four local workforce officials we interviewed found that a number of participants and would-be participants, like many people during the pandemic, struggled to attend trainings and meetings because of the increased demands on their time. Specifically, participants who were parents or guardians had to spend more time caring for their children as childcare facilities closed, and more time supporting their children's education as schools moved to a virtual format.

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<sup>48</sup>This agency's recovery-friendly workplace initiative is intended to reduce the stigma of substance use disorder in the community and workplace.

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## Benefits

**Participation in programs.** We heard from local workforce agencies that the transition to virtual services expanded access to services for some. For example, two local workforce agencies described the adaptation to more technology-based services as a silver lining to the challenges posed by the pandemic. One local workforce agency official said that after transitioning to virtual services, one of their agency's programs saw increased participation rates coupled with decreased operating costs. Another local workforce agency official reported that the ease of using a virtual platform in participants' own homes lessened some participants' anxiety about participating in the program.

**Flexibility.** While some officials had discussed challenges with access in rural areas, as mentioned above, three local workforce agency officials we interviewed who serve remote areas with unreliable transportation said that as a result of going virtual, more people were able to access their services. Another local official said that offering training virtually added a degree of flexibility for people whose schedules had not allowed them to take in-person training prior to the pandemic. For example, the agency saw an increase in enrollment in a virtual training for Certified Recovery Specialists.

Local workforce agencies shared success stories of individuals who participated in these employment and training services during the pandemic:

- An individual in her fifties who had previously misused opioids participated in an agency's employment and training services. Prior to the pandemic, this participant used the local workforce agency's services, including job training and workplace training, to begin a medical coding position. Her new employer told the local workforce agency that this participant had a great work ethic and was a pleasure to work with. During the pandemic, however, the employer furloughed a significant percentage of its workforce, including this participant. While she was furloughed, the local workforce agency enrolled her in an online medical billing and coding program to help her maintain her skills. Later during the pandemic, she was hired back by the same medical facility.
- Another older participant who had worked in a coal mine for his entire career and had recently overcome substance misuse wanted to change careers. The officials worked with him on success coaching, to help him overcome his fears. Once the pandemic hit, the participant—who struggled with technology—had a difficult time with the services being provided virtually. Eventually, he was able to take

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virtual classes to work toward getting a high school equivalency diploma and started working at a construction company while he continued to seek a career change. At the time of our discussion, he was interviewing for a job at an aluminum factory.

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## Agency Comments

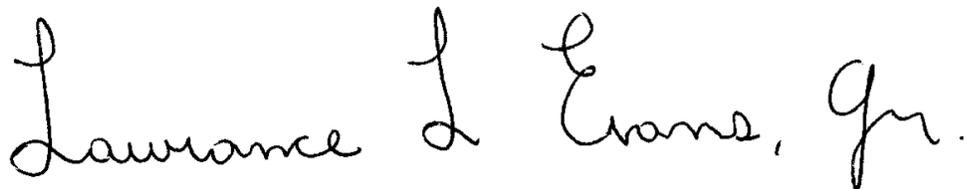
We provided a draft of this product to DOL and HHS for review and comment. DOL and HHS told us that they had no comments on the draft report.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of this report to the appropriate congressional committees, the Secretary of Labor, the Secretary of Health and Human Services, and other interested parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

If you or your staff have any questions about this report, please contact Thomas Costa at (202) 512-4769 or [costat@gao.gov](mailto:costat@gao.gov) or Lawrence L. Evans, Jr., at (202) 512-8678 or [evansl@gao.gov](mailto:evansl@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix II.



Thomas Costa  
Director  
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# Appendix I: Objectives, Scope, and Methodology

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The objectives of this review were to examine (1) how individual characteristics and employment experiences differ between older workers who do and do not misuse opioids; and (2) challenges that selected local workforce agencies identified in helping workers—including older workers—affected by opioid misuse during the COVID-19 pandemic.

To examine how individual characteristics and employment experiences differed between older workers who did and did not misuse opioids, we conducted both descriptive and regression analyses using the National Survey on Drug Use and Health (NSDUH) data from Department of Health and Human Services' Substance Abuse and Mental Health Services Administration (SAMHSA). Our analyses covered 2015 through 2019—the most recent 5 years of data available at the time of our study. We determined that the data elements we used were sufficiently reliable for our purposes. In this appendix, we describe the data, sample, how we assessed the reliability of the data, and the limitations of our analysis.

To examine challenges that selected workforce agencies identified in helping workers affected by opioid misuse during the COVID-19 pandemic, we interviewed officials from four state workforce agencies and eight local workforce agencies in five states. We also interviewed DOL officials about their grant initiatives targeting the opioid epidemic. In this appendix, we describe how we selected the states and local workforce agencies with whom we spoke.

Additionally, we interviewed representatives of four organizations that conduct work in the area of opioids, employment, and older individuals to obtain background and context for our work. We also interviewed two groups of economists who had conducted work in the area of opioid misuse and employment outcomes.

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## Analyses of SAMHSA's National Survey on Drug Use and Health Data

To examine how employment experiences differ between older workers who did and did not misuse opioids, we conducted descriptive and regression analyses using public data from NSDUH. We used the most

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recent 5 years of data, which covers the 2015-2019 time period.<sup>1</sup> NSDUH is a nationwide annual study that provides up-to-date information on drug use and other health-related issues in the United States. Each year, NSDUH interviews approximately 70,000 people from all 50 states and the District of Columbia. The following provides detailed information about our sample specification and our descriptive and regression analyses.

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## Study Population and Sample Design

NSDUH provides information about the use of illicit drugs, alcohol, and tobacco among members of the U.S. civilian, noninstitutionalized population ages 12 or older. Our sample captured older adult respondents. For our descriptive and regression analyses, we defined older adults as individuals who were age 50 years or older.<sup>2</sup> We defined older adults who participated in the labor force as those who reported being employed full-time or part-time, or were unemployed but looking for work in the prior week. We defined older adults in employment as those who reported being employed full-time or part-time in the prior week.

Since 1999, the survey sample has employed a 50-state design with an independent, multistage area probability sample for each of the 50 states and the District of Columbia. Because the survey data were based on probability samples, estimates were calculated using appropriate sample weights that reflect the size of population, number of respondents, and any bias in response propensity. To account for the sample representation and design used in the NSDUH, we used the cluster, strata, and final analysis weight presented in the NSDUH data.<sup>3</sup>

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## Analyses Conducted

We estimated the population proportion for demographic characteristics—such as gender, marital status, education attainment, household income,

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<sup>1</sup>NSDUH underwent a redesign in 2015 affecting the comparability of some of the variables between waves of the survey prior to 2015 and after 2015. For this reason, we focused on years 2015 to 2019 of the survey. The 2020 data were not released until the end of 2021. In addition, SAMHSA cautioned against comparing 2020 estimates with prior years' estimates given that the pandemic necessitated methodological changes in data collection.

<sup>2</sup>This choice of age groups was predicated by the availability of age groups in the public use file of NSDUH data, which categorizes older adults into those ages 50 to 64 and 65 and older. We chose to define older adults as those 50 and older because of these data limitations.

<sup>3</sup>As SAMHSA instructed, we divided the final analysis weight by 5, the number of years analyzed.

and whether living in poverty—among older adults who did and did not report opioid misuse in the year prior to being surveyed.<sup>4</sup>

We used multivariate regression analyses to examine the association between labor market outcomes and opioid misuse, while controlling for other factors that may determine labor market outcomes. In our analyses, the measures of labor market outcomes included:

1. The number of employers conditional on having at least one employer in the prior year.
2. The number of hours worked in the prior week, in values of 1 to 61 hours, for those who reported being employed in the prior week. We examined the log of this variable.
3. The number of missed days because of injury or illness for those reporting being employed in the prior week and having experienced missed days in the prior 30 days. We examined the log of this variable.
4. The number of skipped days for those reporting being employed in the prior week and having at least one skipped day in the prior 30 days. We examined the log of this variable.<sup>5</sup>

Other measures of labor market outcome included whether the respondents reported:

5. Being in the labor force in the prior week.
6. Being retired in the prior week.
7. Being disabled for work as a reason for not having a job in the prior week.
8. Being employed in the prior week if the participant reported being in the labor force.
9. Having experienced some time with no work in the prior year if the participant reported being in the labor force.

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<sup>4</sup>In our analyses, we defined individuals as having misused opioids if they reported misusing prescription pain relievers or heroin in the year prior to being surveyed.

<sup>5</sup>In NSDUH, participants are asked: “During the past 30 days, . . . how many whole days of work did you miss because you just didn’t want to be there? Please do not include days you missed because of a planned vacation or days that you stayed home with a sick child or other family member.”

10. Working full time in the prior week if the participant reported being employed.
11. Missing work because of injury or illness in the prior month if the participant reported being employed in the prior week.
12. Skipping work in the prior month if the participant reported being employed in the prior week.

For outcome variables that are not binary indicators (see labor market outcomes 1-4 described above), we conducted regression analysis while controlling for year, whether the individual lived in a large-, small-, or non-metro area, and individual characteristics of age group, gender, race and ethnicity, marital status, educational attainment, household composition, as well as the respondent's military service.

Table 1 shows the estimated coefficient with standard errors in parentheses. As the table shows, we found that among older adults, opioid misuse was associated with having more employers in the prior year.<sup>6</sup> We also found that among older adults who were employed in the prior week, opioid misuse was associated with an estimated 8 percent fewer work hours in the prior week and an estimated 17 percent increase in the number of skipped days for those who had at least one skipped day in the prior month. However, we found no statistically significant differences (at the 95 percent confidence level) in the number of missed days for those who had at least one missed day because of injury or illness in the prior month between older adults who did and did not report opioid misuse. These results were generally consistent before and after accounting for different demographic and other factors described above.

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<sup>6</sup>We defined statistically significant differences at the 95 percent confidence level.

**Appendix I: Objectives, Scope, and Methodology**

**Table 1: Regression Coefficients for Opioid Misuse on Difference in Work Experiences from Multivariate Model**

<b>Outcome variables (in continuous)</b>	<b>Estimated coefficient for opioid misuse</b>	<b>Observations</b>	<b>Weighted population</b>
The number of employers conditional on having at least one employer in the prior year	0.13*** (0.03)	23,218	58,712,036
The log of the number of hours worked in the prior week for those reported being employed in the prior week	-0.08** (0.03)	18,894	48,117,936
The log of the number of missed days because of injury or illness for those reporting being employed in the prior week and having experienced missed days in the prior 30 days.	0.05 (0.08)	4,211	10,433,558
The log of the number of skipped days for those reporting being employed in the prior week and having at least one skipped day in the prior 30 days	0.17** (0.08)	1,455	3,649,644

Source: GAO analysis of National Survey on Drug Use and Health data. | GAO-22-104491

Note: Standard errors are in parentheses. \*\*\* p<0.01, \*\* p<0.05. We controlled for time periods, metro status, and individual characteristics.

We used the public use NSDUH data files, which do not contain a state variable and do not allow for the categorization of older adults as age 55 and older. Because of this, we requested that SAMHSA conduct a sensitivity analysis with their restricted data files and provided them with the code for this purpose. The results were generally consistent with our results, when controlling for states and defining older adults as individuals who were age 55 years or older.

For outcome variables that were defined as binary indicators (see labor market outcomes 5-12 described above), we estimated a logistic model, a technique that allowed us to estimate the likelihood of a particular event occurring when controlling for additional factors. The model produces odds ratios that compare the likelihood of a particular event occurring for older adults who did and did not report opioid misuse in the prior year. An odds ratio of 1 indicates that older adults who did and did not report opioid misuse had an equal likelihood of a particular event occurring. An odds ratio of less than 1 indicates older adults who reported opioid misuse had a lower likelihood of a particular event occurring compared to those who did not, and an odds ratio of greater than 1 indicates that those who reported opioid misuse had a higher likelihood of a particular event occurring than those who did not.

The estimated odds ratios in table 2 demonstrate that among older adults, opioid misuse was generally associated with adverse employment

**Appendix I: Objectives, Scope, and Methodology**

outcomes. These results were generally consistent before and after accounting for different demographic and other factors described above. The results were also consistent with the sensitivity analysis results provided by SAMHSA.

**Table 2: Odds Ratios for Opioid Misuse on Difference in Work Experience from Multivariate Model**

Labor outcomes (in binary)	Estimated odds ratios for opioid misuse	Interpretation	Observations	Weighted population
Being in the in the labor force in the prior week	0.78*** (0.07)	An odds ratio of X could be interpreted as X times as likely of a particular event occurring for older adults who did and did not report opioid misuse in the prior year.	44,007	112,162,805
Being retired in the prior week	0.71*** (0.09)	For example, among all older adults, those who reported opioid misuse were 22% less likely (or 78% as likely) to be in the labor force, 29% less likely to be retired, and 80% more likely to cite their disability as a reason of not having a job, relative to those who did not report opioid misuse.	44,007	112,162,805
Being disabled for work as a reason for not having a job in the prior week	1.80*** (0.19)		44,007	112,162,805
Being employed in the prior week if the participant reported being in the labor force	0.60*** (0.11)	Among all older adults who participated in the labor force, those who reported opioid misuse were 40% less likely to be employed in the prior week and approximately twice as likely to have experienced a time with no work in the prior year, relative to those who did not report opioid misuse.	21,983	55,592,626
Having experienced some time with no work in the prior year if the participant reported being in the labor force	2.08*** (0.36)		20,833	52,787,930
Working full time in the prior week if the participant reported being employed	0.88 (0.11)	Among older adults who were employed in the prior week, those who reported opioid misuse were approximately two times as likely to miss and approximately three times as likely to skip work in the prior month, relative to those who did not report opioid misuse. We did not find a statistically significant association (at the 95 percent confidence level) between opioid misuse and being employed full-time.	20,925	53,041,422
Missing work because of injury or illness in the prior month	2.08*** (0.24)		20,541	51,971,883
Skipping work in the prior month	3.06*** (0.44)		20,589	52,115,057

Source: GAO analysis of National Survey on Drug Use and Health data. | GAO-22-104491

Note: Standard errors are in parentheses. \*\*\* p<0.01, \*\* p<0.05. We controlled for time periods, metro status, and individual characteristics. Results should not be interpreted as causal.

In addition, we examined the association of opioids misuse and selected labor market outcomes, such as the likelihood of being in the labor force and the likelihood of being employed, among older adults separately by

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gender, race and ethnicity, marital status, and age group. The results are discussed in the report.

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## Data Reliability

We assessed the reliability of these data by reviewing methodological documentation, interviewing and obtaining information from agency officials responsible for the data, and testing the data for inaccuracies. We determined that the data were sufficiently reliable for our purposes. Specifically, we:

- reviewed technical documentation on the data elements included in NSDUH, as well as related publications and websites with information about the data;
- interviewed SAMHSA officials knowledgeable about the NSDUH data and consulted these officials periodically throughout the course of our study;
- requested similar analyses from SAMHSA using the restricted data file, which includes additional sample and variables, and verified that our results using the public use file were similar; and
- conducted our own electronic data testing to assess the accuracy and completeness of the data used in our analyses.

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## Limitations of the Analyses

Our descriptive and regression results did not directly evaluate a causal link between opioid misuse and labor market outcomes of older adults, if one exists. Instead, we described the associations between opioid misuse and labor market outcomes that may provide insights into the effects of opioid misuse. Information about this and related limitations include:

- The data we used in our analyses did not follow individuals over time. Therefore, our analyses could not rule out the possibility that adverse labor market conditions may lead to higher individual substance use including opioid misuse. For this reason the associations we estimated in our analyses may be driven by the effect of labor market conditions on opioid misuse use rather than the effect of opioid misuse on labor market outcomes.
- The data we used in our analysis relied on self-reports of opioid misuse. If there was under-reporting of opioid misuse, this would bias our estimates of the association of opioid misuse and labor market outcomes.
- The data did not contain information on all factors related to opioid misuse and labor market outcomes and we did not assess the sensitivity of our results to all possible functional forms. For example,

our analyses could not control for health status, which may affect both drug use and labor market outcomes. Because people who experience poor health may be more likely to be prescribed opioids by their doctors, and less likely to participate in the labor force, we may be wrongly attributing the effect on the labor market to opioids when part of the effect could be attributed to poor health.

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## Interviews with Selected States and Local Workforce Agencies

To describe the challenges to helping workers affected by opioid misuse that selected local workforce agencies identified during the COVID-19 pandemic, we spoke to officials from four state workforce agencies that receive DOL grant funding and eight local workforce agencies from those four states and the state of Kentucky, which was not a grant recipient.<sup>7</sup> While we discussed issues related to opioid misuse and employment, the primary purpose of our discussions with state workforce agencies was to identify local workforce agencies to speak to, as officials from local workforce agencies would be able to provide information on how participants and services have been impacted during the COVID-19 pandemic.

To identify state and workforce agencies for interviews, we reviewed 25 grantees of DOL grant programs that fund services in communities that have been affected by opioid misuse, including programs that help individuals enter, remain in, or re-enter the workforce.<sup>8</sup> These grant programs were the National Health Emergency Dislocated Worker

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<sup>7</sup>The local workforce agency we spoke to in Kentucky was the Eastern Kentucky Concentrated Employment Program. This group received grant funding from an economic development partnership agency to fund recovery-to-work initiatives. We did not speak with officials from the state workforce agency for Kentucky because they were not a DOL grant recipient, and because we had been referred directly to the local workforce agency. We were most interested in speaking with officials from local workforce agencies because they provide services directly to participants. Our interviews with state workforce agencies were primarily focused on receiving recommendations of which local workforce agencies to speak to.

<sup>8</sup>In November 2021, DOL officials told us that two additional states and one additional tribe had received Phase 2 grants since November 2020. Our selection of grantees did not include these additional states and tribe.

Demonstration Grants (Phase 1) and Disaster Recovery National Dislocated Workers Grants (Phase 2).<sup>9</sup>

We selected four state grantees and their affiliated workforce agencies that provided employment and training services to individuals who have been affected by the opioid epidemic and have offered services during the COVID-19 pandemic. These four state workforce agencies were the Mississippi Department of Employment Security, New Hampshire Department of Business and Economic Affairs, Pennsylvania Department of Labor and Industry, and Washington State Employment Security Department. These states captured variation in certain characteristics, such as region of the U.S. and demographics (including median age).<sup>10</sup> Of the states we interviewed, three states received Phase 1 grants and two states received Phase 2 grants. Washington State received both grants. We also applied additional selection criteria, including:

- higher than average state prescription opioid dispensing rates;<sup>11</sup>
- recent year state drug overdose mortality rates;<sup>12</sup> and
- recent year state drug overdose deaths.<sup>13</sup>

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<sup>9</sup>According to DOL, one of the goals of Phase 1 and 2 grants is to deliver timely career training and support activities to dislocated workers in communities that have been affected by opioid misuse, which can include those affected by opioid misuse, as well as family members of those who misuse opioids. In October 2019, ETA announced another funding opportunity for \$20 million in grants under the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act. This Act directs DOL to conduct a pilot grant program to address the economic and workforce effects associated with substance use disorder. We did not include this grant program in our review because these grants started in 2020, which would not have allowed for sufficient time to compare experiences prior to the pandemic with experiences during the transition and during the pandemic.

<sup>10</sup>Annual Estimates of the Resident Population for Selected Age Groups by Sex for New Hampshire: April 1, 2010 to July 1, 2019 (SC-EST2019-AGESEX-33), *U.S. Census Bureau, Population Division* (2020).

<sup>11</sup>"2020 U.S. State Opioid Dispensing Rates," *Centers for Disease Control and Prevention*, National Center for Injury Prevention and Control (September 2021).

<sup>12</sup>Centers for Disease Control and Prevention Wonder, "2018 Drug Overdose Mortality by State," *Centers for Disease Control and Prevention. National Center for Health Statistics* (February 2021).

<sup>13</sup>Centers for Disease Control and Prevention Wonder, "2018 Drug Overdose Death Rates," *Centers for Disease Control and Prevention. National Center for Injury Prevention and Control* (March 2021).

Within each of these four states, we conducted interviews with one or two local workforce agencies that partner with state agencies and provide employment and training services for individuals affected by opioid misuse (see table 3). While some of these entities classified themselves as workforce boards, corporations, and workforce agencies we refer to them as local workforce agencies for the purposes of this report. We selected multiple local workforce agencies when possible, in order to capture trends in both rural and urban areas. This helped ensure our selection represented a spectrum of state and local experiences.<sup>14</sup> While we aimed to interview agencies representing a diverse array of experiences and characteristics, our results are not generalizable.

**Table 3: Selected Department of Labor (DOL) Grantees for Interviews**

State workforce agency	Local workforce agencies	DOL grant
Mississippi – Mississippi Department of Employment Security	Mississippi Community College Board Three Rivers Planning and Development District	Disaster Recovery National Dislocated Worker Grant (Phase 2)
New Hampshire - New Hampshire Department of Business and Economic Affairs	Southern New Hampshire Services	National Health Emergency Dislocated Worker Demonstration Grant (Phase 1)
Pennsylvania - Pennsylvania Department of Labor and Industry	Advance Central PA Philadelphia Works	National Health Emergency Dislocated Worker Demonstration Grant (Phase 1)
Washington - Washington State Employment Security Department	Pacific Mountain Workforce Development Council Workforce Snohomish	National Health Emergency Dislocated Worker Demonstration Grant (Phase 1) Disaster Recovery National Dislocated Worker Grant (Phase 2)

Source: GAO analysis of information from the Department of Labor. | GAO-22-104491

We also interviewed one local workforce board, the Eastern Kentucky Concentrated Employment Program, who was referred to us from a regional grant-making organization that receives federal funding and has worked with DOL. This workforce board provides similar services as the other local workforce agencies and receives federal funding, but was not a recipient of DOL Phase 1 or Phase 2 grants. We did not speak with the state representing this local workforce agency because the state was not a grantee, and because we had been referred directly to the local agency

<sup>14</sup>Due to the overlap in DOL grant programs and some selection criteria, two states that were included in a prior GAO report are included in our list of states (Washington and New Hampshire). See GAO, *Workforce Innovation and Opportunity Act: Additional DOL Actions Needed to Help States and Employers Address Substance Use Disorder*, [GAO-20-337](#) (Washington, D.C.: May 21, 2020).

that provided services. Because the local workforce board provided similar services, we included its responses in our analysis.

We conducted this performance audit from August 2020 to February 2022 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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# Appendix II: GAO Contacts and Staff Acknowledgments

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## GAO Contacts

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## Staff Acknowledgments

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