
Economic Consequences of Misclassification in the State of Washington

Harvard Labor and Worklife Program

By Lisa Xu and Mark Erlich – December 2019



HARVARD LAW SCHOOL
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Introduction

The issue of misclassification—a form of employment in which firms treat their workers as independent contractors instead of as employees—is emerging as an increasingly significant matter of public policy. There is nothing new about the issue. Employers have been misclassifying workers for decades. In the construction industry, for example, the approach became common in the 1980s and has continued to the present. Employers in other industries—hospitality, restaurants, clerical services, professional services, retail, landscaping, home care, janitorial services, and throughout the gig economy¹—have followed suit. The motivation has been straightforward and uncomplicated. Employers that incorrectly label their workers independent contractors—either knowingly or unknowingly—typically save up to 30 percent in labor costs by avoiding legally mandated tax and insurance expenses that they would have been obligated to pay had those workers been appropriately classified as employees.² It is a form of payroll fraud.

The distinction between an employee and an independent contractor is both simple and complex. There are a host of laws at the federal and state levels defining what constitutes employee status.³ While the definitions may differ from state to state and even, at times, within states depending on the history and application of the particular statute, employment law generally operates under the assumption that anyone who works under the direction and control of an employer is an employee with all the attendant rights and responsibilities. Certainly, there are legitimate independent contractors in the economy, but this and other similar studies focus on those workers who function as employees but are misclassified by their employers as independent contractors in order to realize cost savings by evading tax and insurance obligations, thereby violating employment laws.

Misclassification has consequences across a broad number of categories:

- Federal and state governments lose substantial revenues from taxes that would have been paid had the workers had been properly treated as employees. These include income taxes and Social Security and Medicare payroll taxes (due to anticipated underreporting of income by misclassified employees), as well as unemployment insurance taxes and payments into state-administered workers' compensation funds.
- Workers lose basic rights associated with the status of an employee. These include legal entitlements to receive minimum wage, overtime payments, paid sick leave, unemployment insurance in case of layoff, workers' compensation insurance in case of an on-the-job injury, anti-discrimination protections, and the right to form a union and collectively bargain.
- Responsible businesses that classify their workforce as employees operate at a competitive disadvantage with employers that illegally treat their workers as independent contractors. The cost savings associated with misclassification are sufficiently substantial that law-abiding firms in highly competitive industries either lose work opportunities or feel the pressure to consider evading the law in order to compete on what is no longer a level playing field.
- Private insurance providers lose premiums necessary to fund the workers' compensation insurance plans.
- All taxpayers are negatively impacted because their payments make up for the lost revenues and effectively subsidize those who cheat the system.

¹ In fact, one of the first prominent judicial cases relating to worker misclassification was *Vizcaino v. Microsoft Corporation* (CA-9, 1996), in which workers who had previously been classified as independent contractors successfully sued the company for employee benefits.

² National Employment Law Project. 2015. "Independent Contractor Misclassification Imposes Huge Costs on Workers and Federal and State Treasuries" (fact sheet).

³ National Employment Law Project. 2016. "Independent Contractor vs. Employee: Why independent contractor misclassification matters and what we can do to stop it." For the definition used by Washington's Department of Labor & Industries, see page 15.

In 2004, the Harvard Labor and Worklife Program published the first study on the economic consequences of misclassification in the construction industry in Massachusetts using unemployment insurance audit data. Since then, researchers in a number of states have adopted a similar approach in estimating the amount of lost revenues when employers misclassify—either in construction in particular or across all industries (see [Table 1](#)). This study estimates the prevalence and severity of misclassification across all industries in the state of Washington using employer audit data from the workers' compensation system administered by the Washington Department of Labor & Industries (L&I).

Although each of the enumerated categories represent important losses, this study focuses on calculating revenue losses to the Washington state government and the federal government only. A summary of the findings shows:

Executive Summary

The prevalence of misclassification, i.e., the proportion of employers that misclassify their workers, increased from 5.0% in the 2008 fiscal year to 14.4% in the 2017 fiscal year, and averaged 16% over the past five years (2013-17).

The three most problematic industries were construction, clerical services, and hotels and restaurants.

Urban areas have a higher incidence of misclassification. In particular, the northwestern metropolitan parts of the state—King, Skagit, Snohomish, and Whatcom counties—have had consistently higher proportions of employers that engage in misclassification.

1. The severity of misclassification, i.e., the average proportion of employees who are misclassified by offending employers, ranged from 10% to 25% between 2008 and 2017.
2. During the five-year period from 2013 to 2017, a conservative estimate of the average worker misclassification rate was 1.3%. This translates into an average of 44,492 misclassified workers each year, based on an average total workforce of 3,368,815 in the state of Washington.
3. Using the above assumptions, conservative estimates of the revenue losses to the state* and federal government for the years 2013-2017 are:
 - a. The state of Washington lost \$152 million in unemployment taxes, for an average annual loss of \$30.4 million.
 - b. The state of Washington's workers' compensation system and the private self-insured pool lost \$268 million in unpaid premiums, for an average annual loss of \$53.6 million.
 - c. The federal government lost \$384 million in federal income taxes during the five-year period, for an average annual loss of \$76.8 million.
 - d. The federal government lost \$299 million in payroll taxes for Social Security and Medicare (FICA), for an average annual loss of \$59.8 million.
 - e. The federal government lost \$9 million in federal unemployment insurance tax (FUTA), for an average annual loss of \$1.8 million.

*Note that Washington has no state income tax.

⁴ Françoise Carré and Randall Wilson. 2004. "The Social and Economic Costs of Employee Misclassification in Construction." Cambridge, MA: Harvard Labor and Worklife Program.

Findings

A Note on Data

The data in this study comes from employer audits conducted by the Washington State Department of Labor & Industries (L&I) for the fiscal years 2008-2017. L&I is tasked with administering the state's workers' compensation system, among other responsibilities.⁵ The majority of employers in Washington are required to provide workers' compensation coverage for all of their direct employees, and most of them meet this requirement by paying premiums into the Washington State Fund, the L&I-managed insurance pool. (One significant exception to this requirement is self-insured employers, a matter which is discussed further below.⁶) This coverage provides benefits in the case of work-related injuries or occupational illness, including but not limited to medical services, partial wage replacement, disability and pension awards, and survivor benefits for spouses and children. For more details on the data set, see the "Methodology" section on page 13.

The authors also received preliminary data from L&I for 2018 and the first part of 2019. Since that data shows a substantial spike in the misclassification rate without an underlying explanation of the variance, this study's focus was restricted to the 2008-2017 period. If anything, the 2018-19 data indicates that the practice of misclassification continues to be increasingly problematic, but the dramatic variance suggests the need for further investigation and information in order to draw responsible conclusions.

Separately from the issue of misclassification, [Appendix A](#) includes estimates of the consequences of economic activities in the underground or shadow economy, based on the Organization for Economic Cooperation and Development's (OECD) definition: "all legal production activities that are deliberately concealed from public authorities...to avoid payment of income, value or other taxes...or complying with regulations."⁷ Measuring the extent of the underground economy is inherently difficult due to the unrecorded and unreported nature of the compensation system. While the dynamics of the underground economy are distinct from misclassification, it is important to recognize the relationship since, in some industries, off-the-books or under-the-table payments have replaced misclassification as a method of reducing labor costs.

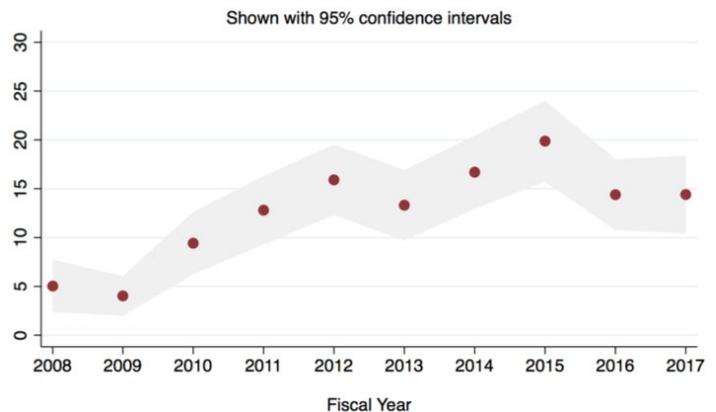
Prevalence Across Firms

[Figure 1](#) illustrates the proportion of employers who engaged in at least some degree of independent contractor misclassification for each fiscal year between 2008 and 2017. This is the extensive margin of misclassification, i.e., its prevalence across firms. In the audit data, these employers are flagged as having committed an independent contractor reporting error ("IC error").⁸ The gray band indicates the 95 percent confidence interval of the estimates.

This proportion has clearly risen over the last decade, from 5.0 percent in the 2008 fiscal year to 14.4 percent in the 2017 fiscal year. The increase is most statistically robust through 2015.

There are a few possible explanations for the upward trend, which could either be a more temporary

Figure 1. Employers (%) that engage in worker misclassification, 2008-2017



Note: This graph shows the proportion of employers who were found to have engaged in independent contractor (IC) misclassification, according to randomized audits of employers across Washington for the fiscal years 2008-2017.

⁵ Much of the information in this note and in the "Methodology" section can be found in publicly available L&I reference documents, including "Employers' Guide to Workers' Compensation Insurance in Washington State" (publication number F101-002-000 [09-2016]) and "Independent Contractor Guide: A Step-by-Step Guide to Hiring Independent Contractors in Washington State" (publication number F101-063-000 [09-2015]).

⁶ In addition, a number of employment categories are exempt from mandatory workers' compensation coverage. This includes domestic workers in private homes, unless two or more are employed regularly for at least 40 hours a week; children under the age of 18 employed by parents on farms; and horse-racing jockeys. Business owners (e.g. sole proprietor, partner, exempt LLC manager or member, or corporate officer) are generally also excluded.

⁷ Organization for Economic Development (OECD), 2002. Measuring the Non-Observed Economy: A Handbook.

⁸ Data on the extent to which misclassification occurred within these employers, however, is missing for a subset of them. Further discussion of this can be found in Appendix B.

phenomenon reflecting the economic cycle, or, perhaps, be indicative of a more permanent shift in hiring practices in the wake of the 2008-09 recession. In either case, marginal or more “flexibly” employed workers—including those who had previously been hired and misclassified as independent contractors—may have been the first workers to be laid off, resulting in a lower incidence of misclassification in 2008-2009. As the economy recovered, however, employers may have simply resumed their previous hiring (and misclassifying) practices.

The question is, did employers resume misclassifying workers at the same rate as before 2008, or at even higher rates? The only source of data on misclassification in Washington prior to 2008 comes from an older study that collected data from unemployment insurance tax audits in over a dozen states, including Washington.⁹ This study indicated that in 1988 (a few years preceding the recession of the early 1990s), 10.3 percent of employers in Washington were found to have engaged in worker misclassification, which is lower than the estimated misclassification rates for 2011-2017 in this study. In addition, only 30-50 percent of the audits used in that study were random, with the rest being targeted audits of employers already assessed as being more likely to misclassify, such that 10.3 percent is likely even to be an overestimate of the true misclassification rate.

Although it is only one data point, the 1988 estimate thus lends some support to the hypothesis that the increase in the misclassification rate among employers over time does not merely reflect “recovery” from the 2008 recession and is instead evidence of a longer-term rise in misclassification. This would be consistent with data from other sources which document the growth of “alternative work arrangements”, encompassing various types of precarious employment, over the last several decades.¹⁰

How does this compare to the employer-level misclassification rates found in other states? [Table 1](#) summarizes results from several other state-level studies with similar methodologies. This study’s estimates of the proportion of employers that misclassify, which averages 12.6 percent across 2008-2017, are roughly in line with these other estimates, although those estimates are mostly from an earlier period (2000s).

Table 1. Summary of worker misclassification studies

State	Years	Scope	Average misclassification rate			Data Source	Proportion of data that is randomly sampled
			Across employers	Within employers	Across all workers		
Illinois ¹¹	2001-2005	All industries	17.8%	28.5%	7.5%	UI tax employer audits	75%
Indiana ¹²	2007-2008	All industries	47.5%	29.5%	16.8%	UI tax employer audits	60%
Massachusetts ¹³	2001-2003	All industries	13%	25%	4.5%	UI tax employer audits	100%
Minnesota ¹⁴	2005	All industries	14%	6% (2001-2003)	1%	UI tax employer audits	100%
New York ¹⁵	2002-2005	Selected industries ^{15b}	9.8%	25%	10.3%	UI tax employer audits	Almost 100% (but see footnote 15b)
Washington ¹⁶	1988	All industries	10.3%	n/a	n/a	UI tax employer audits	30-50%
Washington (current study)	2008-2017	All industries	12.7%	18.7%	1.3%	WC employer audits	100%

Abbreviations: UI = unemployment insurance; WC = workers' compensation.

Notes: “Random” sampling of audits is defined somewhat differently by each study and may not always imply statistical randomness. MA study: this table describes the estimates calculated using random targets only (estimates using targeted audits are also presented in the study).

⁹ Planmatics. 2000. “Independent Contractors: Prevalence and Implications for Unemployment Insurance Programs.”

¹⁰ There is an extensive literature on the size and growth of the gig economy and the concept of alternative work arrangements. For a discussion of this debate, see: “The Future of Real Jobs: A Prospect Roundtable,” American Prospect, May 14, 2019 as well as “Maybe We’re Not All Going to Be Gig Economy Workers After All,” The New York Times, September 15, 2019.

Proportion of employers engaging in misclassification—by region

Table 2 shows regional variation in the proportion of employers that engage in worker misclassification. Almost half of all workers work in Region 2 (Seattle-Bellevue-Tukwila). Over the past five years, on average, Regions 1 and 2 have consistently had statistically higher proportions of employers engaging in misclassification. Region 4's proportion, however, is significantly lower than that of other regions.

Table 2. Proportion of employers engaging in misclassification—by region

Region	Description	Proportion of all workers in 2017	Misclassification rate	
			2017 (last year)	2013-2017 (5-year average)
1	Bellingham-Mount Vernon-Everett	13%	13%	21%
2	Seattle-Bellevue-Tukwila	47%	19%	18%
3	Sequim-Silverdale-Tacoma	11%	15%	13%
4	Aberdeen-Tumwater-Kelso-Vancouver	12%	7%	6%
5	East Wenatchee-Moses Lake-Yakima-Kennewick	10%	14%	15%
6	Spokane-Pullman	8%	13%	16%
All	Washington	100%	14%	16%

¹¹ Michael P. Kelsay, James I. Sturgeon, and Kelly D. Pinkham. 2006. "The Economic Costs of Employee Misclassification in the State of Illinois."

¹² Michael P. Kelsay and James I. Sturgeon. 2010. "The Economic Costs of Employee Misclassification in the State of Indiana."

¹³ Carré and Wilson, 2004.

¹⁴ Office of the Legislative Auditor (State of Minnesota). 2007. "Misclassification of Employees as Independent Contractors."

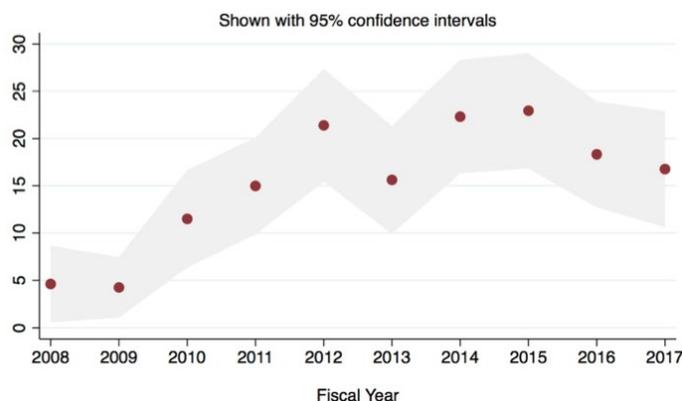
¹⁵ Linda H. Donahue, James Ryan Lamare, and Fred B. Kotler. 2007. "The Cost of Worker Misclassification in New York State."

^{15b} The New York State Department of Labor did not include all industries in the audits, and the industries that were selected were targeted on a cyclical basis. However, within the targeted industries, employers were randomly sampled. For the full list of sampled industries, see Donahue, Lamare and Kotler, 2007.

¹⁶ Planmatics, 2000.

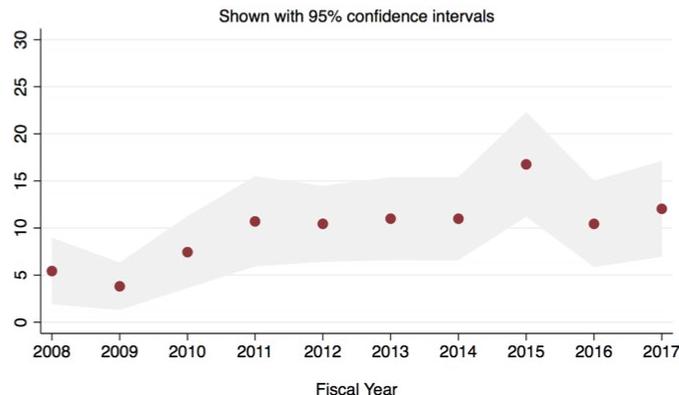
Figure 2a and Figure 2b below compare the trend in the proportion of employment engaged in worker misclassification in Regions 1 and 2 versus all other regions in Washington. Regions 1 and 2 contain the state’s largest metropolitan areas and thus have industry compositions distinct from the rest of the state. Over the last decade, there has been a statistically significant increase in misclassification through 2015, although the rise in Regions 1 and 2 has been more robust and the rate has stayed consistently higher than in the other regions.

Figure 2a. Employers (%) in Regions 1 & 2 engaging in misclassification, 2008-2017



Note: This graph shows the proportion of employers who were found to have engaged in independent contractor (IC) misclassification, according to randomized audits of employers across Washington for the fiscal years 2008-2017.

Figure 2b. Employers (%) in Regions 3-6 engaging in misclassification, 2008-2017



Note: This graph shows the proportion of employers who were found to have engaged in independent contractor (IC) misclassification, according to randomized audits of employers across Washington for the fiscal years 2008-2017.

Proportion of employers engaging in misclassification – by sector

Table 3 compares rates of misclassification across employers in broad sectors of the economy. The sectors with the highest proportions of employers engaging in misclassification between 2013-2017 are construction (19 percent), clerical services (17 percent), and hotels and restaurants (17 percent).

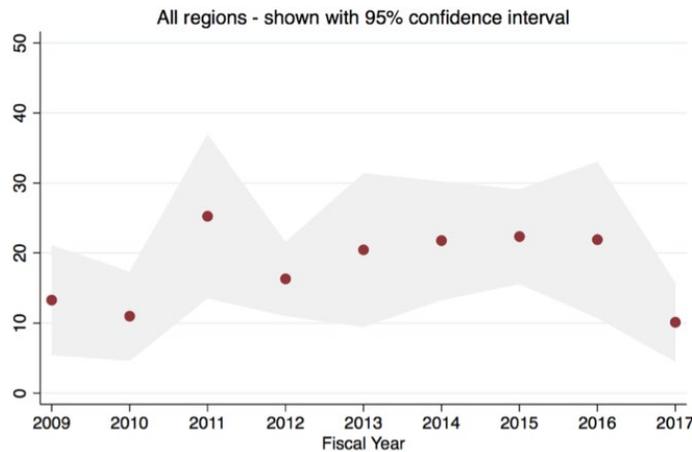
Table 3. Proportion of employers engaging in misclassification – by sector

Sector	Proportion of all workers in 2017	Misclassification rate	
		2017 (last year)	2013-2017 (5-year average)
Construction	22%	19%	19%
Clerical services	14%	23%	17%
Hotels and restaurants	13%	19%	17%
Professional services	11%	17%	14%
Other	26%	15%	14%
Retail/Commerce	14%	5%	9%
All sectors	100%	14%	16%

Severity within Firms

Figure 3 illustrates the severity of worker misclassification within each employer, that is, the average proportion of employees who are misclassified by offending employers.¹⁷ This is the intensive margin of misclassification, i.e., the extent of misclassification within firms. The average proportion of worker hours¹⁸ that were misclassified by offending employers between 2009-2017 ranges from 10 to 25 percent, although it should be noted that due to data limitations, these estimates do not reflect a high degree of precision (2008 was dropped altogether for this reason). Nevertheless, these estimates are similar to many of the state-level estimates of severity in Table 1. For reasons explained in Appendix B, these estimates should be regarded as conservative, “lower bound” estimates.

Figure 3. Employees misclassified (%) within misclassifying employers, 2009-2017



While the proportion of employers that engage in misclassification in Washington has clearly gone up over time, the case for severity of misclassification is less clear. On average, the severity is higher for 2014-2017 than for 2009-2013, but there is not strong statistical evidence of an upward trend.

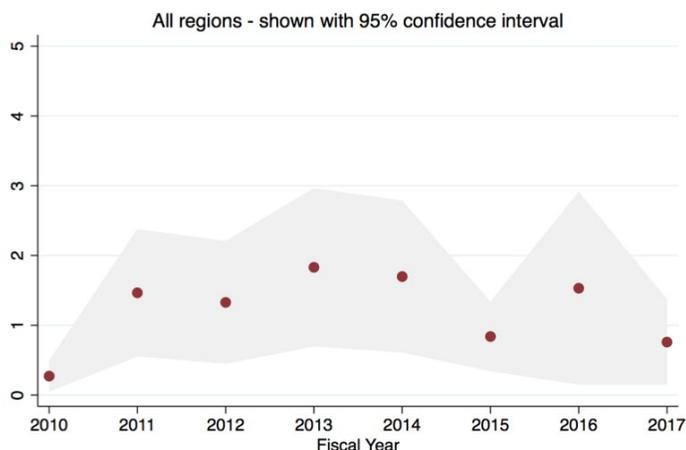
Regardless, these findings do not necessarily address the potential quantitative impact on workers, since this estimate of severity represents a simple average across employers and does not take into account their size, as the calculations in the next section do.

Prevalence Among All Workers

This section combines the estimates for the extensive and intensive margins of misclassification in order to estimate the overall prevalence of worker misclassification in Washington between 2010-2017, as shown in Figure 4. The estimates for 2008-2009 were dropped due to data limitations.

The average prevalence of worker misclassification, defined as the proportion of all worker hours represented by the workforce, between 2013-2017 was 1.3 percent. As with the estimates for severity of misclassification, for reasons explained in Appendix B, these figures should be regarded as a conservative, lower bound estimates.

Figure 4. Overall prevalence of worker misclassification (%), 2010-2017



Revenue Losses

As discussed in the introduction, worker misclassification has consequences for a wide variety of actors in the economy. This study only focuses on the fiscal costs. Table 4 presents estimates of the economic costs of misclassification in Washington specifically to the government of the state of Washington and to the federal government. Some baseline assumptions used in calculating these costs, as well as the data sources, are discussed below.

The most significant losses at the federal level are for the income tax and FICA tax due to the underreporting of income that often accompanies the filing of taxes by “self-employed” workers (in this case, workers who have been misclassified as independent contractors). At the state level, since there is no income tax in Washington, the most significant losses are for unemployment insurance taxes, and for workers’ compensation premiums that should have been paid by employers into the state-run fund.

Table 4. Economic Costs of Worker Misclassification in Washington for State and Federal Governments

Type of loss	2017 (most recent year)	2013-2017 total (five-year period)
State		
UI tax	\$15 million	\$152 million
WC premiums	\$33 million	\$277 million
Federal		
Income tax	\$49 million	\$384 million
FICA tax	\$35 million	\$299 million
UI tax (FUTA)	\$1 million	\$9 million

¹⁷ For more details on how data limitations affected these calculations, see Appendix B.

¹⁸ Unfortunately, the audit dataset does not contain records on individual workers, but only the total number of “worker hours” reported by employers. See the “Methodology” section on page 13 for more details.

Assumptions:

Number of misclassified workers: 26,911 (0.8 percent worker misclassification rate) for 2017, and an average of 44,492 (1.3 percent worker misclassification rate) for 2013-2017. Source: authors' calculations from data provided by the Washington State Department of Labor & Industries.

Employment: The average number of employed workers (total labor force minus unemployment) in Washington in 2017 was 3,543,908, and the average for the 2013-2017 period was 3,368,815. Source: U.S. Bureau of Labor Statistics (<https://www.bls.gov/regions/west/washington.htm#tab-1>).

Worker earnings: Average earnings per worker in Washington in 2017 was \$61,893 and the average for the 2013-2017 period was \$58,679. Source: Washington Office of Financial Management (<https://www.ofm.wa.gov/washington-data-research/statewide-data/washington-trends/economic-trends/washington-and-us-average-wages>).

State unemployment insurance (UI) tax rate: The average unemployment insurance tax rate in Washington in 2017 was 1.21 percent, and was an average of 1.58 percent for 2013-2017. In 2017, employers in Washington paid taxes on the first \$45,000 of each employee's wages. To simplify calculations, it is assumed that the state assesses UI tax on \$45,000 for every misclassified worker, regardless of their actual earnings. Source: Washington Economic Security Department (<https://www.esd.wa.gov/employer-taxes/determining-your-tax-rate>).

State workers' compensation (WC) premium rates: The average workers' compensation composite net premium rate across all risk classes in 2017 was 2.00 percent, and was an average of 2.13 percent for 2013-2017. Source: Washington State Department of Labor & Industries (https://www.lni.wa.gov/insurance/_docs/avgstdpremrates.pdf).

Federal income and FICA tax rates: The average effective individual income tax rate in 2017 was 9.8 percent, and the payroll (FICA) tax (including the employer's portion) was 7 percent, for a total of 16.8 percent. In 2013-17, the averages for these two figures are 9.9 percent and 7.6 percent, respectively. Source: Tax Policy Center (<https://www.taxpolicycenter.org/statistics/historical-average-federal-tax-rates-all-households>).

In addition, in all years, 30 percent of worker income for misclassified workers is assumed to be unreported, which is in line with estimates from U.S. GAO (1997) on the proportion of income that is unreported by self-employed taxpayers.¹⁹

Federal unemployment insurance tax (FUTA) rate: The FUTA tax rate in 2017 (and in all years from 2013-2017) was 6 percent; most employers claim the maximum FUTA tax credit of 5.4 percent, making the effective rate 0.6 percent. In all years from 2013 to 2017, the federal government taxes employers on the first \$7,000 of each employee's wages. Source: Internal Revenue Service (<https://www.irs.gov/taxtopics/tc759>).

¹⁹ U.S. GAO (U.S. Government Accountability Office). 1997. "Taxpayer Compliance: Analyzing the Nature of the Income Tax Gap." GAO/T-GGD-97-35.

²⁰ L&I's standard when employers do not have records is to estimate salary hours at 480 and hourly worker hours at 520 per quarter. However, these conversion factors are not used in this report, as the estimate of the number of misclassified workers is generated by applying the estimated proportion of misclassified worker hours directly to the total workforce for the state (see "Revenue Losses" section on page 11).

²¹ It is not clear whether these larger self-insured employers should be expected to have higher or lower misclassification rates than smaller employers insured by the state, and thus in which way or to what extent our estimates would likely be skewed. On the one hand, an established literature (Brown, Hamilton and Medoff, 1990) suggests that larger firms are more likely to be compliant with regulations, in part because it is more difficult for them to fly under the radar. On the other hand, some of the most prominent and controversial instances of potential worker misclassification are occurring within large companies such as Amazon and Uber. Charles Brown, James Hamilton, and James Medoff. 1990. *Employers Large and Small*. Cambridge, MA: Harvard University Press.

Methodology

This study aims to produce estimates for 2008-2017 of a) the statewide proportion of employers who engage in worker misclassification, b) the average severity of misclassification within these employers, and c) the overall prevalence of workers who are misclassified as independent contractors. The primary source of data is workers' compensation audit records from the Washington State Department of Labor & Industries (L&I).

Workers' Compensation Audit Data

To ensure that employers are meeting workers' compensation coverage requirements for their employees, L&I routinely conducts both random and targeted audits of employers who are required to pay into the L&I insurance pool. In these audits, L&I auditors assess whether employers have reported the correct number of employees (technically recorded as "worker hours") for which they owe premiums, as well as the proper risk classification category that the business or worker falls under. Together, this determines the total premiums that they owe. Employers that misreport the number of covered workers are required to pay the premiums owed on account of the underreported workers uncovered through the audit, and they are also assessed penalties and interest on delinquent payments.

The misclassification of employees as independent contractors is a common form of misreporting in the system. Employers in Washington are not required to pay workers' compensation insurance premiums for workers who are classified as independent contractors, as opposed to direct employees. Auditors flag employers that engage in misclassification with an independent contractor reporting error ("IC error"). L&I's audit data identifies employers that have engaged in at least some degree of worker misclassification and, in most cases, also the proportion of their worker hours that they misclassified.

The dataset includes the following key pieces of information for random audits completed between the fiscal years 2008 and 2017:

- Anonymized employer identification number
- Audit record creation and completion date
- Administrative region
- Industry
- Whether any reporting errors were found, including independent contractor misclassification
- The number of reported vs. underreported worker hours, due to independent contractor misclassification

As employers only report "worker hours" to L&I, this study also calculates most statistics in terms of worker hours.²⁰

There are a few important caveats to note about this dataset, especially when it comes to estimating the overall prevalence of misclassification at the worker level. First, the number of misclassified worker hours is not available for a subset of the employers that have engaged in misclassification. This affects the precision of the estimates for the severity of misclassification within employers, as well as the worker-level estimates. More details can be found in [Appendix B](#).

Second, the sample excludes self-insured employers, i.e., those who insure their employees through their own funds. In Washington, employers are allowed to apply to be self-insured if they meet certain qualifications, including holding \$25 million in assets and having an effective accident prevention program. If their application is approved, they are not required to pay into the Washington State Fund. According to data provided by L&I for the last quarter of 2018, 333 employers, or less than one percent of all employers, were self-insured. However, as these employers are disproportionately large, they account for 19.2 percent of all worker hours in the same period. Unfortunately, L&I does not audit self-insured employers for the purposes of identifying whether or not they engage in worker misclassification.²¹ This study thus only characterizes employers that cover about 80 percent of Washington workers.

Estimating Misclassification Using the Random Audit Sample

This study relies only on the random audit sample as opposed to the targeted audit sample to ensure that our estimate of the overall prevalence of worker misclassification is as unbiased as possible. Targeted audits, as the name implies, are systematically targeted towards more probable offenders and are thus more likely to yield evidence of misreporting than random audits. The universe of Washington employers that were included in the random audits conducted between 2008-2017 all met the following criteria:

- Have an active account at L&I (i.e., is a registered business required to pay into the state's workers' compensation fund)
- L&I account active date is at least one year old
- The business is not self-insured
- The business has either never been audited before, or has not had an audit for at least four fiscal quarters

Within this universe of employers, a software program generates a random sample each month of employers to be audited, although auditors have until the end of the fiscal quarter to complete each audit. (This study reports results by fiscal year.) Significantly, this random sample is also stratified by the six L&I administrative regions, such that the sample is random within each region, but not across the state as a whole.

Figure 5 illustrates the boundaries of the regions, which can also be identified by the field offices within each region:

1. Bellingham-Mount Vernon-Everett
2. Seattle-Bellevue-Tukwila
3. Sequim-Silverdale-Tacoma
4. Aberdeen-Tumwater-Kelso-Vancouver
5. East Wenatchee-Moses Lake-Yakima-Kennewick
6. Spokane-Pullman

Figure 5. The Six L&I Administrative Regions (with Counties and Field Offices)



Source: L&I (publication number F101-100-000 [10-2017])

In calculating a) the overall proportion of employers across the state that engage in misclassification as well as b) the overall proportion of workers who are misclassified, stratification weights must therefore be assigned to each regional estimate of worker misclassification based on the region's share of either a) all employers, for the proportion of employers, or b) all employment, for the proportion of workers.

Worker-level calculations must also take into account the clustered sampling design of the data, in that workers themselves are not truly randomly sampled from the workforce, since the sampling occurs at the employer level.

Further details on how all of the calculations related to misclassification were carried out are available upon request.

Definition of Misclassification

How do L&I auditors determine whether a worker is misclassified? First, they use the “personal labor” test, which asks, “Does the independent contractor bring more than their personal labor?” If he or she hires and directs employees of their own, and isn’t directed or controlled by the employer, then he or she passes the test and is properly classified as an independent contractor. Alternatively, if he or she brings heavy or costly specialized equipment, and is not directed or controlled by the employer, then the independent contractor test is also passed.

If the answer is still unclear, auditors then apply a six-part test, as defined in RCW 51.08.195, to decide if a worker should be classified as an employee or an independent contractor. An independent contractor must meet all the following criteria:²²

1. He or she is free from control or direction over the performance of the services, and
2. The service provided is outside the usual course of business or it is performed outside all of the places of business of the hiring enterprise or the hired individual is responsible, both under the contract and in fact, for the costs of the principal place of business from which the service is performed, and
3. The individual is engaged in an independently established trade of the same nature as the contract, or the individual has a principle place of business eligible for IRS business deduction, and
4. The individual is responsible for filing a schedule of expense and income with the IRS for the business, and
5. Has an active account with the Department of Revenue and other state agencies, as required, for the business they are conducting under the contract, and an active unified business identifier number (UBI) with the State of Washington, and
6. The individual maintains a separate set of books and records that reflect items of income and expense for the business.

Note that the first three parts of this six-part test are similar to the three-part “ABC” tests that are among the more stringent set of criteria for evaluating independent contractor status. An increasing number of states, including Massachusetts, New Jersey, and New York, and now California, have adopted or partly adopted it as a legal standard.²³ The three components of the ABC test are that the work must be: a) done without the direction and control of the employer, b) performed outside the usual course of the employer’s business; and c) done by someone who has their own, independent business or trade doing that kind of work.

It is important to note that if employers misclassify workers under the standard used by L&I for workers’ compensation coverage, they are also likely to misclassify workers for the purposes of other labor protections and requirements, including but not limited to the state’s wage and hour laws covering minimum wage, overtime compensation, and other workplace rights; state unemployment insurance taxes owed by employers; as well as federal taxes owed by employers, federal non-discrimination laws, and all other workplace benefits employers might provide to direct employees but not independent contractors, such as health insurance, a pension or 401(k), and unemployment insurance.

²² Construction and electrical contractors must also meet a seventh criterion: the individual must have a valid contractor registration pursuant to Chapter 18.27 RCW or an electrical contractor license pursuant to Chapter 19.28 RCW.

²³ In 2018, the California Supreme Court ruled in *Dynamex Operations W v. Superior Court* that the ABC test should also be used to determine worker misclassification in California. This ruling, which has major ramifications for workers in the gig economy, was codified by the passage of AB 5 in 2019. See the conclusion of this report for further discussion.

Conclusion

Misclassification has gained widespread notoriety in recent years as a result of the decision by many gig economy businesses to treat their workforce as independent contractors. While the powerful cost savings still serve as the primary motivation, many employers in the so-called innovation economy have sought to justify the practice in the name of flexibility, entrepreneurialism and the advantages of “being-your-own-boss.” As a result, some businesses have attempted to portray working as an independent contractor as an individual choice by suggesting that the status is associated with personal freedom rather than employer evasion of legal obligations. Regardless of the rhetorical flourishes, misclassifying employees as independent contractors remains an illegal form of payroll fraud that demands correction.

The 2019 passage of AB 5 in California has provoked renewed discussion on the issue. This legislation codified the 2017 California Supreme Court *Dynamex* decision which established a presumption of employment. In other words, a worker is presumed to be an employee unless that individual passes the “ABC” test, a stringent three-part standard that requires a true independent contractor to be 1) free from the direction and control of the employer, 2) performing work outside the usual course of the employer’s business, and 3) customarily engaged in that trade, occupation, or business. The California court’s decision and subsequent legislation has elevated the implications of misclassification to a national discussion, both because of the outsized nature of California’s economy and because the state is home to Silicon Valley, the epicenter of a 21st century, employer-promoted reorganization of work.

In addition, the matter of enforcing employment laws has devolved to state wage enforcement agencies in recent years. During the Obama administration, the US Department of Labor and the National Labor Relations Board adopted clear and concise policies targeting the practice of misclassification. However, both agencies in the Trump administration have reversed their predecessors’ positions and sanctioned the use of independent contractors in gig economy occupations. As a result, state agencies are now the prime enforcers of employment laws regarding misclassification in both traditional and newer occupations.²⁴

As a result, studies like this are crucial in the development of public policy on misclassification at the state level. With additional data on the economic consequences, policy makers and legislators can make informed decisions on the laws and enforcement strategies appropriate to the evolving challenges states face, as well as the resources and coordination efforts necessary to tackle those challenges. As the discussion about what the future of work will look like intensifies, the policies that emerge should preserve and extend basic employment rights for the nation’s future workforce.

²⁴ Mark Erlich and Terri Gerstein. 2019. “Confronting Misclassification and Payroll Fraud: A Survey of State Labor Standards Enforcement Agencies.” Cambridge: Harvard Labor and Worklife Program.

²⁵ Colin C. Williams and Friedrich Schneider. 2016. *Measuring the Global Shadow Economy*.

²⁶ Colin C. Williams and Friedrich Schneider. 2013. “The Shadow Economy.” In regard to data for Germany, Austria and Switzerland.

Appendix A. Economic costs associated with the underground economy

In this report, workers in the “underground” or “shadow” economy are defined as those who are paid off the books, i.e., those whose income is not reported by employers to the state for the purposes of tax collection or other payments owed to the state, such as workers compensation premiums. This appendix calculates some of the economic costs associated with workers in the underground economy in Washington.

Estimates of the proportion of workers who participate in the underground economy in the United States, as in other countries, vary widely. Williams and Schneider use a modeling method to estimate that the underground economy comprised 8.7 percent of the US economy on average between 1999-2010.²⁵ These authors have previously noted that calculations from European countries with a similar income level to the US indicate that labor productivity in the underground economy is roughly the same as labor productivity in the formal economy.²⁶ If this is also assumed to be the case in the US, then the 8.7 percent approximately represents the share of the labor force in the underground economy as well, rather than just of total income.

This figure falls at the lower end of the range in the literature. On the higher end, Bracha and Burke use original survey data to estimate that as of 2015, 20 percent of nonretired US adults participated in the underground economy (the figure rises to 37 percent if renting out property or selling their own goods is included). Using a currency circulation model, Feige and Cebula similarly find that in 2009, about 18-23 percent of income was unreported to the IRS; the same extrapolation to the labor force can be performed as with the Williams and Schneider estimate.

Rather than attempting to reconcile all of these estimates of the size of the underground economy labor force, the economic cost calculations are presented for a range: a lower estimate of 10 percent (rounding up from 8.7 percent) in [Table A1](#) and a higher estimate of 20 percent in [Table A2](#). Two more simplifying assumptions that were adopted include that the proportion of workers in the underground economy is the same in Washington as in the United States overall, and that the figure stays the same from year to year.

Table A1. Economic Costs of Underground Economy—low estimate (10%)

Type of loss	2017 (most recent year)	2013-2017 total (five-year period)
State		
UI tax	\$193 million	\$1.1 billion
WC premiums	\$439 million	\$2.1 billion
Federal		
Income tax	\$2.1 billion	\$9.8 billion
FICA tax	\$1.5 billion	\$7.5 billion
UI tax (FUTA)	\$15 million	\$71 million

Table A2. Economic Costs of Underground Economy—high estimate (20%)

Type of loss	2017 (most recent year)	2013-2017 total (five-year period)
State		
UI tax	\$386 million	\$2.2 billion
WC premiums	\$877 million	\$4.2 billion
Federal		
Income tax	\$4.3 billion	\$19.6 billion
FICA tax	\$3.1 billion	\$15.1 billion
UI tax (FUTA)	\$30 million	\$142 million

Assumptions:

Employment: The average number of employed workers (total labor force minus unemployment) in Washington in 2017 was 3,543,908, and the average for the 2013-2017 period was 3,368,815. Source: U.S. Bureau of Labor Statistics (<https://www.bls.gov/regions/west/washington.htm#tab-1>). Note that BLS compiles data using the Current Population Survey, a monthly survey of households, which should capture individuals who work but who may be paid off the books.

Worker earnings: Average earnings per worker in Washington in 2017 was \$61,893 and the average for the 2013-2017 period was \$58,679. Source: Washington Office of Financial Management (<https://www.ofm.wa.gov/washington-data-research/statewide-data/washington-trends/economic-trends/washington-and-us-average-wages>).

State unemployment insurance (UI) tax rate: The average unemployment insurance tax rate in Washington in 2017 was 1.21 percent, and was an average of 1.58 percent for 2013-2017. In 2017, employers in Washington paid taxes on the first \$45,000 of each employee's wages. To simplify calculations, it is assumed that the state assesses UI tax on \$45,000 for every worker in the underground economy, regardless of their actual earnings. Source: Washington Economic Security Department (<https://www.esd.wa.gov/employer-taxes/determining-your-tax-rate>).

State workers' compensation (WC) premium rates: The average workers' compensation composite net premium rate across all risk classes in 2017 was 2.00 percent, and was an average of 2.13 percent for 2013-2017. Source: Washington State Department of Labor & Industries (https://www.lni.wa.gov/insurance/_docs/avgstdpremrates.pdf).

Federal income and FICA tax rates: The average effective individual income tax rate in 2017 was 9.8 percent, and the payroll (FICA) tax (including the employer's portion) was 7 percent, for a total of 16.8 percent. In 2013-17, the averages for these two figures are 9.9 percent and 7.6 percent, respectively. Source: Tax Policy Center (<https://www.taxpolicycenter.org/statistics/historical-average-federal-tax-rates-all-households>).

In addition, unlike in the calculations for the costs of worker misclassification, it is assumed that all income goes unreported by workers in the underground economy, and thus that these workers pay no federal income and FICA taxes.

Federal unemployment insurance tax (FUTA) rate: The FUTA tax rate in 2017 (and in all years from 2013-2017) was 6 percent; most employers claim the maximum FUTA tax credit of 5.4 percent, making the effective rate 0.6 percent. In all years from 2013 to 2017, the federal government taxes employers on the first \$7,000 of each employee's wages. Source: Internal Revenue Service (<https://www.irs.gov/taxtopics/tc759>).

Appendix B. Notes on calculations for severity within firms

Estimating the severity of misclassification within employers, and therefore the overall prevalence of misclassification among workers, proved to be more complex than estimating the prevalence of misclassification across firms. This is due to certain complications in the underlying data: for each employer, the audit records contain the number of reported worker hours—i.e., the number of worker hours for which the employer reports for workers' compensation premiums liability—as well as the number of audited worker hours—i.e., the number of hours the auditor finds that the employer is actually liable for. The difference between the two is the proportion of worker hours that are either “underreported” or “overreported” by the employer, resulting in a positive worker hour adjustment if there is underreporting, and a negative worker hour adjustment if there is overreporting. Since worker misclassification is a form of underreporting, one would expect employers that have been tagged with an IC error by the auditor to have positive worker hour adjustments.

However, a perplexingly high proportion of employers with independent contractor errors—28 percent—have either zero or negative worker hour adjustments as a result of the audit.²⁹ This suggests that misclassified worker hours were either unrecorded, or that some workers were “reverse misclassified”, i.e., classified as employees instead of independent contractors, and that their reported hours were too high. This is sometimes but not always flagged with an overreporting error. Various explanations for this discrepancy have been suggested.³⁰

Regardless of the underlying cause, including the employers with non-positive adjustments in the sample would produce a lower estimate of employer severity of misclassification than may be the case, as it is unclear whether the adjustments

are to be taken at face value. On the other hand, if they truly represent negative or very small worker hour adjustments, dropping them would produce an estimate of employer severity that would be too high.

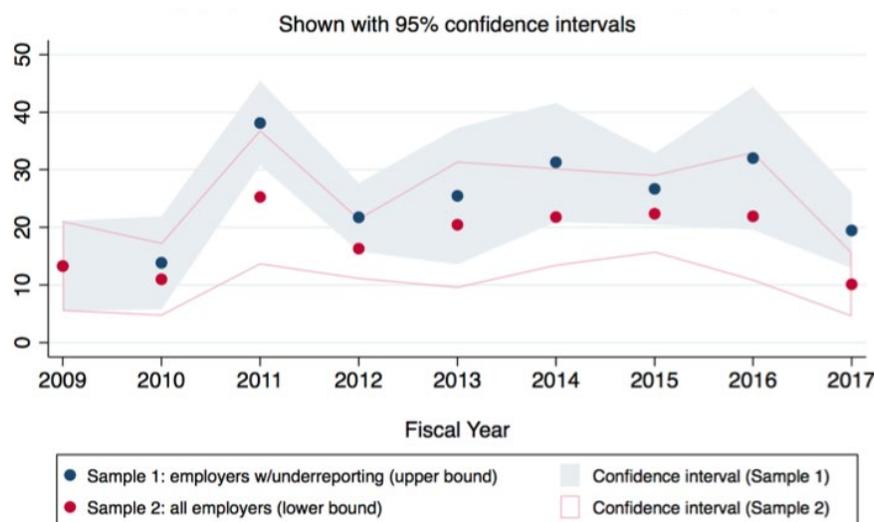
In an attempt to square this difference, two sets of estimates were calculated using two different samples:

- a “lower bound” estimate using Sample 1, consisting of all employers which are flagged with an IC error, including those with zero or negative worker hour adjustments (n=451)
- an “upper bound” estimate using Sample 2, consisting of all employers which are flagged with an IC error and have positive worker hour adjustments only (n=324)

Figure B1 illustrates both estimates, along with their confidence intervals. First, it appears that for most years, the difference between the upper and lower bound estimates hovers between 5-10 percent—not as wide of a discrepancy as one might fear. The average proportion of worker hours that were misclassified by offending employers between 2008-2017, and the average of the lower and upper bounds, ranges from 15 to 30 percent. Reassuringly, this is in the neighborhood of many of the state-level estimates of severity in Table 1.

For the sake of simplicity, however, only the lower bound estimates are presented in the main text. Thus, the estimates in this report for the severity of misclassification within employers—as well as the overall prevalence of misclassification across employers, for which the lower bound equivalent is also presented—should be regarded as relatively conservative.

Figure B1. Employees misclassified (%) within misclassifying employers, 2008-2017



Note: This graph shows the average proportion of worker hours that were underreported by employers who engaged in independent contractor (IC) misclassification. The statistics are calculated for two different samples, which form lower and upper bounds for the estimate.

²⁹ Another source of ambiguity in the data is that IC errors are often recorded alongside other types of errors, including underreporting or overreporting not related to worker misclassification. When there are multiple types of reporting errors, it is unfortunately not possible to distinguish between worker hours that were underreported due to independent contractor misclassification, versus worker hours that were merely underreported. However, estimates that use employers with “IC errors only” vs. “IC errors plus all other errors” are not drastically different. The main text thus focuses on estimates using the larger “IC error plus all other errors” sample.

³⁰ Of the 451 employers between 2008-2017 that were identified as having committed an IC error, 60 employers have zero adjustments, and 67 have negative adjustments, altogether comprising 28 percent of all audited employers with IC errors. In some cases, it is possible that positive worker hour adjustments as a result of IC errors were offset by overreporting errors. According to L&I, other explanations for when zero adjustments occur include the decision to educate instead of penalizing the employer, although this would only apply to a relatively small number of worker hours. It turns out that while firms with zero or positive adjustments are roughly the same average size, firms with negative adjustments tend to be almost twice as large on average. Another possibility is if they are out-of-state employers and would be subject to other jurisdictions, and thus not penalized by L&I. This would apply more heavily to regions 4 and 6, which do show a somewhat higher proportion of non-positive worker hour adjustments (around 62 percent of all observations). However, these regions make up less than 20 percent of all employers with IC errors.

