

Saint Louis University School of Law
Scholarship Commons

All Faculty Scholarship

2017

Workplace Freakonomics

Matthew T. Bodie

Follow this and additional works at: <https://scholarship.law.slu.edu/faculty>



Part of the [Labor and Employment Law Commons](#), and the [Privacy Law Commons](#)



SAINT LOUIS UNIVERSITY SCHOOL OF LAW
Legal Studies Research Paper Series

No. 2017-25

Workplace Freakonomics

Matthew T. Bodie
Saint Louis University - School of Law

I/S: A Journal of Law and Policy for the Information Society, vol. 14, 2017

Workplace Freakonomics

MATTHEW T. BODIE*

CONTENTS

I.	DEFINING WORKPLACE FREAKONOMICS	39
	A. <i>24/7 Monitoring</i>	45
	B. <i>Health and Biometric Monitoring</i>	46
	C. <i>Misdirection and Subterfuge</i>	47
II.	WORKPLACE FREAKONOMICS AND THE LAW OF EMPLOYEE PRIVACY	48
III.	WORKPLACE FREAKONOMICS AND ANTIDISCRIMINATION LAW.....	55
IV.	CONCLUSION	59

Data analytics has revolutionized our economy. Our ability to capture larger and larger pools of data, and then to crunch that data in increasingly sophisticated ways, has transformed endeavors such as scientific research, advertising, consumer choice, and health care. We now know a lot more about patterns of human behaviors and the relationships within those behaviors, and employment is no exception. Companies have long analyzed their workers in order to reward their most talented employees, punish slackers, and increase everyone’s productivity. However, data analytics—often called “people analytics”¹ in this context—offers new opportunities to reveal heretofore undiscovered insights about job performance.

* Callis Family Professor, Saint Louis University School of Law. Many thanks to Dennis Hirsch, Peter Shane, an anonymous reviewer, Sara Coulter, and the editors of *I/S: A Journal of Law and Policy for the Information Society*, as well as fellow participants at the 2017 *I/S* Predictive Analytics Symposium.

¹ See Matthew T. Bodie, Miriam A. Cherry, Marcia L. McCormick & Jintong Tang, *The Law & Policy of People Analytics*, 88 U. COLO. L. REV. 961 (2017).

Much of the recent people analytics phenomenon is simply new technology applied to old questions. We have long sought to measure the value of employees' performances, and data analytics provides us with new ways of measuring and analyzing those performances. For example, the approach of the Oakland A's, as described in *Moneyball*, applied statistical tools to expand our understanding of players' performances, but it was just a variant of traditional baseball stats that have existed for over 100 years.² People analytics has enabled employers to examine metrics of performance that were heretofore impossible to discern or simply impractical to collect. Used in these ways, the analytics provide more powerful tools but do not threaten the current expectations about the appropriate line between work and home, or professional and personal.

Data analytics, however, also opens the opportunity to explore effects on workplace performance that lie outside conventional expectations. There might very well be unusual, surprising, and counterintuitive correlations between various behaviors and phenomena that can only now be understood—or, at least, seen—through data analytics. I categorize such insights as “freakonomics analytics,” after the best-selling book by Steven Levitt and Stephen Dubler.³ Levitt and Dubler discuss the use of economics tools to unpack our conventional wisdom and pursue even the weirdest—the freakiest—explanations for human activities or behavior.⁴ Levitt came to prominence prior to *Freakonomics* for his research arguing that legalized abortion led to a significant drop in crime.⁵ The book explores this study and others that provide quirky and unexpected claims about “the hidden side of everything.”⁶

A freakonomics approach to workplace data analytics could provide similarly surprising results to traditional employment puzzles. However, in order to work, a freakonomics HR manager would have to

² MICHAEL LEWIS, *MONEYBALL* 64-96 (2003) (providing an overview of baseball statistics from Henry Chadwick through Bill James).

³ STEVEN D. LEVITT & STEPHEN J. DUBLER, *FREAKONOMICS: A ROGUE ECONOMIST EXPLORES THE HIDDEN SIDE TO EVERYTHING* (rev. ed. 2006).

⁴ *See, id.*; *see also* STEVEN D. LEVITT & STEPHEN J. DUBLER, *SUPER FREAKONOMICS: GLOBAL COOLING, PATRIOTIC PROSTITUTES, AND WHY SUICIDE BOMBERS SHOULD BUY LIFE INSURANCE* (2009).

⁵ John J. Donohue III & Steven D. Levitt, *The Impact of Legalized Abortion on Crime*, 116 Q.J. ECON. 379, 380 (2001).

⁶ LEVITT & DUBLER, *supra* note 3, at v.

be willing to gather any and all data about the company's employees, including personal data. A freakonomics HR would need to be open to the possibility that the data gathered for one purpose may be relevant for a completely different inquiry. This is problematic. According to the standard human resources advice and best practices, the employer should stick to information about workplace performance, should inform employees about the purpose of the data collection, and should not go on fishing expeditions with employee data that may very well have been collected for a different purpose. However, workplace freakonomics—as defined for purposes of this essay—would blur these lines in ways that could make us quite uncomfortable. There lies the peril of a freakonomics approach—it could entail significant invasions of employee privacy, along with the potential for discriminatory outcomes. However, at the same time, it could provide revolutionary insights about human behaviors and performance.

This essay briefly considers the promise of workplace freakonomics, along with the privacy and discrimination concerns that it raises. By surfacing these issues in a preliminary fashion, I hope to spur further conversation and consideration about the perils and promise of a subset of people analytics that is unmoored to conventional narratives.

I. DEFINING WORKPLACE FREAKONOMICS

“Freakonomics” refers to the phenomenon, as captured in the popular book, of using innovative econometric analysis to explore unexpected answers to persistent economic or policy puzzles. The book is a collaboration between University of Chicago economist Steven Levitt and *New York Times* writer Stephen Dubner, who first met through a profile that Dubner wrote about Levitt.⁷ Although the profile makes no mention of “freakonomics,” the two thereafter decided to collaborate on a book that used the term to describe Levitt’s unique methodological approach.⁸ The authors describe that approach as follows: “the modern world, despite a surfeit of obfuscation, complication, and downright deceit, is *not* impenetrable, is *not* unknowable, and—if the right questions are asked—is even more

⁷ See Stephen J. Dubner, *The Probability that a Real Estate Agent Is Cheating You (And Other Puzzles of Modern Life)*, N.Y. TIMES (Aug. 3, 2003), <http://www.nytimes.com/2003/08/03/magazine/probability-that-real-estate-agent-cheating-you-other-riddles-modern-life.html>.

⁸ LEVITT & DUBNER, *supra* note 3, at xi.

intriguing than we think. All it takes is a new way of looking.”⁹ They describe freakonomics as “thinking sensibly about how people behave” and using “a novel way of looking, of discerning, of measuring.”¹⁰ It does not worry about politesse or niceties—“*Freakonomics*-style thinking simply doesn’t traffic in morality.”¹¹ Instead, the idea behind freakonomics is to take the data and determine what the data shows, even if that results in uncomfortable truths.

The actual methodology on display in *Freakonomics* is not particularly novel—it generally involves taking large, differentiated data sets and applying regression analysis to them. As described in the book, regression analysis is “a powerful—if limited—tool that uses statistical techniques to identify otherwise elusive correlations.”¹² Taking those correlations, the freakonomist—like the economist—then tries to determine whether correlation means causation in the particular instance.¹³ What makes freakonomics different (at least in the popular notion of the term) is its willingness to think creatively and expansively about the possible correlations and causations that may manifest. The most famous freakonomics example is from Levitt’s work on the relationship between abortion and crime. Levitt and coauthor John Donohue argued that the legalization of abortion in the 1960s and early 1970s led to a drop in unwanted births, which in turn led to a drop in crime when these children reached early adulthood.¹⁴ While the underlying study raised troubling moral implications and has been criticized by other researchers,¹⁵ the mash-up of two controversial

⁹ *Id.*

¹⁰ *Id.* at 189.

¹¹ *Id.* at 190.

¹² *Id.* at 147.

¹³ *Id.* at 149.

¹⁴ John J. Donohue III & Steven D. Levitt, *The Impact of Legalized Abortion on Crime*, ESCHOLARSHIP (2000), <http://escholarship.org/uc/item/00p599hk> [<https://perma.cc/5XYJ-Q9RJ>]; Steven D. Levitt, *Understanding Why Crime Fell in the 1990s: Four Factors That Explain the Decline and Six That Do Not*, 18 J. ECON. PERSP. 163 (2004).

¹⁵ See, e.g., Christopher L. Foote & Christopher F. Goetz, *The Impact of Legalized Abortion on Crime: Comment*, 123 Q.J. ECON. 407, 421-22 (2008); Ted Joyce, *Did Legalized Abortion Lower Crime?*, 39 J. HUM. RESOURCES 1, 1-3 (2004). However, the study seems to have achieved a level of scholarly acceptance. See Dov Fox & Christopher L. Griffin, Jr., *Disability-Selective Abortion and the Americans with Disabilities Act*, 2009 UTAH L. REV.

topics leading to a surprising empirical result is the quintessence of freakonomics. Another example from *Freakonomics* is a set of studies exploring a number of different factors—intuitive and nonintuitive—that potentially lead to better school performance in children. The studies found that having parents involved in the PTA is positively correlated with success, while being adopted is negatively correlated.¹⁶ Meanwhile, watching a lot of television and being spanked regularly were not correlated with school success one way or another.¹⁷ The book explores characteristics of cheating teachers (likely to be younger and less qualified)¹⁸ as well as workplaces that “cheat” on their bagel payments.¹⁹

This essay imagines a workplace freakonomist—an entrepreneur, a human resources director, or similarly situated manager who is willing to go beyond the conventional wisdom. This workplace freakonomist would seek to use the tools of freakonomics in resolving the standard puzzles of human resources. These puzzles have been around a long time—likely since the first employee was hired. They include: How do we measure employee performance? What constitutes success in the employee’s particular position? What leads to one employee having superior performance and another performing abominably? Economists and managerial thinkers have researched these questions applying a variety of theories and methods. In the 18th Century, Adam Smith examined the productivity of pin makers and concluded that the division of labor enabled exponential gains in the manufacturing process.²⁰ A century later, Frederick Taylor’s scientific management refined this division by scrupulously breaking down larger jobs into their specific component parts.²¹ The literature on employee selection

845, 872 (2009) (noting that the Levitt & Donohue study “has withstood several rounds of scholarly criticism and has been confirmed by alternative data sources”).

¹⁶ LEVITT & DUBNER, *supra* note 3, at 157–58.

¹⁷ *Id.* at 158.

¹⁸ *Id.* at 31.

¹⁹ *Id.* at 45 (noting that bigger offices are more likely to skimp on payment, and unreasonably pleasant weather makes people more likely to pay).

²⁰ ADAM SMITH, *THE WEALTH OF NATIONS* bk. I, ch. 1 (Simon & Brown 2016) (1776) (discussing the difficulty of one person making a complete pin, but the ease with which a group of workers can make hundreds of pins daily).

²¹ Frederick Taylor, *A Piece-Rate System*, 16 *TRANSACTIONS* 856 (1895); see also Stephen M. Bainbridge, *Privately Ordered Participatory Management: An Organizational*

and productivity has exploded since then, and includes landmark research such as the Hawthorne Works experiments²² and the Army Alpha and Beta tests.²³

People analytics—the use of data analytics in employment—builds upon this tradition by bringing new tools to these questions. Rather than using managerial judgment or personal assessments, people analytics judge’s worker performance by using huge pools of quantitative data.²⁴ Examples of people analytics generally revolve around innovative methods for evaluating worker productivity and performance. In *Moneyball*, Oakland Athletics general manager Billy Beane created a system of data analysis to evaluate current and prospective players, rather than individual scouting reports that were *de rigueur* at the time.²⁵ The Athletics emphasized existing performance data, particularly college baseball numbers, over subjective evaluations, and focused on lesser known statistical measures, like on-base and slugging percentage, rather than on more popular stats like batting averages (which excluded walks).²⁶ These analytics inquiries may look beyond standard measures, but the data all come from job performance. In his book *People Analytics*, Ben Waber focuses on employee interaction across the organization as an underappreciated source of employee productivity and business success.²⁷ Rather than relying on managers to evaluate their employees’ interactions, Waber’s team affixed each worker with a “Sociometric Badge” that incorporated a microphone, an infra-red device, and a

Failures Analysis, 23 DEL. J. CORP. L. 979, 983 (1998) (discussing Taylor’s methodology). Taylor was perhaps the most prominent member of the “systematic management” movement between 1880 and 1920. Sanford M. Jacoby, *A Century of Human Resource Management*, in INDUSTRIAL RELATIONS TO HUMAN RESOURCES AND BEYOND 147, 148 (Bruce E. Kaufman et al. eds., 2003).

²² See Fritz J. Roethlisberger, *The Hawthorne Experiments*, in CLASSICS OF PERSONNEL MANAGEMENT 16, 16–17 (Thomas H. Patten, Jr. ed., 1979).

²³ Andrea L. Silverstein, *Standardized Tests: The Continuation of Gender Bias in Higher Education*, 29 HOFSTRA L. REV. 669, 672 (2000).

²⁴ Don Peck, *They’re Watching You at Work*, ATLANTIC, Dec. 2013, at 72 (defining people analytics as “[t]he application of predictive analytics to people’s careers”).

²⁵ LEWIS, *supra* note 2, at 62–63.

²⁶ *Id.* at 169–72 (discussing the underappreciated offensive skills of Scott Hatteberg).

²⁷ BEN WABER, PEOPLE ANALYTICS (2013).

motion detector to measure various aspects of human interactions.²⁸ By collecting information on an employee's movements, interactions with other employees, and the tones of employees' voice to develop interaction metrics, researchers gained new insights on how the group functions and what interactions are most conducive to productivity. The "people analytics" phenomenon thus applies broadly to human resources analytics that involve: (1) the search for new pools of quantitative data that are correlated with business and employment success, and (2) the use of such data to make workplace decisions and to replace subjective decisionmaking by managers.²⁹

Workplace freakonomics, as defined for purposes of this essay, is similar to people analytics in that uses data sets to find hidden insights into employee behavior and success. However, workplace freakonomics is a subset of analytics that examines data about workers that might otherwise be considered irrelevant, personal, and even private. In particular, the freakonomist would look outside the standard performance metrics and examine any and all possible influences on workers. This willingness to move outside workplace-generated information is what sets the freakonomist apart.

Henry Ford might be considered the first workplace freakonomist. Ford believed in paying his workers well but asked a lot from them in the form of consistent, superior performance.³⁰ To that end, he sought to manage their personal lives in order to stifle off-duty habits that might harm their work performance. The Ford Motor Company's "Sociological Department" employed a team of 150 to investigate the lifestyle of each Ford employee and their personal vices, such as smoking, drinking, and gambling.³¹ The Department's investigators also monitored employees' spending and saving habits and offered employees advice and social services when called for.³² Despite success in improving workers' productivity, Ford eventually disbanded the

²⁸ *Id.* at 14–16.

²⁹ Bodie, Cherry, McCormick & Tang, *supra* note 1, at 973.

³⁰ See STEPHEN MEYER III, *THE FIVE DOLLAR DAY* 6 (1981).

³¹ M. Todd Henderson, *The Nanny Corporation*, 76 U. CHI. L. REV. 1517, 1541 (2009); Ted Morgan, *Intrigue and Tyranny in the Motor City*, N.Y. TIMES (July 13, 1986), <http://www.nytimes.com/1986/07/13/books/intrigue-and-tyranny-in-motor-city.html> (reviewing ROBERT LACEY, *FORD: THE MEN AND THE MACHINE* (1986)).

³² Henderson, *supra* note 31, at 1541.

Sociological Department, stating: “[w]elfare work that consists in prying into employees’ private concerns is out of date.”³³

Indeed, contemporary employees would likely find Ford’s Sociological Department to be invasive, intrusive, even creepy. However, data analytics offers the opportunity to observe all aspects of an employee’s existence in less obvious and overtly intrusive ways. Google, as one might expect, places a high premium on data in its HR department (called “People Operations”),³⁴ and the company prides itself on using data and data-crunching algorithms to explore the frontiers of personnel decision-making.³⁵ In order to improve its employees’ experiences, Google has shrunk plate sizes in the corporate cafeteria and has added personal perks like ATMs, microkitchens, and onsite laundry machines.³⁶ And for its “Project Aristotle,” an internal initiative to study the differences in success between Google teams, the company collected data along a myriad of lines, such as outside of work interactions and individual hobbies, to determine what components created a top team.³⁷ Google ultimately used the study to develop protocols for teams and team managers that encouraged psychological safety and emotional connections between team members.³⁸

The following are additional examples of workplace techniques that might be of use to the workplace freakonomist. It is important to emphasize here that our fictional freakonomist acts in good faith; she truly wants to better understand human behavior and is not using these tools to harass employees or monitor their behaviors for ulterior motives.

³³ HENRY FORD, *MY LIFE AND WORK* 130 (1923); see also GREG GRANDIN, *FORDLANDIA* (2009) (describing Ford’s rubber tree plantation in Brazil and its paternalistic approach to personnel management).

³⁴ LASZLO BOCK, *WORK RULES!* 12 (2015); Farhad Manjoo, *The Happiness Machine: How Google Became Such a Great Place to Work*, SLATE.COM (Jan. 21, 2013) http://www.slate.com/articles/technology/technology/2013/01/google_people_operations_the_secrets_of_the_world_s_most_scientific_human_single.html [<https://perma.cc/8CZE-VH74>] (“At the heart of [Google’s People Operations Department] is a sophisticated employee-data tracking program, an effort to gain empirical certainty about every aspect of Google’s workers’ lives . . .”).

³⁵ Manjoo, *supra* note 34.

³⁶ *Id.*

³⁷ Charles Duhigg, *Group Study: What Google Learned From Its Quest to Build the Perfect Team*, N.Y. TIMES MAG., Feb. 25, 2016, at 23.

³⁸ *Id.* at 26, 72, 75.

A. 24/7 Monitoring

Employers have long monitored employee workplace behavior through supervisors and fellow employees. New forms of electronic monitoring have significantly expanded the ability to observe various aspects of employee activity. Monitoring can now be conducted electronically through cameras, microphones, computer programs, and RFID chips so almost all a worker's actual working time can be viewed, reviewed, and measured.³⁹ A workplace freakonomist, however, might want to go beyond the employee's time on the clock to see what other factors contribute to success on the job. For example, are workers more or less productive when their car is out late at night? When they are out exercising before 6:00 A.M.? Are workers more productive when they hang out together after hours? Employers—and even some employees—might want to know what improves employee productivity. Who knows—a few drinks with friends might boost workplace performance!⁴⁰ Technology now allows various types of such data to be collected cheaply and unobtrusively. Tracking devices can be affixed to vehicles and other equipment, while phones and computers have GPS built in.⁴¹ People can even have chips implanted underneath their skin.⁴² Computer monitoring software can keep track of all activity on a particular device, including websites visited, keystrokes and interactions with other devices.⁴³ Other monitoring devices include

³⁹ Ifeoma Ajunwa, Kate Crawford & Jason Schultz, *Limitless Worker Surveillance*, 105 CAL. L. REV. 735, 742-43 (2017).

⁴⁰ Cf. K. A. Arntzen et al., *Moderate Wine Consumption is Associated with Better Cognitive Test Results: A 7 Year Follow Up of 5033 Subjects in the Tromsø Study*, 122 ACTA NEUROLOGICA SCANDINAVICA 23, 28 (2010).

⁴¹ *The Rise of Workplace Spying*, THE WEEK (July 5, 2015), <http://theweek.com/articles/564263/rise-workplace-spying> [<https://perma.cc/7TJC-6754>]. Positional tracking is ubiquitous in transportation industries to keep abreast of employee movement, as well as to follow employees who travel for business or make house calls. Kaveh Waddell, *Why Bosses Can Track Their Employees 24/7*, THE ATLANTIC (Jan. 6, 2017), <https://www.theatlantic.com/technology/archive/2017/01/employer-gps-tracking/512294/> [<https://perma.cc/TNM9-57E9>].

⁴² Chris Stein, *Meet the Humans with Microchips Implanted in Them*, CBS NEWS (June 22, 2016), <http://www.cbsnews.com/news/meet-the-humans-with-microchips-implanted-in-them/> [<https://perma.cc/8WU2-KLBJ>].

⁴³ H. Joseph Wen & Pamela Gershuny, *Computer-Based Monitoring in the American Workplace: Surveillance Technologies and Legal Challenges*, 24 HUM. SYS. MGMT. 165, 167 (2005).

electronic sensors, wearable fitness trackers, thermal sensors, and facial recognition systems.⁴⁴

The idea of 24/7 monitoring has been justifiably criticized as Orwellian.⁴⁵ And indeed, 24/7 monitoring could be used to harass employees in their personal life, discourage unionization, or prevent workers from blowing the whistle on nefarious activity. But if we assume good faith, the workplace freakonomist has reasons to explore the connections between employee performance and anything else, no matter how seemingly far afield. It is not impossible to imagine connections between a worker's job performance and her personal life. We can imagine a 24/7 monitoring regime that provides significant insights into the impact of one's personal life on one's job.

B. *Health and Biometric Monitoring*

Workplace wellness programs have become a routine part of the palette of health-related offerings from employers. The central idea is to provide incentives to employees to improve their health along certain metrics. Financial or social rewards are provided to workers who get a flu vaccine, lose weight, or quit smoking.⁴⁶ Because the employer provides for employee health insurance, these programs are seen as win-win: both the worker and the company share in the cost savings provided by the worker's improved health.

As the available tools for measuring biometrics continue to grow (and become cheaper), more companies may consider running studies analyzing these relationships between these metrics and on-the-job success and failure. A workplace freakonomist would want to examine the effects of health, wellness, and other biometric indicators on performance. Different jobs will, of course, require different skills that rely to a greater or lesser extent on various bodily abilities. But even those with a simple desk job may find their performance varies based on their exercise levels, their sleep, and their caloric intake. Monitoring these metrics and testing for peak performance is not even all that

⁴⁴ Ajunwa, Crawford & Schultz, *supra* note 39, at 743.

⁴⁵ *Id.* at 776 (raising concerns that new technologies "have decimated worker privacy"). Of course, such concerns are not entirely new either. Julie A. Flanagan, *Restricting Electronic Monitoring in the Private Workplace*, 43 DUKE L.J. 1256, 1257 (1994) ("Like the Orwellian 'Big Brother,' employers can now monitor every aspect of an employee's workday.").

⁴⁶ Elizabeth A. Brown, *Workplace Wellness: Social Injustice*, 20 N.Y.U. J. LEGIS. & PUB. POL'Y 191, 197 (2017).

counterintuitive. But aside from drug testing, data mining from health monitoring does lie outside the heartland of current HR best practices, which place health-related data outside the boundaries of appropriate inquiry for all but a narrow subset of jobs.

C. *Misdirection and Subterfuge*

There is an old saying that character is what you do when no one is looking.⁴⁷ To get at their employees' underlying character, companies may endeavor to trick employees into thinking that they are not being watched, or that they are being judged on one metric when another is actually in place. In these cases, the employer is looking to use some level of deception to figure out what the employee is truly thinking or feeling, or what the employee would do outside of the employer's gaze. The use of deception in such tests is well-recognized in the social sciences; many psychology experiments center around a task, action, or survey that is purportedly about one thing but is actually about another.⁴⁸ Similarly, a workplace freakonomist may want to surreptitiously monitor employees to determine what their "true" behavior would be. Or, a workplace freakonomist may wish to test employees on metrics such as honesty, effort, and workplace satisfaction by purporting to request a certain type of action, but actually be testing for the other metrics. Or, a workplace freakonomist may want workers to show their revealed preferences—their actual desires—rather than their conscious or socially-acceptable ones. There

⁴⁷ A variation of the quote is often attributed to former UCLA coach John Wooden. Walter Pavlo, *Character is What You Do When Everyone is Watching*, FORBES (Oct. 23, 2012), <https://www.forbes.com/sites/walterpavlo/2012/10/23/character-is-what-you-do-when-everyone-is-watching/> [<https://perma.cc/LGL5-CLM7>] ("The true test of a man's character is what he does when no one is watching.").

⁴⁸ Psychology experiments and other scientific research generally require informed consent. For a discussion of such consent, see, James Grimmelman, *The Law and Ethics of Experiments on Social Media Users*, 13 COLO. TECH. L.J. 219, 226 (2015) (finding that informed consent "generally requires that subjects be given sufficient information about the research, that they comprehend the information they are given, and that their agreement to participate be free of undue influence."). However, the subjects do not need to be informed of the exact nature of the experiment, or the specific design of the test. See Notice of Report for Public Comment, 44 Fed. Reg. 23,192, 23,195 (Apr. 17, 1979) ("A special problem of consent arises where informing subjects of some pertinent aspect of the research is likely to impair the validity of the research. In many cases, it is sufficient to indicate to subjects that they are being invited to participate in research of which some features will not be revealed until the research is concluded.").

are a variety of reasons to test surreptitiously, all in the name of better freakonomics.

My stylized version of workplace freakonomics is not limited to the more controversial areas of exploration. But I raise them here because they lie outside the current conventional wisdom of the acceptable boundaries of data analytics within the workplace. In discussing GPS monitoring, one workplace consultant “recommends a set of best practices, like limiting the information gathered to the bare minimum it needs for ‘legitimate business reasons,’ such as keeping tabs on expensive company equipment or verifying the details of an employee’s house call.”⁴⁹ She counsels employers to disable tracking outside of business hours.⁵⁰ Similarly, employers have scaled back on some of their wellness plans in response to employee outrage.⁵¹ Employers have received negative press for accessing workers’ social media circles by posing as outsiders or as other workers.⁵² More cautious employers would avoid such hotspots, preferring to focus on workplace issues. But the workplace freakonomist, driven by scientific curiosity, wants to exploit the data opportunities that others avoid. Thus far, the academic and trade literature on data analytics has largely carved off these areas as “unsafe” and thus best to be avoided. But is it illegal to explore in these areas, or just uncomfortable? The following sections briefly discuss the legality of these areas of unusual analytics in the areas of privacy law and antidiscrimination law.

II. WORKPLACE FREAKONOMICS AND THE LAW OF EMPLOYEE PRIVACY

Privacy and freakonomics are a tricky mix. We ask for freakonomics to bend our expectations, peek beneath the curtain, and unsettle the conventional wisdom. Privacy, on the other hand, is based almost

⁴⁹ Waddell, *supra* note 41.

⁵⁰ *Id.*

⁵¹ See, e.g., Natasha Singer, *On Campus, A Faculty Uprising Over Personal Data*, N.Y. TIMES (Sept. 14, 2013), <http://www.nytimes.com/2013/09/15/business/on-campus-a-faculty-uprising-over-personal-data.html>.

⁵² ADAM COHEN, KAREN CHEEK & BEN HAWKSWORTH, USING DATA ANALYTICS TO ENHANCE COMPLIANCE WITH CORPORATE SOCIAL MEDIA POLICY 4 (EY Publication, 2013), [http://www.ey.com/Publication/vwLUAssets/ey-using-data-analytics/\\$FILE/ey-using-data-analytics-to-enhance-compliance-with-corporate-social-media-policy.pdf](http://www.ey.com/Publication/vwLUAssets/ey-using-data-analytics/$FILE/ey-using-data-analytics-to-enhance-compliance-with-corporate-social-media-policy.pdf) [<https://perma.cc/F832-LPKH>] (“Of course, some may be tempted to gain entry to a user’s circle of friends or followers by subterfuge, but such activities would create ethical dilemmas and could potentially have legal consequences.”).

entirely on our expectations. Our freedom from intrusion and inspection lies in what we expect will be kept private.⁵³ As a result, there are many potential points of conflict between freakonomics and privacy.

The law protects privacy through a patchwork of federal and state laws. State common law offers a background set of generalized privacy protections for the private-sector workplace.⁵⁴ The primary common law cause of action is intrusion upon seclusion, recognized in the Restatement (Second) of Torts as one of four kinds of privacy protections.⁵⁵ The intrusion tort applies when a person “intentionally intrudes, physically or otherwise, upon the solitude or seclusion of another or his private affairs or concerns” in a manner that is “highly offensive to a reasonable person.”⁵⁶ In addition, employees are protected against public disclosure and publication of their private facts and matters, if the publication is highly offensive and not of legitimate public concern.⁵⁷ The Restatement of Employment Law has brought these tort protections under a common cause of action that protects employees against “wrongful employer intrusions upon their protected privacy interests.”⁵⁸ The specified privacy interests apply to (1) physical and electronic locations, (2) employee information of a personal nature that is kept private from the employer, and (3) employee information of a personal nature disclosed in confidence to

⁵³ See Paul M. Secunda, *Privatizing Workplace Privacy*, 88 NOTRE DAME L. REV. 277, 297-98 (2012) (noting the relationship between privacy and expectations).

⁵⁴ See Bodie, Cherry, McCormick & Tang, *supra* note 1. Public-sector employees have the benefit of constitutional protections, largely under the Fourth Amendment. See, e.g., *O'Connor v. Ortega*, 480 U.S. 709, 725-26 (1987); *City of Ontario v. Quon*, 560 U.S. 746, 756-57 (2010); *NASA v. Nelson*, 562 U.S. 134, 149-50 (2011).

⁵⁵ RESTATEMENT (SECOND) OF TORTS § 652B (AM. LAW INST. 1977). The other three privacy torts are public disclosure of private fact, *id.* § 652D; appropriation of another’s name or likeness, *id.* § 652C; and publicity that unreasonably places another in a false light, *id.* § 652E.

⁵⁶ *Id.* § 652B.

⁵⁷ *Id.* § 652D.

⁵⁸ RESTATEMENT OF EMP’T LAW § 7.01 (AM. LAW INST. 2015).

the employer.⁵⁹ Employer intrusions upon these interests are tortious if highly offensive to a reasonable person.⁶⁰

The common law of the workplace presents both danger zones and escape hatches for freakonomics-type analyses. Within the common law, there is an effort to distinguish between business-related information and personal information. Under the Restatement of Employment Law, an employer intrudes into an employee's protected privacy interest by requiring that the employee provide information that is "of a personal nature and that the employee has made reasonable efforts to keep private."⁶¹ There is an exception for personal information that is relevant to the employer's business needs and customarily required by other employers; however, that is unlikely to help the freakonomist.⁶² In order to be actionable, the employer's intrusion upon the protected privacy interest would then also have to be considered highly offensive to a reasonable person.⁶³ The nature, manner, and scope of the intrusion would be weighed against the employer's legitimate business interests in the intrusion.⁶⁴ Fishing around in employee personal data hoping to find unusual correlations is troubling on both ends: it invades the employee's personal space and lacks a sufficiently important justification on the employer's end.⁶⁵ Freakonomics research that includes 24/7 monitoring, use of personal health data, or deception could well be considered a tortious intrusion.

⁵⁹ *Id.* § 7.02.

⁶⁰ *Id.* § 7.06.

⁶¹ *Id.* § 7.04(a)-(b).

⁶² *Id.* § 7.04(c).

⁶³ *Id.* § 7.06(a).

⁶⁴ *Id.* § 7.06(b).

⁶⁵ Generally, employers have provided very specific justifications for surveillance of employees, particularly off duty. *See, e.g.*, *Fletcher v. Price Chopper Foods of Trumann, Inc.*, 220 F.3d 871, 878-79 (8th Cir. 2000) (ruling that an employee did not have a reasonable expectation of privacy in information about the employee's contagious infection because it was "a matter of legitimate concern" to the employer); *Saldana v. Kelsey-Hayes Co.*, 443 N.W.2d 382, 384 (Mich. Ct. App. 1989) (surveilling an employee from public locations to investigate the worker's work-related disability claim); *I.C.U. Investigations v. Jones*, 780 So.2d 685, 689 (Ala. 2000) (holding that an employee in a workers' compensation case must expect "a reasonable investigation regarding his physical capacity").

At the same time, a workplace freakonomist working in good faith might escape tortious liability for the data intrusions. In order to mitigate privacy concerns, the employer could take the following steps: (a) anonymize the employee data, so that correlations can be found but individuals not singled out;⁶⁶ (b) use an outside firm to conduct the research, or sequester a set of employees to prevent data leakage;⁶⁷ (c) notify employees about the studies as specifically as possible without undermining the study's results;⁶⁸ (d) store data appropriately;⁶⁹ (e) delete all data once it is no longer under examination;⁷⁰ and (f) allow employees to opt out, assuming this option wouldn't irreparably damage the data set.⁷¹ Because of the case-by-case nature of the intrusion privacy tort, it cannot be said for sure that these steps would completely protect the employer from liability for workplace freakonomics analyses. Privacy protections are based in large part on reasonable community expectations about what is private and what is not, and workplace freakonomics may stand out for its very freakiness.

⁶⁶ This is regularly done in the consumer data and health research contexts. See Jane Yakowitz, *Tragedy of the Data Commons*, 25 HARV. J.L. & TECH. 1, 44-47 (2011) (proposing a safe harbor for anonymized data). But see Paul Ohm, *Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization*, 57 UCLA L. REV. 1701, 1707-11 (2010).

⁶⁷ Disclosure from employees who have a reason to be handling the information to those who have no legitimate interests in it can violate an employee's privacy interests. See RESTATEMENT OF EMP'T LAW § 7.05(b) (AM. LAW INST. 2015) (noting that improper disclosure to third parties can include "an employer's employees or agents who have no legitimate business reason to access the information.").

⁶⁸ *Id.* § 7.06 cmt. g (noting that "[n]otice helps inform the employee's reasonable expectations" but that "[e]mployee notification is not required if the employer has a legitimate business interest to justify the secrecy of the intrusion."). Surreptitious recording would also likely be an intrusion, as failure to disclose would constitute deceit. *Id.* § 7.04(b) ("An employer intrudes upon this protected privacy interest by requiring that the employee provide information described in subsection (a) or by obtaining the information through deceit.").

⁶⁹ See, e.g., Danielle Keats Citron, *Reservoirs of Danger: The Evolution of Public and Private Law at the Dawn of the Information Age*, 80 S. CAL. L. REV. 241, 255-57, (2007) (discussing the problem of insecure databases of personal information).

⁷⁰ The European Data Privacy Directive advocates that data be "kept in a form which permits identification of data subjects for no longer than is necessary." European Parliament and Council Directive 95/46, art. 6(1)(e), 1995 O.J. (L 281) 40 (EC).

⁷¹ RESTATEMENT OF EMP'T LAW § 7.06 cmt. h (AM. LAW INST. 2015) (discussing consent as a defense to a privacy tort claim as long as the consent is not made a condition of employment).

At the same time, courts have allowed incredibly invasive employer requests when those requests are made in good faith and are job-related.⁷²

The workplace freakonomist may be tempted to obtain a blanket form of consent from employees when they first start the job; however, such consent is likely to be insufficient. Courts look to the proximity between the consent and the potential privacy invasion, as well as the specificity of the consent. Blanket waivers that provide license to do anything are too thin to provide a true indication of understanding and acceptance. In addition, in order to be voluntary, the employee must have the option of not providing the data and yet still keeping her job.⁷³ This disjunction between consent and job would be difficult to highlight if obtained through a blanket waiver at the outset of employment.

Along with the common law, certain states have generalized protections against privacy invasions. California has a privacy-related constitutional scheme that is similar to the privacy torts but is overall less forgiving of intrusions, as the standard is unreasonable actions rather than “highly offensive” ones.⁷⁴ Massachusetts has a general statutory provision that also protects against privacy intrusions.⁷⁵ The public-sector freakonomist must be wary of U.S. constitutional protections, which apply to “unreasonable searches and seizures”⁷⁶ as well as “unwarranted disclosures” of “accumulated private data.”⁷⁷ These protections also employ a general reasonableness standard which would generally be seen as more privacy-protective than the “highly-offensive” standard.

⁷² See, e.g., *Feminist Women’s Health Ctr. v. Superior Court*, 52 Cal. App. 4th 1234, 1249 (Cal. Ct. App. 1997) (no privacy violation where employer required employee to perform a cervical self-examination in front of a small group of clients as part of an employer-run self-help group).

⁷³ RESTATEMENT OF EMP’T LAW § 7.04 cmt. e (AM. LAW INST. 2015).

⁷⁴ CAL. CONST. art. I, § 1; *Hill v. Nat’l Collegiate Athletic Ass’n.*, 865 P.2d 633, 644 (Cal. 1994) (holding that art. I, § 1, “creates a right of action against private as well as governmental entities”).

⁷⁵ MASS. GEN. LAWS ch. 214, § 1B (2017) (“A person shall have a right against unreasonable, substantial or serious interference with his privacy.”).

⁷⁶ U.S. CONST. amend. IV.

⁷⁷ *Whalen v. Roe*, 429 U.S. 589, 605-06 (1977), quoted in *NASA v. Nelson*, 131 S. Ct. 746, 755 (2011); see also, *id.* at 756-57 (assuming, without deciding, the existence of such a right).

There are also specific privacy-related statutory schemes that may trip up an unexpecting freakonomist. When it comes to health information, the Health Information Portability and Accessibility Act of 1996 (HIPAA)⁷⁸ imposes restrictions on the release or distribution of personal health information; however, the Act applies primarily to healthcare providers.⁷⁹ Employers are only really covered if they self-provide health insurance to their employees.⁸⁰ Although Connecticut prohibits the disclosure of identifiable employee medical information without the employee's written authorization, there is no specific regulation of employee health information *per se* at the state or federal level.⁸¹ The Americans with Disabilities Act prohibits certain inquiries into employee disabilities or other health conditions, either before or contemporaneous with an offer of employment.⁸² In addition, a number of state statutes specifically prohibit lines of questioning, such as HIV status⁸³ or prior arrests or misdemeanor convictions.⁸⁴

The workplace freakonomist must also be cognizant of regulations on the methods of gathering the data about employees. Drug testing is fairly extensively regulated at the state level; it is generally allowed, but specific safeguards must be followed.⁸⁵ Polygraph tests face such

⁷⁸ Pub. L. No. 104-191, 110 Stat. 1936 (codified as amended in scattered sections of 18, 26, 29, and 42 U.S.C.). The HIPAA privacy regulations are found at 45 C.F.R. §§ 160 & 164 subpart A, E.

⁷⁹ Moreover, HIPAA does not provide a private cause of action for breach of privacy, although Connecticut has used it as a standard of care for a state common-law action for negligence. *Byrne v. Avery Ctr. for Obstetrics and Gynecology*, 102 A.3d 32, 42 (Conn. 2014).

⁸⁰ 45 C.F.R. § 160.103 (2015) (defining “covered entity” as a health plan, a health care clearinghouse, or a health care provider). In addition, covered entities may provide employee health information to employers in order “[t]o evaluate whether the individual has a work-related illness or injury.” *Id.* at § 164.512(b)(v)(A)(2); *see also, id.* at § 164.504(f) (as a condition of providing the information, the covered entity must require the employer to protect the information and not use it for employment-related actions).

⁸¹ A recent article advocated for such protective legislation. *Ajunwa, Crawford & Schultz, supra* note 39, at 775-76 (proposing a federal “Employee Health Information Privacy Act”).

⁸² 42 U.S.C. § 12112(d) (2017).

⁸³ WIS. STAT. § 103.15(2) (2017).

⁸⁴ MASS. GEN. LAWS ch. 151B, § 4(9), 9A (2016).

⁸⁵ For example, Alaska provides a safe harbor for employer testing as long as certain requirements are followed. ALASKA STAT. §§ 23.10.600-23.10.699. *See also* ARIZ. REV. STAT. §§ 23-493-23.493.11; CONN. GEN. STAT. §§ 31-51(T)-31-51(X); GA. CODE ANN. §§ 34-9-410-34-9-421; HAW. REV. STAT. §§ 329B-1-329B-8; IDAHO CODE §§ 72-1701-72-1716; IOWA

stringent regulation at both the federal and state level that it probably rules out their freakonomics use.⁸⁶ Federal law requires employers to get written authorization for employee credit reports and to provide notice to the employee if the credit report is used to take adverse action.⁸⁷ So caution would be required in using credit data for job-related decisions. Although employers can monitor the use of their own equipment, there are existing protections against phone tapping or interception of electronic communication which would come into play if the employer intercepted communications outside the employer's business network.⁸⁸ In a growing number of states, employers cannot require employees to provide access to personal social-media accounts, such as Facebook.⁸⁹

CODE § 730.5; LA. REV. STAT. § 49:1001-49:1012; ME. REV. STAT. tit. 26, §§ 681-690; MD. CODE ANN., HEALTH-GEN. §§ 17-214, 17-216; MINN. STAT. §§ 181.950-181.957; MISS. CODE ANN. §§ 71-7-1-71-7-31; MONT. CODE ANN. §§ 39-2-205-39-2-211; NEB. REV. STAT. §§ 48-1901-48-1910; N.C. GEN. STAT. §§ 95-230-95-234; OR. REV. STAT. § 438.435(1)-(8); R.I. GEN. LAWS §§ 28-6.5-1-28-6.5-2; TENN. CODE ANN. §§ 50-9-107-50-9-112; UTAH CODE ANN. §§ 34-38-1-34-38-15; VT. STAT. ANN. tit. 21, §§ 511-519.

⁸⁶ See, e.g., The Employee Polygraph Protection Act of 1988, 29 U.S.C. §§ 2001-2009; CALIF. LAB. CODE § 432.2; IDAHO CODE §§ 44-903-44-904; N.J. STAT. ANN. § 2C:40A-1; D.C. CODE § 32-902.

⁸⁷ See Fair Credit Reporting Act of 1970, 15 U.S.C. §§ 1681B(B)(1)-(3), 1681M. See also N.Y. Fair Credit Reporting Act, N.Y. GEN. BUS. L. § 380-b (regulating the use of credit reports). For a discussion of the protections established by the FCRA and how they apply to employment decisions, see Pauline T. Kim & Erika Hanson, *People Analytics and the Regulation of Information Under the Fair Credit Reporting Act*, 61 ST. LOUIS U. L.J. 17, 23 (2016).

⁸⁸ In other areas, generally applicable laws restrict certain instruments of investigation, such as phone taps and electronic communication interception. See, e.g., Omnibus Crime Control Act of 1968, 18 U.S.C. §§ 2510-11 (telephone interception); Electronic Communications Privacy Act, 18 U.S.C. §§ 2701-08 (electronic interception); N.Y. Penal L. §§ 250.00, 250.05 (eavesdropping).

⁸⁹ Eighteen states have legislation prohibiting employers from requiring employee disclosure of social-media passwords. ARK. CODE ANN. § 11-2-124 (2017); CAL. LAB. CODE § 980 (2016); COLO. REV. STAT. § 8-2-127 (2016); 820 ILL. COMP. STAT. § 55/10 (2017); LA. REV. STAT. 51:1953 (2016); MD. CODE ANN., LAB. & EMP. § 3-712 (2016); MICH. COMP. LAWS § 37-273 (2016); NEV. REV. STAT. § 613.135 (2015); N.H. REV. STAT. ANN. § 275:74 (2016); N.J. STAT. ANN. § 34:6B-6 (2017); N.M. STAT. ANN. § 50-4-34 (2017); OKLA. STAT. tit. 40, § 173.2 (2016); OR. REV. STAT. § 659A.330 (2016); R.I. GEN. LAWS § 28-56-3 (2016); TENN. CODE ANN. § 50-1-1003 (2016); UTAH CODE ANN. § 34-48-201 (2016); WASH. REV. CODE § 49.44.200 (2016); WIS. STAT. § 995.55 (2017). Roughly half of the states had such legislation under consideration. See, *Access to Social Media Usernames and Passwords*, NAT'L CONF. OF ST. LEGISLATURES (Feb. 2, 2016), <http://www.ncsl.org/research/telecommunications-and-information->

Repurposing data from one use to another also carries inherent legal risk. The EU's Data Privacy Directive provides that personal data be "collected for specified, explicit and legitimate purposes and not further processed in a way incompatible with those purposes."⁹⁰ Although most state and federal regulation concerns data collection, rather than processing, the Fair Credit Reporting Act limits the uses to which credit data can be subject.⁹¹ Accuracy is also important under data privacy regimes; algorithms located within a metaphorical "black box" cannot have too much power over subjects without some transparency on their operation.⁹² Employees are right to fear the possibility of flawed data seeping into the freakonomics process.

Workplace freakonomics charges into territory that is otherwise unsettled or unsettling. It can expect to rattle the reasonable expectation of employees as to the line between private and public, on-duty and off-limits. As such, it can expect to raise privacy concerns. By keeping in mind the contours of current privacy protections, the workplace freakonomist can reduce the potential for liability, but not completely eliminate it.

III. WORKPLACE FREAKONOMICS AND ANTIDISCRIMINATION LAW

The use of data analytics in employment can enable employers to discriminate against employees more effectively.⁹³ For this essay, however, we will assume that the workplace freakonomist is acting in good faith and has no discriminatory motives. If a freakonomist has no intent to discriminate, can she proceed to conduct analyses and follow the results without fear of antidiscrimination liability? In short, the answer is no. The workplace freakonomist must be cognizant of

technology/employer-access-to-social-media-passwords-2013.aspx
[<https://perma.cc/6Q85-XCWW>].

⁹⁰ European Parliament and Council Directive 95/46/EC, *supra* note 70.

⁹¹ 15 U.S.C. § 1681b (2012).

⁹² For a broader discussion of the impact of these algorithms, see FRANK PASQUALE, *THE BLACK BOX SOCIETY: THE SECRET ALGORITHMS THAT CONTROL MONEY AND INFORMATION* (2015).

⁹³ See Bodie, Cherry, McCormick & Tang, *supra* note 1, at 1007-08 (discussing employer's use of health data to discriminate against employees who were more likely to become pregnant).

potential discrimination that results unintentionally from such practices and take steps to manage their effects.

One potential danger area is disparate impact liability. Employers are liable for disparate impact when they make employment decisions based on neutral factors that nevertheless have a disproportionately negative effect on members of a protected class.⁹⁴ However, an employer can still utilize the neutral factor if “the challenged practice is job-related for the position in question and consistent with business necessity.”⁹⁵ The key is the relationship between the metric and job performance. As the Supreme Court explained: “Nothing in the Act precludes the use of testing or measuring procedures; obviously they are useful. What Congress has forbidden is giving these devices and mechanisms controlling force unless they are demonstrably a reasonable measure of job performance.”⁹⁶ In assessing this relationship, the Equal Employment Opportunity Commission (EEOC) specifically highlighted the importance of data: “Evidence of the validity of a test or other selection procedure by a criterion-related validity study should consist of empirical data demonstrating that the selection procedure is predictive of or significantly correlated with important elements of job performance.”⁹⁷

At this, the workplace freakonomist might be feeling home-free, since obviously the whole point of the freakonomics approach is to use rigorous empirical methods to demonstrate relationships between specific factors, characteristics, or activities and workplace success. And indeed, part of the attraction of data analytics in employment is its use of scientifically justifiable methods and its focus on the numerical

⁹⁴ 42 U.S.C.A. § 2000e-2(k)(1) (2012); *see also* 29 C.F.R. § 1607.3 (stating that “[t]he use of any selection procedure which has an adverse impact on the hiring, promotion, or other employment or membership opportunities of members of any race, sex, or ethnic group will be considered to be discriminatory and inconsistent with these guidelines” unless otherwise justified).

⁹⁵ *Id.* § 2000e-2(k)(1)(A)(i).

⁹⁶ *Griggs v. Duke Power Co.*, 401 U.S. 424, 436 (1971).

⁹⁷ 29 C.F.R. § 1607.5 (B). *See also, id.* (“Evidence of the validity of a test or other selection procedure by a content validity study should consist of data showing that the content of the selection procedure is representative of important aspects of performance on the job for which the candidates are to be evaluated. . . . Evidence of the validity of a test or other selection procedure through a construct validity study should consist of data showing that the procedure measures the degree to which candidates have identifiable characteristics which have been determined to be important in successful performance in the job for which the candidates are to be evaluated.”).

bottom line.⁹⁸ But because workplace freakonomics looks for seemingly irrelevant factors to find unusual and unexpected correlations, any disparate impact would seem more troubling. After all, if the factor causes the employer to disfavor a certain protected class, courts and agencies may look askance if the factor is more whimsical, frivolous, or bizarre. In fact, the innocent workplace freakonomist is more likely to look like an intentional discriminator who is attempting to mask that discrimination by looking for factors that create the discrimination without a pre-existing and improper narrative connection.⁹⁹

How should the workplace freakonomist deal with this concern? If a particular analysis leads to discriminatory results, it is not enough simply to point to the seemingly neutral algorithm and assume all is fine. First, there may be problems with the analytics themselves. The data may have been incompletely or poorly gathered in a way that exacerbated the discriminatory effects.¹⁰⁰ The sample size may be too small, or the study might only reflect a temporary set of conditions. The choice of metrics to be studied may be influenced by the researcher's own biases.¹⁰¹ Or, as happens even in properly conducted analyses, a set of correlations may be random and may have no predictive value as to future effects.¹⁰² Second, the data analytics may overlook the effects of societal stereotyping and discrimination that do, in fact, affect performance. A study of zip codes and their effect on job performance would, of course, pick up effects from socio-economic stratification as well as racial segregation and redlining.¹⁰³ Less obvious correlations might not jump out to the workplace freakonomist but might

⁹⁸ Bodie, Cherry, McCormick & Tang, *supra* note 1, at 1020-24 (discussing how the legal framework makes data analytics attractive).

⁹⁹ Solon Barocas & Andrew Selbst, *Big Data's Disparate Impact*, 104 CALIF. L. REV. 671, 692-94 (2016) (using the term "masking" to describe hiding a discriminatory motive within data analytics).

¹⁰⁰ Toon Calders & Indrė Žliobaitė, *Why Unbiased Computational Processes Can Lead to Discriminative Decision Procedures*, DISCRIMINATION AND PRIVACY IN THE INFORMATION SOCIETY 43, 51-53 (Bart Custers et al. eds., 2013).

¹⁰¹ Bodie, Cherry, McCormick & Tang, *supra* note 1, at 1017.

¹⁰² See generally Pauline T. Kim, *Data-Driven Discrimination at Work*, 58 WM. & MARY L. REV. 857, 884-90 (2017) (describing the different types of harm that might result when employers rely on biased data models).

¹⁰³ Bodie, Cherry, McCormick & Tang, *supra* note 1, at 1014; Kim, *supra* note 102, at 889.

nevertheless have discriminatory effects.¹⁰⁴ Analytics might also result in homosocial reproduction, whereby the “in” group reproduces itself.¹⁰⁵ If a worker’s performance depends at least in part on getting along with co-workers, a collection of craft beer enthusiasts may provide more support to one of their own than an oenophile. Finally, even where the analysis is “correct,” it may still reinforce the exact types of unequal outcomes that antidiscrimination law is designed to counter, even if these laws do not directly prohibit it. As Barocas and Selbst describe:

Where data mining goes “right,” data miners could not have been any more accurate given the starting point of the process. This very accuracy, exposing an uneven distribution of attributes that predict the target variable, gives such a result its disparate impact. If the data accurately models inequality, attempts to devise an alternative way of making the same prediction will only narrow the disparate impact if these efforts reduce the accuracy of the decision procedure. . . . Title VII, and very likely other similarly process-oriented civil rights laws, cannot effectively address this situation.¹⁰⁶

In these situations, the analytics continue to dig the hole for members of the protected class without recognizing the digging.

Because data analytics and its subsidiary of workplace freakonomics are so new to the scene, caution is warranted. Companies should reduce the stakes for any outcomes of these analyses. Changing

¹⁰⁴ Pauline Kim describes a thorny example that sounds like freakonomics:

A more difficult question is raised if the algorithmic bias results from a factor less clearly identified with past racial harms. Suppose, for example, that an algorithm uncovers a strong statistical correlation between job performance and a seemingly arbitrary factor like what kind of automobile someone drives, but the effect of relying on that factor is to reduce opportunities for members of a minority group. Some models may be so complex that it is impossible to specify which factors influence the results, or what precise weights different factors have in determining the model’s predictions. Without knowing the precise mechanism producing the outcome, it is impossible to judge whether it is normatively acceptable to rely on the factors it leverages.

Kim, *supra* note 102, at 889.

¹⁰⁵ Bodie, Cherry, McCormick & Tang, *supra* note 1, at 1013.

¹⁰⁶ Barocas & Selbst, *supra* note 99, at 729.

the size of the plate at the cafeteria is one thing; making hiring, firing, and promotional decisions is another. Because freakonomics is looking for correlations that are off the beaten path, they should be handled with care unless and until they are better understood or confirmed through other methods of workplace judgment.

There are also specific antidiscrimination prohibitions that the workplace freakonomist should keep in mind when gathering data. As discussed above, the ADA protects employees from certain medical and potentially disability-related inquiries.¹⁰⁷ The Genetic Information Nondiscrimination Act of 2008 (GINA) prohibits employers from requesting or acquiring employee genetic information.¹⁰⁸ Title VII may preclude employers from requiring information about their employees' religion.¹⁰⁹ These restrictions may prevent certain freakonomics inquiries or the use of previously gathered data that collected such information.

IV. CONCLUSION

Discussions of the data analytics revolution tend to veer toward the extremes: big data will either solve the world's problems through seamless algorithms or it will render our society a surveillance state in which every aspect of our behavior is monitored, rewarded, and punished by unfathomable machines. I have stylized this essay in the hopes of imagining a "workplace freakonomics" regime that has both promise and peril. While it is fun (in a certain sense of the term) to dream up far-flung inquiries that unlock secrets of human behavior, we must keep in mind that we are dealing with actual people. A dose of appropriate skepticism towards these new methods is important in keeping perspective.

¹⁰⁷ 42 U.S.C. § 12112(d) (2017).

¹⁰⁸ 42 U.S.C. § 2000ff-1 (2012) (making it an "unlawful employment practice for an employer to request, require, or purchase genetic information with respect to an employee or a family member of the employee").

¹⁰⁹ Ajunwa, Crawford & Schultz, *supra* note 39, at 751.

