



February 2018

# Addressing the Opioid Epidemic Among Midwest Construction Workers

Frank Manzo IV, MPP

Jill Manzo

# Executive Summary

Every day across the country, more than 100 people die from opioid overdoses. One industry that has been disproportionately harmed by the opioid epidemic is construction. For example, in 2016, construction workers in Ohio were 7.24 times more likely to die of an opioid overdose than other workers.

Construction is one of the most physically demanding and dangerous occupations in the United States. The injury rate for construction workers is 77 percent higher than the national average for other occupations. In addition, an estimated 15 percent of construction workers have a substance abuse disorder, compared to the national average of 8.6 percent.

In recent years, most workers compensation claims have involved opioid prescriptions – as high as 60-80 percent in the Midwestern states reviewed in this study. Opioids account for about 20 percent of all total spending on prescription drugs in the construction industry, which is 5-10 percent higher than its share of spending in other industries.

**Estimated based on available data sources suggest nearly 1,000 construction workers across the Midwest died from an opioid overdose in 2015.**

- 164 construction workers in Illinois;
- 83 construction workers in Indiana;
- 32 construction workers in Iowa;
- 160 construction workers in Michigan;
- 54 construction workers in Minnesota;
- 380 construction workers in Ohio;
- 92 construction workers in Wisconsin.

**The opioid epidemic cost the Midwest's construction industry an estimated \$5.2 billion in 2015.**

- Illinois \$867 million;
- Indiana \$450 million;
- Iowa \$168 million;
- Michigan \$858 million;
- Minnesota \$292 million;
- Ohio \$2 billion; and
- Wisconsin \$524 million.

Each construction worker with an untreated substance abuse disorder costs an employer \$6,800 per year in excess healthcare expenses, absenteeism, and turnover costs. But when a construction employee is in recovery from a substance abuse disorder, contractors save nearly \$2,400 per year.

There are a variety of ways that contractors, labor unions, and elected officials can combat opioid addiction in the construction industry. Recommendations include:

1. Provide health insurance that covers substance abuse and mental health treatment.
2. Adopt new policies in health plans that limit dosages of opioid medications.
3. Encourage physical therapy and anti-inflammatory medications for chronic wear-and-tear injuries.
4. Educate employees about responsible prescription opioid use.
5. Provide at least two weeks of paid sick leave.
6. Update employee policies to include regular drug testing, but do not immediately fire employees who test positive.
7. Temporarily put employees on prescription opioids in low-risk positions.
8. Fund substance abuse treatment programs and workforce development initiatives.

# Introduction

The opioid epidemic is a serious public health issue across the United States. Opioids are a class of chemically-related drugs that interact with vulnerable receptors on nerve cells in the body and brain. Opioids are highly addictive because they relieve pain and cause euphoria as dopamine is released. The crisis began with the over-prescription of painkillers. Since 1999, the sales of prescription painkillers have increased by 300 percent (CDC, 2011). By 2012, over 259 million opioid prescriptions were written— enough for every American adult to have a bottle of pills (CDC, 2014). Today, an estimated 2.5 million Americans are addicted to opioids. While the United States has less than 5 percent of the world’s population, it consumes roughly 80 percent of the global opioid supply (Straehley, 2014).

These highly-addictive drugs are extremely deadly. When taken for a short time as prescribed by doctors, opioids are generally considered safe. However, regular use can lead to psychological and physical dependence, addiction, and a desire for stronger, cheaper, and illicit forms of opioids. Addicts have turned to illegal substances— such as heroin, fentanyl, carfentanil, and U-47700— when they are unable to get opioid prescriptions. Four out of five heroin users started out using prescription pills (CDC, 2013).

The surge in prescription painkillers, heroin, and synthetic opioids such as fentanyl has devastated communities. Every day across the country, more than 100 people die from opioid overdoses, accounting for the vast majority of drug-overdose deaths in the United States. In fact, about 64,000 Americans died from drug overdoses in 2016. Approximately 49,900 of those overdose deaths (78 percent) involved prescription painkillers, heroin, or synthetic opioids such as fentanyl— which is up to 100 times more powerful than morphine (Katz, 2017).

In October 2017, President Donald Trump declared the opioid epidemic a national public health emergency under the Public Health Services Act. While no additional federal funding was allocated by the Trump Administration, federal agencies were directed to devote more grant money from their budgets to combat the epidemic. Deaths per capita are highest among middle-aged men, whites, and rural counties. A recent study by the University of Michigan found that the rate of babies born with opioid withdrawal symptoms is rising faster in rural areas than in urban America (Mostafavi, 2016). The opioid devastation is most concentrated in New England, rural Appalachia, and the Midwest (The Economist, 2017).

Opioids also have had a disproportionately negative impact on the construction industry. Although data is limited, research indicates that opioid use is likely greater in construction than in other industries. An estimated 15 percent of construction workers have a substance abuse disorder, compared to the national average of 8.6 percent, according to the *National Survey on Drug Use and Health* by the National Safety Council (2017). Blue-collar construction and extraction, specifically, “have twice the [substance abuse disorder] rates of educators, professional, office and administrative support workers” (NSC, 2017). In addition, opioids also account for about 20 percent of all total spending on prescription drugs in the construction industry, which is about

5 to 10 percentage points higher than its share of spending in other industries ([CNA, 2015](#)). The construction industry must take steps to combat this problem plaguing its workforce.

This Midwest Economic Policy Institute (MEPI) Economic Commentary discusses opioid use in the construction industry across the Midwest. The report discusses that the construction industry being one of the most physically demanding occupations in the United States as one of the main reasons construction workers are disproportionately addicted to opioids and pain medication, citing injury and fatalities rates of construction workers in seven Midwest states. Then, opioid fatality rates are presented and the economic cost of the opioid epidemic in the construction industry are presented by each Midwest state. Finally, policy recommendations are discussed. The opioid epidemic is costly to the Midwest's construction industry and Midwest's economy; however, there are steps contractors, labor unions, and elected officials can take to combat opioid addiction in the construction industry in the Midwest.

## Reasons for the Opioid Epidemic in Construction

It is estimated that employers pay almost \$1 billion each week in workers' compensation costs alone. These costs include both direct and indirect costs. Workers' compensation payments, medical expenses, legal fees, training replacement employees, lost productivity, and expenditures associated with lower employee morale and absenteeism all cost an employer when a worker has an on-the-job injury or fatality ([US DOL, 2017](#)). Employers tend to want employees to return to work as soon as possible to reduce these costs associated with injuries and illnesses. Likewise, many workers want to return to the job quickly in order to maximize take-home pay and benefits.

One way workers have been able to return to work at a faster rate is by being prescribed painkillers. Doctors over the past few decades have prescribed opioid pain relief to treat workers for injuries they sustain on-the-job, such as a fall or pulled muscle. Opioid painkillers, such as OxyContin, Vicodin and Percocet, have been used by workers to "pop a pill" and get back to work, even when their bodies are not fully healed from the injury.

Over recent years, most workers' compensation claims have involved opioids. Between 2009 and 2010, for example, 80 percent of workers' compensation claims in Wisconsin involved prescription painkillers such as opioids. The share of workers' compensation claims involving opioids was also high in other Midwest states—approximately 78 percent in Minnesota, 77 percent in Indiana, 76 percent in Iowa, 65 percent in Michigan, and 62 percent in Illinois ([Noguchi, 2016](#)).

These claims have disproportionately come from the construction industry. Construction is one of the most demanding and dangerous occupations in the United States. Construction work requires physical labor. Construction workers pull, lift, and move debris, building materials, and heavy machinery equipment every day, resulting in physical wear and tear on the body. Additionally, roughly half of all workers in construction occupations are exposed to hazardous tools and machinery on a weekly basis. The injury and illness rate of construction and extraction occupations

is higher than the average for all other occupations. From 2012 through 2016, an average of 188.0 out of 10,000 full-time construction and extraction workers missed work because of an on-the-job injury or illness, compared to an average of 106.5 reported in all occupations (Figure 1). Similarly, over the five-year period from 2011 through 2015, an average of 4,300 construction workers suffered on-the-job fatalities across the country (Manzo, 2017).

**Figure 1: Injury and Illness Rate Per 10,000 Full-Time Construction and Extraction Workers and All Workers, 2012-2016**

Injury & Illness Rate Per 10,000 Full-Time Workers		
Year	All Occupations	Construction and Extraction Occupations
2012	111.8	190.6
2013	109.4	200.9
2014	107.1	189.5
2015	104.0	173.2
2016	100.4	185.7
<b>Average</b>	<b>106.5</b>	<b>188.0</b>

Source: Bureau of Labor Statistics (BLS), *Nonfatal Cases: Selected Characteristics (2016)*.

As a result, opioids have become a major problem in the construction industry. In Ohio, for instance, construction workers account for 13 percent of all narcotic painkillers prescribed for on-the-job injuries— even though the industry accounts for just 4 percent of all jobs in the state (Dissell, 2017). Nationally, opioids account for about 20 percent of all total spending on prescription drugs in the construction industry, about 5-10 percent higher than spending in other industries (CNA, 2015).

While the high rate of workplace injury and the pressure by employers for injured workers to get back to work as soon as possible are the primary drivers of the huge opioid problem in construction, another contributing factor is the high male presence in the occupations. Approximately 61 percent of those who misuse pain medication are male; 66 percent are also between the age of 18 and 34 years old (NSC, 2017). Figure 2 shows that men— who are twice as likely to abuse prescription drugs as women— comprise 98 percent of all blue-collar construction workers across the United States (Sperance & Sudo, 2017).

**Figure 2: Male and Female Shares of the Blue-Collar Construction Workforce, 2013-2015**

Percent of All Blue-Collar Construction Workers	
Male	97.6%
Female	2.4%

Source: Author's analysis of Ruggles et al., 2017– 2013, 2014, and 2015 American Community Surveys.

These include men like Ron Heirs from Memphis and Daniel Macklin from Cleveland. Ron Heirs, who was profiled by *TIME* magazine, was prescribed oxycodone after he fell and broke his heel during a construction job. Heirs returned to the doctor multiple times to get more painkillers that helped him get through the workday. However, when Heirs was unable to get a prescription, he



turned to heroin. Heirs, now clean, went to a treatment facility to overcome his opioid addiction (Park, 2017).

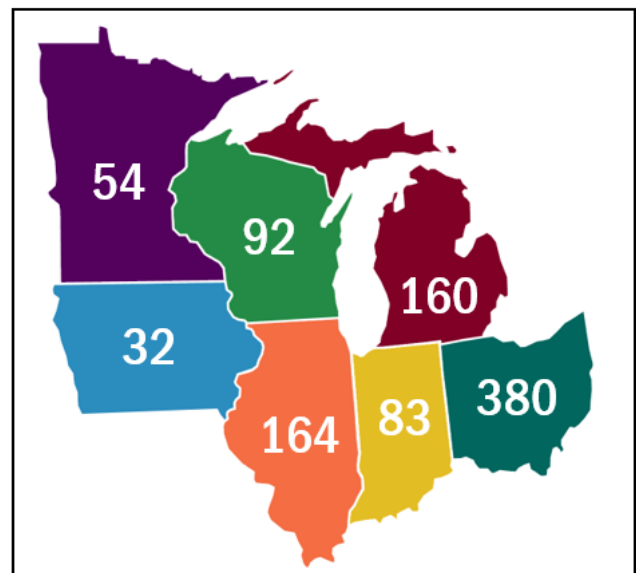
Daniel Macklin was unable to overcome his addiction. As told in Cleveland's largest newspaper, *The Plain Dealer*, Macklin became addicted to heroin while employed as a union construction worker. Unable to pass the union's drug tests, Macklin started working as a roofer and carpenter for contractors that his fiancé described as "fly-by-night." Macklin could start late in these jobs and was often paid in cash on a daily basis, which made it difficult for him to stay clean. Despite receiving treatment eight times over 19 years, Macklin died of a fentanyl overdose in 2016. He was 40 years old (Dissell, 2017).

## Estimating the Extent of the Opioid Epidemic Among Midwest Construction Workers

This report focuses on seven Midwest states: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin. Opioid overdose rates by state are collected from the Kaiser Family Foundation (2017). The Kaiser Family Foundation estimates that the age-adjusted opioid overdose rate ranges from 5.8 deaths per 100,000 people in Iowa to 24.7 per 100,000 people in Ohio, with a state-level average of 11.5 deaths per 100,000 people across the Midwest (Figure 4). These rates are adjusted by the higher propensity of workers in the construction industry to die of an opioid overdose, as reported by *The Plain Dealer*. In 2016, construction workers in Ohio were 7.24 times more likely to die of an opioid overdose (Dissell, 2017).<sup>1</sup>

The estimated 2015 fatal opioid overdose rate in the construction industry is reported in Figure 3. Figure 4 takes the estimated *rate* of opioid fatalities of the total population and construction workers per 100,000 and then estimates the actual *number* of opioid fatalities based on the size of each state's construction workforce. The opioid overdose rate is 179.0 fatalities per 100,000 construction workers in Ohio, 98.6 fatalities per 100,000 construction workers in Michigan, and 81.2 fatalities per 100,000 construction workers in Wisconsin. Illinois

**Figure 3: Estimated Number of Construction Worker Deaths from Opioid Overdoses, 2015**



<sup>1</sup> Outside of the Midwest, public health officials analyzed death certificates in the Boston suburbs and found that building and construction workers accounted for 42 percent of all opioid-related overdose deaths in the area (Dissell, 2017)

and Indiana had construction opioid overdose rates of 77.5 and 61.6, respectively, per 100,000 workers in 2015. Iowa (42.0 per 100,000) and Minnesota (44.9 per 100,000) had the lowest rates of opioid overdose deaths among construction workers (Figure 4).

**Figure 4: Opioid Overdose Rates and Deaths Among Construction Workers in the Midwest, 2015**

State	Fatal Opioid Overdose Rate for Total Population (Per 100,000 People)	Estimated Fatal Opioid Overdose Rate in Construction (Per 100,000 Workers)	Estimated Number of Construction Worker Deaths from Opioid Overdoses in 2015
Illinois	10.7	77.5	164
Indiana	8.5	61.6	83
Iowa	5.8	42.0	32
Michigan	13.6	98.6	160
Minnesota	6.2	44.9	54
Ohio	24.7	179.0	380
Wisconsin	11.2	81.2	92
<b>State-Level Average</b>	<b>11.5</b>	<b>83.5</b>	<b>962 (*total)</b>

Source: Author's analysis of the Kaiser Family Foundation's data (2017) and The Plain Dealer data (2017).

As a result, nearly 1,000 construction workers across the Midwest died from an opioid overdose in 2015 (Figure 4). The opioid epidemic took the lives of an estimated 380 construction workers in Ohio, 164 construction workers in Illinois, and 160 construction workers in Michigan. Wisconsin had 92 construction worker overdoses due to opioids and Indiana had 83 construction worker overdoses in 2015. Iowa (32) and Minnesota (54) likely had the fewest number of construction workers die from opioid overdoses in the Midwest.

**Figure 5: The High Cost of Construction Worker Opioid Overdose Deaths in the Midwest, 2015**

State	Estimated Number of Construction Worker Deaths from Opioid Overdoses in 2015	Estimated Long-Term Cost Per Construction Fatality (Lost Production, Lost Income, and Pain and Suffering)	Estimated Total Cost of Construction Worker Fatal Opioid Overdoses Per Year
Illinois	164	\$5.28 million per fatality	\$865.9 million
Indiana	83	\$5.42 million per fatality	\$449.9 million
Iowa	32	\$5.24 million per fatality	\$167.7 million
Michigan	160	\$5.36 million per fatality	\$857.6 million
Minnesota	54	\$5.40 million per fatality	\$291.6 million
Ohio	380	\$5.36 million per fatality	\$2,036.8 million
Wisconsin	92	\$5.69 million per fatality	\$523.5 million
<b>Totals</b>	<b>962</b>	<b>\$5.40 million per fatality</b>	<b>\$5,193.0 million</b>

Source: Author's analysis of the Kaiser Family Foundation's data (2017), The Plain Dealer data (2017), and the cost of construction fatalities (Manzo, 2017)

The opioid epidemic costs the construction industry in the Midwest over \$5 billion (Figure 5). Figure 4 uses estimates on the economic costs of construction fatalities in terms of lost production, lost income (lifetime earnings), reduced quality of life, and other costs (Manzo, 2017). This methodology, originally from the study, *Costs of Occupational Injury and Illness Across Industries*, uses data, adjusted for inflation to constant 2017 dollars, from the U.S. Bureau of Labor Statistics to assesses the economic costs of construction-related fatalities (Waehrer et al., 2004). The estimates likely understate actual costs because health care costs have risen at a faster rate than overall inflation in the United States since the Waehrer et al. study (2004).

Across the seven Midwest states, the average cost of a construction worker fatality is about \$5.4 million per worker. Accordingly, each construction worker death from an opioid overdose in Ohio costs \$5.4 million, totaling more than \$2.0 billion for the 380 estimated overdoses in 2015. In addition, a construction worker fatality due to an opioid overdose costs Wisconsin \$5.7 million in lost productivity, income, and pain and suffering costs. Opioid overdoses in 2015 will cost around \$860 million each in the construction industries in Illinois and Michigan over the long run. The cost to Iowa, the state with the lowest opioid fatality rate and the fewest construction worker deaths from opioids, was approximately \$168 million (Figure 5).

## Recommendations to Combat the Crisis

Construction companies can save a significant amount if they can help their employees receive treatment for a substance abuse problem, such as an addiction to opioids. The Substance Use Calculator for Business—designed by NORC (National Opinion Research Center) at the University of Chicago, the National Safety Council, and the nonprofit Shatterproof—provides businesses with specific information on how substance abuse impacts workplaces. The researchers estimate that, in the construction industry, each worker with an untreated substance abuse disorder costs an employer \$6,800 per year in excess healthcare expenses, absenteeism, and turnover costs. However, when a construction employee is in recovery from a substance abuse disorder, contractors save nearly \$2,400 per year. This is because workers in recovery stay with employers at nearly identical rates as other workers, miss less work time than those with substance abuse disorders, and have lower medical expenses. Improved productivity levels and reductions in cost are possible once a worker's addiction is treated (NSC, 2017).

Over the past four decades, addiction to opioids has been largely dealt with in the criminal justice system. Instead of opioids being seen and treated as a substance abuse disorder, those who were addicted to prescription painkillers and or to illegal but often cheaper opioids had been viewed as criminals and incarcerated. Today, more prisons and jails are providing treatment for inmates who are addicted to opioids and illegal drugs.

There are a variety of options that contractors, labor unions, and elected officials can do to combat opioid addiction in the construction industry in the Midwest:



1. ***Provide health insurance that covers substance abuse treatment and mental health treatment.*** One of the major ways to combat substance abuse is healthcare that covers treatment. Labor unions and construction companies should provide health insurance for their employees that covers at least 30-day substance abuse treatment. Workers' compensation systems should also cover substance abuse treatment and mental health treatment services.
2. ***Adopt new policies in health plans that limit dosages of opioid medications.*** Opioid prescriptions should be limited for people with sudden injuries or dental procedures, for instance. In Washington and Ohio, doctors and dentists are only allowed to prescribe seven days of opioids to alleviate short-term pain. Workers' compensation systems should also stop covering opioids as the "first choice" for treating injury-related pain and should strengthen prescription monitoring so doctors and pharmacies know the quantities of opioids received by their patients.
3. ***Encourage physical therapy and anti-inflammatory medications for chronic wear-and-tear injuries due to construction work.*** Opioids are less effective at reducing pain associated with lower back injuries, shoulder pain, and knee pain. Physical therapy, chiropractic care, rest, and anti-inflammatory medications are often more impactful. Workers' compensation systems should also encourage these alternatives for pain relief.
4. ***Educate employees about responsible prescription opioid use.*** Labor unions and construction companies should inform construction workers about the potency of opioids, the health and workplace consequences of using prescription drugs, alternatives for pain relief, doctor shopping, and physician dispensing. Apprentices could receive this education as part of their training. Health plans should include warnings on using opioids to relieve pain.
5. ***Provide at least two weeks of paid sick leave.*** Construction workers often have families they need to provide for. When a construction worker gets injured on the job, he or she is often not getting paid while injured. If employees are provided paid sick leave they need to safely heal their injuries and return to work, they may not turn to opioids to quickly get back to work and receive a paycheck.
6. ***Update employee policies to include regular drug testing, but do not immediately fire employees who test positive.*** Most contractors conduct stringent drug testing of apprentices and have random drug tests on job sites. Those who fail are taken off the job for health and safety reasons, preventing dangerous accidents from occurring. However, an unintended consequence is that those who fail might be fired or kicked out of the union, which can lead to depression, financial hardship, and increased dependency on recreational drugs. Conversely, research indicates that strong social networks help to combat substance abuse disorders. When a worker tests positive for opioids contractors should first help the worker receive the treatment they need. Contractors save nearly \$2,400 annually when a worker recovers from a substance abuse disorder.

7. ***Temporarily put employees on prescription opioids in low-risk positions.*** If possible, workers who are prescribed opioids for an injury should temporarily be placed in low-risk positions where they are less likely to cause injury to themselves and their coworkers. When the prescription to opioids ends and any dependency is reduced, the workers should be allowed to resume their former positions.
8. ***Fund substance abuse treatment programs and workforce development initiatives.*** In recent years, social services have been cut or underfunded in states across the Midwest. For example, in Illinois, over 800 programs were closed or reduced due to a two-year budget impasse. Substance abuse and prevention programs, health clinics, and workforce development programs were among those impacted. States should increase funding for these services instead of imposing budget cuts.

## Conclusion

Every day across the country, more than 100 people die from opioid overdoses. In 2016, 64,000 Americans died from drug overdoses, with 78 percent of overdoses involving prescription painkillers, heroin, or synthetic opioids. Doctors over the past few decades have prescribed opioid pain relief to treat workers for injuries they sustain on-the-job, such as a fall or pulled muscle.

The construction industry has been disproportionately negatively impacted by the opioid epidemic. Construction work is one of the most physically demanding and dangerous occupations in the United States. Opioid painkillers, such as OxyContin, Vicodin and Percocet, have been used so workers can “pop a pill” and get back to work even when their bodies are not fully healed from the injury.

Nearly 1,000 construction workers across the Midwest died from an opioid overdose in 2015. The opioid overdose rate for construction workers was the worst for Ohio, with a rate of 179 overdoses per 100,000 workers and 380 overdoses in total in 2015. Illinois (164 total overdoses) and Michigan (160 total overdoses) also had high total construction worker opioid overdoses in 2015.

The opioid epidemic costs the construction industry in the Midwest over \$5 billion in lost production, lost lifetime earnings, pain and suffering costs, and reduced quality of life every year. Opioid overdoses in Iowa cost the state \$168 million, while the cost to Ohio exceeds \$2 billion. The opioid epidemic impacts construction workers, their families, contractors, and the economy.

There are policies that employers, labor unions, and elected officials can implement to combat the opioid epidemic within the construction industry. Providing health insurance that covers substance abuse treatment, encouraging physical therapy and anti-inflammatory medications, and updating employee policies to include regular drug testing are some options the construction industry can implement to help construction workers who are already addicted to opioids and to help limit construction workers from relying on opioids in the future.

---

## Sources

- Center for Disease Control and Prevention (CDC). (2011). "Vital Signs: Overdoses of Prescription Opioid Pain Relievers - United States, 1999-2009." USA.gov.
- Center for Disease Control and Prevention (CDC). (2014). "Opioid Painkiller Prescribing." U.S. Department of Human & Health Services.
- Center for Disease Control and Prevention (CDC). (2013). "Heroin Use and Heroin Use Risk Behaviors Among Nonmedical Users of Prescription Opioid Pain Relievers - United States, 2002-2004 and 2008-2010." USA.gov.
- CNA Financial Corporation. (2015). "2015 Risk Outlook: Construction - Prescription Opioid Abuse: Risk Factors and Solutions.
- Dissell, Rachel. (2017). "Ohio Construction Workers Seven Times More Likely to Die of an Opioid Overdose in 2016." *The Plain Dealer*.
- Kaiser Family Foundation. (2016). "State Health Facts: Opioid Overdose Death Rates and All Drug Overdose Death Rates per 100,000 Population (Age-Adjusted)."
- Katz, Josh. (2017). "The First Count of Fentanyl Deaths in 2016: Up 540% in Three Years." *The New York Times*.
- National Safety Council (NSC). (2017). "Employer-Specific Costs of Prescription Pain Medication Misuse and Substance Use."
- Noguchi, Yuki. (2016). "Opioid Abuse Takes a Toll on Workers and Their Employers." *NPR*.
- Manzo, Jill. (2017). *The \$5 Billion Cost of Construction Fatalities in the United States: A 50 State Comparison*. Midwest Economic Policy Institute.
- Mostafavi, Beata. (2016). "Study: Rural Communities See Steep Increase in Babies Born with Opioid Withdrawal." University of Michigan.
- Ruggles, Steven, Katie Genadek, Ronald Goeken, Josiah Grover, and Matthew Sobek. (2015). *Integrated Public Use Microdata Series: Version 6.0 [Machine-readable database]*. Minneapolis: University of Minnesota.
- Sperance, Cameron and Chuck Sudo. (2017). "The Silent Killer on The Job Site: Inside Construction's Battle with Opioids." *Forbes*.

Straehley, Steve. (2014). "U.S.: 5% of World Population; 80% of Opioid Consumption." *AllGov.com*.

The Economist. (2017). "America's Opioid Epidemic is Worsening."

United States Department of Labor (USDOL). (2017). "Business Case for Safety and Health: Workplace Injuries."

## Cover Photo Credits

Buckowski, Paul. (2016). "Workers with Midwest Steel out of Ballston Spa." *TimesUnion*.

Midwest Public Risk. (2017). "Loss Control Recognition."

Taylor, Eryn. (2017). "Tennessee Leads Opioid Investigation as Number of Overdoses Continue to Rise." *WREG 3*.