



Tackling Employee Misclassification – The Hidden Tax

An Enterprise Strategy to Detect Fraud Across All Government Programs and Services

WHITE PAPER

Table of Contents

Employee Misclassification: Pervasive, Risky and Costly	1
Sophisticated, Evolving Misclassification Schemes	1
Silos Interfere and Traditional Methods Aren't Enough	2
The Answer: Break Down Data Silos; Use Advanced	
Analytics and Hybrid Detection	3
The Benefits to a Broad View of Employee Misclassification	6
Overcoming Barriers to Tackling Employee Misclassification	7
<i>Enforcing employee misclassification is good for workers but bad for business.</i> 7	
<i>We have an enforcement role, but we don't share the economic benefit from</i>	
<i>the outcome.</i>	7
<i>There are legal and technical barriers to data sharing.</i>	7
How SAS Can Help	7
How It Works	8
Proving the Value: SAS Customer Case Studies	10
<i>Integrating data across state government.</i>	10
<i>Tackling misclassification and unemployment tax fraud.</i>	10
Learn More	10
End Notes	11

Contributor:

Carl Hammersburg
 Senior Solutions Architect, Government Fraud
 SAS Fraud and Financial Crimes Practice

Carl Hammersburg joined SAS in early 2012 after spending 20 years in anti-fraud activities for Washington state's exclusive workers' compensation insurer, the Department of Labor and Industries. In 2004, Hammersburg formed that agency's comprehensive fraud program, covering premium tax audits, claim investigations, provider fraud and collections. Data sharing and investigative partnerships with other state and federal agencies, as well as increasing public availability of information and awareness, served as cornerstones to the program's anti-fraud activities.

Under Hammersburg's stewardship, audit and investigative activities doubled and outcomes tripled, largely due to improved efficiency and case selection that were the result of data mining and predictive analytics. Program success under his leadership drew awards from two successive governors of Washington. In his final year with the state, the program collected more than \$148 million, with a return on investment of more than \$8 for every \$1 spent.

Employee Misclassification: Pervasive, Risky and Costly

As recently as 20 years ago, the distinction between business owners and employees seemed very clear. Some individuals followed a career path as an employee, working hard and drawing a paycheck. Others took an entrepreneurial route, investing their money and knowledge into building a business.

Today, some business owners hope to gain an edge over their competitors and pocket higher profits by illegally defining their employees as exempt independent contractors. This practice costs state and federal governments untold billions of dollars annually. It also puts workers at risk, often without their knowledge. They may be injured on the job yet unable to collect workers' compensation, or laid off without being eligible to receive unemployment benefits. If employers have failed to pay federal withholding for Social Security and Medicare, workers may find themselves penniless after retirement or simply unable to ever retire.

It's not only the employees who suffer; law-abiding businesses are also hurt by this practice. They are forced to compete against unscrupulous companies that break the law to reduce their costs, which shifts the tax burden to honest businesses. Adding insult to injury, the lawful players are hit a second time, often losing contracts to their illegal competitors whose lower costs mean they can lowball bids. This uneven playing field is a severe drag on economic recovery and growth.

The information necessary for identifying employee misclassification is usually spread across many departments at both the state and federal levels, as is the responsibility for enforcement. As a result, it's often difficult to effectively prevent and correct employee misclassification. Difficult, but not impossible. Some organizations have already begun to pull that information together and use sophisticated analytics to identify perpetrators, effectively shutting the door on this illegal practice.

Sophisticated, Evolving Misclassification Schemes

Traditionally, employee misclassification schemes were rather simplistic. Businesses paid their employees "under the table," typically in cash, keeping wages off the books to avoid paying state and federal withholding and taxes.

Today, the schemes are diverse and complex. In one, employers divide the entire staff's payroll among just a few of the employees, whom they pay with checks; they report artificially inflated wage rates to government agencies. Those individuals use a check-cashing business to convert the checks to cash that is then distributed to entire crews of workers who are off the books. In another scheme used in industries such as construction, all workers are required to form their own businesses and obtain licenses. They are then treated as exempt independent contractors, even though they would not qualify as such under state or federal law. Complex and interconnected schemes of flowing ownership and subcontracting relationships make it difficult for state and federal agencies to identify and tackle the problem.

Did You Know . . .

New York's state programs lose out on an estimated \$342 million every year from employee misclassification.¹

In Tennessee, a study showed that between 11 percent and 21 percent of all construction workers were illegally misclassified.²

A federal-state consortium addressing Questionable Employment Tax Practices (QETP) reported more than \$1.3 billion in wages reclassified through data sharing.³

A study on misclassification in Illinois estimates it may cost the state \$400 million annually in lost income tax, unemployment insurance and unpaid workers' compensation. In addition, misclassification increased 55 percent over the five-year span of the study.⁴

The IRS estimates that wage earners (workers) properly report 99 percent of their income, while non-wage earners, such as those designated independent contractors, only report 56 percent of their income.⁵

In California, a study estimated that as much as \$55 billion in wages wasn't covered by workers' compensation, an increase of four to 10 times over the eight years studied.⁶

Silos Interfere and Traditional Methods Aren't Enough

Employee misclassification is often identified after an on-site inspection or after a claim has been filed for unemployment, workers' compensation benefits, or unpaid wages or overtime. While at times effective, depending on these methods, as well as public tips or leads, it is an antiquated primary line of defense that won't make significant difference in combating this multibillion-dollar issue. Finding misclassified workers who didn't have protections, including proper safety equipment, after a fatal accident is something no state or federal agency can afford.

As illustrated in Figure 1, information on businesses spans many different agencies at the state and federal levels. Enforcement is likewise splintered across many different agencies. Each has its own systems in place for determining when and where to audit or investigate. Some of those silos may be effective, but overall, these fractured data-sharing and detection methods allow misclassification schemes to flourish.

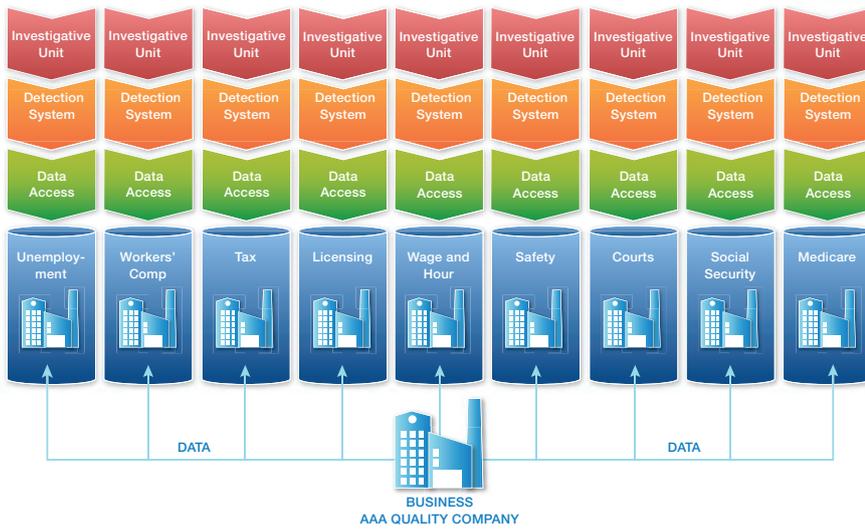


Figure 1: Data silos restrict detection and targeting systems, limiting the effectiveness of enforcement efforts.

The problem has several roots:

- **Poor data integrity:** Agencies have historically not shared much of their data. By failing to integrate and validate data from various agency sources, data is often incomplete and unreliable – allowing misclassification and fraud to fall through the cracks.
- **Siloed, disparate systems:** Agencies can only act on their own information and the programs they enforce. They lack a broad set of data on businesses to put reporting, inspections and other information in proper context or detect misclassification across multiple programs. Even when entity data has been pulled together into a data warehouse, it's usually not well integrated. It often fails to provide the holistic view of businesses, ownership, employment and subcontracting needed to uncover patterns of misclassification and evasion of laws across departments and programs.
- **Limited analytic capabilities:** Agencies tend to rely on a narrow set of rules and basic analysis to detect fraud, which puts investigators at a significant disadvantage to modern schemes that are complex and multilayered. These blind spots make agencies ignorant of illegal and unethical practices, putting honest businesses at a disadvantage and workers at risk. They also leave agencies stuck in a reactive position, rather than a proactive one, because they find out about misclassification long after the damage has been done.

The Answer: Break Down Data Silos; Use Advanced Analytics and Hybrid Detection

Spotting misclassification early and moving aggressively to deal with it are best accomplished with a consolidated strategy. As illustrated in Figure 2, this strategy includes a common technology framework and a comprehensive view of data for cross-program detection.



Figure 2: Efforts to detect misclassification and respond are greatly enhanced by developing a consolidated view of data and a common technology framework.

This approach:

- Eliminates data silos and provides a holistic view of data across programmatic and departmental boundaries.
- Helps coordinate detection and interdiction efforts across all agency programs and departments.
- Reduces the burden on audit and investigative units by disseminating detailed information quickly to business units, which can then intervene with education or “light touch” enforcement that is much less expensive and more effective.

To implement this strategy, governments need technologies that deliver several vital capabilities. The first step is to consolidate access to data sets across multiple programs and agencies. Access to multiple data sets can greatly magnify the opportunity to identify previously hidden patterns of misclassification and increase investigative efficiency, greatly enhancing outcomes without requiring additional staff.

The next step is to implement solutions that support entity resolution. Many businesses that engage in misclassification often intentionally provide inaccurate, incomplete or inconsistent information so that records across different programs and systems don't match. The complex nature of businesses – which can have many owners/officers for a single company and where a single person can be an owner/officer for many businesses – makes identity resolution even more critical. Properly identifying businesses across multiple government programs and systems creates a more holistic view of employers and their behavior to uncover outliers and patterns.

Once access to broader data sets has been established, a sophisticated analytics approach can sift through the data to identify high-risk entities and transactions. As illustrated in Figure 3, this approach includes:

- Rules to mitigate known misclassification schemes and the resulting safety risks, worker violations and fraud.
- Anomaly detection of abnormal patterns within individual companies and in aggregate compared to their peers.
- Advanced analytics, including predictive models that “learn” from known occurrences of misclassification and underreporting so that similar patterns are discovered as they emerge in the future.
- Social network analysis to identify suspicious relationships such as collusion, aberrant referral patterns and organized fraud rings.
- The option to include text mining, which performs analytics on unstructured data such as tax ID numbers or addresses. Unlocking the notes from field inspectors, tracking the records of phone conversations, or gathering inconsistencies found on such websites as Craigslist or Facebook can reveal much about a misclassification scheme.

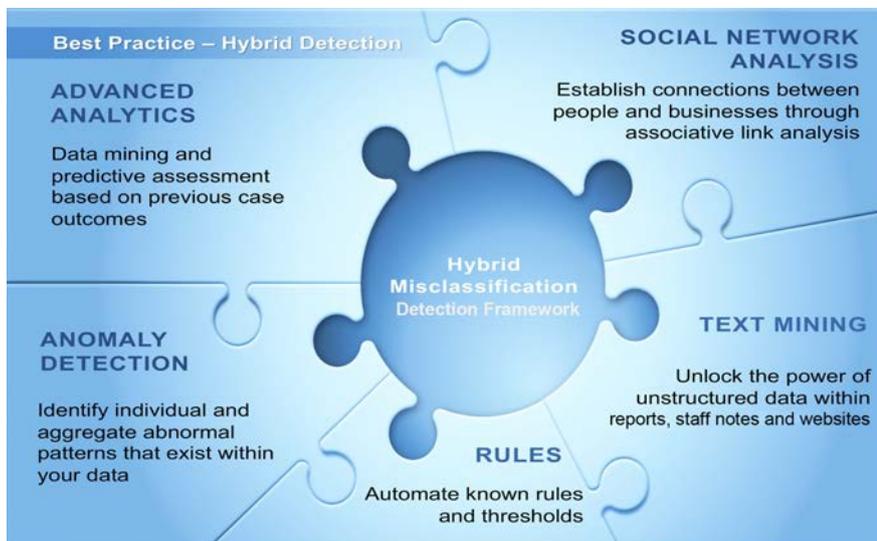


Figure 3: The best practice – a hybrid approach to identifying misclassification

Traditionally, approaches to handling misclassification have been limited not only to just a few data sources, but also to simple rules and matching. Some rules make sense and should be part of a more sophisticated approach – for example, reviewing for audit when unemployment benefit claims start to come in for a business that isn't registered. However, rules and data matching are subject to generating false positives and often fail to prioritize one case over another.

By layering on more sophisticated approaches to identify outliers and firms that exhibit similar behavior of previous offenders, false positives are reduced and a comprehensive risk score is developed that greatly improves prioritization and enforcement efforts. Social network analysis reveals broader multicompany schemes that previously required manual investigation just to identify them, let alone take action on.

The benefits of pulling together data sets extend far beyond allowing an individual agency or program staff to detect and prioritize actions on businesses that attempt to misclassify employees and compete illegally. When they have all the information they need, agencies can communicate and coordinate with each other when these schemes and violations cross jurisdictions. By sharing accurate, detailed information, agencies can take a coordinated enforcement approach, often dividing up the responsibilities so that the compliance footprint can be expanded without adding additional staff.

Employing the same technology framework across multiple agencies that are affected by employee misclassification allows leads and scoring to be visible across a broader enterprise view. Yet security is assured, since role-based access ensures that only authorized staff can view sensitive information and that leads are securely routed to the appropriate program to respond. This approach can be expanded to an enterprise level, either as part of a comprehensive plan or grown organically by expanding data sets and the base infrastructure.

The Benefits to a Broad View of Employee Misclassification

By taking a broad view to combat employee misclassification, governments can boost the effectiveness and efficiency of their detection and enforcement efforts. For example, they can:

- Detect employee misclassification earlier and more accurately because investigators can analyze more complete data to identify participants and detect abnormal behaviors.
- Mount effective education and enforcement campaigns while there is still time for them to have maximum impact.
- Save time by operating more efficiently – for example, eliminating much of the manual process of cross-checking and gathering information on potential leads, allowing investigators to focus on real issues rather than false hits.
- Allocate resources more effectively – for instance, agencies can focus investigative resources on the highest value cases, as well as engage business units so that every issue doesn't require a full audit or investigation.
- Increase the recovery of funds.
- Refine the analytical models by updating them with information about the latest misclassification activity.
- Lower costs through economies of scale since using a single platform gives multiple agencies and programs access to centralized data quickly and easily.

Overcoming Barriers to Tackling Employee Misclassification

While a coordinated approach has many undeniable benefits, there can still be institutional resistance to its adoption. Here are a few common barriers and ways to address them.

Enforcing employee misclassification is good for workers but bad for business.

This simply isn't true. Many different employer organizations in various states have supported strong efforts to enforce the laws that are on the books. They are asking for a level playing field so employers can compete fairly without going up against employers who break the law to gain advantage. Studies have shown the positive impact that tackling employee misclassification can have on rates and tax bases.

We have an enforcement role, but we don't share the economic benefit from the outcome.

Some of the programs that have regulatory roles in addressing employee misclassification – workers' compensation, wage enforcement and safety – don't receive any of the funds that result from the increased tax bases. These agencies need to be reminded that partnerships that share data, as well as those that develop systems and provide leads to programs that do see a return (such as unemployment insurance or increased revenue and income tax collected), lower costs and ensure greater returns for the government, while improving the lives of workers and helping honest businesses flourish.

There are legal and technical barriers to data sharing.

A platform with built-in tools for data migration and cleansing eliminates nearly all of the technical barriers, supporting integration from many different types of sources and systems. While there are complex laws in place that require a careful approach to sharing the data that would uncover misclassification, in most cases, they aren't strict barriers. This concern can be addressed by reviewing the laws carefully and planning a project that pulls in data sets that most easily reside together in the project's early phases. Some governments have also changed laws – either before or during the implementation of misclassification detection systems – that removed final barriers. Individual agencies have had great success using limited data sets as a starting point.

How SAS Can Help

SAS provides a comprehensive approach to employee misclassification and fraud with the SAS® Fraud Framework for Government. Using SAS software to support a three-pronged approach to detection and prevention, this framework includes:

- A holistic view of entities that aggregates and integrates data from many sources and creates a solid foundation for rapid, comprehensive analysis.
- Sophisticated, hybrid analytics for powerful fraud detection and prevention.
- An easy-to-use interface that allows staff to quickly identify, assess and act on leads and alerts based on seamless access to data from all available sources.

As illustrated in Figure 4, the SAS Fraud Framework sits on top of the SAS Business Analytics Framework – a platform that encompasses SAS’ data management, analytics, business intelligence and business solutions. And by layering on additional program-specific modules, the SAS Fraud Framework can be applied to many areas of misclassification – from unemployment and workers’ compensation coverage through wage and hour laws, workplace safety and the broad impacts on the general tax base.

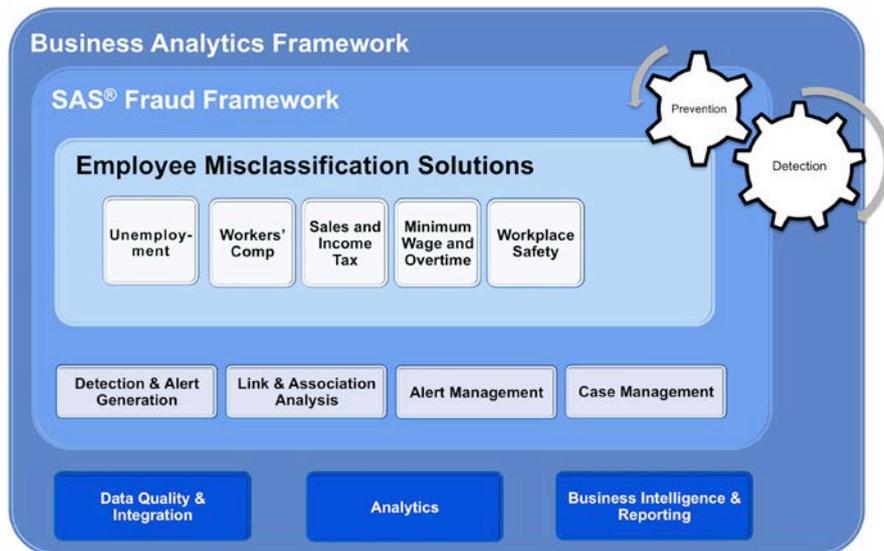


Figure 4: The SAS® Fraud Framework can cover all employee misclassification agencies and programs with a single, integrated solution.

How It Works

Working behind the scenes, integrated SAS analytical applications quickly connect the dots across programs in a variety of ways. Each “strand” of analytically determined connections represents another way of looking at any given misclassification to determine if it is part of a larger or longer-term issue. In this way, the applications in the SAS Fraud Framework work together to:

- Provide strategic insight into threats, trends and risks.
- Deliver a holistic view of employee misclassification and fraud.
- Rapidly test, simulate and deploy models/rules without dependence on IT.
- Support education and early prevention initiatives, as well as enforcement or prosecution.

As illustrated in Figure 5, the SAS Fraud Framework supports an integrated workflow for analyzing enterprise data and detecting potential employee misclassification. Data from a wide variety of operational sources is aggregated to create a single, clean view of data that’s optimized for analysis:

- On the left side of Figure 5, data from a wide variety of sources is integrated, centralized and cleansed.
- Data is then fed into the SAS Analytics engine for risk analysis and alert generation (as illustrated in the dark blue box).
- Results of analytics then appear in a user interface optimized for investigative efficiency with all pertinent information readily available to investigators, auditors and other program staff, presented in an easy-to-consume manner (as shown in box on the lower right).
- Options for integrated case management allow all activities to be tracked from initial alert or lead creation through to ultimate disposition, whether that be a recovery action, educational outreach or criminal prosecution.
- And finally, the “learn and improve” cycle allows the results of each investigation to be fed back into the detection engine so that it can learn from outcomes, adapt to changing misclassification and fraud schemes, and increase detection accuracy over time.

SAS provides this solution to many government organizations around the world, as either on-site or hosted implementation models.

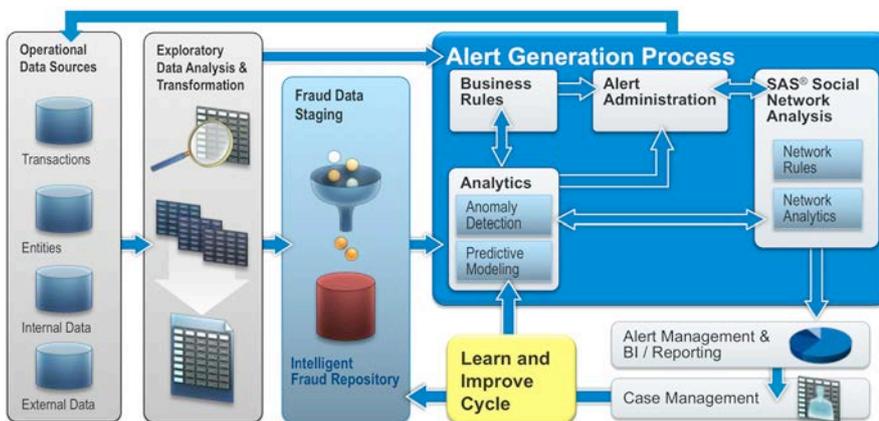


Figure 5: The workflow powered by the SAS® Fraud Framework integrated solution.

How SAS® Helps Government Agencies Detect Fraud Faster and Earlier

Improve Data Effectiveness

- A single version of the truth – along with sophisticated data matching and standardization, made possible by SAS data integration and cleansing – reaches across multiple platforms, enabling critical decisions to be made more efficiently and with less risk.
- Using SAS for data quality lets organizations standardize and augment data while identifying duplicate names, addresses and other identifying information, and automatically resolve entities and entity relationships across multiple disparate data sources.

Improve Audit and Investigation Effectiveness

- Proactively uncover undetected patterns of employee misclassification to identify and predict future risks with SAS’ advanced analytical capabilities.
- Reduce false positives, maximizing recovery and investigation resources while reducing processing time and recovery costs.
- Use alert prioritization to focus on the cases with the highest risk and the highest value.
- Perform initial alert reviews in minutes rather than hours.
- Rapidly detect new misclassification schemes and patterns before they cause significant harm.

Proving the Value: SAS Customer Case Studies

Integrating data across state government

A SAS state-government customer tackled the issue of employee misclassification broadly, pulling together information from five different agencies and 15 programs. By matching information from workers' compensation and unemployment sources with state sales and business taxes, licensing information, and safety inspections, the state dramatically improved enforcement effectiveness. Adding in federal information from the IRS provided another piece of the puzzle. False positives dropped, so that 80 percent of audits and investigations found illegal practices. Returns from each intervention jumped by 65 percent. In three to five years, the state is expecting a return of \$30 for every dollar spent, helping to close budget loopholes and hold down tax rates.

Tackling misclassification and unemployment tax fraud

A state workforce agency that oversees both unemployment and workers' compensation implemented the SAS Fraud Framework for both misclassification and claim fraud. A quick-start approach identified the top leads for unemployment tax after just 100 days, leading the agency to collect more than \$1.1 million in the following 20 days. Phased implementation helped the state collect and save millions while the project was still ongoing. Long-term expectations are for a return of at least eight to one through an enterprise approach that will roll out to other state agencies to close loopholes and increase savings.

Learn More

To protect the health and welfare of workers, to level the playing field for honest businesses, and to guard the fiscal condition of government agencies providing needed benefits to citizens, authorities must incorporate strategies and detection tools that place employers that engage in illegal practices on the defensive. SAS is uniquely positioned to team with our government partners to make this happen. The SAS Fraud Framework provides an end-to-end framework for detecting, preventing and managing all types of employee misclassification and fraud. Only SAS combines all of the approaches outlined in this paper in a single integrated, commercial-off-the-shelf (COTS) software offering.

Furthermore, SAS is universally recognized as the worldwide leader of advanced analytics. SAS' market share in predictive modeling alone is more than double our closest competitor. Only SAS can provide governments with an open, high-performance and scalable solution for implementing analytics as part of an enterprise employee misclassification strategy, providing robust detection capabilities across all government programs and services.

To learn more, visit our website at sas.com/industry/government/state/fraud.

End Notes

- 1 “The Cost of Worker Misclassification in New York State,” Donahue, L. H., Lamare, J. R., & Kotler, F. B. Ithaca, NY: Cornell University, School of Industrial and Labor Relations, 2007. digitalcommons.ilr.cornell.edu/reports/9/
- 2 “Misclassified Construction Employees in Tennessee,” Canak, William, Adams, Randall, 2010. carpenters.org/misclassification/ALL%20DOCUMENTS/TN%20fraud%20study%201-15-10.pdf
- 3 “The Questionable Employment Tax Practices Initiative Progress Report,” April 2011. labor.ny.gov/ui/PDFs/QETP%20Report-0406111.pdf
- 4 “The Economic Costs of Employee Misclassification in the State of Illinois,” Kelsay, M.P., Sturgeon, J.I., Pinkham, K.D. University of Missouri-Kansas City, Department of Economics, 2006. lecetchicagoarea.org/pdfs/Illinois_Misclassification_Study.pdf
- 5 “Tax Gap for Tax Year 2006, Overview,” U.S. Internal Revenue Service, Jan 6, 2012. irs.gov/pub/newsroom/overview_tax_gap_2006.pdf
- 6 “Fraud in Workers’ Compensation Payroll Reporting: How Much Employer Fraud Exists? How are Honest Employers Affected?”, Report to Fraud Assessment Commission, California Department of Insurance. Neuhauser, Frank, Donovan, Colleen. University of California, Berkeley, UC Data Archive and Technical Assistance, January 2009. insurance.ca.gov/0300-fraud/0100-fraud-division-overview/0500-fraud-division-programs/workers-comp-fraud/upload/Final_Report_FAC_Premium_Avoidance.pdf

About SAS

SAS is the leader in business analytics software and services, and the largest independent vendor in the business intelligence market. Through innovative solutions, SAS helps customers at more than 60,000 sites improve performance and deliver value by making better decisions faster. Since 1976 SAS has been giving customers around the world THE POWER TO KNOW®. For more information on SAS® Business Analytics software and services, visit sas.com.



SAS Institute Inc. World Headquarters +1 919 677 8000
To contact your local SAS office, please visit: sas.com/offices

SAS and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration. Other brand and product names are trademarks of their respective companies.
Copyright © 2013, SAS Institute Inc. All rights reserved. 106193_S101762_0213