

JOURNAL OF LAW, ECONOMICS & POLICY

Cite as 11 J.L. ECON. & POL'Y 1

Journal of Law, Economics & Policy (ISSN: 1553-4367)
George Mason University School of Law
3301 Fairfax Drive
Arlington, Virginia 22201
jlep@gmu.edu
www.jlep.net

The *Journal of Law, Economics & Policy* is a triannual publication at George Mason University School of Law, though additional issues may be added during a publication year. One issue is devoted to papers presented at our annual symposium, and the other issues feature peer-reviewed scholarly articles. The Journal focuses on the legal side of law and economics, an approach that de-emphasizes technical mathematics, while providing readers with greater access to economic insights about legal and policy issues.

Submissions:

The Journal invites authors to submit manuscripts for inclusion in our peer-reviewed issues. Authors should only submit articles that have not been previously published and are not under consideration for publication elsewhere.

Consistent with the Journal's stylistic goals, submitted articles should be clear and concise. Preference is given to submissions that are thirty pages or less, double-spaced, including footnotes. Citations must conform to the latest edition of *The Bluebook: A Uniform System of Citation*.

Authors may submit manuscripts in electronic or hard copy format. Electronic submissions should be sent to *jlepsub@gmail.com* in Microsoft Word or other compatible formats. For paper submissions, please mail in a hard copy, along with an electronic copy on a CD-ROM.

Subscriptions:

Subscriptions are available at the following rates:

Students: \$25 per volume (Domestic addresses only—U.S. & Canada)
Domestic (U.S. & Canada): \$40 per volume, \$20 per issue
International: \$60 per volume, \$25 per issue

For subscription information, please contact the Journal by mail or e-mail.

All articles copyright © 2015 by the *Journal of Law, Economics & Policy*, except where otherwise expressly indicated. For any article to which the Journal holds the copyright, permission is granted to reprint or copy any portion of such article for classroom or other educational use, provided that: (1) proper notice of such copyright is affixed to each copy; (2) the author and the *Journal of Law, Economics & Policy* are clearly identified; (3) in the case of copies distributed in class, students are charged no more than the cost of duplication; and (4) the Journal is notified in writing of the use.

Copyright © 2015 by
The Journal of Law, Economics & Policy

JOURNAL OF LAW, ECONOMICS & POLICY

VOLUME 11

SPRING 2015

NUMBER 1

EDITORIAL BOARD 2014-2015

Daniel Russell
Editor-in-Chief

Karen Schroeder
Executive Editor

Daniel Schneider
Publications Editor

Jacob Hamburger
Managing Editor

James Beaty
Senior Articles Editor

Jeff Kuhlman
Senior Notes Editor

Daniel McCain
Jenny Min
Senior Research Editors

Daniel Schneider
Articles Selection Editor

Tamta Zhorzholiani
Notes Editor

Jacob Hamburger
Symposium Editor

MEMBERS

Ian Baldwin
Sam Banks
Roger Gibboni

Jason Langford
Samantha Morelli
Temitope Odusami

Ian Rothfuss
Rebecca Schumm
David Scott

CANDIDATE MEMBERS

Elif Aksoy
Gwen Ball
Liz Dalton

Matt Devendorf
Manmeet Dhindsa
Sammy Grunberg
Christopher Harris

Justin Hillman
Jesse Hong
Geoff Moody

BOARD OF ADVISORS

Lisa E. Bernstein
Judge Guido Calabresi
Robert D. Cooter
Richard A. Epstein
Mark F. Grady
Bruce H. Kobayashi
Francesco Parisi
Judge Richard A. Posner
Hans-Bernd Schafer
Henry E. Smith
Gordon Tullock
W. Kip Viscusi

Henry N. Butler
Lloyd R. Cohen
Robert C. Ellickson
Judge Douglas H. Ginsburg
Michael S. Greve
A. Douglas Melamed
Eric Posner
Roberta Romano
Steven M. Shavell
Vernon L. Smith
Thomas S. Ulen
Todd J. Zywicki

JOURNAL OF LAW, ECONOMICS & POLICY

VOLUME 11

SPRING 2015

NUMBER 1

CONTENTS

ARTICLES

1 BIG DATA, PRIVACY AND THE FAMILIAR SOLUTIONS
Thomas M. Lenard & Paul H. Rubin

33 RISK-BASED PRICING IN CONSUMER LENDING
Professor Michael Staten, PhD

STUDENT COMMENTS

59 DUE PROCESS OBJECTIONS TO COMPULSORY REGISTRATION: WHY A DAY IN COURT
SHOULD NOT SUBJECT JUVENILE SEX OFFENDERS TO A LIFETIME OF STIGMA
Ian Baldwin

83 INEFFICIENCY OF LENIENCY FOR FIRST-TIME MARIJUANA POSSESSION IN VIRGINIA:
UNINTENDED CONSEQUENCES, TIME DISCOUNTING, AND DETERRENCE
Jeff Kuhlman

105 CALIFORNIA MEDICAL MARIJUANA LAW: THE VOTERS AND LEGISLATURE HAVE MADE
THEIR DECISION; NOW LET THEM INTERPRET IT!
Damian A. Martin

BIG DATA, PRIVACY AND THE FAMILIAR SOLUTIONS

*Thomas M. Lenard & Paul H. Rubin**

INTRODUCTION

The information technology revolution has produced a data revolution—sometimes referred to as “big data”—in which massive amounts of data are collected, stored and analyzed at relatively low cost. An integral part of the big-data revolution is the rapidly developing Internet of Things (IoT), also known as the Internet of Everything, which generates a growing supply of devices and objects from which data can be gathered.

The emergence of big data and the IoT has raised concerns on the part of some privacy scholars, advocates and government officials.¹ Federal Trade Commission (FTC) Chairwoman Edith Ramirez devoted her first major speech on privacy to big data, arguing that “the challenges [big data] poses to privacy are familiar, even though they may be of a magnitude we have yet to see.”² She added, “The solutions are also familiar, [a]nd, with the advent of big data, they are now more important than ever.” Chairwoman Ramirez’s speech raised the question of whether big data is associated with new privacy harms and a concomitant increase in the need for government action. It also suggested that we should look to the standard solutions involving notice and choice, and use specifications and limits, data minimization and transparency to solve potential privacy problems brought about by big data.

Both the White House and the FTC completed major privacy reports in 2012.³ Although neither report explicitly mentions big data or the IoT, their policy recommendations clearly would have a large impact on both.

* Lenard is President and Senior Fellow at the Technology Policy Institute (TPI). Rubin is Samuel Candler Dobbs Professor of economics at Emory University and Senior Fellow at TPI. The authors thank Arlene Holen, Amy Smorodin, and Scott Wallsten for helpful comments, and Corwin Rhyan for outstanding research assistance.

¹ Much of the concern relates to the collection and use of data by governments for national security purposes, a subject of intense debate across the globe following the leaks by National Security Agency contractor Edward Snowden. This is obviously a major issue, but not the subject of this paper.

² Edith Ramirez, Chairwoman, FTC, Keynote Address at Technology Policy Institute’s Aspen Forum, *The Privacy Challenges of Big Data: A View from the Lifeguard’s Chair* 1 (Aug. 19, 2013), available at http://www.ftc.gov/sites/default/files/documents/public_statements/privacy-challenges-big-data-view-lifeguard%E2%80%99s-chair/130819bigdataaspen.pdf [hereinafter Ramirez, *Privacy Challenges*].

³ WHITE HOUSE, CONSUMER DATA PRIVACY IN A NETWORKED WORLD: A FRAMEWORK FOR PROTECTING PRIVACY AND PROMOTING INNOVATION IN THE GLOBAL DIGITAL ECONOMY (2012), available at <http://www.whitehouse.gov/sites/default/files/privacy-final.pdf>; FED. TRADE COMM’N,

The 2012 FTC report's principal recommendation of Privacy by Design (PBD) requires companies to "promote consumer privacy throughout their organizations and at every stage of the development of their products and services."⁴ Substantively, PBD is essentially a restatement of the traditional Fair Information Practice Principles (FIPPs) of Notice, Choice, Access and Security:

The framework . . . embodies all the concepts in the 1980 OECD [Organization of Economic Co-operation and Development] privacy guidelines For example, privacy by design includes the collection limitation, data quality, and security principles. Additionally, the framework's simplified choice and transparency components . . . encompass the OECD principles of purpose specification, use limitation, individual participation, and openness.⁵

The PBD framework "calls on companies to (1) delete consumer data that they no longer need and (2) allow consumers to access their data and in appropriate cases suppress or delete it."⁶ Finally, "Reasonable collection limits and data disposal policies work in tandem with streamlined notices and improved consumer choice mechanisms."⁷

In May 2014, the White House released two reports specifically focusing on big data, as a result of a ninety-day study President Obama announced on January 17—one by a team led by Presidential Counselor John Podesta (the EOP report), and a complementary study by the President's Council of Advisors on Science and Technology (the PCAST report).⁸ The reports recognize big data's benefits and potential and suggest, in light of the way the data are used, a refocus of the policy discussion.

This paper proceeds as follows: in Section II, we discuss the promise of big data and present examples of its use in both the public and private sector. The examples show how big data provides the opportunity for significant innovation and value creation.

Section III focuses on potential privacy and security threats that have been highlighted by privacy advocates, scholars and public officials. Specifically, we address the following questions:

PROTECTING CONSUMER PRIVACY IN AN ERA OF RAPID CHANGE: RECOMMENDATIONS FOR BUSINESSES AND POLICYMAKERS (2012), *available at* <http://www.ftc.gov/sites/default/files/documents/reports/federal-trade-commission-report-protecting-consumer-privacy-era-rapid-change-recommendations/120326privacyreport.pdf> [hereinafter FTC, PROTECTING CONSUMER PRIVACY].

⁴ FTC, PROTECTING CONSUMER PRIVACY, *supra* note 3, at 22.

⁵ *Id.* at 23.

⁶ *Id.* at 24.

⁷ *Id.*

⁸ EXEC. OFFICE OF THE PRESIDENT, BIG DATA: SEIZING OPPORTUNITIES, PRESERVING VALUES (2014), *available at* http://www.whitehouse.gov/sites/default/files/docs/big_data_privacy_report_may_1_2014.pdf [hereinafter EOP, BIG DATA]; PRESIDENT'S COUNCIL OF ADVISORS ON SCI. & TECH., REPORT TO THE PRESIDENT, BIG DATA AND PRIVACY: A TECHNOLOGICAL PERSPECTIVE (2014), *available at* http://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast_big_data_and_privacy_-_may_2014.pdf [hereinafter PCAST, BIG DATA AND PRIVACY].

- What are the implications of big data for data security—data breaches and identity fraud?
- What are the implications of big data for profiling individuals and using algorithms to draw inferences for purposes ranging from marketing to credit and employment decisions?
- Does the use of big data introduce biases that can be considered discriminatory?
- Are firms using big data to manipulate consumers into buying goods or services they do not really want or are not beneficial?
- Does targeting and customization result in harm to consumers from a reduction in the variety of information to which consumers are exposed?
- Will big data force individuals to reveal too much information about themselves, thereby eroding privacy?

Section IV discusses policy proposals regarding big data. We first discuss whether there are identifiable harms attributable to big data that could be alleviated by government policies. We next analyze the standard solutions reflected in PBD, the FIPPs and the OECD principles in the context of big data. For example, we explore:

- How should we think about the “reuse” of data—the use of data for purposes not initially identified or even envisioned?
- Similarly, how should we think about combining data from different sources?
- What are the implications of greater transparency about how data are being used?⁹

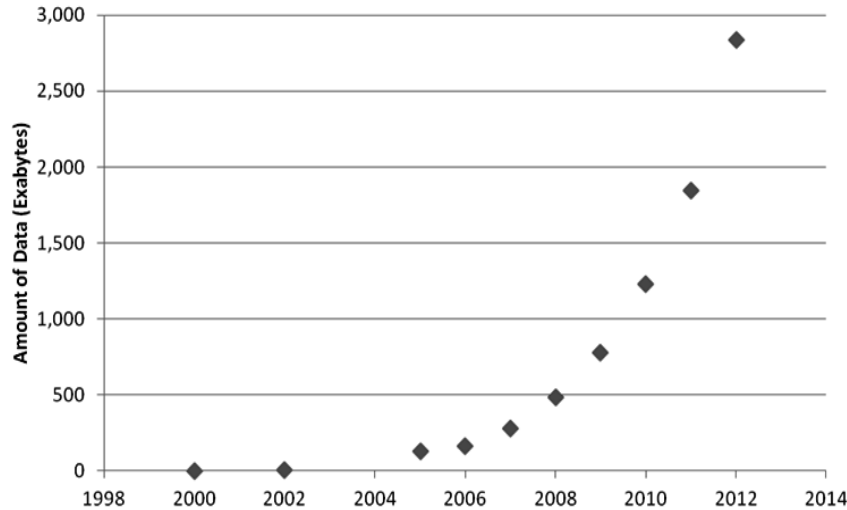
Finally, we discuss alternative approaches that have recently been suggested by the White House reports and others, including targeting policies to specific misuses.

We conclude that there is no evidence at present that big data used for commercial and other nonsurveillance purposes has caused privacy harms. Moreover, the standard solutions associated with PBD, the FIPPs and the

⁹ *The Digital Universe and Big Data*, IDC, <http://www.emc.com/leadership/digital-universe/index.htm#2014> (last visited Feb. 18, 2014).

OECD principles would impose barriers to the innovation expected from the big-data revolution.

Figure 1: Digital Data Created Annually Worldwide¹⁰



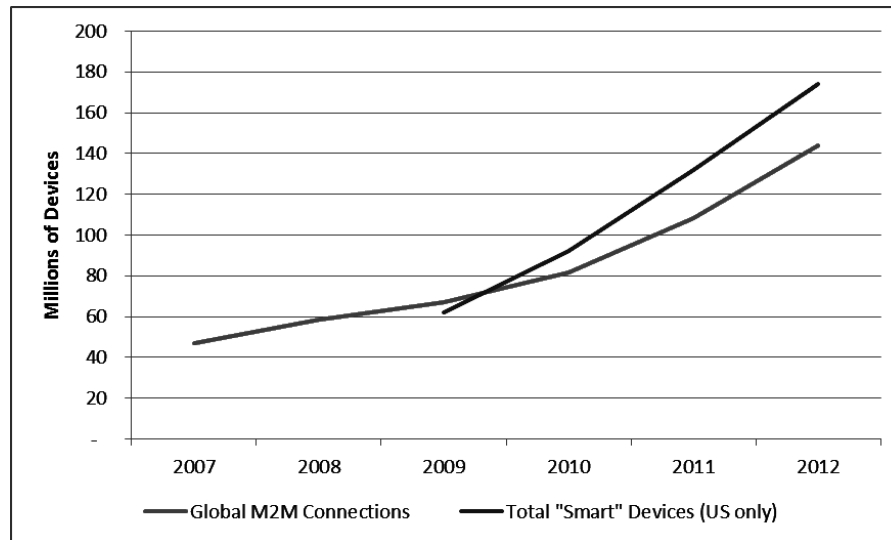
III. THE PROMISE OF BIG DATA

By all accounts, the use of data is increasing dramatically. One measure of the big-data revolution is the increased flow of digital data, which

¹⁰ Data compiled from multiple sources. For 2000 and 2002 data, see Peter Lyman & Hal R. Varian, *How Much Information?* (Oct. 27, 2003), <http://www2.sims.berkeley.edu/research/projects/how-much-info-2003/>. For 2005 and 2012 data, see John Gantz & David Reinsel, *The Digital Universe in 2020: Big Data, Bigger Data Shadows, and Biggest Growth in the Far East Executive Summary*, IDC (Dec. 2012), <http://www.emc.com/leadership/digital-universe/2012iview/executive-summary-a-universe-of.htm>. For 2006 data, see JOHN GANTZ ET AL., *THE EXPANDING DIGITAL UNIVERSE: A FORECAST OF WORLDWIDE INFORMATION GROWTH THROUGH 2010*, (IDC 2007), available at <http://www.emc.com/collateral/analyst-reports/expanding-digital-idc-white-paper.pdf>. For 2007 data, see JOHN GANTZ ET AL., *THE DIVERSE AND EXPLODING DIGITAL UNIVERSE: AN UPDATED FORECAST OF WORLDWIDE INFORMATION GROWTH THROUGH 2011*, (IDC 2008), available at <http://www.ifap.ru/library/book268.pdf>. For 2008 data, see JOHN GANTZ & DAVID REINSEL, *AS THE ECONOMY CONTRACTS, THE DIGITAL UNIVERSE EXPANDS* (IDC 2009), available at http://www.emc.com/collateral/leadership/digital-universe/2009DU_final.pdf. For 2009 and 2010 data, see JOHN GANTZ & DAVID REINSEL, *THE DIGITAL UNIVERSE DECADE—ARE YOU READY?* (IDC 2010), available at <http://www.emc.com/collateral/analyst-reports/idc-digital-universe-are-you-ready.pdf>. For 2011 data, see JOHN GANTZ & DAVID REINSEL, *EXTRACTING VALUE FROM CHAOS* (IDC 2011), available at <http://www.emc.com/collateral/analyst-reports/idc-extracting-value-from-chaos-ar.pdf>.

has grown from an estimated 0.6 to 2.1 exabytes in 2000 to 2,700 exabytes in 2012, as shown in Figure 1. About one-third of the data collected globally is estimated to originate in the United States.¹¹

Figure 2: Global M2M Connections and U.S. “Smart” Devices¹²



Mirroring the growth in data is the increase in the number of devices that might be considered part of the IoT. Cisco estimates that the number of connected devices worldwide grew from 500 million in 2003 to 12.5 billion in 2010 and will reach 50 billion by 2020.¹³ Gartner projects that by 2020 there will be “only” 26 billion “units installed.”¹⁴ Machine-to-machine connections, connections that do not have a human interface, also measure the growth of the IoT and have more than tripled between 2005

¹¹ JOHN GANTZ & DAVID REINSEL, THE DIGITAL UNIVERSE IN 2020: BIG DATA, BIGGER DATA SHADOWS, AND BIGGEST GROWTH IN THE FAR EAST (IDC 2012), *available at* <http://www.emc.com/collateral/analyst-reports/idc-the-digital-universe-in-2020.pdf>.

¹² BERG INSIGHT, THE GLOBAL WIRELESS M2M MARKET (6th ed. 2014); JAN TEN SYTHOFF, CELLULAR M2M CONNECTIONS: AN ANALYSIS OF GROWTH DRIVERS, MARKET SEGMENTS AND OPERATOR APPROACHES (Pyramid Research 2013); ABI RESEARCH, CELLULAR M2M CONNECTIVITY SERVICES (2012), *available at* <https://www.abiresearch.com/market-research/product/1005787-cellular-m2m-connectivity-services/>; CTIA, WIRELESS INDUSTRY INDICES REPORT: 2013 (2014); VERNON TURNER ET AL., THE DIGITAL UNIVERSE OF OPPORTUNITIES: RICH DATA AND THE INCREASING VALUE OF THE INTERNET OF THINGS (IDC 2014), *available at* <http://idcdoeserv.com/1678>.

¹³ Dave Evans, THE INTERNET OF THINGS: HOW THE NEXT EVOLUTION OF THE INTERNET IS CHANGING EVERYTHING 2-3 (Cisco Internet Bus. Solutions Grp. 2011), *available at* http://www.cisco.com/web/about/ac79/docs/innov/IoT_IBSG_0411FINAL.pdf.

¹⁴ Press Release, Gartner, Gartner Says the Internet of Things Installed Base Will Grow to 26 Billion Units By 2020 (Dec. 12, 2013), *available at* <http://www.gartner.com/newsroom/id/2636073>.

and 2012, as shown in Figure 2. Finally, Figure 2 also shows the growth of smart devices, which reflects the growth of the IoT.

While one may be skeptical of the hype surrounding big data, it clearly creates the potential for significant innovation not only in specific sectors, but also in the overall economy. The 2014 EOP report starts out by observing that “[p]roperly implemented, big data will become an historic driver of progress.”¹⁵ Reports from the World Economic Forum, McKinsey Global Institute (McKinsey), and others describe the potential benefits in such sectors as health care, government services, fraud protection, retailing, and manufacturing. McKinsey estimates that big data and analytics could yield benefits for health care alone of more than \$300 billion annually. For the overall economy, gains could potentially be up to \$610 billion in annual productivity and cost savings.¹⁶

Michael Mandel estimates that the IoT has the potential to increase GDP by 0.2 to 0.4 percentage points over the next ten to fifteen years:¹⁷

The Internet of Everything is about building up a new infrastructure that combines ubiquitous sensors and wireless connectivity in order to greatly expand the data collected about physical and economic activities; expanding “big data” processing capabilities to make sense of all that new data; providing better ways for people to access that data in real-time; and creating new frameworks for real-time collaboration both within and across organizations.¹⁸

Although the term is now ubiquitous, “[t]here is no rigorous definition of big data.”¹⁹ McKinsey defines big data as referring to “datasets whose size is beyond the ability of typical database software tools to capture, store, manage and analyze.”²⁰ Mayer-Schönberger and Cukier, in their recent book on big data, focus on what the data can produce: “[B]ig data refers to things one can do at a large scale that cannot be done at a smaller one, to extract new insights or create new forms of value, in ways that change markets, organizations, the relationship between citizens and governments, and

¹⁵ EOP, BIG DATA, *supra* note 8, at iii.

¹⁶ SUSAN LUND ET AL., GAME CHANGERS: FIVE OPPORTUNITIES FOR U.S. GROWTH AND RENEWAL 66 (McKinsey Global Inst. 2013), *available at* http://www.mckinsey.com/insights/americas/us_game_changers.

¹⁷ MICHAEL MANDEL, CAN THE INTERNET OF EVERYTHING BRING BACK THE HIGH-GROWTH ECONOMY? 2 (Progressive Pol’y Inst. 2013), *available at* http://www.progressivepolicy.org/wp-content/uploads/2013/09/09.2013-Mandel_Can-the-Internet-of-Everything-Bring-Back-the-High-Growth-Economy-1.pdf.

¹⁸ *Id.* at 2-3.

¹⁹ VIKTOR MAYER-SCHÖNBERGER & KENNETH CUKIER, BIG DATA: A REVOLUTION THAT WILL TRANSFORM HOW WE LIVE, WORK, AND THINK 6 (2013) [hereinafter MAYER-SCHÖNBERGER & CUKIER, A REVOLUTION].

²⁰ JAMES MANYIKA ET AL., BIG DATA: THE NEXT FRONTIER FOR INNOVATION, COMPETITION, AND PRODUCTIVITY 1 (McKinsey Global Inst. 2011), *available at* http://www.mckinsey.com/~media/McKinsey/dotcom/Insights%20and%20pubs/MGI/Research/Technology%20and%20Innovation/Big%20Data/MGI_big_data_full_report.ashx.

more.”²¹ They focus on the ability of large data sets to yield correlations between variables that can provide important public and private benefits.

Einav and Levin echo this point in a recent paper discussing the potentially revolutionary effects of data on economic analysis and policymaking. Big data’s potential comes from “the identification of novel patterns of behavior or activity and the development of predictive models that would have been hard or impossible with smaller samples, fewer variables, or more aggregation.”²² Data are now available in real time, at larger scale, with less structure, and on different types of variables than previously.²³

A. *Innovative Uses of Big Data*

The poster child for big data is Google Flu. Testing 450 million models, researchers identified forty-five search terms that predict the spread of flu more rapidly than the Centers for Disease Control (CDC), which relies on physicians’ reports.²⁴ By tracking the rate at which the public searches for terms like “flu” and “cough medicine” using Google, an outbreak of influenza can be spotted a week or two ahead of CDC reports.²⁵

Because big-data analysis—as exemplified by Google Flu—involves finding correlations and patterns that might otherwise not be observable, it typically involves uses of data that were not anticipated at the time the data were collected. Mayer-Schönberger and Cukier emphasize that “in a big-data age, most innovative secondary uses haven’t been imagined when the data is first collected.”²⁶ They add, “With big data, the value of information no longer resides solely in its primary purpose. As we’ve argued, it is now in secondary uses.”²⁷

Serendipitous uses of data are not, however, a new phenomenon or confined to the digital era. Mayer-Schönberger and Cukier give the example of Commander Mathew Maury, who, in the middle of the nineteenth

²¹ MAYER-SCHÖNBERGER & CUKIER, A REVOLUTION, *supra* note 19, at 6.

²² Liran Einav & Jonathan Levin, *The Data Revolution and Economic Analysis*, 14 INNOVATION POL’Y & ECON 1, 2 (2014) [hereinafter Einav & Levin, *The Data Revolution*].

²³ *Id.* at 5-6.

²⁴ MAYER-SCHÖNBERGER & CUKIER, A REVOLUTION, *supra* note 19, at 2-3. While Google Flu has generally been very accurate, there have been glitches. Google Flu seems to have overestimated the incidence of flu early in the 2013 season, because widespread press reports of a particularly severe outbreak may have induced more searches by people who did not actually have the flu. See Declan Butler, *When Google Got Flu Wrong*, 494 NATURE 155, 155-56 (2013), available at <http://www.nature.com/news/when-google-got-flu-wrong-1.12413>.

²⁵ Jeremy Ginsburg et al., *Detecting Influenza Epidemics Using Search Engine Query Data*, 457 NATURE 1012, 1012-14 (2009), available at <http://www.nature.com/nature/journal/v457/n7232/full/nature07634.html>.

²⁶ MAYER-SCHÖNBERGER & CUKIER, A REVOLUTION, *supra* note 19, at 153.

²⁷ *Id.*

century, used data from logbooks of past voyages to devise more efficient routes and mapped out the shipping lanes that are still in use today. His data were also used to lay the first transatlantic telegraph cable.²⁸ Commander Maury “took information generated for one purpose and converted it into something else.”²⁹

More recent examples of the unanticipated use of data are numerous. In the health care area, for example, the Danish Cancer Society combined Denmark’s national registry of cancer patients with cell phone subscriber data to study whether cell phone use increased the risk of cancer.³⁰ The Food and Drug Administration used Kaiser Permanente’s database of 1.4 million patients to show that the arthritis drug Vioxx increased the risk of heart attacks and strokes.³¹ The CDC combine airline records, disease reports, and demographic data to track epidemics and other health risks.³²

Einav and Levin survey new research by economists using large-scale, real-time data to better track and forecast economic activity using measures that supplement official government statistics.³³ The Billion Prices Project, for example, uses data on retail transactions from hundreds of online retail websites to produce alternative price indices that are made available in real time, before the official Consumer Price Indexes.³⁴ In the same vein, Choi and Varian have used Google search engine data to provide accurate measures of unemployment and consumer confidence.³⁵ Wu and Brynjolfsson have used search data to predict housing market trends.³⁶

In the private sector, big data is being used to develop products that create value for firms and consumers. ZestFinance, using many more variables than traditional credit scoring, helps lenders determine whether or not to offer small, short-term loans to people who are otherwise poor credit

²⁸ *Id.* at 73-76.

²⁹ *Id.* at 76.

³⁰ Elisabeth Cardis et al., *The INTERPHONE Study: Design, Epidemiological Methods, and Descriptions of the Study Population*, 22 EUR. J. EPIDEMIOLOGY 647, 653 (2007) [hereinafter Cardis, *INTERPHONE Study*].

³¹ David J. Graham et al., *Risk of Acute Myocardial Infarction and Sudden Cardiac Death in Patients Treated with Cyclo-Oxygenase 2 Selective and Non-Selective Non-Steroidal Anti-Inflammatory Drugs: Nested Case-Control Study*, 365 LANCET 475, 475-76 (2005).

³² See Amy O’Leary, *In New Tools to Combat Epidemics, the Key is Context*, N.Y. TIMES BITS BLOG (June 19, 2013, 10:00 PM), <http://bits.blogs.nytimes.com/2013/06/19/in-new-tools-to-combat-epidemics-the-key-is-context/?smid=tw-share>, for a discussion of the new CDC tool, BioMosaic.

³³ Einav & Levin, *The Data Revolution*, *supra* note 22, at 7.

³⁴ See *The Billion Prices Project @ MIT*, MASS. INST. OF TECH., <http://bpp.mit.edu/usa/> (last visited Sept. 13, 2014).

³⁵ Hyunyoung Choi & Hal Varian, *Predicting the Present with Google Trends*, 88 ECON. REC. 2, 5-8 (2011).

³⁶ Lynn Wu & Erik Brynjolfsson, *The Future of Prediction: How Google Searches Foreshadow Housing Prices and Quantities*, in INT’L CONF. INFO. SYS. 2009 PROCEEDINGS (Ass’n for Info. Sys., Research Paper No. 147, 2009).

risks.³⁷ This provides a better alternative to people who otherwise might rely on payday lenders or even loan sharks. LendUp, Better Finance, and Think Finance are companies following similar models that can provide better loan options for lower income consumers, while Kabbage and OnDeck Capital provide lending services to very small businesses.³⁸

Two successful start-ups, Farecast, purchased by Microsoft, and Decide.com, recently purchased by eBay, use big data to help consumers find the lowest prices.³⁹ Farecast uses billions of flight-price records to predict the movement of airfares, saving purchasers an average of \$50 per ticket. Decide.com predicts price movements for millions of products with potential savings for consumers of around \$100 per item.

Another new company, Factual, collects data on over 65 million user locations and combines them with other data to help provide location-specific services, content, and advertising.⁴⁰

Big data is also used to protect against adverse events ranging from credit card fraud to terrorism. As Mayer-Schönberger and Cukier note, “the detection of credit card fraud works by looking for anomalies, and the best way to find them is to crunch all the data rather than a sample.”⁴¹ Einav and Levin cite a “Palo Alto company, Palantir, [which] has become a multibillion-dollar business by developing algorithms that can be used to identify terrorist threats using communications and other data, and to detect fraudulent behavior in health care and financial services.”⁴² They also cite work from a group at Dartmouth College using large samples of Medicare claims to demonstrate substantial unexplained variation in Medicare spending per enrollee that could be due to inefficiencies or fraud.⁴³

³⁷ See *How We Do It*, ZESTFINANCE.COM (2013), <http://www.zestfinance.com/how-we-do-it.html>; see also Leena Rao, *Data Focused Underwriting and Credit Analysis Platform ZestFinance Raises \$20M from Peter Thiel and Others*, TECH CRUNCH (July 31, 2013), <http://techcrunch.com/2013/07/31/data-focused-underwriting-and-credit-analysis-platform-zestfinance-raises-20m-from-peter-thiel-and-others/>; MAYER-SCHÖNBERGER & CUKIER, *A REVOLUTION*, *supra* note 19, at 47.

³⁸ See generally LENDUP, <https://www.lendup.com/> (last visited Feb. 22, 2015); BETTER FINANCE, <http://www.betterfinance.me/> (last visited Feb. 22, 2015); THINK FINANCE, <http://www.thinkfinance.com/> (last visited Feb. 22, 2015); KABBAGE, <https://www.kabbage.com/> (last visited Feb. 22, 2015); ONDECK, <https://www.ondeck.com/> (last visited Feb. 22, 2015).

³⁹ See MAYER-SCHÖNBERGER & CUKIER, *A REVOLUTION*, *supra* note 19, at 124.

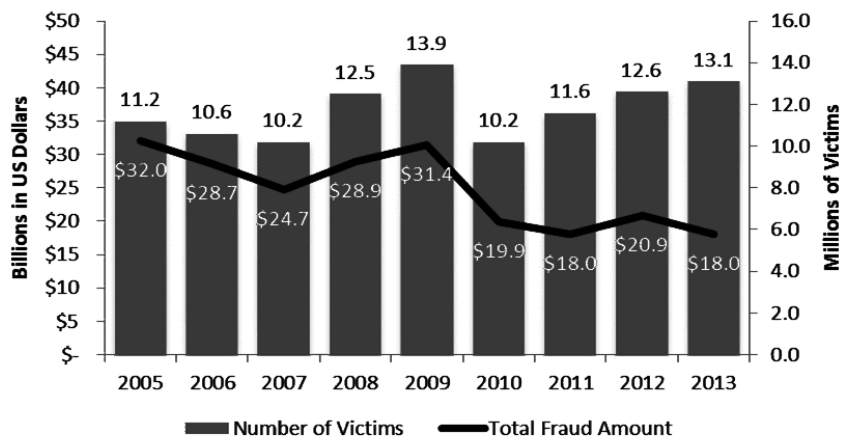
⁴⁰ See Steven Jacobs, *With Disparate Data, Factual Founder Sees Opportunity*, STREET FIGHT (June 5, 2013), <http://streetfightmag.com/2013/06/05/with-disparate-data-factual-founder-sees-opportunity/>. See also Judith Aquino, *Factual Eyes New Opportunities in Location Data*, AD EXCHANGER (July 9, 2013), <http://www.adexchanger.com/mobile/factual-eyes-new-opportunities-in-location-data/>.

⁴¹ MAYER-SCHÖNBERGER & CUKIER, *A REVOLUTION*, *supra* note 19, at 27.

⁴² Einav & Levin, *The Data Revolution*, *supra* note 22, at 5.

⁴³ Einav & Levin, *The Data Revolution*, *supra* note 22, at 11.

Figure 3: Overall Identity Fraud Incidence Rate and Total Fraud Amount by Year⁴⁴



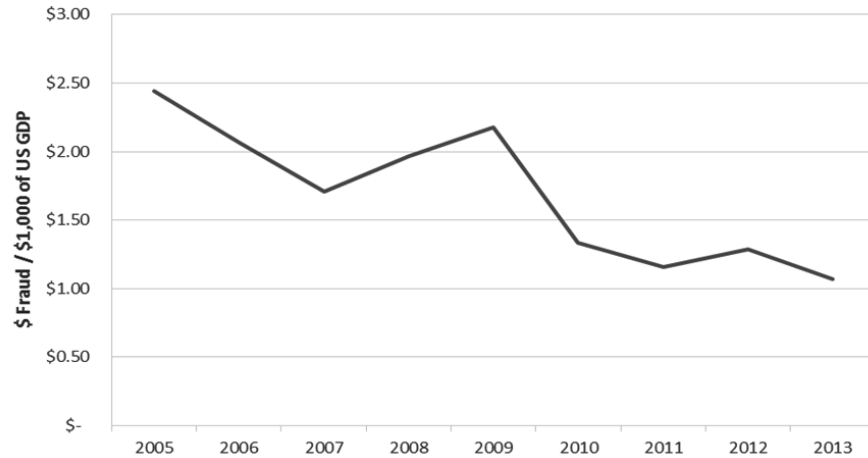
Many of the innovations described above use multiple sources of data, which involves transferring data to third parties. Combining different data sets can greatly enhance their value for purposes ranging from epidemiology studies to marketing.⁴⁵ A recent study from the Direct Marketing Association found that individual-level consumer data were an integral component in producing over \$150 billion in marketing services and that over 70% of these services required the ability to exchange data between firms.⁴⁶ These marketing services reduce the cost of matching producers with potential consumers in a marketplace, and are particularly valuable to smaller firms and new entrants.

⁴⁴ JAVELIN STRATEGY AND RES., HOW CONSUMERS CAN PROTECT AGAINST IDENTITY FRAUDSTERS IN 2013 5 (2013) [hereinafter JAVELIN, PROTECT AGAINST IDENTITY FRAUDSTERS]. For 2014 data, see JAVELIN STRATEGY AND RES., 2014 Identity Fraud Report: Card Data Breaches and Inadequate Consumer Password Habits Fuel Disturbing Fraud Trends (2014), available at https://www.javelinstrategy.com/uploads/web_brochure/1405.R_2014IdentityFraudReportBrochure.pdf. For 2013 data, see JAVELIN STRATEGY AND RES., 2013 IDENTITY FRAUD REPORT: DATA BREACHES BECOMING A TREASURE TROVE FOR FRAUDSTERS (2013), available at https://www.javelinstrategy.com/uploads/web_brochure/1303.R_2013IdentityFraudBrochure.pdf.

⁴⁵ See Cardis, *INTERPHONE Study*, *supra* note 30.

⁴⁶ JOHN DEIGHTON & PETER A. JOHNSON, THE VALUE OF DATA: CONSEQUENCES FOR INSIGHT, INNOVATION & EFFICIENCY IN THE U.S. ECONOMY (Data Driven Marketing Inst. 2013).

Figure 4: Annual Cost of Identity Fraud (in dollars) Deflated by U.S. GDP⁴⁷



II. POTENTIAL PRIVACY THREATS

Privacy advocates, scholars, and public officials have raised concern over a number of potential privacy threats from big data. As of now there is no evidence that any of these threats have materialized. We discuss them in turn.

A. *Big Data Increases the Risks Associated with Identity Fraud and Data Breaches*

In her speech referenced above, Chairwoman Ramirez suggests that big data increases the risks associated with identity fraud and data breaches.⁴⁸ These security issues might indicate a market failure because of the difficulty of imposing costs on the perpetrators, who may be able to remain anonymous or out of the reach of U.S. law enforcement.

In theory, big data could increase or decrease identity fraud and data breaches. On the one hand, there are simply more data at risk. On the other hand, the data themselves are useful in preventing fraud. Moreover, countervailing forces provide strong incentives for data holders to protect their

⁴⁷ Annual cost of identity fraud divided by U.S. GDP by year. For cost of identity fraud data see JAVELIN, PROTECT AGAINST IDENTITY FRAUDSTERS, *supra* note 44. For yearly U.S. GDP data see *Gross Domestic Product*, FED. RESERVE BANK OF ST. LOUIS, <http://research.stlouisfed.org/fred2/series/GDP> (last updated Jan. 30, 2015).

⁴⁸ Ramirez, *Privacy Challenges*, *supra* note 2, at 6.

data.⁴⁹ It is useful, therefore, to examine whether the proliferation of data in recent years has shown up in greater incidence of identity fraud, data breaches, or both.

1. Identity Fraud

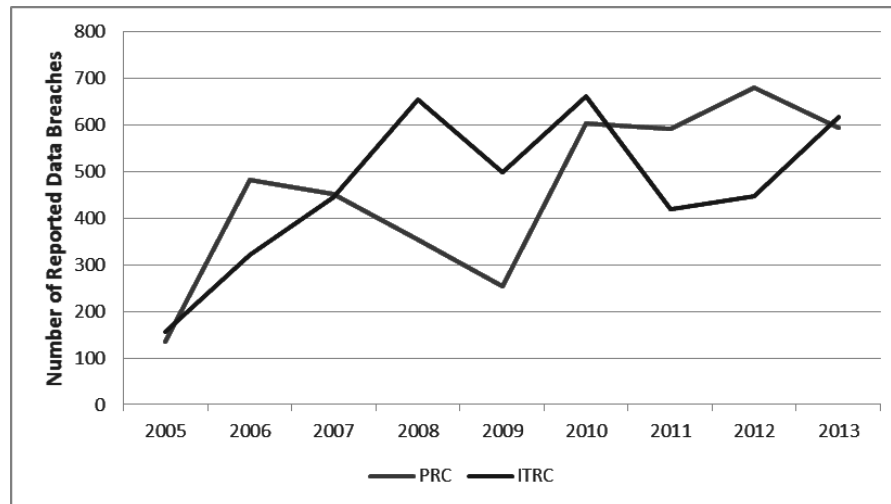
Javelin Strategy and Research compiles the only statistically representative series on identity fraud of which we are aware. These data are presented in Figure 3. Contrary to concerns voiced by the FTC and others, the overall incidence of identity fraud has been relatively flat since 2005. During the same period, the annual dollar amount of fraud has fallen from an average of \$29.1 billion for 2005–2009, to \$19.2 billion for 2010–2013.

To obtain a clearer picture of what has happened to the risk of identity fraud, we need to normalize the data on identity fraud by some measure of exposure.⁵⁰ Figure 4 shows that the cost of identity fraud per \$1,000 of U.S. GDP has been declining since 2005. If the identity-fraud cost data were deflated by e-commerce retail sales the downward trend would be steeper, because e-commerce has grown more rapidly than GDP. However, GDP is probably a more appropriate deflator, since the great majority of identity fraud is due to offline behavior.⁵¹

⁴⁹ E.g., credit card companies.

⁵⁰ This is the same thing analysts do when examining, for example, the risks associated with driving. They do not simply look at the number of accidents. They look at the number of accidents per mile driven. See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., DEP'T OF TRANSPORTATION, TRAFFIC SAFETY FACTS: 2012 DATA 2 tbl.1 (2014), available at <http://www-nrd.nhtsa.dot.gov/Pubs/812016.pdf>.

⁵¹ Only about 15 percent is associated with data breaches and online causes. The remainder is due to offline causes, including a stolen wallet or purse, auto burglary, home burglary and signature forgery. See *Travelers Study Reveals Offline Methods Are Top Causes for Identity Fraud Claims*, TRAVELERS COS., INC. (Nov. 26, 2012, 1:00 PM), <http://investor.travelers.com/mobile/file.aspx?IID=4055530&FID=15508447> (“73% of identity fraud cases resulted from stolen personal items.”).

Figure 5: Number of U.S. Data Breaches per Year⁵²

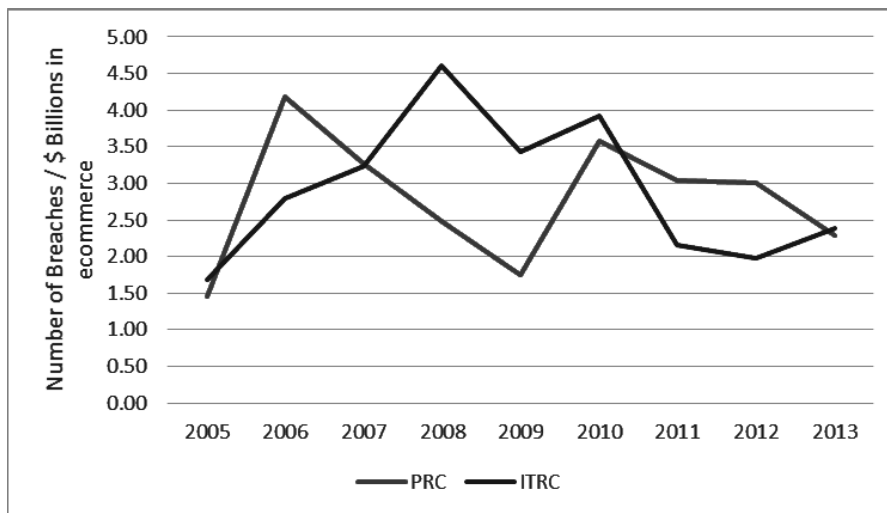
2. Data Breaches

There are two sources of data on data breaches—the Privacy Rights Clearinghouse and the Identity Theft Resource Center. Both of these sources collect aggregate information on data breaches from the media, public databases, and news releases from state governments; however, the annual totals vary slightly based on methodology and their individual definitions of a data breach.⁵³ Figure 5, which shows both series, suggests that the trend is slightly up since 2005. Data breaches are purely an online phenomenon, so it is appropriate to deflate them by a measure of online activity. When deflated by the volume of e-commerce, the risk of a data breach has been relatively constant, as shown in Figure 6.

⁵² Compiled total number of data breaches data by year from *ITRC Breach Statistics: 2005–2013*, IDENTITY THEFT RESOURCE CTR. (2014), <http://www.idtheftcenter.org/images/breach/20052013UPDATEDSummary.jpg> (last visited Sept. 21, 2014) [hereinafter ITRC, *Statistics*]; *Chronology of Data Breaches Security Breaches 2005-Present*, PRIVACY RIGHTS CLEARINGHOUSE, <https://www.privacyrights.org/data-breach> (last updated Dec. 31, 2013) [hereinafter PRC, *Chronology of Data Breaches*].

⁵³ For more information on the ITRC and PRC databases, see *Data Breaches*, IDENTITY THEFT RESOURCE CTR., <http://www.idtheftcenter.org/id-theft/data-breaches.html> (last visited Feb. 22, 2015) [hereinafter ITRC, *Data Breaches*]; *Chronology of Data Breaches: FAQ*, PRIVACY RIGHTS CLEARINGHOUSE, <https://www.privacyrights.org/data-breach-FAQ> (last visited Feb. 22, 2015).

Figure 6: Number of U.S. Data Breaches per Year Deflated by U.S. E-Commerce⁵⁴

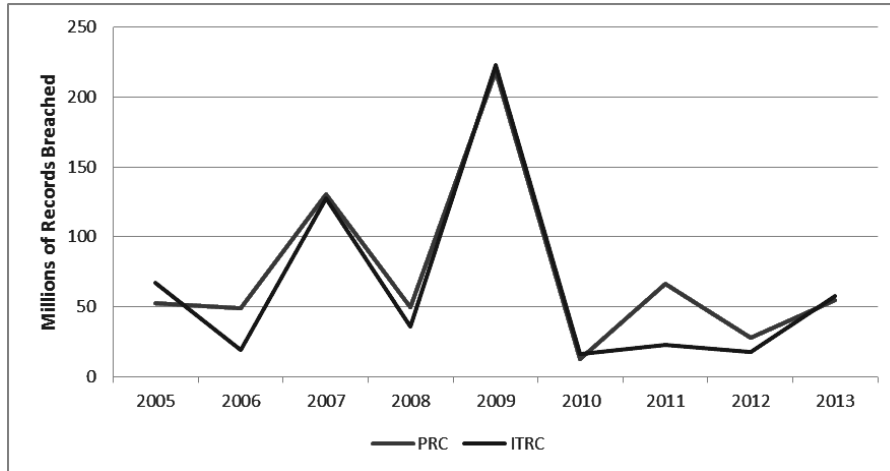


Because data breaches can range from a handful to millions of stolen records, a more important measure is arguably the number of records compromised and the number of records compromised deflated by some measure of exposure, such as e-commerce dollars. These are shown in Figures 7 and 8, respectively.⁵⁵ The spikes in records breached in 2007 and 2009 are due to three major breaches—TJ Maxx in 2007 (100 million records), Heartland Payment Systems (130 million records), and a military veterans database (76 million records) in 2009. Overall, the trend in records breached since 2005 is relatively constant or even declining slightly, and the trend in records breached deflated by e-commerce volume is somewhat more negative.

⁵⁴ Number of data breaches divided by U.S. e-commerce data for each year. For number of data breaches, see ITRC, *Statistics*, *supra* note 52; PRC, *Chronology of Data Breaches*, *supra* note 52. For U.S. e-commerce data, see *Quarterly E-Commerce Report Historical Data*, U.S. CENSUS BUREAU, https://www.census.gov/retail/e-commerce/historic_releases.html (last visited Sept. 21, 2014) [hereinafter USCIB, *Quarterly Report*].

⁵⁵ Note that these values should be viewed with some caution, as the number of records compromised is not known for every reported breach. In fact, the percentage of reports with a known number of records has varied from 30% in some years to 87% in others.

Figure 7: Number of Reported Individual Records Compromised by Data Breaches⁵⁶



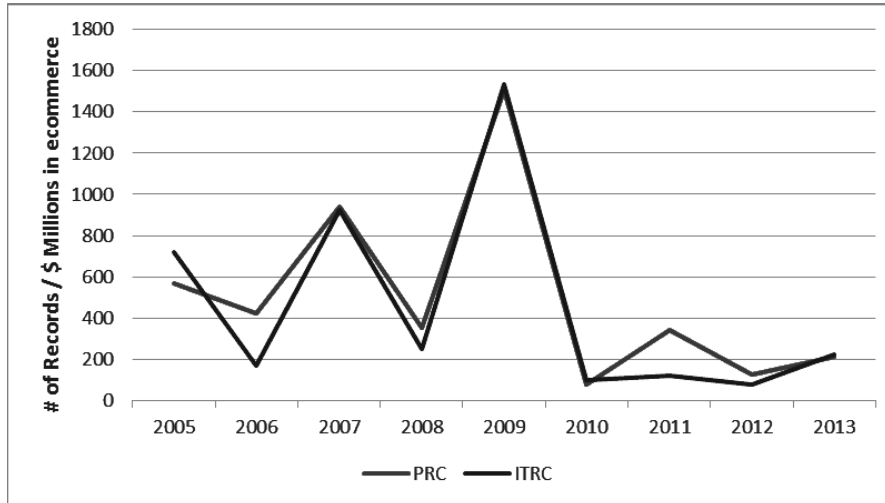
Although the data on identity fraud and breaches are far from complete, there is no indication that either has gone up with the rise of big data. Indeed, one would expect that the use of big data might reduce identity fraud. This is because credit card companies, which bear most of the costs, have strong incentives to police misuse of their cards. One obvious method is monitoring purchases and notifying consumers when purchases seem to be outside of normal behavior, as determined by analysis of big data. Note that this policing involves use of data for purposes other than for which they were initially collected.

B. *The Use of Big Data to Develop Predictive Models is Harmful to Consumers*

The systematic use of individuals' data for a wide range of purposes is not new. The direct marketing industry has for decades assembled mailing lists of consumers interested in specific products and services. Credit bureaus use formulas that determine individuals' eligibility for loans and the rates they may be offered. Similarly, the insurance industry uses key variables that indicate risk to determine whether and at what rates to offer insurance policies.

⁵⁶ Combined the numbers of records breached from yearly reports from ITRC, *Data Breaches*, *supra* note 53; PRC, *Chronology of Data Breaches*, *supra* note 52.

Figure 8: Number of Reported Individual Records Compromised by Data Breaches Deflated by U.S. E-Commerce⁵⁷



A theme permeating the privacy-centric big-data literature is that the use of data to develop predictive models is harmful to consumers. As Chairwoman Ramirez said, “There is another risk that is a by-product of big data analytics, namely, that big data will be used to make determinations about individuals, not based on concrete facts, but on inferences or correlations that may be unwarranted.”⁵⁸ She notes that

Individuals may be judged not because of what they’ve done, or what they will do in the future, but because inferences or correlations drawn by algorithms suggest they may behave in ways that make them poor credit or insurance risks, unsuitable candidates for employment or admission to schools or other institutions, or unlikely to carry out certain functions.⁵⁹

She further points out, “An error rate of one-in-ten, or one-in-a-hundred, may be tolerable to the company. To the consumer who has been mis-categorized, however, that categorization may feel like arbitrariness-by-algorithm.”⁶⁰

This point has also been made by Commissioner Brill:

⁵⁷ Number of records breached divided by millions of dollars in U.S. e-commerce for each year. For number of records breached, see ITRC, *Data Breaches*, *supra* note 53; PRC, *Chronology of Data Breaches*, *supra* note 52. For U.S. e-commerce data, see USCB, *Quarterly Report*, *supra* note 54.

⁵⁸ Ramirez, *Privacy Challenges*, *supra* note 2, at 7.

⁵⁹ *Id.*

⁶⁰ *Id.* at 8.

They [data brokers] load all this data into sophisticated algorithms that spew out alarmingly personal predictions about our health, financial status, interests, sexual orientation, religious beliefs, politics and habits.

... [I]ncreasingly our data fuel more than just what ads we are served. They may also determine what offers we receive, what rates we pay, even what jobs we get.⁶¹

Such criticism, however, applies to quantitative analysis used for decision making throughout the economy. Use of credentials and test scores is universal in American life. For example, the educational testing industry is based on the use of such correlations.⁶² The Federal Government, including the FTC, uses class rank in hiring lawyers. These decisions are based on “small data”—sometimes, one test score or one data point. Big data can only improve this process. If more data points are used in making decisions, then it is less likely that any single data point will be determinative, and more likely that a correct decision will be reached.

It is important to emphasize that companies devote resources to gathering data and undertaking complex analysis because it is in their interest to make more accurate decisions. Sometimes that involves discovering that seemingly unrelated variables are, in fact, related. Thus, big data should lead to fewer consumers being miscategorized, and less arbitrary decision making.

It is unclear what kinds of “inferences or correlations . . . may be unwarranted.”⁶³ Insurance companies typically give a discount on auto insurance to students with good grades, for example. They also differentiate on the basis of the gender of young drivers. This is presumably because the data show a correlation between these variables—school performance and gender—and accident costs.⁶⁴

The use of more variables made possible by big data should lead to more accurate decisions that also might be “fairer.” For example, Zest-Finance, described above, uses its big-data analysis to help underwrite loans to individuals who would otherwise not qualify. Another example is the greater use of data by state parole boards to help inform parole decisions.⁶⁵ Proponents believe the use of big data in this manner provides more accurate predictions of the risk of recidivism and therefore can help determine

⁶¹ Julie Brill, *Demanding Transparency from Data Brokers*, WASH. POST (Aug. 15, 2013), http://www.washingtonpost.com/opinions/demanding-transparency-from-data-brokers/2013/08/15/00609680-0382-11e3-9259-e2aaf5a5f84_story.html [hereinafter Brill, *Demanding Transparency*].

⁶² See, e.g., WILLIAM A. MEHRENS, USING TEST SCORES FOR DECISION MAKING 93-113 (1989).

⁶³ Ramirez, *Privacy Challenges*, *supra* note 2, at 7.

⁶⁴ See Paul Eisenstein, *Teen Drivers Nearly Double Car Insurance Premiums*, CNBC (July 4, 2013, 1:03 PM), <http://www.cnbc.com/id/100863117>.

⁶⁵ See Joseph Walker, *State Patrol Boards Use Software to Decide Which Inmates to Release*, WALL ST. J. (Oct. 11, 2013, 10:31 PM), <http://online.wsj.com/news/articles/SB10001424052702304626104579121251595240852>.

which prisoners should be released and thereby increase public safety and perhaps also reduce prison costs.

C. *The Use of Big Data is Discriminatory.*

Some writers argue that the use of big data in marketing decisions favors the rich over the poor.⁶⁶ A few particularly inflammatory quotes from critics include: “Ever-increasing data collection and analysis have the potential to exacerbate class disparities;”⁶⁷ and, “big data—discrimination, profiling, tracking, exclusion—threaten the self-determination and personal autonomy of the poor more than any other class.”⁶⁸ One writer theorized,

To woo the high value shoppers, they offer attractive discounts and promotions—use your loyalty card to buy Beluga caviar; get a free bottle of Champagne. Yet obviously the retailers can’t take a loss for their marketing efforts. Who then pays the price of the rich shoppers’ luxury goods? You guessed it, the rest of us—with price hikes on products like bread and butter.⁶⁹

The argument that data collection favors the rich over the poor is presented without evidence. The example of consumption of caviar and Champagne by rich people being subsidized by price increases on bread and butter is, as far as we can tell, hypothetical.

Likely the concern expressed by these writers relates to price discrimination, which involves charging different prices to different consumers for the same product based on their willingness to pay.⁷⁰ Online data collection can facilitate price discrimination, because it yields information that can be used to infer a consumer’s willingness to pay for a good.⁷¹

Price discrimination transfers some—or even all in the case of perfect price discrimination—surplus from consumers to producers. However, price discrimination is economically efficient, i.e., increases welfare overall, if it increases total output in a market. Particularly in the case of products with high fixed and low marginal costs—such as airline tickets—price

⁶⁶ This concern is reflected in a forthcoming FTC workshop on the effects of big data on low income and underserved consumers. See *FTC to Examine Effects of Big Data on Low Income and Underserved Consumers at September Workshop*, FED. TRADE COMM’N (Apr. 11, 2014), <http://www.ftc.gov/news-events/press-releases/2014/04/ftc-examine-effects-big-data-low-income-underserved-consumers?Source=govdelivery>.

⁶⁷ Joseph W. Jerome, *Buying and Selling Privacy: Big Data’s Different Burdens and Benefits*, 66 STAN. L. REV. ONLINE 47, 50 (2013).

⁶⁸ *Id.* at 51.

⁶⁹ Omer Tene, *Privacy: For the Rich or for the Poor*, CONCURRING OPINIONS (July 26, 2012), <http://www.concurringopinions.com/archives/2012/07/privacy-for-the-rich-or-for-the-poor.html>.

⁷⁰ *Id.*

⁷¹ Hal R. Varian, *Differential Pricing and Efficiency*, FIRST MONDAY (Aug. 5, 1996), <http://www.firstmonday.dk/ojs/index.php/fm/article/view/473/394>.

discrimination may be necessary for the good to be produced at all. There would be fewer flights if airlines were not able to charge varying prices. Many virtual goods, such as apps and software, also have high fixed costs and low or even zero marginal costs. Price discrimination may be essential to the production of these goods.

Price discrimination involves charging prices based on a consumer's willingness to pay, which in general is positively related to a consumer's ability to pay. This implies that a price discriminating firm will, other things the same, charge lower prices to lower-income consumers. Indeed, in the absence of price discrimination, some lower-income consumers would be unable or unwilling to purchase some products at all. So, contrary to arguments above, the use of big data, to the extent it facilitates price discrimination, should usually work to the advantage of lower-income consumers.

Perhaps the most publicized conclusion of the recently released EOP report concerns the possibility of discrimination against vulnerable groups—that “big data analytics *have the potential to eclipse* longstanding civil rights protections in how personal information is used in housing, credit, employment, health, education, and the marketplace.”⁷² However, the two examples of discrimination cited turn out to be almost nonexamples.

The first example involves StreetBump, a mobile application developed to collect information about potholes and other road conditions in Boston. Even before its launch, the city recognized that this app, by itself, would be biased toward identifying problems in wealthier neighborhoods, because wealthier individuals would be more likely to own smartphones and make use of the app. As a result, the city adjusted accordingly to assure reporting of road conditions was accurate and consistent throughout the city.⁷³

The second example involves the E-verify program used by employers to check the eligibility of employees to work legally in the United States. The report cites a study that “found the rate at which U.S. citizen[s] have their authorization to work be initially erroneously unconfirmed by the system was 0.3 percent, compared to 2.1 percent for non-citizens. However, after a few days many of these workers' status was confirmed.”⁷⁴ It seems almost inevitable that the error rate for citizens would be lower, because citizens automatically are eligible to work, whereas additional information

⁷² EOP, BIG DATA, *supra* note 8, at iii (emphasis added).

⁷³ *Id.* at 51-52.

⁷⁴ *Id.* at 52.

is needed to confirm eligibility for noncitizens.⁷⁵ Hence, it is not clear this is an example of discrimination.

D. *Firms Use Big Data to Manipulate Consumers*

Some recent privacy literature suggests that the use of data and algorithms may produce “harms” quite different from what we normally think of as privacy and security harms.⁷⁶ In a recent article, Calo hypothesizes that big data will help firms discover opportunities to capitalize on irrational behavior.⁷⁷

Calo is concerned with “the ‘*mass production of bias*’ through big data,”⁷⁸ when “firms start looking at the consumer behavior dataset to identify consumer vulnerabilities.”⁷⁹ Big data would be used as follows:

The first step would be to model what a consumer’s rational choice would be in a given context: consumers taking every realistic opportunity to maximize their own welfare. The second step would be to analyze consumer transactions by the millions to spot the places in which consumers deviated from the rational model created in the first step.⁸⁰

Calo acknowledges that “modeling ‘rational’ behavior . . . would be difficult,”⁸¹ but ultimately he believes that

A firm with the resources and inclination will be in a position to surface and exploit how consumers tend to deviate from rational decision making on a previously unimaginable scale. Thus, firms will increasingly be in the position to *create* suckers, rather than waiting for one to be born.⁸²

He poses the question: “[W]hen does personalization become an issue of consumer protection?”⁸³

Drawing a boundary between what is called “manipulation” and the provision of information that helps a consumer in making purchases is difficult, as Calo acknowledges:

⁷⁵ I.e., evidence of some sort of work permit. See *Tips to Prevent a Tentative Nonconfirmation*, U.S. CITIZENSHIP & IMMIGRATION SERVS., <http://www.uscis.gov/e-verify/employees/tips-prevent-tentative-nonconfirmation> (last updated Jan. 18, 2014).

⁷⁶ I.e., harms that involve the exposure of individuals’ data to people who should not see them.

⁷⁷ Ryan Calo, *Digital Market Manipulation*, 82 GEO. WASH. L. REV. 995 (2014).

⁷⁸ *Id.* at 1006 (emphasis added).

⁷⁹ *Id.* at 1010.

⁸⁰ *Id.* (footnote omitted).

⁸¹ *Id.* at 1011.

⁸² *Id.* at 1018.

⁸³ *Id.* at 998.

Obviously manipulating consumers is not the only, nor the primary, use to which firms will put consumer data. Data helps firms improve existing products and develop the indispensable services of tomorrow. Data is necessary to combat various kinds of fraud and sometimes to police against one set of consumers abusing another. Regulators are rightfully concerned about the effects of cutting off data flows on innovation. Telling services what data they can and cannot collect, meanwhile, creates pragmatic line-drawing problems that regulators may not be well-suited to answer.⁸⁴

Calo suggests “regulators and courts should only intervene where it is clear that the incentives of firms and consumers are not aligned.”⁸⁵ As an example, a harmful use of information would be to send an obese consumer a text message from a donut shop when the consumer is trying to avoid snacking.⁸⁶ But of course the consumer might want a donut, even though Calo thinks he should not have one. Moreover, given the rate of evolution of apps, there will soon be one—if there is not now—that a diet conscious consumer with weak willpower could program to ignore all messages with certain keywords, including “donut,” or to remind him of the caloric content of the donut and his current weight-loss goal.

As Calo also acknowledges, profiting from irrational behavior would be difficult—perhaps impossible—since it would be extremely difficult to determine what is rational for a given consumer.⁸⁷ Moreover, there is no clear reason why firms would want to do this. Using large data sets, firms might simply determine when they can sell products, and most of the time that would be to consumers who want the product, and that would generally be to rational consumers. Moreover, while some firms might try to sell products that the consumer does not “really” want, others would be trying to sell products that the consumer does want, and those firms can be expected to win out. An implicit assumption in Calo’s discussion is a lack of competition. Even assuming firms can manipulate consumers and thereby earn super-competitive profits, unless there are barriers to entry, other firms will be induced to enter and compete away those super-competitive profits. This is a check on whatever manipulation might be possible.

In general, it is not possible to determine whether any given purchase is “rational” or not, because consumers’ utility functions are not directly observable. In a market economy, firms are rewarded for giving consumers what they want. The economist’s criterion of performance is how close the economy comes to maximizing “total surplus.”

It is true that firms want to capture as much of that surplus as possible, and in that sense, their interests may not be aligned with those of consumers. Calo is concerned that firms will use data to find that moment of vulnerability when they can charge consumers a higher price. Two observa-

⁸⁴ *Id.* at 1042-43 (footnotes omitted).

⁸⁵ *Id.* at 1022-23.

⁸⁶ *Id.* at 996-97.

⁸⁷ *Id.* at 1010.

tions on this: First, the transaction will still be beneficial to the consumer; she may just capture less consumer surplus. Second, this is also a way that firms can efficiently price discriminate.⁸⁸ Others may get a lower price. Importantly, such price discrimination may be necessary to cover costs and for the product to be available at all. In a competitive market, price discrimination that leads to excess profits will attract entry.

E. *Big Data Will Reduce the Variety of Information Consumers See*

Some writers express concern about consumers living in a big-data-facilitated “filter bubble” because of predetermined interests. As a result, consumers would not be exposed to a wide variety of information or services they may find useful.

For example, Pariser laments, “The statistical models that make up the filter bubble write off the outliers. But in human life it’s the outliers who make things interesting and give us inspiration.”⁸⁹ Dwork and Mulligan are concerned that “filter bubbles” will take away “the tumult of traditional public forums—sidewalks, public parks, and street corners—where a measure of randomness and unpredictability yields a mix of discoveries and encounters that contribute to a more informed populace.”⁹⁰

If consumers want variety, big data and algorithms, particularly as they get more sophisticated, should be helpful in providing that variety to them. However, the notion that algorithms will give consumers “too much” of what they want at the expense of what is good for them, is a more radical idea with unclear policy implications. Does it mean we should limit the collection and use of data to purposely produce less accurate algorithms? The fundamental problem with this line of analysis is that many of the privacy advocates and writers on this subject do not seem to trust the judgment of consumers, for whom they purport to advocate, to make choices.

F. *Individuals will be forced to reveal data about themselves, thereby eroding privacy*

As described above, the systematic gathering and use of data—by algorithm as well as less formal means—to determine eligibility for credit, employment, and insurance, as well as for marketing purposes is ubiquitous. The flip side of this “sorting” is “signaling,” in which individuals or

⁸⁸ See *infra* Part II.C; see also Calo, *Digital Market Manipulation*, *supra* note 77, at 1018.

⁸⁹ ELI PARISER, *THE FILTER BUBBLE: HOW THE NEW PERSONALIZED WEB IS CHANGING WHAT WE READ AND HOW WE THINK* 134 (1st ed. 2012).

⁹⁰ Cynthia Dwork & Deirdre K. Mulligan, *It’s Not Privacy and It’s Not Fair*, 66 STAN. L. REV. ONLINE 35, 39 (2013).

firms voluntarily reveal information about themselves in order to address asymmetric information problems. As Michael Spence notes, “The incentive to engage in activities that inform buyers is greatest for sellers with high quality products, but if they are successful, the incentive will trickle down through the spectrum of qualities.”⁹¹

In a recent paper, Scott Peppet suggests that “the Internet and digitization are decreasing the transaction costs of signaling by making verifiable signals more readily available throughout the economy, and one can therefore expect signaling to become more and more important and ubiquitous as a response to information asymmetries.”⁹² With advanced information technologies, individuals will increasingly be able to voluntarily make available a range of *verified* information⁹³ about themselves, including health information, employment records, court records, driving behavior, and credit history. For example, your health data may be generated by wearable monitors, your driving behavior by sensors in your car, etc.

The data made available could determine eligibility and the terms for many economically important items, including jobs, insurance, and admission to schools. Those with the most favorable data will find it in their interest to reveal it. Others will then be “forced” to reveal their data because failure to do so will reflect negatively on those who do not. This, according to Peppet,

contains within it a radical threat: the possible unraveling of privacy altogether because some individuals initially will find it in their interest to disclose information for personal gain and then, as the unraveling proceeds, everyone will realize that disclosure is no longer a choice because the signaling economy attaches stigma to staying silent.⁹⁴

Moreover,

rapidly changing information technologies are making it possible for consumers to share verified personal information at low cost for economic reward or, put differently, for firms to extract previously unavailable personal information from individuals [Which] poses a very different threat to privacy than the threats of data mining, aggregation, and sorting that have preoccupied the burgeoning field of informational privacy for the last decade.⁹⁵

⁹¹ Michael Spence, *Informational Aspects of Market Structure: An Introduction*, 90 Q.J. ECON. 591, 592 (1976) [hereinafter Spence, *Informational Aspects of Market Structure*].

⁹² Scott Peppet, *Unraveling Privacy: The Personal Prospectus and the Threat of a Full-Disclosure Future*, 105 NW. U. L. REV. 1153, 1166 (2011) [hereinafter Peppet, *Unraveling Privacy*].

⁹³ I.e., linked directly to the source.

⁹⁴ Peppet, *Unraveling Privacy*, *supra* note 92, at 1176.

⁹⁵ *Id.* at 1155-56.

As indicated by the Akerlof and Spence articles, this “unraveling” phenomenon has been the subject of study for quite a while.⁹⁶ Generally, it is considered efficient, precisely because it provides information to the market. In the absence of information, markets may “unravel” in another way. “An important conclusion of [Akerlof’s lemons paper] was that high quality sellers may withdraw their products from the market because their products cannot be distinguished and therefore are priced according to the average.”⁹⁷

Posner has written in opposition to mandates that protect certain types of information, arguing there is a,

symmetry between “selling” oneself and selling a product. If fraud is bad in the latter context—at least to the extent that we would not think it efficient to allow sellers to invoke the law’s assistance in concealing defects in their goods—it is bad in the former context, and for the same reasons: it reduces the amount of information in the market, and hence the efficiency with which the market . . . allocates resources.

. . . Once privacy is seen to reduce the efficiency of the marketplace, we are in a position to predict the effect of the recent wave of statutes, federal and state, protecting privacy, as by placing arrest records beyond a prospective employer’s reach and credit histories beyond a prospective creditor’s reach. If the analysis in this paper is correct, such statutes reduce wages and employment and increase interest rates.⁹⁸

In the same way that prohibiting producers from hiding defects in their products leads to better products, there are positive incentive effects when individuals are unable to conceal adverse personal information. The fact that a better grade point average lowers automobile insurance rates for young males is an incentive to study harder, or, at least, for parents to make sure their student studies harder. If individuals were able to conceal their credit histories, we would find more delinquent payments, which would raise the costs of borrowing generally. The fact that having a criminal record makes it difficult to find a job is likely some deterrent to criminal behavior.

A simple example illustrates the potential costs of restricting this type of information sharing. It is now possible to monitor driving behavior for a variety of purposes. Mapping programs do this in order to direct drivers to the fastest route at any given time. A company called Automatic helps people monitor their driving in order to reduce costs by improving fuel economy and reducing wear and tear.⁹⁹

⁹⁶ George A. Akerlof, A. Michael Spence, and Joseph E. Stiglitz received the 2001 economics Nobel Prize for their study of markets with asymmetric information.

⁹⁷ Spence, *Informational Aspects of Market Structure*, *supra* note 91, at 591.

⁹⁸ Richard A. Posner, *The Economics of Privacy*, 71 AM. ECON. REV. 405, 406-07 (1981) (citations omitted).

⁹⁹ See AUTOMATIC LABS, INC., <http://www.automatic.com> (last visited Sept. 21, 2014).

Similar devices can also be used by insurance companies to set rates. A driver can install a monitor in her car and have the data automatically delivered to her insurance company.¹⁰⁰ Presumably, safe drivers will want to do this so they can get lower rates. Insurance companies might rationally respond by assuming that drivers who failed to install such devices were less safe than those who did and charging them a higher rate. This would likely result in at least a partial “unraveling” as more and more drivers installed the monitoring devices.

Prohibiting this practice, as some privacy advocates suggest, would mean there is no payoff to voluntarily providing your monitoring data to the insurance company. This would penalize safe drivers to the benefit of average and less-safe drivers. The prohibition would increase accidents, because even the safest drivers will drive more carefully when they know they are being monitored. There may be a significant increase in accidents from drivers further down the spectrum, who otherwise would be induced to install a monitor.

Finally (and somewhat ironically), Peppet does not discuss what might seem to be the most obvious application of signaling in the context of privacy—the ability of firms to compete by offering better privacy policies. Privacy is a quality attribute, just like any other. If consumers value it, those firms with the “best” privacy practices might be expected to advertise that fact, forcing a general “unraveling” of privacy practices that would inform consumers. The fact that firms compete less on the basis of privacy than we might expect suggests that consumers are less concerned about privacy practices than other firm attributes.

III. POLICY CONSIDERATIONS

There is no obvious reason to approach privacy policy questions arising from big data differently than we approach questions involving smaller amounts of data. The same questions are relevant.

First, policy makers should ask whether there is a market failure or evidence of harm to consumers. The recent literature on big data we have surveyed does not provide such evidence, at least as far as the legal use of data for commercial purposes is concerned.¹⁰¹ Discussions of harm in the literature are largely speculative and hypothetical. Moreover, we have

¹⁰⁰ See *Snapshot*, PROGRESSIVE, INC., <http://www.progressive.com/auto/snapshot/> (last visited Feb. 22, 2015).

¹⁰¹ This is consistent with our conclusion that demonstrable harm from the legal use of commercial information is lacking. See Thomas M. Lenard & Paul H. Rubin, *In Defense of Data: Information and the Costs of Privacy*, 2 POL’Y & INTERNET 149, 151 (2010), available at <http://onlinelibrary.wiley.com/doi/10.2202/1944-2866.1035/abstract>.

found no evidence of an increase in harm to consumers from identity fraud or data breaches.

Some examples of what have been described as “objective privacy harms” include: use of blood test data for drunk driving; data used for a no-fly list; and police use of information from a psychologist.¹⁰² Only some of these are related to big data, but more importantly, none involve commercial information. They all involve government functions, which most people would think are legitimate. The only example citing commercial use is from Google Gmail ads.¹⁰³ But in this case, the consumer voluntarily uses the service in full knowledge that he will receive targeted ads in exchange for a free product. Moreover, the “harm” identified is speculative and quite indirect—consumers using the service are not typically aware of any harm.

If evidence of market failure or harm is found, the next question for policy makers is whether an available remedy, or remedies, can reasonably be expected to yield benefits greater than costs and therefore net benefits to consumers. This, in turn, leads to the threshold question of whether there are harms that can be reduced by the implementation of a new privacy policy. Otherwise, there can be no benefits. Since the privacy harms cited in the literature are largely hypothetical, so are the benefits. In other words, the absence of identified harms implies that privacy policies cannot be expected to yield net benefits, even in the absence of costs.

The privacy remedies typically discussed are, however, likely to impose costs. A standard solution long promoted by privacy advocates is that data should only be collected for a specific, identified purpose. This is reflected in the FIPPs dating back to the 1970s, the OECD Privacy Principles of 1980, current European Union regulations, and the recommendations of the FTC’s 2012 Privacy Report.¹⁰⁴ Indeed, according to Chairwoman Ramirez, the First Commandment of data hygiene is: “Thou shall not collect and hold onto personal information unnecessary to an identified purpose.”¹⁰⁵ Similarly, Commissioner Julie Brill laments the fact that firms, “without our knowledge or consent, can amass large amounts of private information about people to use for purposes we don’t expect or understand.”¹⁰⁶

Chairwoman Ramirez’s First Commandment is particularly ill suited to the world of big data and, in fact, is inconsistent with other parts of her speech where she points out beneficial uses of big data, such as: improving the quality of health care while cutting costs, making more precise weather

¹⁰² M. Ryan Calo, *The Boundaries of Privacy Harm*, 86 IND. L.J. 1131, 1143 (2011).

¹⁰³ *Id.* at 1151-52.

¹⁰⁴ An excellent summary of the evolution of the FIPPs comes from Robert Gellman, *FAIR INFORMATION PRACTICES: A Basic History*, <http://www.bobgellman.com/rg-docs/rg-FIPS-history.pdf> (last updated Aug. 3, 2014).

¹⁰⁵ Ramirez, *Privacy Challenges*, *supra* note 2, at 4.

¹⁰⁶ Brill, *Demanding Transparency*, *supra* note 61.

forecasts, predicting peak electricity consumption, and delivering better products and services to consumers at lower costs.¹⁰⁷ These beneficial uses often involve using medical data, utility billing records and other data for purposes other than those for which they were initially collected.

Moreover, the government itself routinely violates the data-hygiene First Commandment. When people paid their taxes, for example, they did not know that data from their returns would later be used to determine their eligibility for health insurance subsidies. Indeed, individuals could not have been informed of that potential use when they filed their returns, as using the data in such a way was only recently envisioned.

Using data in unanticipated ways has been a hallmark of the big-data revolution, for commercial, research and even public sector uses. Therefore, policies that limit the reuse or sharing of data would be particularly harmful if applied to big data because they are inconsistent with the innovative ways in which data are used.

Principles of notice and choice become almost meaningless when data may be used in unpredictable ways. Even absent questions concerning big data, these principles have become increasingly irrelevant. As Beales and Muris note, “The reality that decisions about information sharing are not worth thinking about for the vast majority of consumers contradicts the fundamental premise of the notice approach to privacy.” They continue, “The FIPs principle of choice fares no better.”¹⁰⁸

Both of the recently released White House reports indicate that the FIPPs focus on limiting data collection is increasingly irrelevant and, indeed, harmful in a big-data world. The EOP report observes that “these trends may require us to look closely at the notice and consent framework that has been a central pillar of how privacy practices have been organized for more than four decades.”¹⁰⁹ The PCAST report notes,

The beneficial uses of near-ubiquitous data collection are large, and they fuel an increasingly important set of economic activities. Taken together, these considerations suggest that a policy focus on limiting data collection will not be a broadly applicable or scalable strategy—nor one likely to achieve the right balance between beneficial results and unintended negative consequences (such as inhibiting economic growth).¹¹⁰

¹⁰⁷ Ramirez, *Privacy Challenges*, *supra* note 2, at 1.

¹⁰⁸ J. Howard Beales & Timothy J. Muris, *Choice or Consequences: Protecting Consumer Privacy in Commercial Information*, 75 U. CHI. L. REV. 109, 114 (2008) [hereinafter Beales & Muris, *Choice or Consequences*].

¹⁰⁹ EOP, *BIG DATA*, *supra* note 8, at 54.

¹¹⁰ PCAST, *BIG DATA AND PRIVACY*, *supra* note 8, at x-xi.

A. *Transparency*

Concern about the use of data for predictive scoring and the possibility that algorithms may miscategorize individuals sometimes leads to recommendations for greater transparency and “procedures to remediate decisions that adversely affect individuals who have been wrongly categorized by correlation.”¹¹¹ This is the thrust of Commissioner Brill’s “Reclaim Your Name” initiative.¹¹² One major data broker, Acxiom, has taken a step in that direction with its aboutthedata.com web site, which allows individuals to view and potentially correct some of the data in Acxiom’s file.¹¹³

The notion that consumers should understand who is collecting their data and how they are being used is an appealing one, but it is largely meaningless, especially in the big-data era where scores may be based on hundreds of data points and very complex calculations. For example, it is not clear that a person rejected for credit by a complex algorithm would particularly benefit by being shown the equation used. The FICO score, an early example of a calculation based on a complex algorithm, is virtually impossible to explain to even an informed consumer because of interactions and nonlinearities in the way various data points enter into the score.¹¹⁴

Electronic information is frequently used in complex ways that are difficult or impossible to explain. It would not be feasible for websites to meaningfully convey this information through a notice, and consumers would not devote the hours required to understand it. For example, a *Wall Street Journal* series titled *What They Know* consisted of several lengthy articles explaining uses of data. Indeed, from the articles it appears that many practitioners do not themselves understand the ways in which they are using data.¹¹⁵ Rubin and Lenard present a complicated schematic showing the uses of data as of 2001.¹¹⁶ Since then, uses of data have become even more complex.

Giving consumers the ability to correct their information may be more complicated than it might appear, even aside from the administrative complexities. Consumers do have the right to correct information used in deriv-

¹¹¹ Ramirez, *Privacy Challenges*, *supra* note 2, at 8.

¹¹² Julie Brill, Commissioner, Fed. Trade Comm’n, Keynote Address at the 23rd Computers Freedom and Privacy Conference: *Reclaim Your Name* (June 26, 2013).

¹¹³ This effort, however, has been criticized by privacy advocates as being too limited. See Natasha Singer, *Acxiom Lets Consumers See Data It Collects*, N.Y. TIMES, Sept. 4, 2012, at B6.

¹¹⁴ The major inputs to a credit score are well known; however, the calculation of credit scores from credit report data is proprietary and exceedingly complex. See, e.g., FED. DEPOSIT INS. CORP., CREDIT CARD ACTIVITIES MANUAL, CH. VIII. SCORING AND MODELING (2007), available at https://www.fdic.gov/regulations/examinations/credit_card/pdf_version/ch8.pdf.

¹¹⁵ Julia Angwin, *The Web’s New Gold Mine: Your Secrets*, WALL ST. J. (July 30, 2010), <http://online.wsj.com/news/articles/SB10001424052748703940904575395073512989404>.

¹¹⁶ See PAUL H. RUBIN & THOMAS M. LENARD, PRIVACY AND THE COMMERCIAL USE OF PERSONAL INFORMATION 26 (2001).

ing their credit scores, but it is made difficult to do so, for good reason. An individual who thinks she has been wrongly categorized clearly has an interest in correcting erroneous information if that information has a negative effect. But she might also have an interest in “correcting” valid information that would adversely affect the decision, or inserting incorrect information that would have a positive effect. Distinguishing between these various “corrections” may be quite difficult.

The purpose of collecting information that affects decisions about individuals is to ameliorate an asymmetric information problem.¹¹⁷ Individuals have much more information about themselves than lenders, insurance companies, or prospective employers. As discussed in Section III, asymmetric information is a feature of some markets that potentially can lead to market breakdown.¹¹⁸ This is why, as Beales and Muris point out, “In our economy, there are vital uses of information sharing that depend on the fact that consumers cannot choose whether to participate.”¹¹⁹

Moreover, if we make it easier for individuals to access their data then we also make it easier for those bent on fraud to access the same data. If fraudsters have access to large amounts of data about a person, they can more easily defraud that individual—perhaps by making purchases that are consistent with the individual’s behavior in order to trick the credit card companies’ monitoring efforts. Thus, ease of consumer monitoring is at best a two-edged sword.

B. *Alternative Privacy Approaches*

As an alternative to the standard FIPPs approach, Beales and Muris recommend an approach based on “the consequences of information use and misuse. There is little basis for concern among most consumers or policymakers about information sharing per se. There is legitimate concern, however, that some recipient of the information will use it to create adverse consequences for the consumer.”¹²⁰ As an example of a consequence-based policy, they point to the Do Not Call Registry—aimed at the adverse consequence of receiving unwanted marketing calls—established when Muris was the FTC Chairman and Beales was Director of the Commission’s Bureau of Consumer Protection.

The recently released White House reports reflect a similar approach. The EOP report suggests examining “whether a greater focus on how data

¹¹⁷ E.g., credit decisions, insurance decisions, or employment decisions, etc.

¹¹⁸ See generally George A. Akerlof, *The Market for ‘Lemons’: Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON 488, 500 (1970).

¹¹⁹ Beales & Muris, *Choice or Consequences*, *supra* note 108, at 115 (identifying credit reporting as an example).

¹²⁰ *Id.* at 118.

is used and reused would be a more productive basis for managing privacy rights in a big data environment.”¹²¹ The PCAST report is even clearer:

Policy attention should focus more on the actual uses of big data and less on its collection and analysis. By actual uses, we mean the specific events where something happens that can cause an adverse consequence or harm to an individual or class of individuals. . . . By contrast, PCAST judges that policies focused on the regulation of data collection, storage, retention, a priori limitations on applications, and analysis . . . are unlikely to yield effective strategies for improving privacy. Such policies would be unlikely to be scalable over time, or to be enforceable by other than severe and economically damaging measures.¹²²

Calo has offered two new policy ideas. The first is a “thought experiment” based on the example of academic institutional review boards (IRBs).¹²³ Researchers proposing experiments involving human subjects are required to submit their project to an IRB to ensure that human subjects are appropriately protected. The IRBs use principles articulated in the *Belmont Report* published by a government taskforce. Calo suggests something similar—a Consumer Subject Review Board—for commercial uses of data, to assure that the subjects, consumers, are adequately protected.¹²⁴ Standards for the review board would be developed by the FTC, the Department of Commerce, or by industry itself.

In general, firms—certainly firms concerned about their reputations—can be expected to take into account consumer reactions to their data practices—whether formally through internal committees or less formally—consistent with their fiduciary obligations to shareholders. If Calo is suggesting something more regulatory, it should be subjected to a cost–benefit analysis, which has not been performed. Since the evidence of harm from the use of data is thin to nonexistent, it is doubtful that any such regulation could pass a cost–benefit test.

Calo also explores a “paid option regime” in which he asks readers to “Imagine if major platforms such as Facebook and Google were obligated, as a matter of law or best practice, to offer a paid version of their service. For, say, ten dollars a month or five cents a visit, users could opt out of the entire marketing ecosystem.”¹²⁵

This is an alternative that, of course, is available in the market, but perhaps not as often as critics of advertising, such as Calo, would like. There are probably several reasons for this. The “paid option” involves

¹²¹ EOP, BIG DATA, *supra* note 8, at 61.

¹²² PCAST, BIG DATA AND PRIVACY, *supra* note 8, at xiii.

¹²³ Ryan Calo, *Consumer Subject Review Boards: A Thought Experiment*, 66 STAN. L. REV. ONLINE 97, 102 (2013).

¹²⁴ *Id.* at 100-02 (citing NAT’L COMM’N FOR THE PROT. OF HUMAN SUBJECTS OF BIOMEDICAL & BEHAVIORAL RESEARCH, THE BELMONT REPORT: ETHICAL PRINCIPALS AND GUIDELINES FOR THE PROTECTION OF HUMAN SUBJECTS OF RESEARCH (1978)).

¹²⁵ Calo, *Digital Market Manipulation*, *supra* note 77, at 1047.

substantial transactions costs on both sides. In addition, it is likely that the value of the data consumers provide in the “free regime” is greater than what consumers would be willing to pay. If Calo’s paid option were a regulatory requirement, the obvious question would be “at what price?” This might imply price regulation, which, especially given the huge variety of online services, would not be feasible. This is also not a proposal that could pass a cost–benefit test.

CONCLUSION

The basic idea behind the standard privacy remedies reflected in PBD, the FIPPs, and the OECD principles, that have been the focus of privacy policy discussions for several decades, is to limit the collection and use of information. These principles have become increasingly irrelevant as they have become increasingly familiar, even aside from the fact that they fail to address identifiable harms. Using data in unanticipated ways has been a hallmark of the big-data revolution. The standard solutions that would limit the reuse or sharing of data would be particularly harmful if applied to big data because they are inconsistent with the innovative ways in which data are being used. This would have a detrimental impact on innovation in a variety of sectors, from marketing to credit markets to health research.

Regulators, such as Chairwoman Ramirez, suggest “meaningful oversight” as a remedy for perceived harms to consumers, but we should note that the FTC has sometimes shown itself to be an overprotective steward, and has often reduced consumer welfare by excessive regulation of information.¹²⁶ Neither the FTC nor any other regulator has performed cost–benefit analysis on the FIPPs or any of its variations.¹²⁷ Given this lack of data and analysis, particularly in a new market such as the electronic use of information, it is much more likely that an uninformed regulator will stifle innovation rather than provide net benefits.

¹²⁶ Paul H. Rubin, *Regulation of Information and Advertising*, 4 COMPETITION POLICY INT’L, 169, 169-92 (2008).

¹²⁷ See Exec. Order No. 13563, 76 Fed. Reg. 3821 (2011); see also Thomas M. Lenard & Paul H. Rubin, *The FTC and Privacy: We Don’t Need No Stinking Data*, ANTITRUST SOURCE, Oct. 2012, at 1, available at http://www.americanbar.org/content/dam/aba/publishing/antitrust_source/oct12_lenard_10_22f.authcheckdam.pdf.

RISK-BASED PRICING IN CONSUMER LENDING

*Professor Michael Staten, PhD**

INTRODUCTION

Since the late 1980s, consumer lenders have relied on statistical credit scoring models to set loan interest rates appropriate for a borrower's risk. This practice, known as risk-based pricing, attempts to tailor the price and terms of a loan to a borrower's estimated likelihood of repayment. Borrowers who are less likely to become delinquent on a loan pay lower interest rates. It is no coincidence that the dramatic expansion of credit to consumers in the United States over the last three decades occurred simultaneously with the widespread adoption of risk-based pricing by bank credit card issuers beginning around 1988, automobile lenders by 1992, and eventually mortgage lenders, since the mid-1990s.

This paper describes how risk-based pricing transforms consumer credit markets. By charging lower risk borrowers less, risk-based pricing lowers the cost of credit for the majority of borrowers.¹ At the same time, it also expands credit availability to higher risk borrowers and leads to a broader array of loan products available to all income groups. In fact, regulatory agencies encourage lenders to adopt risk-based pricing to protect the safety and soundness of financial institutions as they broaden credit availability to include higher risk borrowers. The following sections explain why this pricing method evolved, how it works, and the range of benefits to consumers, creditors and the overall economy.

* Endowed Chair and Director of the Take Charge America Institute at the University of Arizona. Development of this paper was supported by the U.S. Chamber of Commerce Foundation. The views expressed herein are the author's and do not necessarily represent the views of the U.S. Chamber of Commerce Foundation, the U.S. Chamber of Commerce or its members. Tony Stovall at the University of Arizona provided excellent research assistance in developing this paper.

¹ Robert B. Avery, Paul S. Calem, & Glenn B. Canner, *Credit Report Accuracy and Access to Credit*, 90 FED. RES. BULL. 297, 308-09 (2004) (A Federal Reserve Board study conducted prior to the Great Recession found that 51% of all U.S. consumers had no record of delinquency of any kind on their credit reports during the previous seven years, the maximum length of time that a delinquency can remain on the credit report under current law. Nearly two-thirds of consumers had never been more than thirty days late on any account, and three-quarters of all consumers had not made a late payment in the past twelve months.).

I. WHAT IS RISK-BASED PRICING?

All creditors face a “risk-spectrum” of potential borrowers. Each borrower has unique characteristics that influence the probability of default on a loan. Higher risk borrowers are more costly for lenders to serve than lower risk borrowers. Risk-based pricing attempts to match the price a borrower pays to the cost incurred by the lender by tailoring the price of the loan to a borrower’s probability of default. By tailoring its pricing to individual borrowers, a single creditor can effectively compete for low-risk customers at the same time it extends credit availability to higher risk borrowers at higher prices.

Competitive pressures bring about this result. The alternative, “one-price-for-all” strategy, commonly used in the pricing of many consumer goods, would effectively charge all borrowers a price that covers the *average* cost of providing loans to the entire group. But, unlike purchasers of gasoline, hamburgers or shoes, borrowers differ greatly with respect to how much it costs to provide them a loan product. Low-risk borrowers are demonstrably less costly to serve than high-risk borrowers because of their lower incidence of losses and the lower costs of servicing their delinquent accounts.² If a creditor developed the risk management tools to sort low-risk from high-risk borrowers at the time of the loan application, it could identify and compete for low-risk borrowers by offering loans at lower rates but with tougher qualifying standards. To meet this competitive threat, an established creditor with a portfolio of loans must cut its own rate to its low-risk customers, or risk losing them to the competition. This process repeats across every risk group. As a result, a competitive lending market provides borrowers the best rate for their risk profile.

To illustrate, suppose the average loss rate in a lender’s credit card portfolio requires that the lender charge an “average” finance charge rate of 14%. But, cardholders with good credit histories—no record of late payments and relatively low balances across other accounts—may qualify for a rate of 8% on their cards. Other cardholders with troubled credit histories—one or more accounts that are ninety days past due, or high levels of other debt and credit card accounts with balances at or near their limits—pose a much higher risk of default, for which an interest rate of 20% or more may be appropriate. If the card issuer charges both borrowers an interest rate of 14%, one pays too much and the other too little, given their respective risk profiles. Moreover, the low-risk borrower who pays too much is likely to receive a lower priced offer from another issuer. Lenders who succeed in tailoring their pricing to match the costs imposed by bor-

² See Philip E. Strahan, *Borrower Risk and the Price and Nonprice Terms of Bank Loans*, 90 FED. RES. BANK OF N.Y. STAFF REPORTS, Oct. 1999, available at http://www.newyorkfed.org/research/staff_reports/sr90.pdf.

rowers can more effectively compete for all borrowers by offering each of them the lowest possible price commensurate with the costs of providing them service.

This simple example highlights the inherent fairness to risk-based pricing. The price a borrower pays for a loan depends on that borrower's own financial situation and past payment behavior. Compared to a one-price-fits-all system, a borrower in a market characterized by risk-based pricing is less likely to be paying for the costs imposed by someone else's behavior. Interest rates on loans to low-risk borrowers can be lower because they do not have to cover the costs imposed by higher risk borrowers who have more difficulty making their payments. In addition, risk-based pricing is fair because it rewards borrowers who adjust their behavior. Borrowers can qualify for lower priced loans by improving their financial position and credit behavior.

II. THE SPECIAL FUNCTION SERVED BY CREDIT REPORTING AND CREDIT SCORING IN SUPPORTING RISK-BASED PRICING

No discussion of risk-based pricing is complete without incorporating two other market-driven developments that have evolved to improve a lender's risk assessment. The widespread use of risk-based pricing is critically dependent on 1) the availability of detailed consumer-level data contained in credit reports that support the risk evaluation underlying tiered pricing, and 2) the development and widespread adoption of statistical models that translate raw material from credit reports and other sources into specific estimates of default risk, like credit scores. Credit reporting and scoring make risk-based pricing possible.³

A. *Role of Credit Reporting*

All loans share a common feature. Each involves an inter-temporal transaction in which the lender provides funds with the expectation that the borrower will repay them at some future time. But, lenders view applicants through a fog of uncertainty and it is costly to determine the risk posed by any given applicant. Credit reporting evolved in the market to reduce those costs.

Repayment risk stems from the twin threats of adverse selection and moral hazard that accompany every new loan application. Adverse selection poses a significant barrier to the entry of new lenders into credit markets. New entrants have no prior experience with local borrowers to draw

³ Of course these are also the features of risk-based pricing that give it high marks on fairness: the terms of a loan are tailored to the borrower's own *individual* characteristics.

upon. As a result, they are likely to attract applications from higher risk borrowers who have been rejected by established lenders. Information about borrowers' past credit experience that is shared across lenders through a credit bureau intermediary can reduce this problem.

Moral hazard presents lenders with a different problem. Once a loan is obtained, borrowers have a greater incentive to default when the expected future consequences are low. But, a reputation for past default that is readily communicated to potential lenders can raise the costs of defaulting, thereby boosting the borrower's incentive to repay.⁴ Credit bureaus facilitate that information sharing.⁵

The emergence of the credit bureau as a third-party participant in credit markets institutionalized the sharing of consumer payment data and in doing so reduced the cost of assessing borrower risk. Economic research has shown that lenders benefit as a group if they commit to exchanging information about borrowers and create an enforcement mechanism that ensures accuracy of the information shared.⁶ The third-party credit bureau serves as both the clearinghouse and enforcer. The credit report helps lenders pierce the fog of uncertainty surrounding each new loan applicant. The result is a better match of borrowers to loans.

B. *Role of Credit Scoring*

Credit scoring evolved to help lenders utilize the data in credit reports more efficiently. Until the mid-1960s, consumer lending decisions in the United States were made individually by thousands of loan officers who exercised their individual judgment with each application. Loan officers gathered information about the applicant and applied lessons from their personal lending experience to decide whether an application should be approved.

However, a number of factors combined to push the consumer credit industry away from this judgmental model of underwriting. The post-World War II boom in consumer lending increased the pressure on retailers and consumer finance companies to efficiently process a rising tide of loan

⁴ See generally David S. Bizer & Peter M. Demarzo, *Sequential Banking*, 100 J. POL. ECON. 41 (1992) (Another variation on the moral hazard problem occurs when a borrower obtains credit from multiple sources. Each additional loan adds to total debt (relative to income) and so raises the probability of default, not only on the new loan but for all other existing loans. If lenders are unaware of the multiple loans, and do not take countermeasures, borrowers are more likely to overextend. Exchange of information about a borrower's existing loans helps lenders curb the problem.).

⁵ Daniel B. Klein, *Promise Keeping in the Great Society: A Model of Credit Information Sharing*, 4 ECON. & POL. 117, 121 (1992) (observing that the credit bureau has the distinction of being "the most standardized and most extensive reputational system humankind has ever known").

⁶ Jorge A. Padilla & Marco Pagano, *Endogenous Communication Among Lenders and Entrepreneurial Incentives*, 10 REV. FIN. STUD. 205 (1997).

applications.⁷ But, a human-based judgmental approach to consumer loan underwriting was slow and labor intensive. And, the inconsistency inherent in a judgmental approach rendered a company-wide underwriting policy nearly impossible.⁸

The advent of statistical credit scoring dramatically changed consumer loan underwriting. Credit scoring gave lenders a powerful tool for rapidly and consistently evaluating risk as well as summarizing it via a numerical score. The conceptual rationale for statistical credit scoring is essentially the same as for judgmental lending: patterns observed in the past are expected to recur in the future. Using multivariate statistical methods and data on tens of thousands of loans made in the past, credit scoring models are built to identify predictive relationships between a wide variety of variables and loan performance.

By the 1980s, the published studies of scoring were reporting significant reductions in loan losses with little or no sacrifice of loan volume.⁹ How was this possible? Simply put, credit scoring allows a better match of borrowers to loans. Simulations that use actual credit report data and selectively withhold information from a scoring model have repeatedly shown that the model's ability to estimate risk dramatically improves with more information, providing a sharper and better picture of the borrower's experience.

Barron and Staten provide a good example as part of a World Bank project to explore the role of credit-reporting infrastructure in developing economies.¹⁰ Their report offers a set of simulations that demonstrate the benefits of increasingly comprehensive information about a borrower's credit profile. One simulation is described below, comparing a reporting environment in which full-file information, both positive payment experience as well as delinquencies and other negative items, is available for risk

⁷ EDWARD M. LEWIS, AN INTRODUCTION TO CREDIT SCORING 15 (1992).

⁸ Edward Lewis observed that

management had no way of expressing a corporate policy such as: "Accept only those applications whose risk is 13 to 1 or better." As a result, each individual credit evaluator decided for himself what level of risk the applicant presented and what level of risk the enterprise *as a whole* should tolerate. In a nationwide loan company with, perhaps, 1000 offices, there might be as many as two to three thousand people defining overall corporate policy.

Id. at 2-3 (footnote omitted).

⁹ See Eric Rosenberg & Alan Gleit, *Quantitative Methods in Credit Management: A Survey*, 42 OPERATIONS RES. 589 (1994), for an interesting review of published scoring studies and a catalog of the variety of statistical techniques that had been applied to the consumer loan-scoring problem as of the early 1990s.

¹⁰ See generally John M. Barron & Michael Staten, *The Value of Comprehensive Credit Reports*, in CREDIT REPORTING SYSTEMS AND THE INTERNATIONAL ECONOMY 273 (Margaret Miller ed., MIT Press 2003).

assessment as opposed to an environment in which only negative information is available.¹¹

Figure 1 illustrates the change in predictive power associated with expansion in the information available to the credit-scoring model. Under each of the scenarios depicted in the table, the model was used to calculate individual credit scores for each borrower in a sample. Individual borrowers were ranked according to their credit score—which corresponds to a default probability. The authors then picked various “loan approval rates” (e.g., approve 60% of applicants starting with the least risky and continuing until 60% of the sample is accepted) and reported the corresponding percent of borrowers who would likely default, defined as reaching ninety days past due, on their newly opened accounts within two years. At a targeted approval rate of 60%, the model built on only negative information about borrowers produced a 3.36% default rate among accepted applicants, compared to only a 1.95% default rate for applicants approved with the full-file model. In other words, the default rate under the negative-only reporting rules is 72% higher than if the full set of credit-report information was available to creditors.

Next, consider the implications of more complete information on the lender’s approval of loans. Suppose the economics of the lender’s operation require no more than a 3% default rate for the loan portfolio to be profitable. Figure 2 shows that the negative-only reporting model could approve only 39.8% of applicants without exceeding the target default rate. However, under the full-file system, 74.8% of applicants could be approved. In other words, for every 10,000 applicants, the full-file system would approve 3,500 deserving borrowers that the negative-only system would have rejected.

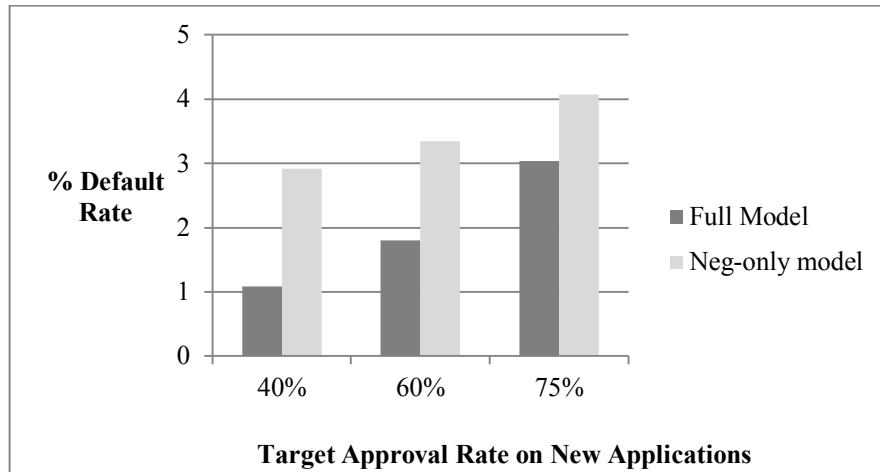
How can this be? The reason for the improved performance of the full-file model is intuitive: when risk assessment tools have less information available to them, creditors have greater difficulty piercing the “fog of uncertainty” that surrounds new borrowers. Consequently, creditor efforts are less effective at matching loans to borrowers who will repay as agreed. For any pool of approved loans, more of the loans go to borrowers who will default, and more borrowers are rejected who would have repaid.¹²

¹¹ By using a large set of credit-report data elements from U.S. credit reports to build a predictive credit scoring model, and then removing particular data fields that in other countries are either banned by regulation or unavailable due to limitations in local credit reporting systems, the simulation identified the reduction in predictive power attributable to the missing information. This methodology has been repeated by other researchers to illustrate the effects of restrictions on information available to credit scoring models. For a review of several studies, see MICHAEL TURNER & ROBIN VARGHESE, *THE ECONOMIC CONSEQUENCES OF CONSUMER CREDIT INFORMATION SHARING: EFFICIENCY, INCLUSION AND PRIVACY* (Pol. & Econ. Res. Council 2010), available at http://www.perc.net/wp-content/uploads/2013/09/OECD-Info-Sharing-White-Paper-FINAL_rv_110210.pdf.

¹² The negative impact on worthy borrowers is greatest for those who are young, have short time on the job or at their residence, have lower incomes, and are generally more financially vulnerable.

To summarize, the use of credit scoring to evaluate loan applications can reduce processing costs *and* expand a lender's portfolio without raising loss rates, relative to judgmental lending. Credit scoring gives lenders a valuable planning tool to forecast losses as well as a consistent decision tool for giving equal treatment to tens of thousands of applicants.

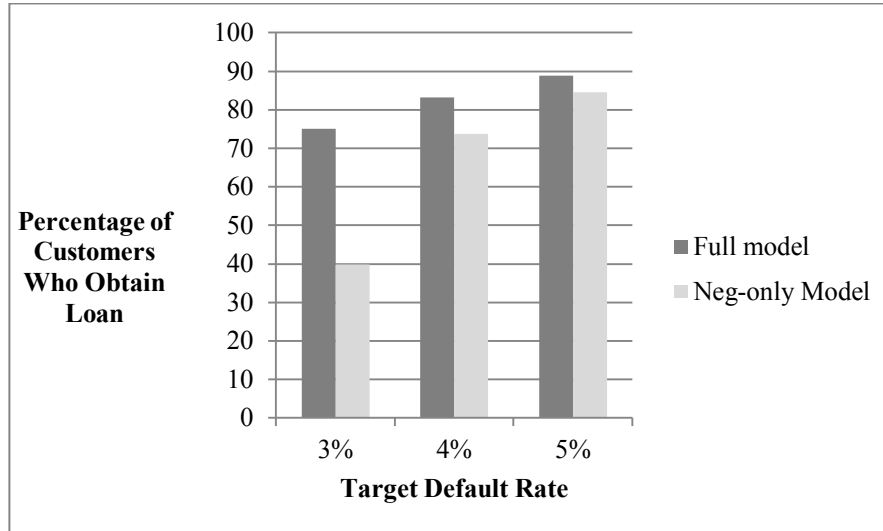
Figure 1: A Scoring Model Based on Full Information (Positive and Negative) Cut Default Rates in Half, for the Same Number of Accepted Borrowers¹³



These are precisely the borrowers for whom the ability to see *successful* handling of credit on the credit report is most important, to offset attributes that otherwise make them appear to be higher risk. This theme will be repeated in the following sections.

¹³ Data is from Barron & Staten, *supra* note 10, at 297 tbl.8.2.

Figure 2: The Full-Information Model Sharply Increases the Number of Applicants Who Get Loans¹⁴



C. Risk-Based pricing: A Natural Extension of Credit Scoring

An important, but sometimes overlooked, point explains why scoring models and risk-based pricing are used so intensively across the industry. Creditors evaluate applicant risk in order to reduce subsequent losses in their loan portfolios. But loss reduction by itself is not the goal. Creditors want to make loans, and make them profitably. Loss reduction by itself could easily be achieved by raising the acceptance standard to the point where only a few highly qualified borrowers would be able to get loans, but in doing so, a creditor would turn down many potentially profitable loans. For a given pool of loan applicants, a creditor wants a risk-evaluation tool that will identify higher risk borrowers so that loans can be made to them at an appropriately higher price to cover the additional risk.

Credit-scoring models generate specific predictions about probability of default. Rather than reject applicants who posed default risk of, say five% or even ten%, creditors could accept them and charge an appropriately higher price for the loan to cover the extra risk. When this capability developed in U.S. loan markets, it dramatically expanded the pool of borrowers who were economically possible to serve. The foundation for risk-based pricing—and ultimately a dramatic expansion in credit availability in the U.S.—was a by-product of a tool that was originally intended to help lenders more efficiently accept or reject loan applications.

¹⁴ *Id.* at 298 tbl.8.3.

Between 1980 and 2000, judgmental credit-decision systems in consumer and mortgage lending were gradually replaced with empirically derived, demonstrably and statistically sound scoring systems. This dramatic change in risk-evaluation technology largely automated the underwriting process, and greatly reduced the subjective nature of the lending decision.¹⁵ The consumer lending industry migrated to the use of statistical scoring of loan applications—first for credit cards and eventually for automobile loans and virtually every other type of consumer loan by the early 1990s.¹⁶ Last to accept scoring was the mortgage industry, but by mid-1996, credit scoring was endorsed as a valid tool for evaluating mortgage applications by the Federal Reserve¹⁷ and by the government-sponsored-enterprises Freddie Mac and Fannie Mae. By the end of the decade, automated underwriting of mortgages using credit scoring had become the industry standard.¹⁸ And, risk-based pricing became common practice across consumer lending.

III. EVIDENCE ON THE IMPACT OF RISK-BASED PRICING

Risk-based pricing for consumer loans in the U.S. made its debut on a national scale during the early 1990s. Massive entry of new card issuers into the general-purpose credit card market created intense competition for both existing and new cardholders. Newly available risk-scoring tools gave lenders the ability to sort customers according to the risk (cost) of serving them. Differential pricing was the response to competitive pressures on incumbent lenders, first in the credit card sector and eventually across all types of consumer loans.

¹⁵ BD. OF GOVERNORS OF THE FED. RESERVE SYS., REPORT TO CONGRESS ON CREDIT SCORING AND ITS EFFECTS ON THE AVAILABILITY AND AFFORDABILITY OF CREDIT, at S-3–S-4 (2007) [hereinafter REPORT TO CONGRESS].

¹⁶ Gary G. Chandler, *Generic and Customized Scoring Models: A Comparison*, in CREDIT SCORING FOR RISK MANAGERS: THE HANDBOOK FOR LENDERS 13-48 (Elizabeth Mays ed. 2004). By the mid-1980s, the benefits of credit scoring as a risk management tool for credit card lending had become compelling, but the development of a customized application-scoring system required large numbers of accounts and was relatively expensive. Small credit card issuers (e.g., community banks and credit unions) typically lacked the scale and account base to develop their own. In response, FICO and other scoring system developers (including the major credit bureaus with their VantageScore product introduced in 2006) created “generic” credit-report-based scoring models. Generic scoring models are commercially sold for use by multiple creditors. Because the models are intended for use by many creditors, they utilize only credit bureau data fields that are available to all creditors (as opposed to application data that, in most cases, is unique to a specific creditor’s loan product and customer base). Generic scoring models opened up credit-scoring technology to the entire industry.

¹⁷ R.B. Avery et al., *Credit Risk, Credit Scoring, and the Performance of Home Mortgages*, 82 FED. RES. BULL. 621 (1996).

¹⁸ See generally John W. Straka, *A Shift in the Mortgage Landscape: The 1990s Move to Automated Credit Evaluations*, 11 J. HOUS. RESEARCH 207 (2000).

A. *Competition and Pricing in the U.S. Credit Card Industry*

Through the late 1970s, most credit cardholders in the U.S. acquired their general-purpose credit cards through their local financial institutions, often by picking up applications at a branch. Choice was limited to issuers who happened to offer a credit card product through a local bank or other financial institution. Customers in smaller towns had fewer choices than residents of large cities. Few banks issued credit cards to customers outside their charter state. Because local institutions faced little threat of entry, there was little variance in either credit card prices or product features.¹⁹ Credit card applicants were either accepted or rejected for a card, and the price was essentially the same across cardholders.

All of this began to change by the mid-to-late 1980s. A key court decision in 1978 gave banks the ability to launch national credit card marketing programs without being constrained by cross-state differences in the legal limits on pricing.²⁰ The nationwide availability of detailed credit histories for potential cardholder prospects made it possible for credit card issuers to enter new geographic markets. Many banks launched national marketing campaigns. Over the course of the next decade, the opportunity to market credit cards nationally through the mail, without a network of brick-and-mortar branches, spawned the entry of branchless, “monoline” credit card specialists such as Sears, Discover card, and MBNA. Retailers and manufacturers also began introducing their own “co-branded” bank credit cards as unique alternatives to the traditional Visa and MasterCard products being offered by established banks.²¹ Entry often occurred with astounding speed.²² The use of credit report data and credit scoring to pre-screen borrowers and target desirable prospects provided the jet fuel for an acceleration in card offerings and competition.

The wave of new entrants to the credit card market put increasing downward pressure on the finance charge rate and annual fees charged by existing issuers. Incumbent credit card issuers saw attrition soar, particularly among their lower risk customers.²³ Competitors knew no geographic

¹⁹ Christopher R. Knittel & Victor Stango, *Price Ceilings as Focal Points for Tacit Collusion: Evidence from Credit Cards*, 93 AM. ECON. REV. 1703, 1707-11 (2003).

²⁰ See *Marquette Nat'l Bank of Minneapolis v. First of Omaha Serv. Corp.*, 439 U.S. 299, 310 (1978). See generally Michael E. Staten & Fred H. Cate, *The Impact of Opt-In Privacy Rules on Retail Credit Markets: A Case Study of MBNA*, 52 DUKE L.J. 745 (2003).

²¹ E.g., General Motors, AT&T, and General Electric introduced cards.

²² See Martin Dickson, *Record Take-Up for GM Card*, FIN. TIMES, Nov. 17, 1992, at 26 (discussing how the General Motors MasterCard product established 2 million accounts and more than \$500 million of balances in its first sixty days on the market following its introduction in 1992, making it the most successful credit card launch in U.S. history).

²³ See generally David B. Hilder & Peter Pae, *Rivalry Rages Among Big Credit Cards*, WALL ST. J., May 3 1991, at B1; Leah Nathans Spiro, *How AT&T Skimmed the Cream Off the Credit-Card Market*, BUS. WK., Dec. 16, 1991, at 104; Peter Pae, *Success of AT&T's Universal Card Puts Pressure on*

boundaries and their offers reached consumer mailboxes from thousands of miles away. Risk-based pricing was the competitive response in order to protect existing customer relationships. Risk-based pricing effectively eliminated the industry practice of packing the costs of handling delinquent accounts for a small number of customers into higher interest rates for all customers, and interest rates dropped precipitously.²⁴ The proportion of all revolving balances in the United States being charged an APR greater than 18.0% plummeted from 70% to 44% in just four years, as shown in Figure 3.²⁵

A report from the Federal Reserve Bank of Philadelphia in 2003 found that:

the discount that lower risk customers receive on their APR has increased significantly since the early days of risk-indifferent pricing. The lowest risk customers, who once paid the same price as high-risk customers, now enjoy rate discounts that can reach more than 800 basis points. At the other end of the risk spectrum, these strategies have enabled issuers to grant more people (e.g., immigrants, lower income consumers, those without any credit experience) access to credit, albeit at higher prices.²⁶

Figure 4 illustrates the resulting dramatic increase in the percent of U.S. households owning at least one bankcard between 1983 and 2001. The largest increases in card ownership (200–300%) occurred in the lower half of the income distribution, consumers who had not qualified for cards

Big Banks to Reduce Rates, WALL ST. J., Feb. 4, 1992, at B1. See also *Citibank Leads an Exodus from Higher Interest Rates*, CREDIT CARD NEWS, May 1, 1992, at 1 (discussing how in late 1991 American Express became the first major issuer to unveil a tiered pricing structure for its Optima credit card product to slow customer defections. The company's best cardholders—cardholders with high charge volume and no delinquency in the previous twelve months—received a low 12.5% rate on their revolving balances, well below the average 18–20% rates typically charged. Shortly thereafter, Citibank announced a similar pricing structure for its Classic cardholders, who had been paying 19.8%. Citibank officials estimated that by the end of 1992, nearly 10 million Citibank Classic cardholders had benefited from the new-tiered rate structure.)

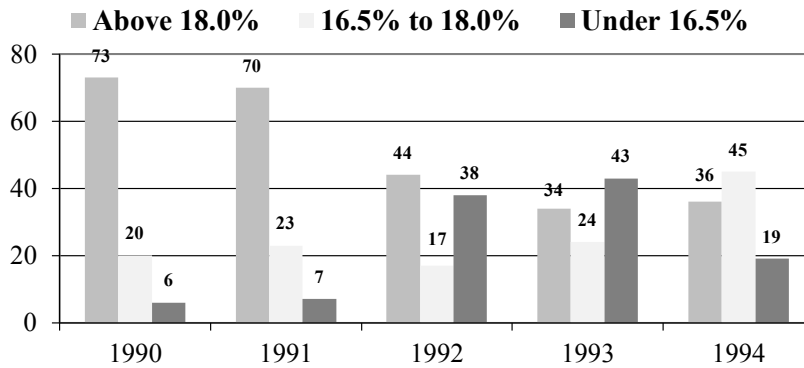
²⁴ See Knittel & Stango, *supra* note 19.

²⁵ *The Profitability of Credit Card Operations of Depository Institutions* is an annual report by the Federal Reserve Board research staff submitted to the U.S. Congress pursuant to Section 8 of the Fair Credit and Charge Card Disclosure Act of 1988. BD. OF GOVERNORS OF THE FED. RESERVE SYS., THE PROFITABILITY OF CREDIT CARD OPERATIONS OF DEPOSITORY INSTITUTIONS (2001), available at <http://www.federalreserve.gov/boarddocs/rptcongress/creditcard/2001/ccprofit.pdf>. The 2001 report states “credit card interest rates fell sharply from mid-1991 through early 1994 after being relatively stable for most of the previous twenty years.” *Id.* at 6. As noted in Staten and Cate, “[t]he decline in the average ‘most common interest rate’ on issuer credit card plans between 1991 and 1994 was 244 basis points.” Staten & Cate, *supra* note 20, at 755 n.28 (citing BD. OF GOVERNORS OF THE FED. RESERVE SYS., *supra*, at 8 tbl.2).

²⁶ MARK FURLETTI, FED. RESERVE BANK OF PHILA., PAYMENT CARDS CTR., CREDIT CARD PRICING DEVELOPMENTS AND THEIR DISCLOSURE 7-8 (2003) (footnote omitted), available at http://philadelphiafed.org/consumer-credit-and-payments/payment-cards-center/publications/discussion-papers/2003/CreditCardPricing_012003.pdf.

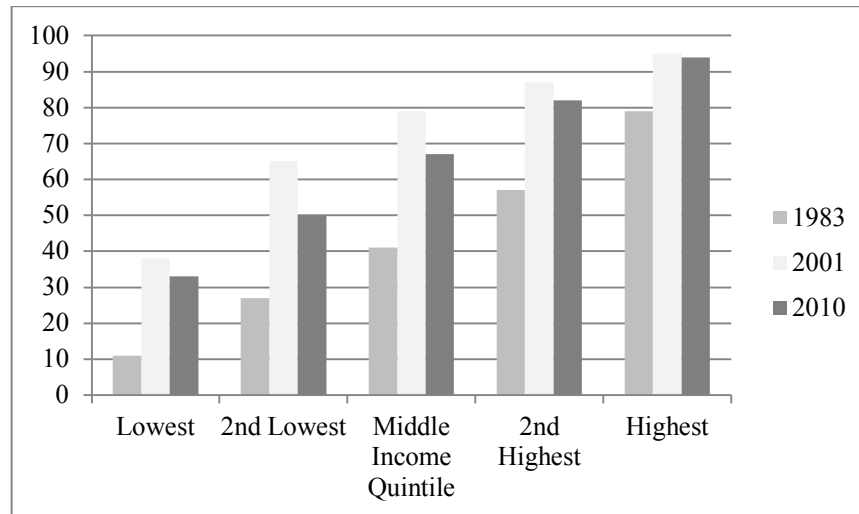
under the one-price-fits-all policies of the past. Even after the large pull-back by lenders consequent to the financial meltdown in 2008, consumers in the lower half of the income distribution still retained access to bank credit card products in far greater numbers than was the case prior to risk-based pricing.

Figure 3: Credit Card Balances Charged More Than 18% Plummet After the Introduction of Risk-Based Pricing²⁷



²⁷ Graph created using data from two *CardTrak* reports. See CARDTRAK, Apr. 1993, at 1, 1; CARDTRAK, Aug. 1995, at 1, 1. These reports note the proportion of outstanding bank credit card balances in the U.S., data derived from survey of 100 top issuers representing 93% of U.S. bank card receivables.

Figure 4: Increase in Bank Credit Card Ownership Greatest for Lower Income Households (Percent of Households with at Least One General-Purpose Credit Card)²⁸



B. Risk-Based Pricing and Expanded Credit Availability Across All Consumer Loans

Credit cards were the first major consumer lending product to experience risk-based pricing, but by the late 1990s the practice was common across all consumer loan products. Using Federal Reserve Board survey data, Edelberg²⁹ and Athreya et al.³⁰ found evidence of widespread risk-based pricing and its impact on consumers. By 1998 there was clear and consistent evidence of a steeper pricing gradient correlated with higher risk on consumer loans, as compared to earlier years. Edelberg found evidence of a sharply higher interest rate adjustment in response to bankruptcy risk: for every 0.01 increase in the probability of bankruptcy, the corresponding interest rate increase tripled for first mortgages, doubled for automobile loans, and rose nearly six-fold for second mortgages, as compared to loan pricing relative to risk in the late 1980s and early 1990s.³¹ In addition, loan

²⁸ Graph created using data from THOMAS A DURKIN, GREGORY ELLIEHAUSEN, MICHAEL E. STATEN, TODD J. ZYWICKI, CONSUMER CREDIT AND THE AMERICAN ECONOMY 300-04 (2014).

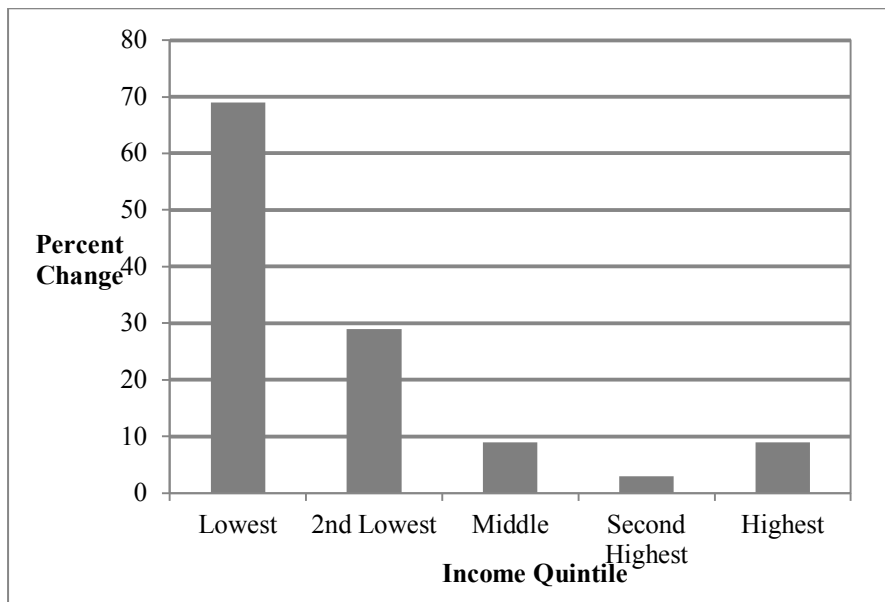
²⁹ Wendy Edelberg, *Risk-based Pricing of Interest Rates for Consumer Loans*, 53 J. MONETARY ECON. 2283, 2283-98 (2005).

³⁰ Kartik Athreya, Xuan S. Tam, & Eric R. Young, *A Quantitative Theory of Information and Unsecured Credit*, 4 AM. ECON. J.: MACROECONOMICS 153, 153-83 (2012).

³¹ See *id.* at 154 (noting that the average interest rate paid by households with any past delinquency was over 200 basis points higher than was the case for households with no past delinquency when

activity rose in predicted ways as a result of wider use of risk-based pricing. In terms of dollar amounts of loans outstanding, borrowing activity increased most for low-risk households who saw their relative borrowing costs fall. But, in terms of proportion of households actually using credit, Figure 5 shows the most dramatic increases were observed for lower income households who gained access to credit during the period.

Figure 5: Dramatic Increase in Access to Non-Mortgage Credit by Lower Income Households (Proportion of U.S. Households Using Non-Mortgage Credit in 1970 Compared with 2001)³²



A remarkable series of studies from economists at Stanford and the Wharton School of the University of Pennsylvania illustrates how credit scoring and risk-based pricing helped a lender mitigate both adverse selection and moral hazard, through the adjustment of both interest rates and loan terms based on borrower risk.³³ The studies utilized data from an auto

comparing data from 1983 and 2004). See also Athreya et al., *supra* note 30, data set, available at <https://www.aeaweb.org/articles.php?doi=10.1257/mac.4.3.153>.

³² Graph created using data from Athreya et al., *supra* note 30, data set, available at <https://www.aeaweb.org/articles.php?doi=10.1257/mac.4.3.153>.

³³ William Adams et al., *Liquidity Constraints and Imperfect Information in Subprime Lending*, 99 AM. ECON. REV. 49 (2009); Liran Einav et al., *Contract Pricing in Consumer Credit Markets*, 80 ECONOMETRICA 1387 (2012); Liran Einav et al., *The Impact of Credit Scoring on Consumer Lending*, 44 RAND J. ECON. 249 (2013) [hereinafter Einav et al., *The Impact of Credit Scoring*].

finance company that specializes in automobile loans,³⁴ mostly for used vehicles, for the low-income, high-risk consumer market.³⁵ The company's customer base varied substantially in default risk, with the top third of borrowers ranked in terms of predicted risk about 20 percentage points more likely to default than the bottom third. Both moral hazard and adverse selection were readily apparent in the loan data. The authors found that for borrowers in the portfolio, a \$1,000 increase in loan size increases the rate of default by 16%, and borrowers who were observably at high risk of default were precisely the borrowers who desired the largest loans. Consequently, the value of screening borrowers to more precisely identify default risk was high. The authors noted that lending to this group "requires separating consumers with transitory bad records from persistently bad risks, as opposed to simply identifying red flags in a consumer's history."³⁶

Until 2001, the company relied on uniform (subprime) loan pricing and traditional judgmental methods for screening borrowers. Beginning in 2001, the company adopted credit scoring. Two distinct benefits resulted from the use of credit scoring: the improved ability to screen out high-risk borrowers, and the ability to target more generous loans to lower risk borrowers. The authors found that adoption of credit scoring increased profits by roughly \$1,000 per loan, on a portfolio with an average loan principal of about \$9,000. How was this achieved?

First, credit scoring allowed the lender to set different down payment requirements for different applicants. High-risk applicants saw their required down payment increase by more than 25%, creating a hurdle to obtain financing. Close rates for this group fell notably, and also default rates, consistent with the idea that higher-risk borrowers were screened out by the higher down payment requirement. . . .

. . . [In contrast,] [r]equired down payments and close rates changed little for lower-risk applicants. Instead . . . we observe that car quality and average loan sizes increased substantially. Default rates did not change much, and hence the larger loans had a substantial [positive] profit impact due to the high interest rate charged in this setting.³⁷

³⁴ Legally speaking, the vast majority of credit provided for automobile purchases is made in the form of "retail installment sales contracts" as opposed to "consumer loans."

³⁵ During the period covered by the studies, the company's average loan applicant had an annual household income of around \$28,000. Almost one third of applicants had no bank account, and only 15% owned their own home. A large majority of applicants had a FICO score below 600. During the six months prior to their loan application, more than half of the company's applicants were delinquent on at least 25% of their debt. Cars purchased as a result of loan transactions were typically five to seven years old with odometer readings in the 65,000–100,000 mile range. Einav et al., *The Impact of Credit Scoring*, *supra* note 33, at 252-53.

³⁶ *Id.* at 255.

³⁷ *Id.* at 251. Prior to adoption of credit scoring, there was dramatic variation across dealerships served by the finance company in terms of loan profitability, related primarily to differences in default rates and matching of cars to borrowers.

The authors concluded that strong adverse selection effects in this population of potential borrowers were mitigated by the adoption of risk-based pricing:

observably risky buyers end up with smaller rather than larger loans because they face higher down payment requirements. This finding is notable because the development of sophisticated credit scoring is widely perceived to have had a major impact on consumer credit markets. Here we document its marked effects in matching high-risk borrowers with smaller loans.³⁸

The key point is that credit scoring gave this lender who specialized in the higher risk segment of the automobile loan market the ability to more accurately identify the risk posed by individuals and tailor the loan terms to individual risk. Following the adoption of credit scoring, the highest risk applicants borrowed less, and less frequently, mostly because of the higher down payment hurdle. Lower risk borrowers in the applicant pool, on average, were able to borrow more to purchase higher quality, usually lower mileage, cars. More credit flowed, and loans were more suitable for individual borrowers, relative to the outcomes obtained without credit scoring.

To summarize, there is overwhelming evidence that when credit-scoring techniques are used to implement risk-based pricing of loans, consumers are evaluated based on their own history of handling credit-related obligations and receive a better match of loan terms to their circumstances than would be the case in the absence of scoring—under a more subjective, judgmental system of lending. As a direct result, more credit is available to borrowers across a broader risk and income spectrum than would be the case in the absence of risk-based pricing.

IV. ALLEGATIONS OF BIAS AND DISPARATE IMPACT ASSOCIATED WITH SCORING AND RISK-BASED PRICING

Despite the clear evidence that risk-based pricing has played an important role in expanding credit access to borrowers across the risk spectrum, critics of credit scoring have periodically over the past thirty years alleged that scoring models actually have an adverse effect on certain demographic groups, including minorities protected under the Equal Credit

The advent of credit scoring compressed this variation Although almost all dealerships became more profitable, the relative improvement was greater for dealerships that previously had higher default rates and less pronounced matching of cars to borrowers of different risks, the two dimensions that credit scoring tried to address.

Id. The authors found that, relative to setting a uniform down payment requirement, risk-based financing can increase profits by 22%.

³⁸ Adams, *supra* note 33, at 51 (citation omitted).

Opportunity Act (ECOA).³⁹ The ECOA—as implemented through the Federal Reserve Board’s Regulation B—prohibits lenders from treating an applicant less favorably than any other based on prohibited factors that include the applicant’s race, color, religion, national origin, sex, marital status, the applicant’s receipt of income from public assistance programs, or the applicant’s good faith exercise of rights under the Consumer Credit Protection Act.⁴⁰ Scoring models approved by regulators for use in loan application and pricing decisions must not utilize those characteristics prohibited under ECOA.

The question of whether some legally permissible variables in scoring models create disparate impact for certain demographic groups has been extensively studied by Federal Reserve Board researchers.⁴¹ In a 2007 Report to Congress on the impact of credit scoring, the Federal Reserve study concluded that:

- Credit history scores (i.e., those based purely on credit-report data, such as the FICO and VantageScore products) are predictive of credit risk for the population as a whole and for all major demographic groups.⁴²
- Credit characteristics in credit history scoring models do not serve as substitutes, or proxies, for race, ethnicity or sex.⁴³
- Credit scoring, as a cost- and time-saving technology, likely has contributed to improved credit availability and affordability over the past quarter century. The increase in credit availability appears to hold for the population overall, as well as for major demographic groups, including different races and ethnicities.⁴⁴
- Different demographic groups have substantially different credit scores, on average. Blacks and Hispanics have lower credit scores than non-Hispanic whites and Asians. Individuals under age thirty have lower credit scores than older individuals. But, there is no compelling evidence that any particular demographic group has experi-

³⁹ Robert B. Avery, Kenneth P. Brevoort & Glenn B. Canner, *Does Credit Scoring Produce a Disparate Impact?*, 40 REAL ESTATE ECON. S65 (2012) [hereinafter Avery et al., *Disparate Impact?*].

⁴⁰ 12 C.F.R. § 202.1 (2015).

⁴¹ REPORT TO CONGRESS, *supra* note 15, at S-1–S-2.

⁴² *Id.* at S-1.

⁴³ *Id.* at S-1–S-2.

⁴⁴ *Id.* at S-2.

enced markedly greater changes in credit availability or affordability than other groups due to credit scoring.⁴⁵

The Federal Reserve report also reiterates that the use of credit scoring helps creditors to establish loan prices that are more consistent with the actual risks and costs inherent in extending the credit.⁴⁶ Consequently, the use of risk-based pricing “discourage[s] excessive borrowing by risky consumers while helping to ensure that less-risky customers are not discouraged from borrowing as much as their circumstances warrant.”⁴⁷ The report also notes that “risk-based pricing expands access to credit for previously credit-constrained populations, as creditors are better able to evaluate credit risk, and, by pricing it appropriately, offer credit to higher-risk individuals.”⁴⁸

Some critics of credit scoring, including those within the Consumer Financial Protection Bureau (CFPB), the Department of Housing and Urban Development (HUD), and the Department of Justice (DOJ) point out that variables permitted for use in scoring models can themselves be correlated with protected group characteristics. They contend that use of such variables produces an impermissible disparate impact based on race, gender, or other off-limits characteristics, and therefore violates ECOA.⁴⁹

A. *Bias Against Underserved and Unbanked Consumers*

A more recent criticism of lenders’ reliance on credit scoring—and the companion use of risk-based pricing—is that millions of U.S. consumers lack sufficient credit histories to generate a score from the widely used

⁴⁵ See *id.*; Avery et al., *Disparate Impact?*, *supra* note 39; Robert B. Avery, Kenneth P. Brevoort & Glenn B. Canner, *Does Credit Scoring Produce a Disparate Impact?* (Fed. Reserve Bd. Fin. & Econ. Discussion Series, Paper No. 2010-58, 2010) (providing an expanded analysis and finding no evidence of disparate impact by race, ethnicity, or gender stemming from the use of credit history scores in lending).

⁴⁶ REPORT TO CONGRESS, *supra* note 15, at S-4.

⁴⁷ *Id.* at O-5.

⁴⁸ *Id.*

⁴⁹ Avery et al., *Disparate Impact?*, *supra* note 39 (providing a helpful illustration of how this might happen: Suppose a particular demographic group experiences more frequent bouts of unemployment than other groups, leading to higher incidence of loan defaults. Negatively scoring a loan applicant based on membership in that group would be prohibited under ECOA. But, further suppose that members of this group tend to utilize a particular type of credit, say, finance companies, more often than other groups. If a scoring model happened to include the number of finance company accounts held by a consumer as a predictive variable, then that variable could be serving as a proxy for group membership, and could be deriving its predictive power *solely* based on it being a proxy for the higher risk present in the group. If that were the case, inclusion of that variable (correlated with higher default rates) could penalize members of the protected group. This would create disparate impact on a protected class.)

commercial scoring models, like FICO or VantageScore, and millions more have only limited history with conventional credit products.⁵⁰ As of 2006, an estimated 35–54 million American adults had limited or nonexistent credit files.⁵¹ Most of these consumers in what the industry calls the “thin-file/unscoreable population” are new to, or completely outside of, the credit-granting system, either because they are young consumers with short histories of credit transactions, are recent immigrants, or have simply operated on a cash basis or through nontraditional sources of credit—family, friends, payday loans, etc.⁵² Their lack of traditional credit history makes them appear to lenders, especially those who rely heavily on automated underwriting systems, as high risk when, in fact, they are often not.

But, the problem for consumers here is not that lenders use credit scoring and risk-based pricing. The real problem is that the information lenders obtain from credit reports does not represent as complete a picture as one would like of a consumer’s experience in handling recurring payment obligations.

One of the virtues of credit scoring as a decision-assistance tool is that new data improves the ability of the models to fine-tune a lender’s assessment of risk and offer an appropriate risk-adjusted price to a borrower. An excellent example is the improved predictive power of scoring models resulting from inclusion of alternative payment history data such as monthly payments on utility bills or apartment rentals. Turner et al. utilized a sample of 8 million credit files from Trans Union, one of the three major credit bureaus, that contained nontraditional data in the form of utility and telecommunication payment information. Focusing especially on consumers whose credit reports were considered thin or unscoreable by conventional scoring models, the study incorporated the new payment data into the models and assessed any gain in predictive power using payment outcomes during the following year. The study found that the risk profiles of consumers in the thin or unscoreable segments improved substantially after inclusion of alternative payment data, with estimated probability of serious default falling by more than 20%.⁵³ Remarkably, credit files for nearly two-thirds of consumers in the thin-file sample became scoreable after inclusion of the utility and telecommunication payment data.⁵⁴ Minorities and lower income

⁵⁰ See generally REPORT TO CONGRESS, *supra* note 15, at S-2 (finding that “recent immigrants have somewhat lower credit scores than would be implied by their performance. This finding appears to derive from the fact that the credit history profiles of recent immigrants resemble those of younger individuals, whose credit performance tends to be poor relative to the rest of the population.”).

⁵¹ MICHAEL A. TURNER ET AL., POL. & ECON. RESEARCH COUNCIL, THE BROOKINGS INST. URBAN MKTS. INITIATIVE, GIVE CREDIT WHERE CREDIT IS DUE: INCREASING ACCESS TO AFFORDABLE MAINSTREAM CREDIT USING ALTERNATIVE DATA 13 (2006).

⁵² *Id.* at 2.

⁵³ TURNER ET AL., *supra* note 51, at 4.

⁵⁴ *Id.* at 5.

consumers benefited most.⁵⁵ Using a model with expanded data and a 3% target default rate, acceptance rates rose by: 22% for Hispanic borrowers, 21% for African-American borrowers, 14% for those aged twenty-five or younger, and 15% for those earning between \$20,000 and \$30,000 per year.⁵⁶

The intuition behind these surprisingly large gains is straightforward. Consumer credit reports with no conventional credit accounts provide no positive payment experience for scoring models to interpret. The inclusion of even one account with a positive payment history allows the model to go to work and generate a statistically valid score that estimates default probability. The research question over the past decade has been whether payments on a noncredit account—but one that represents an ongoing monthly obligation on the consumer's budget—are predictive of successful handling of a credit account. Increasingly, studies are showing that alternative payment data does exactly that.

Experian released a study in 2014 that provides a detailed look at the impact on credit scores of the reporting of on-time rental payments for residents of subsidized housing. The study incorporated rental payment data from Experian's RentBureau database on 20,000 leases initiated between 1994 and 2013.⁵⁷ Lease payment information was added to conventional credit report data from Experian's national credit report database for consumers in the sample to simulate the impact on each consumer's VantageScore 3.0 credit score. Key results included the following:

- Before inclusion of rental data in their credit files, 11% of consumers in the sample had credit files with no monthly account payment (trade-line) information. All of these consumers became scoreable after inclusion. Remarkably, 59% of this group earned VantageScore 3.0 scores that put them into the desirable prime credit risk category, demonstrating that a dramatic change in risk profile (and access to conventional credit products) can occur with the addition of data about how borrowers handle financial obligations.⁵⁸
- Among the 89% of consumers who were already scoreable, the inclusion of rental data increased their scores by an average of 29 points.⁵⁹

⁵⁵ *Id.* at 3.

⁵⁶ *Id.* at 4-5. See RACHEL SCHNEIDER & ARJAN SCHUTTE, THE PREDICTIVE VALUE OF ALTERNATIVE CREDIT SCORES, (Ctr. for Fin. Servs. Innovation 2007), for another early study documenting the positive impact of alternative payment data on the predictive power of commercially available risk score models (including the FICO Expansion Score and RiskView from Lexis-Nexis).

⁵⁷ EXPERIAN RENTBUREAU, CREDIT FOR RENTING: THE IMPACT OF POSITIVE RENT REPORTING ON SUBSIDIZED HOUSING RESIDENTS 1 (2014) [hereinafter EXPERIAN RENTBUREAU].

⁵⁸ *Id.* at 4.

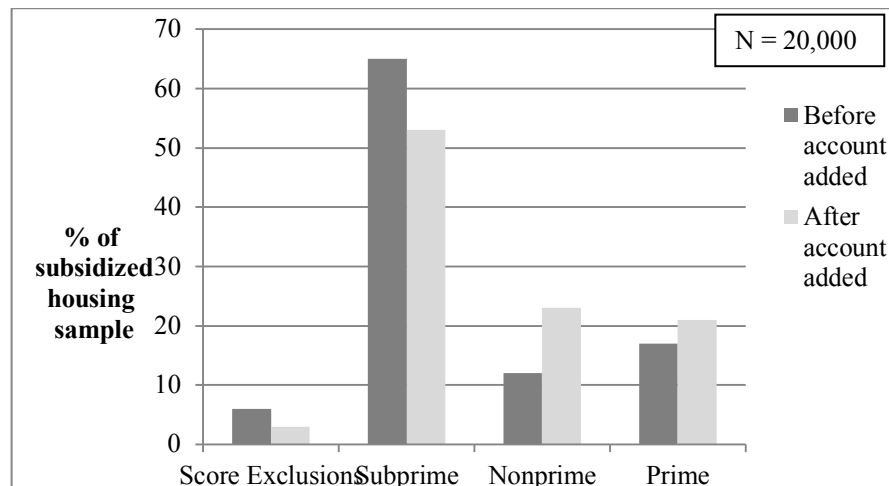
⁵⁹ *Id.* at 4, 7.

- As a result of the inclusion of rental data, about 12% of consumers in the sample would move out of the subprime category and into the nonprime and prime risk categories, allowing them to qualify for significantly lower interest rates and more favorable loan terms.⁶⁰

Table 1: No-Hit Population Becomes Scoreable After Inclusion of Rental Payment Data (Breakdown for the 11% of Subsidized Housing Sample with No Credit Report)⁶¹

Risk Segment After Rental Data Included	Percentage of No-Hit Population	Average VantageScore 3.0 After Inclusion
Prime	59%	688
Nonprime	38%	649
Subprime	3%	586
Total	100%	670

Figure 6: Inclusion of Rental Payment Data Improves the Risk Profile of Many Subprime Borrowers⁶²



The predictive power of alternative payment data has been clearly demonstrated. These new data give creditors the ability to score and evaluate millions of consumers with thin or no credit report files, generating a disproportionately positive impact on low-income applicants and people of color, or both. “With the potential to reach 35–54 million American adults who are underserved with respect to conventional credit products, creditors are increasingly looking to utilize data on recurring payments made by

⁶⁰ *Id.* at 3.

⁶¹ Table created with data from *id.* at 4.

⁶² Graph created with data from *id.* at 1.

these consumers to determine creditworthiness.”⁶³ The major credit bureaus and established credit scoring vendors are actively developing methods to collect, verify, store and score monthly bill payment data on a large scale.⁶⁴ Approximately 40 million U.S. households rented their residence in 2013, and the majority of these payments are not yet reflected in credit reports.⁶⁵ Utility and telecommunications sources of data show the most promise for expanding positive payment histories, as studies estimate that 90% or more of the thin-file/unscorable population has one or more such accounts.

Other innovations in scoring technology extend to reexamining the assumptions of established credit scoring models regarding traditional credit-usage behavior. A recent example is in the recognition that some of the collection activity data present in credit reports turns out not to be as predictive as once thought. FICO announced in August 2014 that it would stop including in its FICO score calculations any item reported by a collection agency if the item was also reported with a zero balance (i.e., had been paid), and it would give less weight to unpaid medical bills reported by collection agencies.⁶⁶

In another example of constant reengineering of scoring models to improve predictive power, a 2014 report from VantageScore indicates that its VantageScore 3.0 product was redesigned so that a total of 30–35 million consumers unscored by earlier versions of the model could now be scored and assigned an estimated probability of default. “The gain in scoreability

⁶³ MICHAEL STATEN, CTR. FOR CAPITAL MKTS., RISK-BASED PRICING IN CONSUMER LENDING 25 (2014), available at http://www.centerforcapitalmarkets.com/wp-content/uploads/2013/08/CCMC_RiskBasedPricing_FINAL_to_post_10_24_2014.pdf (quoting Janice Horan, *FICO Scores and the Credit Underserved Markets*, FICO BANKING ANALYTICS (2005), available at http://www.brookings.edu/metro/umi/20051215_Jhoran_FairIssac.pdf). FICO estimated in 2005 that reaching just 3% of this market would put into play an additional \$2.3 billion for mortgage lenders, \$750 million for automobile lenders, and \$113 million for credit card issuers.

⁶⁴ Since 2010, Experian’s RentBureau product has been collecting rental payment data nationally from property management companies and electronic rent payment services. Continuous on-time rental payment data are incorporated into Experian credit reports and individual rental payment history reports are available to consumers. Trans Union also incorporates both rental and utility payments into its credit report products. In 2014 Trans Union reported results of an internal study which showed that incorporating rental payment history into VantageScore 2.0 credit scores led to score increases for 80% of subprime consumers after only one month’s reporting of positive payments on an apartment lease. *TransUnion Analysis Finds Reporting of Rental Payments Could Benefit Renters in Just One Month*, TRANS UNION (June 9, 2014), <http://newsroom.transunion.com/transunion-analysis-finds-reporting-of-rental-payments-could-benefit-renters-in-just-one-month> (finding that approximately eight-in-ten subprime consumers—79.1% of those with a VantageScore 2.0 credit score lower than 641 on a scale from 501 to 990—experienced an increase in their score one month into their new apartment lease).

⁶⁵ EXPERIAN RENTBUREAU, *supra* note 57, at 8 (Experian’s RentBureau database is the largest repository of rental payment data, covering 12 million consumers nationwide.).

⁶⁶ See generally Annamaria Andriotis, *FICO Recalibrates its Credit Scores*, WALL ST. J., August 7, 2014 (VantageScore announced in 2013 that its newly released VantageScore 3.0 product was ignoring paid collection items.).

derived from focusing the model especially on the observed behaviors of consumers with new accounts (less than 6 months old) and infrequent users of credit (no account updated within past 6 months; little or no activity in the credit report within prior 24 months).⁶⁷ The report noted that the credit reports of 9.5 million Hispanic and African-American consumers gained scoreability through the VantageScore 3.0 product, with 2.7 million of these consumers scoring sufficiently high to achieve near-prime status or better.⁶⁸

The recurring theme here is that ongoing innovation in both credit scoring and the application of risk-based pricing has dramatically expanded credit availability to millions of consumers who were previously underserved by conventional loan markets. Rather than shutting these individuals out of the market, scoring and risk-based pricing have given lenders the tools and incentives they need to say “yes” to loan applications from a far wider cross-section of the population than ever before. All of this is the direct consequence of competitive pressure in the lending industry to find more efficient decision tools.

CONCLUSION

Credit scoring and risk-based pricing have moved the U.S. consumer loan industry away from a “single price for everyone” model with restricted access to credit. By evaluating and pricing loans based on each applicant’s own characteristics and payment history, scoring and risk-based pricing triggered a massive expansion in credit opportunities for American consumers across the socioeconomic spectrum that continues today.

The vast majority of credit decisions are based on factual data regarding a borrower’s own past payment history and current obligations. Credit scoring has replaced face-to-face attempts to evaluate character and capacity (common a generation ago) with a more equitable (and less invasive) assessment based on documented behavior. At the same time, a lender’s use of credit scoring improves the accuracy and speed of lending decisions, and dramatically increases the consistency of those decisions and likelihood of equal treatment across tens of thousands of applicants.

The case for risk-based pricing is as much a story about economic growth and resiliency at the macroeconomic level as it is about fairness and opportunity at the micro level. Well-developed consumer credit markets allow households to transfer consumption from periods where household income is high to periods where income is low. This is particularly important for householders early in the life cycle (aged twenty to forty-five) when the demand for housing, durable goods and education is relatively

⁶⁷ STATEN, *supra* note 63, at 25-26.

⁶⁸ VANTAGESCORE, UNIVERSE EXPANSION: IS THE WAY YOU SCORE CUSTOMERS STATE OF THE ART OR STATE OF DENIAL? 2 (2014).

high, and incomes are relatively low but expected to rise over time. But, it is also important for households weathering temporary income disruptions or unexpected expense shocks. A trio of factors including (1) detailed credit reports, (2) sophisticated scoring models and, (3) risk-based pricing has allowed creditors in the United States to extend loans and establish lines of credit for a broad segment of the population, compared to other countries.

Over the past three decades, tens of millions of U.S. households have gained access to a credit bridge that can sustain them through temporary disruptions and declines in incomes. The availability of consumer credit to bridge income disruptions has important macroeconomic implications. Cross-country studies have found that credit availability and consumption fluctuations are linked. Consumer spending is more sensitive to changes in income in countries with less-developed consumer credit markets, especially during periods of tighter credit constraints.⁶⁹ Credit markets that make loans accessible to large segments of the population provide a cushion that neutralizes the macroeconomic drag associated with temporary declines in income, lowering the risk of outright recession and reducing the magnitude of downturns when they do occur.⁷⁰

Well-developed consumer loan markets also give consumers greater mobility. There is less risk associated with severing old relationships and starting new ones hundreds of thousands of miles away because objective information is available that helps U.S. residents to establish and build trust in new locations more quickly. From a labor market perspective, the ability of lenders to tap and utilize the detailed information in our credit reporting system has increased the mobility of the U.S. population. As a result, structural shifts within the economy can cause temporary employment disruptions without crippling long-term effects.

In contrast, more restrictive credit reporting laws in Europe prevent consumers in the EU from taking full advantage of their complete credit histories. The fact that credit *information* is not mobile restricts the mobility of *consumers*, especially across borders, because of the resulting difficulty of obtaining credit from new institutions. As a result, consumer lending in Europe tends to be concentrated among a few major banks in each country, each of which has its own large customer databases.⁷¹ European con-

⁶⁹ See generally P. Bacchetta & S. Gerlach, *Consumption and credit constraints: International evidence*, 40 J. MONETARY ECON. 207 (1997).

⁷⁰ See generally Kreuger, Dirk & Fabrizio Perri, *Does Income Inequality Lead to Consumption Inequality? Evidence and Theory* (Nat'l Bureau of Econ. Research, Working Paper No. W9202, 2002).

⁷¹ See generally WALTER F. KITCHENMAN, THE TOWER GROUP, THE EUROPEAN UNION DIRECTIVE ON PRIVACY AS A BARRIER TO TRADE (2000) (A 2000 report from the U.S.-based consulting firm, The Tower Group, found that in Europe consumer financial services are provided by one-tenth the number of institutions that serve U.S. households, despite the fact that the pan-European market has almost one and one-half times as many households. In France, the EU country with some of the strictest financial privacy laws that restrict personal data transfers, seven banks control more than 96% of bank-

sumers, although they outnumber their U.S. counterparts, have access to one-third less credit as a percentage of Gross Domestic Product.⁷²

These studies imply that the United States and other countries with well-developed consumer credit markets enjoy a macroeconomic growth advantage. The intuition is straightforward. Detailed personal credit history data gives lenders confidence in assessing the risk associated with new borrowers. It allows lenders to design and price products to meet the credit needs of previously underserved populations. Because of the underlying credit reporting network, U.S. consumers can get credit, insurance, and a host of other financial services based on their individual credit records, not their family name or how long they have known their banker. In addition, they can rent apartments, purchase cell phones, subscribe to cable television service, and rent automobiles without either large deposits or an established relationship with the service provider, all because their reputation for paying as agreed is documented through their credit reports.

Contemporary critics of the use of scoring and risk-based pricing argue that these well-established practices penalize those consumers with unconventional credit usage, or no credit usage at all. But, this is not really a criticism of the tools; it is rather a critique that the tools fail to utilize a more complete (and hence more accurate) compilation of the borrower's prior behavior.

One of the virtues of scoring as a decision assistance tool is that new data improves the ability of these models to fine tune a lender's assessment of risk. Competitive lending and scorecard development markets encourage this ongoing "champion-challenger" evolution that increases the predictive power of these tools. The emergence of VantageScore over the past decade as a competitive alternative to the FICO score is an excellent example. Development of reliable and low-cost sources of alternative payment data, and the realignment of scoring models to accommodate this data, is enabling consumers who have operated outside of mainstream credit markets to gain increased access to credit and credit-related products that are priced according to their own risk profiles and circumstances.

Regulation that would limit the use of either credit report information or the various scoring and pricing tools that have been built with that data, or invoke doctrines like disparate impact that implicitly challenge the use of objective criteria in lending and pricing, would stifle innovation, reduce the potential for improved models to bring their enormous benefits to consumers across the risk spectrum, and roll back many of the benefits already obtained.

ing assets. In particular, French law does not permit "positive" credit reporting. Consequently, unless a borrower has had past payment difficulties, he has no credit history at all.).

⁷² See generally KENNETH A. POSNER, GLOBAL CREDIT CARDS: GLOBAL GROWTH, LOCAL CHALLENGE (2001).

relationship with the service provider, all because their reputation for paying as agreed is documented through their credit reports.

Contemporary critics of the use of scoring and risk-based pricing argue that these well-established practices penalize those consumers with unconventional credit usage, or no credit usage at all. But, this is not really a criticism of the tools; it is rather a critique that the tools fail to utilize a more complete (and hence more accurate) compilation of the borrower's prior behavior.

One of the virtues of scoring as a decision assistance tool is that new data improves the ability of these models to fine tune a lender's assessment of risk. Competitive lending and scorecard development markets encourage this ongoing "champion-challenger" evolution that increases the predictive power of these tools. The emergence of VantageScore over the past decade as a competitive alternative to the FICO score is an excellent example. Development of reliable and low-cost sources of alternative payment data, and the realignment of scoring models to accommodate this data, is enabling consumers who have operated outside of mainstream credit markets to gain increased access to credit and credit-related products that are priced according to their own risk profiles and circumstances.

Regulation that would limit the use of either credit report information or the various scoring and pricing tools that have been built with that data, or invoke doctrines like disparate impact that implicitly challenge the use of objective criteria in lending and pricing, would stifle innovation, reduce the potential for improved models to bring their enormous benefits to consumers across the risk spectrum, and roll back many of the benefits already obtained.

DUE PROCESS OBJECTIONS TO COMPULSORY REGISTRATION:
WHY A DAY IN COURT SHOULD NOT SUBJECT JUVENILE SEX
OFFENDERS TO A LIFETIME OF STIGMA

*Ian Baldwin**

INTRODUCTION

On July 27, 1981, Adam Walsh, the son of “America’s Most Wanted” host John Walsh was abducted from a Sears department store in Florida and was later found murdered and decapitated. In the wake of this tragedy, and a string of other highly publicized abductions and sexual crimes against children,¹ Congress passed the Adam Walsh Child Protection and Safety Act in 2006 (more commonly known as the Sex Offender Registration and Notification Act (SORNA)),² a federal statute that created a registration database for sex offenders, mandating compulsory registration in accordance with a three-tier registry system.³

Crimes committed by juveniles in most states are expunged from a juvenile’s criminal record when the juvenile reaches the age of maturity, a way of recognizing that the sins of a young child should not haunt the adult he becomes.⁴ However, for many juvenile sex offenders, conviction of a sexual crime carries lifetime registration requirements that are crippling to an offender’s job prospects and carry stigmas that often preclude the possibility of forming meaningful social ties to the offender’s communities. These requirements can also be difficult to adhere to due to variances in registration requirements among the states.⁵ For example, a Louisiana community notification law passed in 2001 uniquely required registrants living or moving to the state to publish their name, address, and crime in a local newspaper.⁶ Failure to comply with prospective registration require-

* Ian Baldwin, J.D. Candidate (2015), George Mason University School of Law; B.A., University of Oregon, 2010.

¹ See Krista Schram, *The Need for Heightened Procedural Due Process Protection in Juvenile Sex Offender Adjudication*, 55 S.D. L. REV. 99, 107 (2010).

² 42 U.S.C. § 16911 (2006).

³ Michael F. Caldwell, Mitchell H. Ziemke & Michael J. Vitacco, *An Examination of the Sex Offender Registration and Notification Act as Applied to Juveniles: Evaluating the Ability to Predict Sexual Recidivism*, 14 PSYCHOL. PUB. POL’Y & L. 89, 90 (2008) [hereinafter Caldwell et al.].

⁴ 2 DONALD T. KRAMER, THE LEGAL RIGHTS OF CHILDREN 608-10 (2d ed. 2005).

⁵ See Terra R. Lord, *Closing Loopholes or Creating More? Why a Narrow Application of SORNA Threatens to Defeat the Statute’s Purpose*, 62 OKLA. L. REV. 273, 310 (2010).

⁶ LA. REV. STAT. ANN. § 15:542 (2001).

ments, such as Louisiana's registration law, may result in additional felony convictions.⁷

This comment posits that the same logic of expunging a juvenile's criminal record also supports the proposition that juveniles should not be categorized under the same sex offender registration requirements as adults. Juveniles who commit certain heinous sex crimes must be closely monitored in the same fashion as adults for public safety reasons. However, sentencing all juveniles to the same registration requirements as adults does not comport with the reality that many juveniles are convicted of sex crimes as a result of harmless sexual "play" with other children, while others who complete their criminal sentences have undergone successful rehabilitation, and are not "presently dangerous" to society.

The national sex offender registry system serves an important function in monitoring adult sex offenders who presently pose a risk to society. For these offenders, there is less of a case to be made that they are being deprived of due process through compulsory registration upon the completion of their sentence because few adults are provided with rehabilitative treatment.⁸ Yet, for juveniles convicted of similar crimes, a stronger case can be made that it is a violation of their procedural due process rights to not have an opportunity to be heard, and present mitigating factors to a court as to why compulsory registration requirements should either be waived or abrogated based on a finding of rehabilitation, or evidence that relinquishing registration requirements upon near-term good behavior is appropriate.

Scholars have argued that there are procedural due process problems with placing juveniles in registration systems, such as SORNA.⁹ While some argue that no juvenile should ever be registered in adult registration systems,¹⁰ other scholars contend that juveniles should simply be afforded pre-registration hearings to determine the status of their "present danger" to society (which determines which of the three tiers they will be placed in), as is the case in Iowa and Virginia.¹¹ Other solutions to protect juveniles' rights include capping inclusion under SORNA registration guidelines at age fifteen.¹²

The perspective developed in this paper is distinct from these positions, insofar as it suggests that during pre-release (pre-registration) hear-

⁷ Megan Annitto, *Juvenile Justice on Appeal*, 66 U. MIAMI L. REV. 671, 707 (2012).

⁸ Sander N. Rothchild, *Beyond Incarceration: Juvenile Sex Offender Treatment Programs Offer Youths a Second Chance*, 4 J.L. & POL'Y 719, 740 (1996).

⁹ E.g., Britney Bowater, *Adam Walsh Child Protection and Safety Act of 2006: Is There a Better Way to Tailor the Sentences of Juvenile Sex Offenders?*, 57 CATH. U. L. REV. 817, 821 (2008).

¹⁰ *US: Sex Offender Laws May Do More Harm than Good, End Registration of Juveniles, Residency Restrictions and Online Registries*, HUMAN RIGHTS WATCH (Sept. 12, 2007), <http://www.hrw.org/news/2007/09/11/us-sex-offender-laws-may-do-more-harm-good>.

¹¹ E.g., Bowater, *supra* note 9, at 821.

¹² Andrew Huges, *Haste Makes Waste: A Call to Revamp New Jersey's Megan's Law Legislation as Applied to Juveniles*, 5 RUTGERS J.L. & PUB. POL'Y 408, 444-45 (2008).

ings, juveniles should not merely be faced with the possibility of compulsory registration under one of the three “levels” of SORNA registration—but that SORNA should also include a “step zero”¹³ of sorts, whereby a juvenile may be excused completely from registration by a determination that he does not pose a risk to society. This position is thus distinct from the two platforms frequently espoused, as it stakes out a middle ground between the contention that juveniles should never have to register, and the view that they should always register and should be afforded a hearing merely to determine which tier of registration is appropriate.

Part I of this paper discusses the background on SORNA’s requirements, including the issues that sparked the need for a sex offender registration database. This section also touches on why states are resisting the application of SORNA to juveniles. Part II discusses the efficacy of due process claims against SORNA and other state sex offender statutes, as well as the Supreme Court’s limited jurisprudence on the matter. Part III utilizes the rubric of *Mathews v. Eldridge*¹⁴ to touch on the specific liberty and property interests that are threatened by the deprivation of a juvenile’s ability to be heard before compulsory SORNA registration, as well as the government’s interest in depriving juveniles of such hearings. This comment ultimately suggests that a proper application of the *Eldridge* test to juvenile sex offenders by the Supreme Court should result in a different outcome than in *Connecticut Dept. of Public Safety v. Doe*.¹⁵

I. BACKGROUND ON SORNA AND ITS APPLICATION TO JUVENILES

A. *SORNA Implementation Resisted by States*

Title I of SORNA creates a national registry system and outlines requirements for adherence to the law.¹⁶ The act creates a three-tier system that categorizes offenders according to the severity of their offense.¹⁷ Tier III offenders include convicted felons who committed crimes “comparable to or more severe than” aggravated sexual abuse or abusive sexual contact with a minor under the age of thirteen.¹⁸ Tier III offenders are required to register for life with the chance of removal from the database after twenty-

¹³ Such a “step zero” has been employed by Virginia, and to a lesser degree Iowa. See Bowater, *supra* note 9, at 834.

¹⁴ *Mathews v. Eldridge*, 424 U.S. 319, 335 (1976).

¹⁵ *Conn. Dep’t of Pub. Safety v. Doe*, 538 U.S. 1, 1-3 (2003).

¹⁶ Brittany Enniss, *Quickly Assuaging Public Fear: How the Well-Intended Adam Walsh Act Led to Unintended Consequences*, 2008 UTAH L. REV. 697, 702 (2008).

¹⁷ *Id.* at 702.

¹⁸ *Id.* at 703.

five years pending adhesion to behavioral benchmarks.¹⁹ To be in compliance with SORNA, a state must “substantially comply” with SORNA’s registration requirements.²⁰ Tier II and Tier I offenders typically are charged with less serious sexual offenses, and are not required to register for life.

SORNA was the first federal statute mandating registration for juvenile offenders.²¹ According to the U.S. Department of Justice, roughly 17% of all sex offenses are committed by juveniles.²² Juveniles themselves account for about a third of such crimes committed against other juveniles.²³ In the wake of the enactment of new sex offender laws both federally²⁴ and at the state level,²⁵ scholars have felt that the Supreme Court has failed to act in signaling “much-needed boundaries” to the proliferation of sex offender registration statutes,²⁶ and that the statutory language of SORNA failed to appropriately differentiate between adults and juveniles, bundling up both in the same “overly-broad laws.”²⁷

Why might sex offender laws sweep so broadly? According to some, the over-inclusive nature of sex offender laws derive from inaccurate portrayals by legislators and other political figures of sex offenders during legislative debate about Megan’s Law (the precursor to SORNA). As Elizabeth Garfinkle describes, during legislative debate on Megan’s Law, “sex offending was portrayed as an innate, immutable, personal identity, rather than as isolated acts for which individuals could be convicted and rehabilitated.”²⁸ Other scholars have echoed this sentiment, noting that sex offender laws are frequently unmitigated in their reach and application, and are

¹⁹ *Id.* at 704.

²⁰ *Id.* at 705.

²¹ Richard Paladino, *The Adam Walsh Act as Applied to Juveniles: One Size Does Not Fit All*, 40 HOFSTRA L. REV. 269, 271 (2011).

²² Phoebe Geer, *Justice Served? The High Cost of Juvenile Sex Offender Registration*, 27 DEV. MENTAL HEALTH L. 34, 41 (2008).

²³ *Id.*; See also David Finkelhor, Richard Ormrod, & Mark Chaffin, *Juveniles Who Commit Sex Offenses Against Minors*, JUV. JUST. BULL., Dec. 2009, at 1, 1-2 (noting that juveniles account for more than one-third of sex offenders who committed offenses against minors).

²⁴ Joanna Enstice, *Remembering the Victims of Sexual Abuse*, 35 LOY. U. CHI. L.J. 941, 942 (2004) (“[M]ost consider the Jacob Wetterling Crimes Against Children and Sex Offender Registration Act (‘Wetterling Act’), enacted in 1994, the advent of the sex offender registration requirement because this act was the first federal statute regulating the issue.”).

²⁵ See, e.g., ARK. CODE ANN. § 9-27-356; D.C. CODE § 22-4001; 730 ILL. COMP. STAT. ANN. § 150/1.

²⁶ Catherine Carpenter, *The Evolution of Unconstitutionality in Sex Offender Registration Laws*, 63 HASTINGS L.J. 1071, 1073 (2012).

²⁷ Caitlin Young, *Children Sex Offenders: How the Adam Walsh Child Protection and Safety Act Hurts the Same Children it is Trying to Protect*, 34 NEW ENG. J. ON CRIM. & CIV. CONFINEMENT 459, 463 (2008).

²⁸ Elizabeth Garfinkle, *Coming of Age in America: The Misapplication of Sex-Offender Registration and Community Notification Laws to Juveniles*, 91 CAL. L. REV. 163, 175 (2003).

“inoculated” from attack because of the political liability of appearing to oppose legislation that aims to protect children.²⁹

Although initially lauded for its importance in monitoring dangerous individuals and empowering private citizens to ensure the safety of their own children, SORNA has been met with criticism for its harsh registration requirements and debilitating effect on the capacity of sex offenders to attend school, obtain employment, and find housing.³⁰ Additionally, the act has been criticized by juvenile justice advocates for ignoring the necessity of according punishment regimes with the needs of juvenile offenders. In fact, in a 2009 survey conducted by the Council of State Governments, the Council found that, “The most commonly cited barrier to compliance [is] the act’s juvenile registration and reporting requirements.”³¹ The survey also reported that twenty-three of the forty-seven states involved in the study found juvenile registration and reporting requirements problematic. Currently, thirty-two states require juveniles to submit to sex offender registration,³² and the majority of states now treat juveniles the same as adults for registration purposes.³³

Although many states, such as Hawaii, have refused to comply with SORNA’s guidelines, a major reason for compliance with the federal statute is monetary. If a state declines to comply with SORNA guidelines, the state will be subject to a 10% reduction in funding from the federal government for that fiscal year.³⁴ Such funds derive from federal grant money from the Omnibus Crime and Safe Streets Act (2009).³⁵ These financial incentives appear to favor compliance over noncompliance. However, in considering the cost of implementing and adhering to SORNA, the costs may actually dwarf the amount of funding lost through noncompliance with the program.³⁶ For example, according to a study by the Justice Policy Institute, the estimated cost of California implementing SORNA would amount to \$59,287,816, a large amount compared to the \$2,187,682 in

²⁹ Daniel M. Filler, *Making the Case for Megan’s Law: A Study in Legislative Rhetoric*, 76 IND. L.J. 315, 358 (2001).

³⁰ See Jacob Frumkin, *Perennial Punishment? Why the Sex Offender Registration and Notification Act Needs Reconsideration*, 17 J.L. & POL’Y 313, 349 (2008).

³¹ Carole J. Petersen & Susan M. Chandler, *Sex Offender Registration and the Convention on the Rights of the Child: Legal and Policy Implications of Registering Juvenile Sex Offenders*, 3 WM. & MARY POL’Y REV. 1, 14 (2011).

³² *The Effective Management of Juvenile Sex Offenders in the Community—A Training Curriculum, Section 7: The Legal and Legislative Response*, CTR. FOR SEX OFFENDER MGMT., http://www.csom.org/train/juvenile/7/7_4.htm (last visited Oct. 14, 2014) [hereinafter *Effective Management*].

³³ Adam Doeringer, *Rehabilitating Juvenile Sex Offenders with a Life Sentence*, 42 J. MARSHALL L. REV. 187, 195 (2008).

³⁴ Frumkin, *supra* note 30, at 336.

³⁵ Paladino, *supra* note 21, at 284.

³⁶ Stephanie Buntin, *The High Price of Misguided Legislation: Nevada’s Need for Practical Sex Offender Laws*, 11 NEV. L.J. 770, 788-89 (2011).

funding California would lose each year for failing to comply.³⁷ Although the upfront costs associated with funding would be dissipated prospectively, it would still take California roughly twenty-seven years for their initial implementation costs to equal lost federal funding.³⁸ This calculation assumes no additional costs of ongoing implementation and maintenance of the registry system.³⁹ Similarly, according to estimates, the cost of implementing SORNA in Nevada would be \$4,160,944 compared with a mere \$180,810 in lost funding annually for failing to comply.⁴⁰ Although it is unclear whether similar cost discrepancies would apply to all states, at the very least it appears that certain states would benefit financially from declining to adhere to SORNA's requirements.

States are also compelled to comply with SORNA based on a misconception that having overly inclusive registration requirements will reduce recidivism, and thus future sexual assaults. According to some studies, average-sized registry systems do decrease sex offenses by 1.21 offenses per 10,000 people.⁴¹ However, studies are also quick to point out that overly inclusive registration systems create a countervailing disincentive for people to report sexual crimes, resulting in many unreported sexual assaults, as well as offenders who are not identified and treated.⁴² As such, statistics on the effectiveness of programs like SORNA are problematic.

B. *Current Due Process Afforded to Convicts*

When juveniles, like adults, are adjudicated guilty of a sex crime, states are not required by federal law to afford them an opportunity to contest the mandatory registration requirement under SORNA,⁴³ although some states do allow convicts an opportunity to be heard as part of the judge's determination of what tier the offender will be placed in.⁴⁴ Most states have adopted "risk-based" systems that require juvenile registration based on their danger to society.⁴⁵ However, due to the funding contingencies mentioned above and political pressures to appear tough on crime, many states

³⁷ *What Will It Cost States to Comply with the Sex Offender Registry and Notification Act?*, JUSTICE POLICY INST. (2008), http://www.justicepolicy.org/images/upload/08-08_FAC_SORNACosts_JJ.pdf.

³⁸ Buntin, *supra* note 36, at 789.

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ J.J. Prescott & Jonah E. Rockoff, *Do Sex Offender Registration and Notification Laws Affect Criminal Behavior?*, 54 J.L. & ECON. 161, 192 (2011).

⁴² *See id.*

⁴³ *See* Caldwell et al., *supra* note 3, at 90.

⁴⁴ *Effective Management*, *supra* note 32.

⁴⁵ Paladino, *supra* note 21, at 285.

are being forced to adopt SORNA's uniform federal system which, unlike state models, is "offense-based," and not "risk-based."⁴⁶

C. *The Profile of a Juvenile Sex Offender*

The typical juvenile sex offender is a male between the ages of thirteen and seventeen.⁴⁷ Although juvenile sex offenders transcend socioeconomic backgrounds, researchers point to a particular "stereotype" of the typical juvenile sex offender.⁴⁸ Upwards of 80% of juveniles who commit sexual crimes have a diagnosable psychiatric disorder, and it is estimated that up to 60% of these youth suffer from learning disabilities.⁴⁹ Offenders commonly were sexually or physically abused themselves as children⁵⁰ or have witnessed domestic violence in their home.⁵¹ Some scholars have gone so far as to refer to the illegal sexual acts of juvenile sex offenders as "symptom[s] of . . . victimization."⁵² According to this view, unwanted sexualized behavior in juvenile sex offenders is said to occur as a direct result of their experience as victims of sexual violence as children.⁵³

While no two sex offenders are alike, for purposes of registration, juveniles who have committed minor sex crimes are often punished identically to individuals who have committed heinous sexual acts. For example, in one Michigan case, a high school senior who "mooned" his principal as part of a senior prank was convicted of indecent exposure and was required to register as a sex offender for twenty-five years.⁵⁴ In another case in California, a fifteen-year-old boy named Archie engaged in consensual oral sex with a thirteen-year-old named Lauren.⁵⁵ During the sexual act Archie ejaculated onto Lauren's chest.⁵⁶ After Archie embarrassed Lauren by tell-

⁴⁶ *Id.*

⁴⁷ *Understanding Juvenile Sexual Offending Behavior: Emerging Research, Treatment Approaches and Management Practices*, CTR. FOR SEX OFFENDER MGMT. 3-4 (Dec. 1999), <http://www.csom.org/pubs/juvbrfl0.pdf>.

⁴⁸ Timothy E. Wind, *The Quandary of Megan's Law: When the Child Sex Offender is a Child*, 37 J. MARSHALL L. REV. 73, 107 (2003).

⁴⁹ Pamela Richardson, *Mandatory Juvenile Sex Offender Registration and Community Notification: The Only Viable Option to Protect All the Nation's Children*, 52 CATH. U. L. REV. 237, 246 (2002).

⁵⁰ Wind, *supra* note 48, at 107.

⁵¹ Richardson, *supra* note 49, at 246.

⁵² Jenna Rae Kring, *Caught in the Cycle of Sexual Violence: The Application of Mandatory Registration and Community Notification Laws to Juvenile Sex Offenders*, 18 WIDENER L. REV. 99, 109 (2012).

⁵³ *Id.* at 109.

⁵⁴ Wind, *supra* note 48, at 115.

⁵⁵ Tracy Petznick, *Only Young Once, but a Registered Sex Offender for Life: A Case for Reforming California's Juvenile Sex Offender Registration System Through the Use of Risk Assessments*, 16 BERKELEY J. CRIM. L. 228 (2011).

⁵⁶ *Id.* at 228.

ing his friends about the encounter, Lauren described her feelings of shame to her mother, who filed charges against Archie.⁵⁷ Archie was required to register as a sex offender for life.⁵⁸ Other examples of unsettling application of sex offender laws abound.⁵⁹ In Alabama, although the law was repealed in 2011, it was considered indecent exposure to display a bumper sticker with obscene language.⁶⁰

Although such anecdotes appear contrary to public policy and even common sense, examples of juvenile sex offenders facing punishments that do not accord with their crimes are commonplace. In fact, according to a study of 305 juveniles accused of sexual crimes, only 27% of the offenses committed were rape.⁶¹ Of the remaining offenses, 59% of “sex offenders” were charged for indecent liberties, 11% for exhibitionism, and the remaining 7% for noncontact offenses.⁶² In other words, the majority of juvenile sex offenders are not charged with raping innocent victims, and many of the charges they face are for harmless, albeit inappropriate, sexual conduct. Thus, although juvenile sex offenders frequently display similarities in their background and family history, not all sex crimes are the same—and in fact, the majority of juveniles subject to SORNA’s registration requirements are children engaged in what many would characterize as inappropriate sexual play, not forcible or violent rape.

II. DUE PROCESS CLAIMS AGAINST SEX OFFENDER REGISTRATION LAWS AND THEIR EFFICACY

The Due Process Clause of the Fifth Amendment provides that “[n]o person shall be . . . deprived of life, liberty, or property, without due process of law.”⁶³ The basis of due process rights according to some scholars⁶⁴ de-

⁵⁷ *Id.*

⁵⁸ *Id.* at 228, 230.

⁵⁹ *See, e.g.,* Doeringer, *supra* note 33, at 201 (noting that a sixteen-year-old removing the clothing of a sixteen-year-old consensual partner could be charged with sexual exploitation of a child in Illinois, subject to at least a ten-year registration requirement); *see also In re Pima County Juvenile Appeal No. 74802-2*, 790 P.2d 723, 732 (Ariz. 1990) (where a sixteen-year-old boy consensually caressed the breasts of a fourteen-year-old girl and was charged with “sexual abuse.” The Supreme Court of Arizona required the boy to register as a sex offender until age twenty-five.); *In re Registrant J.G.*, 777 A.2d 891, 914 (N.J. 2001) (although a ten-year-old was relieved of his obligation to register as a sex offender on other grounds, the boy could have been subject to life registration requirements in New Jersey after he was caught lying on top of his eight-year-old cousin with his penis exposed.).

⁶⁰ ALA. CODE § 13a-11-200 (2001), *repealed by* Act of July 1, 2011, 2011-640 § 49.

⁶¹ Garfinkle, *supra* note 28, at 189 (citing Glen E. Davis & Harold Leitenberg, *Adolescent Sex Offenders*, 101 PSYCHOL. BULL. 417, 418 (1987)).

⁶² *Id.*

⁶³ U.S. Const., amend. V.

⁶⁴ Martin H. Redish & Lawrence C. Marshall, *Adjudicatory Independence and the Values of Procedural Due Process*, 95 YALE L.J. 455, 460 (1986).

rives from Article 39 of the Magna Carta (which dates to 1215), which states that “No free man shall be taken, or imprisoned, or disseized, or outlawed, or exiled, or any wise destroyed . . . but by the lawful judgment of his peers or by the law of the land.”⁶⁵ The U.S. Supreme Court has echoed this principle: “that an individual be given an opportunity for a hearing before he is deprived of any significant property interest.”⁶⁶ Importantly, the Supreme Court has made explicit that such a right may not be overridden simply through legislative fiat:

The right to due process “is conferred, not by legislative grace, but by constitutional guarantee. While the legislature may elect not to confer a property interest . . . it may not constitutionally authorize the deprivation of such an interest, once conferred, without appropriate procedural safeguards.”⁶⁷

Thus, just because SORNA permits certain states to require compulsory registration for juveniles, the enactment of such legislation does not address whether the statute deprives juveniles of constitutional due process rights.

Due process claims fall into two categories—substantive and procedural. While substantive due process claims contend that a law itself is unconstitutional, procedural due process claims focus on the procedure of carrying out the law, whether that procedure comports with the Fifth and Fourteenth Amendments, and notions of fundamental fairness.⁶⁸ While the recognition of procedural due process rights are well-founded in English law, as well as American law, what is less clear is when procedural due process should be applied, and the even more complicated question of “what process is due once it is recognized that the guarantee applies in a given case?”⁶⁹

Courts considering due process claims about compulsory registration by sex offenders have espoused divergent views on the matter. In *E.B. v. Verniero*, a convicted sex offender brought an appeal in the Third Circuit claiming that he had been deprived of a procedural due process right.⁷⁰ The appellant argued that the burden of persuasion should be on the state to prove that he should have to register as a sex offender under “Megan’s

⁶⁵ 4 BLACKSTONE COMMENTARIES 349 (1857); 1 STUBBS’ CONST. HISTORY OF ENGLAND 577 (1903).

⁶⁶ *Cleveland Bd. of Educ. v. Loudermill*, 470 U.S. 532, 542 (1985) (emphasis omitted) (internal quotation marks omitted) (quoting *Boddie v. Connecticut*, 401 U.S. 371, 379 (1971)).

⁶⁷ *Id.* at 532, 541 (quoting *Arnett v. Kennedy*, 416 U.S. 134, 167 (1974)); *see also* *Den ex dem. Murray v. Hoboken Land & Improvement Co.*, 59 U.S. 272, 276 (1855) (noting that questions relating to adhesion to the “law of the land” are different than questions of adhesion to due process of law: “That the warrant now in question is legal process, is not denied. It was issued in conformity with an act of Congress. But is it ‘due process of law?’”).

⁶⁸ 16B AM. JUR. 2D *Constitutional Law* § 955 (2013).

⁶⁹ Redish & Marshall, *supra* note 64, at 456.

⁷⁰ *E.B. v. Verniero*, 119 F.3d 1077, 1105, 1109 (3d Cir. 1997).

Law,” and that the state should have to meet its burden by clear and convincing evidence.⁷¹ The court found that registrants had a right to be free from compulsory notification “absent a showing of an overriding state interest.”⁷² As it noted, “[e]ven if the governmental purpose is legitimate and substantial . . . the invasion of the fundamental right of privacy must be minimized by utilizing the narrowest means which can be designed to achieve the public purpose.”⁷³ The court found that it was “necessarily required to assess future dangerousness” as part of its evaluation.⁷⁴

Other jurisdictions have arrived at similar conclusions. In *Doe v. Portiz*, the New Jersey Supreme Court considered the constitutionality of Megan’s Laws, as well as whether the Prosecutor’s decision to mandate community notification of the offense should be subject to judicial review.⁷⁵ Although the court upheld the constitutionality of the laws themselves, the court held that such laws could not be applied without affording offenders an opportunity to be heard, based on the significant “protectable liberty interests” at stake.⁷⁶ The court also opined on the proper avenues for prospectively ensuring that registration laws do not infringe on sex offenders’ procedural due process rights:

We have committed to the courts the obligation of providing procedural due process. We do not suggest, however, that entities other than the courts could not constitutionally afford the process required to meet the constitutional obligation. For instance, the Legislature could designate or create an appropriate agency to oversee Tier classification and manner of notification, so long as the basic elements of due process, such as notice, an opportunity to be heard, and to confront witnesses, are provided.⁷⁷

As such, the New Jersey Supreme Court has suggested that the constitutional protections it supports may be promulgated through legislative action where courts are unable to act.

In considering similar due process claims by juveniles, courts have held that juveniles are entitled to individualized hearings. In *Doe v. Attorney General*, the Supreme Court of Massachusetts held that a juvenile facing a fifteen-year registration requirement was entitled to an individualized hearing as a condition of his registration.⁷⁸ In support of its finding, the court noted that grouping juvenile sex offenders with adult offenders under the same statutory provision ignores the “circumstances” of the crime, and the attendant dangerousness of the individual:

⁷¹ *Id.* at 1077, 1105, 1109.

⁷² *Id.* at 1077, 1105.

⁷³ *Id.* (quoting *In re Martin*, 90 N.J. 295, 318 (N.J. 1982)).

⁷⁴ *Id.* at 1077, 1108.

⁷⁵ *Doe v. Portiz*, 662 A.2d 367, 372 (N.J. 1995).

⁷⁶ *Id.* at 372, 387.

⁷⁷ *Id.* at 367, 387 (footnote omitted).

⁷⁸ *Doe v. Att’y Gen.*, 715 N.E. 2d 37, 40 (Mass. 1999).

the statute . . . encompasses acts such as sexual experimentation among underage peers and consensual sexual activity between teenagers [T]he State's interest in protecting children from recidivist sex offenders might not be sufficiently urgent to warrant subjecting to registration every person convicted of those acts. . . . [E]xpert evidence makes plain that the data concerning recidivism rates change significantly depending on circumstances just such as these.⁷⁹

Thus, courts have distinguished their treatment of juvenile sex offenders from adults regarding adequate due process remedies.

Yet, not all courts favor applying due process remedies to sex offenders. Before the enactment of SORNA, the Supreme Court addressed a procedural due process claim against compulsory sex offender registration laws in *Connecticut Department of Public Safety v. Doe*.⁸⁰ There, the Court rejected the Appellant's claim that he was entitled to a hearing before compulsory registration under Connecticut's sex offender registry law, which required the state to post the appellant's name, address, photograph, and description on a website available to the public.⁸¹ The Court reasoned that, "due process does not entitle him to a hearing to establish a fact—that he is not currently dangerous—that is not material under the statute."⁸² Individuals who were required to register under Connecticut's law were compelled to do so "solely by virtue of their conviction."⁸³

Since *Connecticut Department of Public Safety v. Doe*, the Supreme Court has not considered whether the federally enacted guidelines of SORNA—passed three years later—comport with the Due Process Clause, nor have they ever considered whether juveniles should be afforded added due process protection before compulsory registration in sex offender databases. Further, lower courts have continued to differ in their application of procedural due process rights to sex offenders requesting hearings. For example, while the U.S. District Court for the Middle District of Florida has held that because registration requirements are based on the nature of a sex offender's previous conduct, a registrant's "potential for recidivism or current dangerousness are not material to SORNA."⁸⁴ The Supreme Court of New Jersey has held that the state Parole Board violated a sex offender's right to due process of law by imposing and then continuing a curfew on his person without providing him with notice and an opportunity to be heard to contest the sentence.⁸⁵ Similarly, the Court of Appeals of Arkansas held in *N.V. v. State* that a juvenile's due process rights had been violated after he participated in an outpatient treatment program and was later denied a right

⁷⁹ *Id.* at 44.

⁸⁰ 538 U.S. 1, 1-3 (2003).

⁸¹ *Id.* at 1, 4.

⁸² *Id.* at 2.

⁸³ *Id.* at 6.

⁸⁴ *United States v. Mason*, 510 F. Supp. 2d 923, 930-31 (M.D. Fla. 2007).

⁸⁵ *Jamgochian v. N.J. State Parole Bd.*, 952 A.2d 1060, 1064 (N.J. 2008).

to a hearing to determine what registration tier he was subject to under the Arkansas registration statute.⁸⁶

Thus, given continuing divergence in the application of due process protections to sex offenders, *Doe* in no sense “closed the door” to procedural due process challenges in court, let alone challenges brought by juveniles. Further, given that some states now afford convicted sex offenders pre-release hearings to determine their present dangerousness, it appears that certain jurisdictions do not find that the due process “ceiling” espoused in *Doe* adequately protects their citizens’ rights. Whether this divergence from the norm reflects constitutional concerns over due process protections or simply public policy preferences is unclear. However, given the lack of unanimity by courts⁸⁷ in evaluating due process claims of this nature, such uncertainty in the articulation and application of the law provides support for a needed inquiry into appropriate due process protections for juvenile sex offenders.

III. APPLYING THE ‘ELDRIDGE RUBRIC’ TO JUVENILE SEX OFFENDERS

The underlying principle articulated in *Doe* was that since sex offenders have already had their “day in court” and have been deemed guilty of an offense, they are not entitled to a due process hearing to determine their present danger to society, unless present danger to society is relevant under the state’s statutory scheme. Given that *Doe* is the only Supreme Court decision to address a procedural due process claim by a sex offender, the decision warrants brief attention. My criticism of *Doe* is not that it was wrongly decided on its own terms, but rather that it diverged substantially from prior jurisprudence by focusing narrowly on statutory language, and not broadly enough on the competing privacy and security interests at stake—issues that, as the Supreme Court previously has held,⁸⁸ are necessarily relevant to evaluating the legitimacy of a procedural due process claim.

In the most cited case on procedural due process rights, *Mathews v. Eldridge*,⁸⁹ the Supreme Court found that an evidentiary hearing was not required prior to termination of the appellant’s social security disability benefits.⁹⁰ The Court held that the due process provided by the existing statute was adequate, and that affording extra due process protection was

⁸⁶ N.V. v. State, 2008 WL 588627, at *5 (Ark. Ct. App. 2008).

⁸⁷ Joanna S. Markman, *Community Notification and the Perils of Mandatory Juvenile Sex Offender Registration: The Dangers Faced by Children and their Families*, 32 SETON HALL LEGIS. J. 261, 281 (2008).

⁸⁸ *Mathews v. Eldridge*, 424 U.S. at 319, 335 (1976).

⁸⁹ *Id.*

⁹⁰ *Id.*

unnecessary.⁹¹ There, the Court created a three-prong test for evaluating the legitimacy of a due process claim:

First, the private interest that will be affected by the official action; second, the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards; and finally, the Government's interest, including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requirement would entail.⁹²

Although much of the jurisprudence on procedural due process claims by sex offenders employs the *Eldridge* test in evaluating due process claims,⁹³ the court in *Doe* not only declined to use it, but also failed to mention it altogether. As *Doe* held: "Plaintiffs who assert a right to a hearing under the Due Process Clause must show that the facts they seek to establish in that hearing are relevant under the statutory scheme."⁹⁴ Thus, according to *Doe*, if present dangerousness is not material to the Connecticut statutory scheme, presenting evidence related to the dangerousness of the offender is a bootless exercise. Given that *Eldridge* is the most cited case on procedural due process, and has been utilized in over 100 Supreme Court opinions,⁹⁵ it is unclear why *Doe* declined to use it. Nevertheless, it does appear that *Doe*'s holding addressed a question of statutory relevance, and not the broader question of what rights are implicated by a deprivation of an opportunity to be heard under a paradigm where present dangerousness is a relevant aspect of the inquiry. Thus, while *Doe* concerned the narrow question of whether present dangerousness was material to the Connecticut statute, this comment focuses on the broader question of whether present dangerousness should be considered a material aspect of a proper due process analysis for juveniles, as required by *Eldridge*. Despite the Supreme Court's questionable omission of *Eldridge* in its analysis of procedural due process rights, *Eldridge* remains good law, and has been used by many scholars in evaluating procedural due process claims by sex offenders.⁹⁶

⁹¹ *Id.* at 335, 347-49.

⁹² *Id.* at 335.

⁹³ See, e.g., *Doe v. Att'y Gen.*, 686 N.E.2d 1007, 1010-11 (Mass. 1997); see also *Meza v. Livingston*, 607 F.3d 392, 402-03 (5th Cir. 2010) (parolee who had sex-offender registration conditions imposed on his parole was denied due process of law); *Ark. Dept. of Corr. v. Bailey*, 247 S.W.3d 851, 856, 862 (Ark. 2007) (applying the *Eldridge* test, and finding that sex offender registration laws violated the due process of the accused, a mentally insane man).

⁹⁴ Conn. Dep't of Pub. Safety, 538 U.S. at 8.

⁹⁵ A Westlaw search produced 120 Supreme Court cases which cite *Matthew v. Eldridge* (last visited, Oct. 2, 2014.).

⁹⁶ See, e.g., Matthew Singer, . . . *And Procedure For All: Rehearings for "Dangerous" Offenders*, 76 U. CIN. L. REV. 1067 (2008). See also Jessica Ann Orben, Connecticut Department of Public Safety v. Doe: Sex Offenders' Due Process Under "Megan's Law" and the Effectiveness of Sex Offender Registration, 36 U. TOL. L. REV. 789, 799 (2005); Tamara Rice Lave, *Throwing Away the Key: Has the*

Another important aspect of the *Eldridge* holding is its focus on case-by-case determinations. As the court notes, “Due process is flexible and calls for such procedural protections as the particular situation demands.”⁹⁷ Thus, an underlying principle of due process as articulated by the Supreme Court is that it requires an individual assessment of each case, unlike certain legal rules that have “fixed content”⁹⁸ and can be applied regardless of the situation at issue. This aspect of the *Eldridge* holding casts further suspicion on *Doe*’s presumption that a court’s adherence to state statutory law suffices in concluding a proper due process analysis, and should serve as an important theoretical backdrop to the ensuing discussion of the three *Eldridge* factors. This comment addresses these factors in turn, analyzing the competing interests at stake, and the resulting legitimacy of procedural due process claims by juveniles.

A. *Private Interests Implicated by Compulsory Community Registration*

Both adult and juvenile sex offenders in the United States are deprived of significant privacy and property interests once they are required to register as sex offenders. To begin, in most foreign countries with sex offender registration laws, registration is made available only to the police. In fact, although seven other countries throughout the world have some form of sex offender registration laws, South Korea is presently the only country besides the United States that includes community notification provisions—like sex offender lists—in its sex offender registry programs.⁹⁹ In contrast, SORNA places no restrictions on states in publicizing sex offender lists, and most states make sex offender registry catalogues available to the public in accordance with SORNA guidelines. Although this practice may appear to serve the interests of concerned citizens, community notification is considered by some an insidious practice that permanently alters the fabric of an offender’s private life. As Justice Fried noted in his concurrence in *Doe v. Attorney General*:

It is a continuing, intrusive, and humiliating regulation of the person himself. To require registration of persons not in connection with any particular activity asserts a relationship be-

Adam Walsh Act Lowered the Threshold for Sexually Violent Predator Commitments Too Far?, 14 U. PA. J. CONST. L. 391, 419 (2011).

⁹⁷ *Eldridge*, 424 U.S. at 319, 334 (internal quotation marks omitted) (quoting *Morrissey v. Brewer*, 408 U.S. 471, 481 (1972)).

⁹⁸ *Id.* (internal quotation marks omitted) (quoting *Cafeteria Workers v. McElroy*, 367 U.S. 886, 895 (1961)).

⁹⁹ Frumkin, *supra* note 30, at 352.

tween government and the individual that is in principle quite alien to our traditions, a relationship which when generalized has been the hallmark of totalitarian government.¹⁰⁰

Although Justice Fried's viewpoint may appear alarmist, it highlights two common concerns about community registration—the degree to which it affects the offender's private life in a fashion unrelated to his crime, and the permanence of the status itself.

Although the *Eldridge* test did not establish a bright-line rule for what degree of privacy expectation is reasonable, the Supreme Court expounded on the issue one month later in *Paul v. Davis*,¹⁰¹ where the court held that harm to reputation alone does not implicate any liberty or property interests sufficient to invoke the procedural protections of the due process clause.¹⁰² In that case, the plaintiff's name and photo were placed in a flyer captioned "Active Shoplifters," and the court held that something more than mere defamation by the state official needed to occur for the plaintiff to establish a claim for relief. This "stigma-plus" test has been applied by scholars to the context of evaluating procedural due process claims by sex offenders.¹⁰³ The Supreme Court has also noted the importance of protecting juvenile due process rights by affording them the right to notice of hearings, the right to counsel, and the right to question witnesses. In *In re Gault*,¹⁰⁴ for example, the court stated that "Juvenile Court history has again demonstrated that unbridled discretion, however benevolently motivated, is frequently a poor substitute for principle and procedure."¹⁰⁵

For juvenile sex offenders, much more than "mere reputational harm" is at stake in compulsory community registration. First, juveniles have a more substantial privacy interest in the confidentiality of their identities relative to adult offenders due to the magnified impact that the stigma associated with sexual misconduct can have on a youth's maturation process. As Ashley Batastini writes:

Another major difference between the adult and juvenile court systems is the level of public disclosure regarding litigation proceedings. Congruent with the nonpunitive philosophy of

¹⁰⁰ Doe v. Att'y Gen., 686 N.E.2d 1007, 1016 (Mass. 1997) (Fried, J., concurring).

¹⁰¹ Paul v. Davis, 424 U.S. 693, 695, 713-14 (1976).

¹⁰² See also Goss v. Lopez, 419 U.S. 565, 576 (1975) (noting that even if a government action impairs a liberty interest and will trigger the protections of procedural due process it still must exceed a certain threshold. The impact cannot be "de minimus" or "insubstantial.").

¹⁰³ Wayne Logan, *Liberty Interests in the Preventive State: Procedural Due Process and Sex Offender Community Notification Laws*, 89 J. CRIM. L. & CRIMINOLOGY 1167, 1187 (1999).

¹⁰⁴ *In re Gault*, 387 U.S. 1, 18 (1967).

¹⁰⁵ *Id.* at 18.

the juvenile system, confidential and private delinquency adjudications are generally considered an important element in protecting youth from public scrutiny.¹⁰⁶

The fear that such a stigma would impede a juvenile's natural development during adolescence was one of the original motivating factors in the establishment of separate, confidential juvenile justice courts in Chicago in the late nineteenth century.¹⁰⁷ The approach created in Chicago followed the doctrine of *parens patriae* (the "father of the country") whereby the court was to act as a "kind and just parent."¹⁰⁸ The goals of the court were to rehabilitate juveniles, and ensure that court proceedings were confidential for the protection of children. As such, the foundation of juvenile justice rests on the notion that the fragility of youth should be attended to with caution by the courts in publicizing private information—a notion that persists today through the confidentiality of juvenile proceedings.¹⁰⁹

Beyond this backdrop of confidentiality lies the reality that juveniles exposed to the stigma attached with being a sex offender are often ostracized and alienated by their communities. In extreme cases, such collective outrage can lead to acts of violence perpetrated by members of the public against sex offenders.¹¹⁰ This stigma can also have adverse consequences on the ability of an offender to acquire work and housing. In a 1994 broadcast by the ABC News series *Turning Point*, a twelve-year-old sex offender's struggles to find housing were featured after the juvenile moved to the state of Washington.¹¹¹ Upon arriving in Olympia, the local police went door-to-door to roughly 700 residences nearby distributing a flier with Alan Groome's photo and a description of his crime.¹¹² After the youth and his mother were evicted from their apartment due to community pressure, the child moved in with his grandmother, only to be evicted again after police conducted a similar notification campaign around the grandmother's neighborhood.¹¹³ Although Alan's case may be an extreme example of the harsh reaction by a community to the presence of a sex offender in their neighborhood, his story demonstrates that community registration affects not just an offender's reputation, but also his ability to satisfy basic needs. In addition to the harm done to the individual suffering from such collective socie-

¹⁰⁶ Ashley B. Batastini et al., *Federal Standards for Community Registration of Juvenile Sex Offenders*, 17 PSYCHOL. PUB. POL'Y & L. 451, 454 (2011).

¹⁰⁷ Markman, *supra* note 87, at 271 (2008).

¹⁰⁸ Kenneth A. Schatz, *Juvenile Justice: Reflections on 100 Years of Juvenile Court*, VT. B.J. & L. DIG., Dec. 1998, at 50, 50.

¹⁰⁹ Carter Allen Lee, *When Children Prey on Children: A Look at Hawai'i's Version of Megan's Law and Its Application to Juvenile Sex Offenders*, 20 U. HAW. L. REV. 477, 498 (1998).

¹¹⁰ Markman, *supra* note 107, at 282.

¹¹¹ Stacy Hiller, *The Problem with Juvenile Sex Offender Registration: The Detrimental Effects of Public Disclosure*, 7 B.U. PUB. INT. L.J. 271, 287 (1998).

¹¹² *Id.* at 287.

¹¹³ *Id.*

tal outrage, some behavioral scientists note that the alienation suffered by juvenile sex offenders as a result of being ostracized by their community may actually increase their likelihood of “sexually aggressive behavior” in the future.¹¹⁴ Thus, such overly reactive practices of community notification may have a counter-productive effect of increasing recidivism.

The effect of such stigmatization on children can be debilitating to their maturation and development at a critical juncture in their lives. Such a magnified impact has led some scholars to argue that grouping juveniles and adults together under compulsory registration laws constitutes cruel and unusual punishment in violation of the Eighth Amendment.¹¹⁵ The Supreme Court in *Graham v. Florida* recently held that sentencing a juvenile to life without the possibility of parole was unconstitutional under the Eighth Amendment as applied to non-homicide juvenile offenders¹¹⁶—further calling into question the constitutionality of imposing lifelong registration requirements for juvenile offenders.

Although adult offenders may face similar ostracism in their communities, the fact that juveniles endure such outward pressure and judgment during the formative years of their lives supports the contention that the liberty interest at stake in maintaining the confidentiality of their identity as a sex offender is more substantial than it is for adults. One context where stigmatization manifests itself for juveniles and not adults is at school. As Batastini describes: “The already complex treatment needs of juvenile sex offenders may be exacerbated by verbal or physical aggression by peers, poor quality of education (e.g., through placement in alternative school settings, denial of college admittance)”¹¹⁷ Federal courts have even weighed the adverse effect public registration may have on juveniles in their educational development, and the impact such issues have on retroactive application of SORNA to juveniles.¹¹⁸

In sum, the privacy interests implicated through public notification of a juvenile sex offender’s status are significant considering the stigma juveniles face in their communities and among their peers. Beyond “reputational harm,” juveniles are having their educational development crippled at a time when the course of their social and educational development will have a lasting impact on their life and future well being. Although adults suffer from similar stigmatization and barriers to accessing work and housing, juveniles are being subject to the same registration requirements at a time in

¹¹⁴ *Id.* at 292.

¹¹⁵ Rebecca Shepard, *Does the Punishment Fit the Crime?: Applying Eighth Amendment Proportionality Analysis to Georgia’s Sex Offender Registration Statute and Residency and Employment Restrictions for Juvenile Offenders*, 28 GA. ST. U. L. REV. 529, 556-57 (2012).

¹¹⁶ *Graham v. Florida*, 130 S. Ct. 2011, 2034 (2010).

¹¹⁷ Batastini et al., *supra* note 106, at 454.

¹¹⁸ See *United States v. Juvenile Male*, 590 F.3d 924, 941 (9th Cir. 2009) (“The effects of this exposure are wide ranging, and likely to include serious housing, employment, and educational disadvantages.”), *vacated*, 131 S. Ct. 2860, 2865 (2011).

their life when the severity of the impact on a youth's maturation and development is magnified.

B. *The Risk of Erroneous Deprivation of Significant Liberty Interests*

The second prong of the *Eldridge* test weighs the risk of erroneously depriving the defendant of a liberty interest. Under SORNA, a fourteen-year-old found guilty of intentionally touching an eleven-year-old's genital area can be required to register as a sex offender for life.¹¹⁹ For dangerous adult sex offenders who have matured past adolescence and established engrained habits and lifestyles, lifetime registration requirements appear justified due to the heightened risk of recidivism. However, juvenile sex offenders, unlike adults, are constitutionally required to be provided with educational and rehabilitative services, and many can affirmatively demonstrate that they are unlikely to be "presently dangerous" to society upon their release.

First, unlike juveniles, adult sex offenders are not typically afforded rehabilitative services. In fact, few facilities exist in the United States devoted to the rehabilitation of adult sex offenders, and many states have no facilities for treating adult sex offenders.¹²⁰ Juvenile sex offenders, on the other hand, are constitutionally mandated by numerous court decisions to receive rehabilitative treatment during their confinement.¹²¹ Furthermore, even when adults are given rehabilitative treatment, studies show that juveniles are far more responsive to treatment and that the recidivism rates of juveniles are 56% of the recidivism rates of adult sex offenders who received the same treatment.¹²² According to a study by the National Center for Institutions and Alternatives, sex offender recidivism rates¹²³ in general are lower than all other categories of crimes except murders.¹²⁴

Juveniles are susceptible to changing their previous habits and behaviors because their personality traits are more transitory and less fixed. In short, juvenile sex offenders respond well to treatment because they have

¹¹⁹ Bowater, *supra* note 9, at 829.

¹²⁰ Rothchild, *supra* note 8, at 740.

¹²¹ *Id.* at 734 (relying on the Supreme Court's finding in *Jackson v. Indiana*, courts have held that juveniles placed involuntarily in detention and treatment facilities have a constitutional right to treatment. See, e.g., *Nelson v. Hyne*, 491 F.2d 352, 358 (7th Cir. 1974), *cert. denied*, 417 U.S. 976 (1974); *Morgan v. Sproat*, 432 F. Supp. 1130, 1135 (S.D. Miss. 1977); *Martarella v. Kelley*, 349 F. Supp. 575, 599 (S.D.N.Y. 1972)).

¹²² Bowater, *supra* note 9, at 840.

¹²³ Contrast these studies with statements from then Attorney General Janet Reno, asserting incorrectly during legislative debate about sex offender laws that "convicted child molesters have a recidivism rate as high as 40% to 70%." See Wind, *supra* note 48, at 103.

¹²⁴ Panel Discussion, *Megan's Law and the Protection of the Child in the On-Line Age*, 35 AM. CRIM. L. REV. 1319, 1323 (1998).

not yet developed the “deeply ingrained sexual patterns” of adult offenders since they are still in a period of experimentation.¹²⁵ As Krista Schram explains:

[A]dults who have developed a pattern of offending are likely to find opportunities to re-offend. However, most young people have not been offending for long enough to develop a clear pattern of abusing and many are still very immature. With appropriate intervention, the risk of long-term offending is low for the majority of people.¹²⁶

In addition to the transitory nature of their personality, clinical studies note that juvenile offenders are less likely than adults to be motivated by “deviant sexual arousal” and instead are “more likely to have been impulsive, motivated by sexual curiosity, poor judgment, or simple immaturity.”¹²⁷ For example, researchers at Harvard Medical School who mapped the brain of juveniles found that the frontal lobe undergoes more changes in adolescence than at any other time in life, and that because it is the last part of the brain to develop—although adolescents may be fully capable in other cognitive functions—they cannot reason as well as adults and are consequently more impulsive.¹²⁸ As such, what may appear to an observer as deviant sexual activity may, in fact be nothing more than innocent sexual “play.” As Timothy Wind describes,

Normative sex play and normal sexual development is the way maturing children develop sexually, seeking information and a better understanding about the nature of sexual life through play and exploration with others. . . .

. . . .

Despite all the rhetoric and debate, childhood sexual play is not harmful under ordinary circumstances and is a normal and valuable developmental experience as long as there is no deviant behavior.¹²⁹

Such research on developmental psychology as applied to juvenile sex offenders in no way excuses the conduct in question, but instead shows that the source of the intention for a juvenile to act in a sexually prohibited manner may derive from simple immaturity, and not a fixed, enduring character trait that makes the offender as likely as an adult to recidivate. Schol-

¹²⁵ Schram, *supra* note 1, at 128.

¹²⁶ *Id.* at 106 (quoting Bowater, *supra* note 9, at 840-41).

¹²⁷ Carole J. Petersen & Susan M. Chandler, *Sex Offender Registration and the Convention on the Rights of the Child*, 3 WM. & MARY POL’Y REV. 1, 31 (2011).

¹²⁸ Christa Jacqueline Groshek, *The Wisdom of Juvenile Court: The Case for Treating Children Differently than Adults*, in JUVENILE CRIMINAL DEFENSE STRATEGIES 7 (2012 ed., Aspatore 2012), available at 2012 WL 3279185, at *2.

¹²⁹ Wind, *supra* note 48, at 114-15.

ars have also noted the undue influence of peer pressure on youth, and how this pressure is magnified when it is focused on children due to their immaturity.¹³⁰

Although some have expressed doubt about the efficacy of rehabilitation regimes for sex offenders,¹³¹ as well as their substantial cost,¹³² studies have shown that up to 95% of juvenile sex offenders enrolled in treatment programs are rehabilitated through psychological treatment.¹³³ Such treatments generally fall into two categories: cognitive-behavioral treatment and conditioning.¹³⁴ However, other treatment regimes apply holistic rehabilitation strategies, such as the Sexual Behavior Treatment Program that combines “psychosexual education, individual therapy, group therapy, family integration, . . . mental health services where appropriate, and recreational activities.”¹³⁵

Cognitive-behavioral treatments focus on training that aims to prevent offenders from engaging in “lapses” that later could lead to “relapses”:

For example, a child molester in a hurry to buy some groceries before the supermarket closes decides to take a shortcut to the store across an elementary school playground, or a rapist purchases a pornographic magazine. These behaviors, harmless for the average person, are considered lapses for these individuals because they present a strong—even overwhelming—temptation that can result in a series of follow-up decisions and behaviors that lead to a sexual offense—or relapse.¹³⁶

This approach also merges education with behavioral training, in helping to address the distortion certain sex offenders have that their sexual acts are “educating” their victims or otherwise providing them with desired affection and comfort.¹³⁷

¹³⁰ Jessica Brown, *Classifying Juveniles ‘Among the Worst Offenders’: Utilizing Roper v. Simmons to Challenge Registration and Notification Requirements for Adolescent Sex Offenders*, 39 STETSON L. REV. 369, 392-93 (2010).

¹³¹ Peter Finn, *Do Sex Offender Treatment Programs Work?*, 78 JUDICATURE 250, 250 (1995).

¹³² For example:

In FY09, the State [Delaware] therefore spent more than five million dollars to send sixty-two youth (approximately \$74, 000 per annum for each youth) out of state for sex-offense specific residential treatment. These high costs in terms of time spent in detention and away from families, as well as the financial costs to the state, can only be justified if the youth are serious offenders who cannot be treated in the community and pose high risk of re-offense.

Chrysanthi Leon, David Burton & Dana Alvare, *Net-Widening in Delaware: The Overuse of Registration and Residential Treatment for Youth who Commit Sex Offenses*, 17 WIDENER L. REV. 127, 138 (2011).

¹³³ Lee, *supra* note 109, at 515; *see also* Rothchild, *supra* note 8, at 746.

¹³⁴ Finn, *supra* note 131, at 250.

¹³⁵ Petznick, *supra* note 55, at 228, 250.

¹³⁶ Finn, *supra* note 131, at 250.

¹³⁷ *Id.* at 251.

Conditioning therapies have also been met with success. In conditioning regimes (also known as aversive therapy) patients are exposed to inappropriate sexual stimuli, and are quickly given negative reinforcement of their feelings toward the inappropriate stimuli with unpleasant sensory experiences such as an offensive smell.¹³⁸ Another strategy used to rehabilitate juveniles that is sometimes used in tandem with these psychological approaches is pharmacotherapy, which aims to reduce testosterone in males through injections of drugs such as Depo-provera and Fluoxetine.¹³⁹

Although psychological evaluations typically occur in tandem with treatment regimes, statutory prohibitions in some states bar such evaluations from being admitted in court. For instance, in Delaware, youth convicted of sex crimes are given “risk assessments” by specialists during their psychological evaluations.¹⁴⁰ However, state law only allows the information from these assessments to be used in treatment, and not in guiding the court toward a proper application of registration laws.¹⁴¹ As Chrysanthi Leon, David Burton, and Dana Alvare posit, the cost savings from making such evidence admissible during pre-release hearings would be significant, as the state would then be able to focus financial resources on juveniles who are most at risk.¹⁴²

Some juveniles are simply not treatable through rehabilitation programs.¹⁴³ However, for the vast majority of juveniles who are, the risk that they will be mistakenly forced to register as a sex offender despite the fact that they are not a danger to society is great. Given that juveniles have a far lower recidivism rate than adult offenders, and that juveniles are being provided with successful rehabilitative regimes, in my view the second prong of the *Eldridge* test favors the notion that juveniles should be afforded pre-release hearings to determine their present dangerousness.

C. *Government Interests in Public Disclosure, and Administrative Burdens of Hearings*

The final prong of the *Eldridge* test asks us to evaluate the government’s interest, “including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requirement would entail.”¹⁴⁴ The discussion above regarding rehabilitation programs

¹³⁸ *Id.*

¹³⁹ See generally Matthew Daley, *A Flawed Solution to the Sex Offender Situation in the United States: The Legality of Chemical Castration for Sex Offenders*, 5 IND. HEALTH L. REV. 87 (2008).

¹⁴⁰ Leon, et al., *supra* note 132, at 133.

¹⁴¹ *Id.*

¹⁴² *Id.*

¹⁴³ See *In re. Doe*, 1 Haw. App. 226, 230 (1980) (“[T]he [juvenile defendant] was not treatable in any available institution or facility within the State designed for the care and treatment of children.”).

¹⁴⁴ *Eldridge*, 424 U.S. at 335.

and their efficacy support the notion that the vast majority of juvenile sex offenders who are responsive to rehabilitative treatment are unlikely to be a threat to others upon their release from detention. As such, the argument that the government's interest is great in depriving a juvenile of a pre-release hearing fails to account for the fact that many juveniles are not dangerous to the public upon release.

Some states presently afford juvenile sex offenders pre-release hearings to determine their "present dangerousness" to society.¹⁴⁵ In Virginia, the state sex offender code indicates a presumption that juveniles found guilty of a sex offense are not subject to compulsory registration: "Juveniles adjudicated delinquent shall not be required to register . . . however . . . the court may, in its discretion and upon motion of the attorney for the Commonwealth, find that the circumstances of the offense require offender registration."¹⁴⁶ The code in Iowa similarly allows for judicial discretion in determining whether or not a juvenile should have to register at all, but Iowa's code does not include a presumption against registration.¹⁴⁷

Presently, twenty states have established special juvenile procedures that can terminate a youth's obligation to register as a sex offender after a given period of time.¹⁴⁸ Two states in particular, Texas and Oregon, have been at the forefront of the effort to reform the procedures of juvenile registration. In Texas, juvenile offenders are eligible for a process called "unregistration," whereby a youth can be released from his obligations to register based on a showing of reformed behavior.¹⁴⁹ The court takes into account the juvenile's offense history, his risk to reoffend, and his progress in treatment. Texas courts also allow for nonpublic registration for certain juveniles who are less of a risk to society than others who require public registration. In Oregon as well, juveniles can petition the court to apply for relief from their registration requirements two years after their release from detention.¹⁵⁰

Although some states have taken steps to conduct proper evaluations of a youth's present danger to society, many states still have no such procedures in place, and there is still a lack of uniformity among states that do afford pre-release or post-release hearings. For example, in states like Oregon, where post-release hearings are provided to juveniles to demonstrate reformed behavior, the same reasoning—that a juvenile can be rehabilitated—behind providing these hearings should apply with equal force to the claim that pre-release hearings should be held as well. A similar argument could be made for the application of post-release hearings to jurisdictions

¹⁴⁵ Bowater, *supra* note 9, at 833-36.

¹⁴⁶ VA CODE ANN. § 9.1-902(G) (2014).

¹⁴⁷ Bowater, *supra* note 9, at 833-36.

¹⁴⁸ *Effective Management*, *supra* note 32.

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

that only provide pre-release hearings. Although there may be costs associated with administering such hearings to juveniles, there is little indication that such costs are so significant that they outweigh the substantial countervailing interests of juveniles in receiving fair treatment in court and a reasonable opportunity to contest compulsory registration. Although the approaches by states like Oregon are a step in the right direction, more can be done to ensure that juveniles' procedural due process rights are protected.

Further doubt should be cast on the government's interest in community notification provisions given that only 3% of sexual abuse and 6% of child murders are committed by "strangers."¹⁵¹ Proponents of mandatory registration for juveniles, such as Christina Rule, suggest that "The primary purpose of sex offender registration is to ensure that the public can obtain information necessary to protect themselves and their families from dangerous sex offenders in their communities."¹⁵² Yet, if the informational value to the public of a sex offender's identity is the "primary purpose" of laws like SORNA, skepticism as to the effectiveness of sex offender registration laws should abound given that such laws do little to protect the public from the friends and relatives of victims who commit the overwhelming majority of sex crimes. A more candid assessment of the "primary purpose" of such laws might produce the revelation that such draconian procedures are merely "feel-good" measures aimed at exacting retribution on the children who commit sex crimes in an effort to appease the families of victims. As Rule later describes:

Registration as punishment for sex offenders provides an outlet for victims who suffer these physical and psychological consequences. Registration can help victims feel safe and feel like they have assisted the community by playing a role in providing public information about dangerous sex offenders so others can take precautions to avoid being victimized. Registration as punishment also provides satisfaction for victims' families and society who must attempt to emotionally and psychologically heal these young victims and advocate for them.¹⁵³

If, as Rule posits, retribution is a legitimate motivating factor for the continued administration of registration laws for juveniles, legislators should carefully weigh the countervailing effect compulsory registration will have, not only on the lives of juveniles convicted of sexual offenses, but also on the unintended consequences of isolation and stigmatization that are causal factors in recidivism.

¹⁵¹ Garfinkle, *supra* note 28, at 170.

¹⁵² Christina D. Rule, *A Better Approach to Juvenile Sex Offender Registration in California*, 42 U.S.F. L. REV. 497, 506 (2007).

¹⁵³ Rule, *supra* note 153, at 513.

CONCLUSION

Procedural due process requires that when the government acts to deprive a person of life, liberty, or property, it must do so in accordance with procedures deemed to be fair. This typically requires notice and the opportunity to be heard before the deprivation occurs. Although the Supreme Court has addressed due process claims by adult sex offenders, juvenile sex offenders possess privacy interests that are more significant than their adult counterparts, and can make a stronger case that registration as a sex offender is unnecessary due to evidence of rehabilitation and the resulting diminished threat they pose to society. Although certain juvenile offenders ought to be registered and monitored, the one-size-fits-all approach instituted by states that require compulsory registration of juveniles in accordance with SORNA guidelines is out of step with juvenile justice norms and the reality that every sex crime is different. Thus, a proper application of the *Eldridge* test to juvenile sex offenders by the Supreme Court should result in a different outcome than in *Connecticut Department of Public Safety v. Doe*.

INEFFICIENCY OF LENIENCY FOR FIRST-TIME MARIJUANA
POSSESSION IN VIRGINIA: UNINTENDED CONSEQUENCES, TIME
DISCOUNTING, AND DETERRENCE

*Jeff Kuhlman**

INTRODUCTION

In 2001, Nina Dotson entered a plea of no contest to a charge of misdemeanor marijuana possession in the Circuit Court of Bristol, Virginia.¹ Because this was Dotson's first drug offense, she entered into a plea agreement with the Commonwealth of Virginia pursuant to Virginia Code Annotated § 18.2-251.² Section 18.2-251 is a statute that allows for the conditional dismissal of certain misdemeanor drug possession charges for any first-time defendant.³ Under Virginia's first-offender misdemeanor drug statute, Dotson was ordered to serve a year of probation, complete any substance abuse programs that her probation officer saw fit, complete twenty-four hours of community service, and remain drug and alcohol free.⁴ Dotson's driver's license was also suspended for six months, and she was ordered to pay court costs.⁵ A year later, the court decided that Dotson had satisfied her court-ordered obligations and dismissed the possession of marijuana charge.⁶ Three years later, Dotson was denied employment due to the presence of a marijuana charge on her record; in order to avoid future rejection, she filed a motion to have her dismissed marijuana possession charge expunged from her record.⁷ Unfortunately for Dotson, the Virginia Supreme Court refused to grant her request for expunction.⁸ Even though she had entered a plea of no contest to the charge, the court held that she could not be considered "innocent" as required by the Virginia expunction statute.⁹

Virginia's first-offender drug statute allows for the conditional dismissal of a marijuana or synthetic cannabinoids possession charge if the de-

* Juris Doctor Candidate, 2015, George Mason University School of Law. B.A. from Kansas State University.

¹ Commonwealth v. Dotson, 276 Va. 278, 280 (2008).

² *Id.* at 280-81.

³ VA. CODE ANN. § 18.2-251 (2011).

⁴ *Dotson*, 276 Va. at 281.

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.* at 284.

⁹ *Id.* at 283.

fendant does not have a prior drug-related conviction on her record.¹⁰ Although the Virginia first-offender statute is not limited only to marijuana offenses, the majority of misdemeanor drug possession arrests in Virginia involve marijuana,¹¹ and this Comment refers to the statute as applied to first-time marijuana offenders. The text of the statute requires the accused to plead to facts sufficient for a conviction, pay court costs, complete treatment or an educational program, remain drug and alcohol free during the probationary period, seek employment, and complete twenty-four hours of community service.¹² Initially passed in 1972, the Virginia first-offender statute has been supported as an economically favorable alternative to jail time.¹³

Despite its legitimate goals, the Virginia first-offender statute ignores basic principles of economics when applied to defendants and proves to be an ineffective attempt to conserve government resources. The statute represents a lukewarm approach to marijuana enforcement. Marijuana possession is not taken lightly, as illustrated by its status as a misdemeanor¹⁴ and the permanency of the charge on a defendant's record. Nor is marijuana possession taken too seriously, as illustrated by the conditional dismissal allowed by the first-offender statute.¹⁵ Because Virginia's first-offender statute forces defendants to act against their own long-run interests and fails to adequately reduce the amount of judicial resources used on marijuana possession in Virginia courts, the statute fails to accomplish its dual goals of leniency for first-time offenders and conservation of the Commonwealth's resources. Marijuana policy in Virginia would be more efficient if the first-offender marijuana possession statute were repealed and prosecutors sought higher sanctions for first offenders; this practice would ensure that more defendants were appointed counsel and would deter more repeat and potential marijuana offenders.¹⁶

Part I of this Comment explores the background of Virginia's first-offender misdemeanor drug statute, including the policy reasons for the passage of the statute, public opinion at the time the law was passed, and its application over the years. Part II examines the hidden, long-term consequences that a plea agreement under the first-offender statute can have for

¹⁰ VA. CODE ANN. § 18.2-251 (2011).

¹¹ JON B. GETTMAN & STEPHEN S. FULLER, ESTIMATION OF THE BUDGETARY COSTS OF MARIJUANA POSSESSION ARRESTS IN THE COMMONWEALTH OF VIRGINIA 7 (2003).

¹² VA. CODE ANN. § 18.2-251 (drug and alcohol abstinence is verified by regular drug testing).

¹³ VA. STATE CRIME COMM'N, FIRST TIME DRUG OFFENDER STATUTE/§ 18.2-251, Va. H. Doc. 66, at 1 (1996) [hereinafter Va. H. Doc. 66]; JOINT LEGISLATIVE AUDIT & REVIEW COMM'N, VIRGINIA DRUG ABUSE CONTROL PROBLEMS (1975) [hereinafter VIRGINIA DRUG ABUSE].

¹⁴ VA. CODE ANN. § 18.2-250.1.

¹⁵ *Id.* § 18.2-251.

¹⁶ This Comment operates under the premise that the Commonwealth of Virginia will still consider marijuana possession a serious enough matter to be criminalized. While there is a wealth of literature on the issue of marijuana legalization, that matter is beyond the scope of this Comment.

defendants. This Comment illustrates that, in practice, the application of the first-offender statute results in the unintended consequence of having defendants who are either unaware of the negative effects of accepting a plea agreement, or overly discount the future consequences of such an agreement. Part III demonstrates that Virginia's first-offender statute also fails to accomplish the Commonwealth's goal of conserving government resources. Although the plea system does conserve some judicial resources, the first-offender proceedings still significantly burden local government. Further, this Comment illustrates that the first-offender statute fails to effectively deter potential offenders or prevent recidivism. Finally, Part IV considers a more economically-efficient manner in which the Commonwealth can dispose of first-time misdemeanor drug charges. By repealing the first-offender statute and seeking a harsher sentence for each marijuana charge, the Commonwealth could deal with marijuana possession in a more economically-efficient manner.

I. BACKGROUND

Leading up to the passage of Virginia's first-offender misdemeanor drug statute in 1972,¹⁷ public opinion of marijuana possession was changing.¹⁸ In 1971, a nationally known professor at the University of Virginia publically called for the legalization of possession of less than four ounces of marijuana.¹⁹ Virginia's marijuana laws were quite strict at the time and members of the public were calling for more leniency in the law.²⁰ In one extreme case, a twenty-year-old college student was sentenced to twenty-five years in prison for possessing four containers of marijuana.²¹ The young student was eventually pardoned by Governor Mills Godwin, Jr., who commented that he would like to see a change in Virginia's drug laws, which he categorized as having some of the highest penalties in the country.²² In 1970, Delegate W. Roy Smith introduced the Drug Control Act.²³ The proposed law would have allowed a first-time drug offender to plead guilty, be placed on probation, and have the charge dismissed upon comple-

¹⁷ 1972 Va. Acts 1233.

¹⁸ John Buckman, *Drug Authority Urges Changes*, RICHMOND TIMES-DISPATCH, Sept. 11, 1971, at B4; Claude Barrows, *Godwin Pardons Ex-Student Given 25 Years in Drug Case*, RICHMOND TIMES-DISPATCH, Jan. 3, 1970, at A1; Bob Brickhouse, *Virginia Commission Advocates Lowered Marijuana Penalties*, RICHMOND TIMES-DISPATCH, Dec. 6, 1969, at B1.

¹⁹ *Drug Authority Urges Changes*, *supra* note 18, at B4.

²⁰ *The Law and Marijuana*, RICHMOND TIMES-DISPATCH, Mar. 4, 1969, at A10; *Virginia Commission Advocates Lowered Marijuana Penalties*, *supra* note 18, at B1.

²¹ *Godwin Pardons Ex-Student Given 25 Years in Drug Case*, *supra* note 18, at A1.

²² *Id.*

²³ *Drug Control Plan Offered by Del. Smith*, RICHMOND TIMES-DISPATCH, Jan. 24, 1970, at B3.

tion of probation.²⁴ At the time, marijuana possession was a felony,²⁵ and one change in the proposed law was a provision allowing a felony marijuana charge to be removed from the record of a first offender.²⁶

Several different justifications were given for this proposed new law. A spokesperson for the ACLU called for more lenient drug laws in Virginia because she claimed marijuana simply was not that dangerous,²⁷ and as noted earlier, even the Governor of Virginia considered the State's marijuana laws to be too harsh.²⁸ People were especially concerned about young, first-time offenders being branded as felons for life.²⁹ Overcrowded prisons were another prevalent problem in 1970s Virginia, and were a key justification for marijuana policy reform.³⁰ Perhaps surprisingly, support for more lenient drug laws also came from Virginia prosecutors.³¹ Prosecutors claimed that marijuana convictions were often difficult to obtain because juries in Virginia were reluctant to send young people to prison for possessing such a small amount of the drug.³² Thus, the two most prominent themes of support for the statute appear to be leniency and the conservation of government resources.

The proposed Drug Control Act became law in 1972, and the practice of conditional dismissal for first-time marijuana offenders continues in Virginia today.³³ Until very recently, the first-offender statute has been reaffirmed by Virginia commissions as effective policy. In 1975—shortly after the first-offender statute was passed—the Joint Legislative Audit & Review Commission (JLARC) of the Virginia General Assembly published a report on the administration of the new statute.³⁴ The report found that the statute was not being applied consistently enough, mostly because courts did not have the resources to oversee the probation and supervision of each first offender.³⁵ The report noted that leniency was the main goal of the statute, and therefore, recommended that the law be amended to allow judges to apply the statute to almost all first offenders.³⁶ The JLARC report also found that only 3.3% of defendants that had been placed on probation pur-

²⁴ *Id.*

²⁵ 1972 Va. Acts 1233.

²⁶ Web DeHoff, Jr., *Drug Law Changes Urged*, RICHMOND TIMES-DISPATCH, Feb. 26, 1970, at B1.

²⁷ *The Law and Marijuana*, *supra* note 20, at A10.

²⁸ *Godwin Pardons Ex-Student Given 25 Years in Drug Case*, *supra* note 18, at A1.

²⁹ *Virginia Commission Advocates Lowered Marijuana Penalties*, *supra* note 18, at B1.

³⁰ Va. H. Doc. 66, *supra* note 13, at 4-5.

³¹ *Narcotics Laws Revisions 'Vital'*, RICHMOND TIMES-DISPATCH, Aug. 2, 1969, at B7.

³² *Id.*; *Virginia Commission Advocates Lowered Marijuana Penalties*, *supra* note 18, at B1.

³³ VA. CODE ANN. § 18.2-251 (2011); 1972 Va. Acts 1233.

³⁴ VIRGINIA DRUG ABUSE, *supra* note 13.

³⁵ *Id.* at 129.

³⁶ *Id.*

suant to the first-offender statute violated its terms and conditions.³⁷ Because the level of probation violations was so low, the report recommended unsupervised probation; this practice, the report stated, would allow leniency to be administered more frequently without overburdening the probation system.³⁸

More than twenty years after the 1975 JLARC report, the Virginia State Crime Commission reaffirmed support for Virginia's first-offender drug statute in a report to the Virginia General Assembly.³⁹ The report, published in 1997, emphasized the importance of education and treatment to the effectiveness of the policy.⁴⁰ While the text of the Virginia first-offender statute requires the defendant, among other things, to complete treatment or an educational program, remain drug and alcohol free during the probationary period, seek employment, and complete twenty-four hours of community service,⁴¹ in practice the requirements are much more relaxed. Only three years after the first-offender statute was passed, JLARC recommended that courts order unsupervised probation in order to reduce the burden on the probation system.⁴² Another change from the 1970s proposed legislation to today's practice relates to expunction. Despite the language in the proposed statute that would allow these offenses to be erased from the defendant's record,⁴³ the 1996 report also recommended that Virginia courts refuse to expunge these first drug offenses from the defendant's record.⁴⁴ This position has been consistently asserted by both the courts and legislature in Virginia.⁴⁵

Fifteen years after the 1996 report that supported the first-offender statute, the Office of the Secretary of Public Safety published a report that portrayed the statute in a less favorable light.⁴⁶ The 2011 report, recommended that the Virginia General Assembly remove the first-offender statute from the Virginia Code due to budget cuts and ineffective treatment.⁴⁷ Notwithstanding this recommendation, the statute remains on the books today.

³⁷ *Id.* at 126.

³⁸ *Id.* at 129.

³⁹ Va. H. Doc. 66, *supra* note 13.

⁴⁰ *Id.* at 7-9.

⁴¹ VA. CODE ANN. § 18.2-251 (2011).

⁴² VIRGINIA DRUG ABUSE, *supra* note 13, at 9-10.

⁴³ *Drug Law Changes Urged*, *supra* note 26, at B1.

⁴⁴ Va. H. Doc. 66, *supra* note 13, at 17.

⁴⁵ *Commonwealth v. Dotson*, 276 Va. 278, 278 (2008); Va. H. Doc. 66, *supra* note 13, at 17; VIRGINIA DRUG ABUSE, *supra* note 13, at 117.

⁴⁶ OFFICE OF THE SEC'Y OF PUB. SAFETY, REPORT ON THE STATUS AND EFFECTIVENESS OF OFFENDER DRUG SCREENING, ASSESSMENT AND TREATMENT (2011).

⁴⁷ *Id.* at 2.

II. UNINTENDED NEGATIVE CONSEQUENCES FOR FIRST OFFENDERS

Leniency for first-time drug offenders was a key reason Virginia lawmakers passed the first-offender drug statute,⁴⁸ and this position was reaffirmed shortly after the statute was passed.⁴⁹ However, an examination of the statute reveals that it is not nearly as lenient as it appears. Application of the first-offender statute results in unintended, negative consequences for defendants. Despite the fact that the first-offender statute results in dismissal of the charge, the marijuana arrest remains on a defendant's record, which will negatively impact him for years to come. In practice, the Virginia first-offender statute masks long-term negative effects that defendants will endure. The severity of these long-term consequences is not evident to defendants because of the language of the statute, the tendency of defendants to overly discount future consequences, and the fact that they are not eligible for court-appointed counsel in this type of proceeding.

A. *Long-Term Effects of a Permanent Record*

When the first-offender statute was initially passed, a key concern of Virginia lawmakers was the fact that youthful offenders were being deemed felons for life.⁵⁰ Three years after its passage, the Virginia General Assembly reaffirmed its position that leniency was the primary goal of the first-offender statute.⁵¹ The General Assembly has partially dealt with this issue by redefining marijuana possession as an undefined misdemeanor instead of a felony.⁵² However, both the legislature and the courts have repeatedly refused to allow a marijuana arrest to be expunged from the record of a defendant who has completed probation pursuant to the first-offender statute.⁵³ The rationale underlying this policy is obvious; it would be impossible to limit leniency to a first offender if defendants could repeatedly have a first offense erased from their records. The idea of leniency and a permanent record, however, are hard concepts to reconcile. The presence of a misdemeanor charge on a defendant's record carries with it significant disadvantages, though less than those associated with a felony. As Virginia

⁴⁸ *The Law and Marijuana*, *supra* note 20, at A10; *Virginia Commission Advocates Lowered Marijuana Penalties*, *supra* note 18, at B1; *Godwin Pardons Ex-Student Given 25 Years in Drug Case*, *supra* note 18, at A1.

⁴⁹ VIRGINIA DRUG ABUSE, *supra* note 13, at 129.

⁵⁰ *Virginia Commission Advocates Lowered Marijuana Penalties*, *supra* note 18, at B1.

⁵¹ VIRGINIA DRUG ABUSE, *supra* note 13, at 129.

⁵² 1972 Va. Acts 1233; *see also* VA. CODE ANN. § 18.2-250.1 (2011).

⁵³ *Commonwealth v. Dotson*, 276 Va. 278, 278 (2008); Va. H. Doc. 66, *supra* note 13, at 17; VIRGINIA DRUG ABUSE, *supra* note 13, at 117.

defense attorney David Baugh wrote, when one is charged with a crime, “jail is not the enemy, the enemy is the record.”⁵⁴

Almost all promising job opportunities require a background check. A survey conducted by the Society of Human Resource Management, based in Alexandria, Virginia, found that 96% of organizations conducted a background or reference check on job applicants.⁵⁵ This due diligence on the part of employers illustrates how negatively a prior marijuana charge can impact an individual’s potential employment prospects.⁵⁶ Even though the record will indicate that the charge was dismissed, there is evidence that the record of an arrest, even without a conviction, adversely affects job applicants.⁵⁷ For many hopeful job applicants, a marijuana arrest could be the difference between being hired or rejected. As shown earlier, the case *Commonwealth v. Dotson* arose when the defendant was denied employment simply because she had a dismissed marijuana charge on her record.⁵⁸

A less obvious consequence of a prior misdemeanor charge involves education. Most universities ask about criminal records in their applications, and many others do full background checks in certain situations.⁵⁹ As with employment, a prior drug charge could easily be a factor weighing against the admission of an individual to a given university. An individual with a prior charge may be reluctant to apply to college at all when he sees that a background check will be conducted. In 2012, 60% of defendants arrested for a marijuana-related offense were under the age of twenty-five.⁶⁰ Many defendants that accept a plea agreement pursuant to the first-offender statute likely will be in college or considering applying for college in the near future.

The adverse effects of the charge are not entirely avoided if a former first offender is accepted to college. The criminal record may make financing an education more difficult. In some cases, an individual will not be eligible for federal student loans if he has a prior drug offense on his record.⁶¹ If the federal government applies the same theory of guilt that the court in *Dotson* adopted, then the conditional dismissal of a marijuana charge pursuant to the first-offender statute would foreclose the possibility

⁵⁴ David P. Baugh, *The Consequences of Criminal Convictions for Misdemeanor or Felony Offenses*, 18 WASH. & LEE J. CIVIL RTS. & SOC. JUST. 55, 61 (2011).

⁵⁵ Judy Greenwald, *Employers Must Exercise Caution with Background Checks*, BUS. INS. (Apr. 29, 2007), <http://www.businessinsurance.com/article/20070429/ISSUE01/100021773#>.

⁵⁶ Baugh, *supra* note 54, at 61.

⁵⁷ Andrew D. Leipold, *The Problem of the Innocent, Acquitted Defendant*, 94 NW. U. L. REV. 1297, 1309-10 (2000).

⁵⁸ *Dotson*, 276 Va. at 281.

⁵⁹ Darby Dickerson, *Background Checks in the University Admissions Process: An Overview of Legal and Policy Considerations*, 34 J.C. & U.L. 419, 431-53 (2008).

⁶⁰ UNIF. CRIME REPORTING SECTION, DEP’T OF STATE POLICE, CRIME IN VIRGINIA 66 (2012) [hereinafter CRIME IN VIRGINIA].

⁶¹ Baugh, *supra* note 54, at 61.

of receiving a loan. Alternatively, if a defendant pleads to a drug offense while already receiving federal student loans, the loans might be cancelled for at least a year.⁶² It is clear that it is much more difficult to receive a federal loan if an individual has more than one drug charge or conviction on his record; therefore, the initial Virginia charge could still negatively impact a defendant regarding federal financial aid.⁶³

A third way that a prior marijuana charge could negatively impact a defendant is in relation to subsequent offenses. Again, both the Virginia legislature and judiciary feel it is essential that a dismissed first marijuana offense remain on a defendant's record.⁶⁴ The legislature has justified this position by noting the importance of preventing a defendant from repeatedly claiming first-offender status.⁶⁵ Presently, a first offense of marijuana possession is an undefined misdemeanor that carries up to thirty days in jail, a \$500 fine, or both.⁶⁶ Although the class of misdemeanor for a first offense is undefined, those penalties roughly correspond to a Class 3 misdemeanor.⁶⁷ The only difference is that Class 3 misdemeanors do not carry the possibility of jail time, while the statute for a first offense marijuana possession allows for a sentence of up to thirty days.⁶⁸ A subsequent offense for marijuana possession, on the other hand, is defined as a Class 1 misdemeanor, which carries a max jail sentence of one year, a fine of up to \$2,500, or both.⁶⁹ The difference between a first offense and subsequent offenses is substantial. A consequence of the first-offender statute is that a defendant who pleads pursuant to the first-offender statute will be treated as a subsequent offender if he is arrested again for a similar charge, despite the fact that his first offense was never tried in court. Further, the leniency associated with a first offense may cause a defendant to underestimate the seriousness of a subsequent marijuana arrest.

B. *Denial of Counsel*

Various negative effects of a prior drug charge were listed above. Those negative consequences raise an interesting question: why are defendants so eager to accept those consequences, without putting up a fight, when offered a plea agreement pursuant to Virginia's first-offender statute? One

⁶² *Frequently Asked Questions*, FED. STUDENT AID, <http://www.fafsa.ed.gov/help.htm> (last visited Oct. 16, 2013).

⁶³ *Id.*

⁶⁴ *Commonwealth v. Dotson*, 276 Va. 278 (2008); Va. H. Doc. 66, *supra* note 13, at 17; VIRGINIA DRUG ABUSE, *supra* note 13, at 117.

⁶⁵ VIRGINIA DRUG ABUSE, *supra* note 13, at 117.

⁶⁶ VA. CODE ANN. § 18.2-250.1 (2011).

⁶⁷ VA. CODE ANN. § 18.2-11.

⁶⁸ VA. CODE ANN. §§ 18.2-250.1, 18.2-11.

⁶⁹ *Id.*

reason may have to do with the unique classification of a first marijuana charge as an undefined misdemeanor.⁷⁰ Although the Virginia Code allows the Commonwealth to seek up to thirty days in jail for a first offender,⁷¹ the prosecutor may waive jail and instead offer a plea agreement pursuant to the first-offender statute. If the prosecutor elects not to seek a jail sentence, the defendant is then not eligible for court-appointed counsel.⁷² While these defendants could still hire their own attorney, it is likely that many defendants will not be willing or able to pay for an attorney to deal with what they perceive as a minor charge. Without an attorney, many defendants go through the plea-bargain process without considering the long-term negative effects of a misdemeanor charge such as having a record, decreased chances of employment, and enhanced sentencing for a potential future crimes.⁷³ It is highly unlikely that these defendants are even aware of the long-term details of the plea. Without having counsel to explain that the charge cannot be expunged, a defendant might wrongly assume that after completing probation, the charge will be off his record forever.

Another obvious way in which the prosecution waiving jail disadvantages defendants, relates to a defendant's chances of identifying a winnable a case. Defendants who appear without counsel are often perceived negatively by judges and court clerks alike.⁷⁴ Without counsel, a defendant might accept a plea agreement under the first offense statute in a case he could possibly win. Motions to suppress are most frequently filed in drug cases,⁷⁵ and a court-appointed attorney would be able to identify cases in which one could be successfully filed.⁷⁶

C. *Discounting for the Future*

Another reason defendants are so eager to accept plea offers, despite the negative consequences listed above, is related to their propensity to discount for future consequences. People make decisions based on the resulting consequences; some consequences are immediate and others are delayed.⁷⁷ All rational actors discount for these delayed consequences; that is, a normal person would rather have ninety cents today than a dollar next

⁷⁰ VA. CODE ANN. § 18.2-11.

⁷¹ VA. CODE ANN. § 18.2-250.1.

⁷² VA. CODE ANN. § 19.2-160.

⁷³ John King, *Beyond "Life and Liberty": The Evolving Right to Counsel*, 48 HARV. C.R.-C.L. L. REV 1, 24-32 (2013).

⁷⁴ Drew A. Swank, *The Pro Se Phenomenon*, 19 BYU J. PUB. L. 373, 384 (2004).

⁷⁵ Peter Nardulli, *The Societal Cost of the Exclusionary Rule: An Empirical Assessment*, 8 AM. BAR FOUND. RES. J., 587-89 (1983).

⁷⁶ Swank, *supra* note 74, at 384.

⁷⁷ James Q. Wilson & Richard J. Herrnstein, *Crime and Human Nature* 49 (1985).

year.⁷⁸ Consider this common example of time discounting: smoking cigarettes often causes lung cancer and death, but that consequence is delayed; thus, when smokers weigh the present benefit of smoking, they significantly discount the distant, potential consequence of lung cancer.⁷⁹ If smoking today potentially caused lung cancer tomorrow, then almost nobody would smoke.⁸⁰ When offered a plea bargain pursuant to the first-offender statute, the defendant is given the choice of a trial that holds the possibility of a fine in the near future, or a conditional dismissal after six months of probation.⁸¹ The possibility of violating the terms of probation, getting a subsequent conviction, being denied admission to college, or failing to get a job offer seem very distant in relation to the impending trial and fine. While some time discounting is rational, for the reasons listed above, defendants facing these plea offers might not be aware of all the long-term consequences. Therefore, when weighing the costs and benefits of accepting a plea offer, the defendants in these circumstances will lack all of the information required to make the optimal decision.

Marijuana defendants also will be more likely to over discount for the future simply because an individual arrested for marijuana possession is likely to be younger and thus, more impulsive.⁸² In Virginia, there were 23,663 marijuana-related arrests in 2012.⁸³ Of those arrested, 14,399, or about 60%, were under twenty-five years old.⁸⁴ Another 3,831 of those arrested were between the ages of twenty-five and twenty-nine.⁸⁵ That means that 77% of Virginians arrested for marijuana offenses were under the age of thirty.⁸⁶ Generally, young people discount remote events much more than older people.⁸⁷ This steeper rate of time discounting increases the likelihood that a defendant will overlook the long-term consequences of accepting a plea without even fighting the offense. When there is a high probability of a guilty verdict, a defendant would be best served by accepting the plea as a first offender. However, there are several ways to try to win a marijuana case. If the prosecution could convict every defendant, plea offers would not be necessary. A study conducted by the U.S. Sen-

⁷⁸ Shawn Bushway, *Economists' Contributions to the Study of Crime and the Criminal Justice System*, 37 *CRIME & JUST.* 389, 405 (2008).

⁷⁹ WORLD HEALTH ORG., FIRST CONFERENCE OF THE PARTIES TO THE WHO FRAMEWORK CONVENTION ON TOBACCO CONTROL GENEVA (2006), available at <http://www.who.int/tobacco/fctc/tobacco%20factsheet%20for%20COP4.pdf> (finding that tobacco is the only consumer product that kills when used as intended by its manufacturers).

⁸⁰ WILSON & HERRNSTEIN, *supra* note 77, at 49.

⁸¹ VA. CODE ANN. §§ 18.2-251, 18.2-251.1 (2011).

⁸² *CRIME IN VIRGINIA*, *supra* note 60, at 66.

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ WILSON & HERRNSTEIN, *supra* note 77, at 205.

tencing Commission found that nationally, marijuana charges had a 97.8% plea rate.⁸⁸ If this national rate is reflected in Virginia, there are likely several winnable cases where first offenders forego trial and accept a guilty plea. For example, motions to suppress are more likely to be filed in drug trials than other types of cases, and a portion of those motions would be granted.⁸⁹

When offered a plea agreement, a defendant is faced with a cost-benefit analysis. He must weigh the consequences of accepting the plea offer, and permanently having a marijuana charge on his record, or taking it to trial. At trial, he will either be acquitted, and the charge will be expunged, or he will be convicted and have a conviction, rather than just a charge, on his record. The optimal choice depends on the facts of each particular case and the likelihood of an acquittal, but in every case it is an analysis worth conducting. The structure of the Virginia first-offender statute does not allow a typical defendant to make an informed cost-benefit analysis because he will be unaware of the long-term collateral sanctions, not have access to counsel, and will likely overly discount the negative future consequences of accepting a plea.

III. AN INEFFICIENT ATTEMPT TO CONSERVE GOVERNMENT RESOURCES

Not only does Virginia's first offense statute result in negative unintended consequences for defendants, but it also is not economically efficient for the Commonwealth in the long term. As a policy matter, the statute is economically inefficient because it does little to conserve judicial and executive resources, and it ineffectively deters potential offenders.

A. *Alleged Conservation of the Commonwealth's Resources*

Commonly advanced economic justifications for leniency towards marijuana offenders are the reduction of enforcement costs, decreasing prosecutorial and judicial resources by reducing trials, and reducing correctional resources by eliminating incarceration.⁹⁰ The last goal, reducing prison population, was specifically advanced in the 1970s to support marijuana leniency in Virginia.⁹¹ Another general justification for plea bargaining is

⁸⁸ U.S. SENTENCING COMM'N, 2012 SOURCEBOOK OF FEDERAL SENTENCING STATISTICS, at tbl.38 (2012).

⁸⁹ Nardulli, *supra* note 75, at 587-89 (1983).

⁹⁰ Daniel Egan & Jeffrey Miron, *The Budgetary Implications of Marijuana Prohibition*, in POT POLITICS 17, 18 (Mitch Earleywine ed., 2007).

⁹¹ Va. H. Doc. 66, *supra* note 13, at 1.

that it saves judicial resources, and thus, is more economically efficient.⁹² On these two fronts—jail population and judicial resources—it would seem that the Virginia first-offender drug statute is economically beneficial. On the surface, the statute should operate to keep more defendants out of jail and encourage more plea bargains, which would cut down on trials and conserve judicial resources. However, a closer look will illustrate that the long-term economic impact of this statute does not significantly conserve the Commonwealth's resources.

One area in which the statute does not significantly impact government costs is law enforcement. There were 341,577 total arrests in Virginia in 2012.⁹³ Of the 341,577 arrests, 23,663, or about 7%, were related to marijuana.⁹⁴ That 7% represents all marijuana arrests, not just marijuana possession,⁹⁵ so the percentage of total arrests for marijuana possession is even lower. Comparably, of the 303,203 total arrests in Virginia that occurred in 2000, only .043% were for marijuana possession.⁹⁶ Thus, marijuana-possession arrests represent a relatively small portion of arrests in Virginia. Although marijuana-possession offenses constitute a small percentage of total arrests in Virginia, there is little reason to believe the present first-offender statute contributes to that statistic. A George Mason University Public Policy study conducted in 2003 revealed that of the 166,996 total drug arrests made in Virginia between 1994 and 2000, 99,994, or 60%, were for marijuana possession.⁹⁷ The same study ranked marijuana possession as the 282nd (of 288) most severely punished crime in Virginia.⁹⁸ This study suggests that the relationship between the severity of the sanction for an offense and law enforcement resources expended on it is inelastic.⁹⁹ In other words, whether marijuana possession is punished severely or leniently, law enforcement will still expend some time and resources on it. Even if leniency did decrease the expenditure of law enforcement resources, there would be no effect under the current framework, because law enforcement officers would not be able to determine whether a suspect was possessing marijuana for the first time until after the arrest was made. Therefore, the only level of decriminalization that would seriously conserve law enforcement resources would be to completely legalize marijuana possession.

While law enforcement costs are relatively unaffected, by the severity of marijuana laws, the argument remains that Virginia's first-offender drug statute conserves judicial resources and prison costs. The first problem

⁹² Scott Baker & Claudio Mezzetti, *Prosecutorial Resources, Plea Bargaining, and the Decision to Go to Trial*, 17 J.L. ECON. & ORG. 149-51 (2001).

⁹³ CRIME IN VIRGINIA, *supra* note 60, at 64.

⁹⁴ *Id.* at 66.

⁹⁵ *Id.*

⁹⁶ Egan & Miron, *supra* note 90, at 18.

⁹⁷ GETTMAN & FULLER, *supra* note 11, at 7.

⁹⁸ *Id.* at 4.

⁹⁹ *Id.* at 7.

with the judicial-resource argument is that it does not account for the long term. A closer look at the high rate of recidivism and probation violations that accompany first-time marijuana charges will illustrate that the Virginia first-offender statute does not conserve judicial resources; rather, it only delays their expenditure. Published in July 2013, the *Virginia Community Corrections Baseline Recidivism Study* (VCC study) sheds great light on the ineffectiveness of Virginia's first-offender policy.¹⁰⁰ The VCC study followed 8,449¹⁰¹ Virginians who had been placed on probation between 2003 and 2004 for committing drug offenses.¹⁰² Most of the offenses were misdemeanors.¹⁰³ While still on probation 1,640—or 19.4%—of the 8,449 individuals on probation for drug offenses received a new conviction.¹⁰⁴ 31.3% of those 1,640 drug offenders that violated the terms of their probation were convicted for another drug offense, while another 22.2% were convicted of a technical offense.¹⁰⁵ “Technical violations” include probation violations and failure to appear.¹⁰⁶ To summarize the figures above, the VCC study illustrated that almost 20% of probationers who had committed a drug offense received a new conviction before completing the terms of their initial probation, and close to half of those new convictions are either another drug offense or a technical violation.¹⁰⁷ According to the study, the rate of probation violation in drug cases is in line with other common offenses.¹⁰⁸ The probation violation rate of drug offenders is about 19%, for crimes against persons it is about 20%, and for property crimes it is around 21%.¹⁰⁹ Despite its unique structure, the first-offender drug statute does not lead to probation violation rates that differ from other, nondrug related misdemeanors in Virginia.

In sum, close to one out of every five defendants on probation pursuant to a plea agreement as a first-time marijuana offender will violate the terms while on probation. The violators then have to appear back in court for both the underlying marijuana charge and the violation. Because the violators are no longer first offenders, it is likely that counsel would be appointed, and the judicial resources that initially were thought to be conserved would be incurred anyway. One time out of five, first offenders become second offenders while still on probation. One could argue that the

¹⁰⁰ NAT'L CTR. FOR STATE COURTS, VIRGINIA COMMUNITY CORRECTIONS: BASELINE RECIDIVISM STUDY 17 (2013) [hereinafter BASELINE RECIDIVISM STUDY].

¹⁰¹ Total misdemeanor drug offenses for fiscal year 2004 were 7,532 (26% of 28,969) plus total felony drug offenses were 917 (42% of 2,184) equals 8,449 individuals.

¹⁰² *Id.* at 17-18.

¹⁰³ *Id.*

¹⁰⁴ *Id.* at 28.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 34.

¹⁰⁷ BASELINE RECIDIVISM STUDY, *supra* note 100, at 28.

¹⁰⁸ *Id.* at 27-28.

¹⁰⁹ *Id.*

other four probationers that do not violate their probation make the Virginia's first-offender drug policy efficient. However, the trouble for probationers does not end after the terms of probation are met and the initial charge is disposed of. The VCC study also found that 26.5% of individuals who had successfully completed probation for any offense were rearrested within three years.¹¹⁰ Within eight years, that number increases to 33.4% of all successful probationers that are later convicted of a new offense.¹¹¹ As indicated above, drug recidivism rates were in line with other offenses.¹¹² It follows then, that the rates of new convictions for all successful probationers is close to that of drug offenders. Thus, in addition to the 19% of first-time offenders who violate the terms of their probation while still under supervision, an additional 33% of the successful probationers are likely to end up consuming judicial resources in the near future.¹¹³ The VCC study illustrates that over half of defendants who accept a plea agreement and are placed on probation will be arrested again within eight years. Although the first-offender statute aims to reduce judicial costs, for over half of defendants, it will only delay them eight years at most.

When weighing judicial resources that Virginia's first-offender statute seeks to conserve, one should also consider the fact that every defendant must appear in court after being charged.¹¹⁴ For offenses that potentially carry jail time, the defendant must be informed of his right to counsel by the court.¹¹⁵ Because the Virginia marijuana possession statute allows the Commonwealth to seek up to thirty days for the first offense,¹¹⁶ the defendant must appear in court to be advised of his right to counsel.¹¹⁷ Even if the Commonwealth waives a jail sentence at advisement, the defendant must still appear in court in accordance with his arrest summons. Although he would not be eligible for a court-appointed attorney,¹¹⁸ judicial resources would still be used for the court to tell the defendant his rights and inform him that because the Commonwealth waived jail, he cannot apply for court appointed counsel. These prophylactic steps outweigh the marginal conservation of judicial resources that the statute attempts to provide. Moreover, after having his rights read to him by a judge, the defendant must appear at a later time to either have his trial or enter his plea.¹¹⁹ When that series of events is taken into consideration, the argument that Virginia's first-offender statute conserves judicial resources loses much of its weight.

¹¹⁰ *Id.* at 23.

¹¹¹ *Id.*

¹¹² *Id.* at 27-28.

¹¹³ BASELINE RECIDIVISM STUDY, *supra* note 100, at 23.

¹¹⁴ VA. CODE ANN. § 19.2-73 (2011).

¹¹⁵ VA. CODE ANN. § 19.2-160.

¹¹⁶ VA. CODE ANN. § 18.2-250.1.

¹¹⁷ VA. CODE ANN. § 19.2-160.

¹¹⁸ *Id.*

¹¹⁹ VA. CODE ANN. § 19.2-254.

The conservation of judicial resources that occurs when a trial is replaced with a plea is marginal at best. As shown above, a defendant in these circumstances still appears at least twice on the court's docket—once to be advised of his rights and once to dispose of the case. Prosecutors still have to meet with the defendant to make the offer, or alternatively, if the defendant fails to show up, the court will likely try him in absentia.¹²⁰ Thus, substantial judicial resources are spent despite Virginia's lenient statute. The claim that Virginia's first-offender statute significantly conserves judicial resources is mistaken because judicial resources are being expended whenever an individual is arrested for marijuana possession. While repealing the first-offender statute would not conserve these judicial resources, it would not be notably more burdensome than the present framework. In either case, the defendant will still have to appear in court for advisement, and again to resolve the case.¹²¹ Defendants would be free to enter into plea agreements in the absence of the first-offender statute, so the time in court that is purported to be conserved by the first-offender statute is negligible.

In the 1970s, only 3.3% of first offenders placed on probation violated the terms of their supervision.¹²² Due to this low rate, it was recommended that judges exercise less discretion and apply the Virginia first-offender statute more liberally.¹²³ This may be an example of correlation being confused with causation. Perhaps the higher level of discretion exercised by judges caused the lower rates of probation violation, and the decrease of judicial discretion in applying first-offender drug leniency—and thus increased application of the statute—has led to a higher rate of probation violation. If that is the case, this correlation supports the argument that increased application of the first-offender statute fails to accomplish the rehabilitation intended by the law.

B. *Virginia's First-Offender Statute as an Ineffective Deterrent*

Whether or not the first-offender statute is repealed, substantial judicial resources will be consumed when an individual is arrested for marijuana possession. However, a change in marijuana policy could conserve government resources in the long run by deterring more potential marijuana offenders. Criminal sanctions exist to control public behavior, and deterrence is the key to preventing criminal behavior.¹²⁴ In the long run, if more people are deterred from committing crimes, more judicial resources will be conserved. Two elements lead to greater deterrence: high probability of

¹²⁰ VA. CODE ANN. § 19.2-258.

¹²¹ VA. CODE ANN. §§ 19.2-254, 19.2-160.

¹²² VIRGINIA DRUG ABUSE, *supra* note 13, at 126.

¹²³ *Id.*

¹²⁴ DAVID M. KENNEDY, DETERRENCE AND CRIME PREVENTION 1 (2009).

detection and more severe penalties.¹²⁵ In 2012, 7% of all arrests in Virginia were marijuana related.¹²⁶ Although it is impossible to know how much marijuana possession goes undetected, the data suggest that marijuana offenses are well enforced and relatively highly detected; thus, the first element is likely well accounted for. The second element of deterrence—sanctions—is defective with regard to first-time marijuana possession in Virginia. It is not that sanctions for marijuana possession are too low; rather, it is that the collateral sanctions for a first-time marijuana offender are hidden. Knowledge of sanctions by potential offenders is fundamental to effective deterrence.¹²⁷ Unless the sanctions for a crime are known to potential offenders, the severity or leniency of a statute will not impact deterrence.¹²⁸ The objective severity of a sanction is irrelevant in deterring the public; a potential offender will only be deterred based on his subjective knowledge of the sanction that accompanies a given offense.¹²⁹ When the potential punishment for an offense is not apparent, a potential offender will not be deterred.

If potential offenders are only deterred by what they know, then it is important to know how they receive information regarding sanctions. Most offenders learn about sanctions from experience, either direct or indirect.¹³⁰ That is, offenders and their family, friends, and the rest of the community observe the consequences of particular crimes.¹³¹ This is known as the “experimental effect” and these perceptions are usually concrete and immediate.¹³² The fact that deterrence often comes from experience indicates that the Virginia first-offender statute is an ineffective deterrent. To first offenders and those that observe them, the immediate consequences of marijuana possession are somewhat insignificant, and ultimately the charge is dismissed.¹³³ If offenders and those close to them know they will not receive jail time for possessing marijuana, and that the charge will ultimately be dismissed, they will acquire a sense of invulnerability and not be effectively deterred.¹³⁴ As illustrated earlier, Virginia’s first-offender statute is actually more severe in the long-term than it appears on its face. However, for the purposes of deterrence, this severity is wasted. Akin to defendants who fail to consider the long-term effects of pleading guilty, other potential offenders also will be unlikely to consider these long-term effects when

¹²⁵ Neal Katyal, *Deterrence’s Difficulty*, 95 MICH. L. REV. 2385, 2411 (1997).

¹²⁶ CRIME IN VIRGINIA, *supra* note 60, at 64, 66.

¹²⁷ KENNEDY, *supra* note 124, at 24.

¹²⁸ *Id.* at 108.

¹²⁹ *Id.*

¹³⁰ *Id.* at 29.

¹³¹ *Id.*

¹³² *Id.*

¹³³ VA. CODE ANN. § 18.2-251 (2011).

¹³⁴ Philip J. Cook, *Research in Criminal Deterrence: Laying the Groundwork for the Second Decade*, 2 CRIME & JUST. 211, 224 (1980).

weighing the costs and benefits of engaging in criminal activity. If Virginians erroneously believe a first-time marijuana offender essentially gets a free pass, they are unlikely to be deterred from possessing marijuana.

Empirically, it is difficult to argue that marijuana possession is being effectively deterred in Virginia. From 1994 to 2000, the rate of marijuana-related arrests increased by 4%.¹³⁵ More than 65% (99,994) of those additional arrests were for marijuana possession.¹³⁶ During that same period, arrests for possession of cocaine—a more severely punished offense—decreased by 14%.¹³⁷ The data suggest that the more lenient marijuana laws are failing to deter marijuana possession.

IV. A MORE ECONOMICALLY FAVORABLE APPROACH FOR MARIJUANA PROHIBITION IN VIRGINIA

The Virginia first-offender statute was passed as an attempt to show leniency to defendants in light of changing public opinion.¹³⁸ Another justification for the first-offender statute was the Virginia legislators' concern about overcrowded jails.¹³⁹ In practice, the first-offender statute has not effectively accomplished either of these goals, and marijuana policy in Virginia requires statutory reform.

One way Virginia legislators could deal with the defective first-offender statute would be to significantly decriminalize or legalize marijuana possession. The specifics of legalization or decriminalization are beyond the scope of this Comment.¹⁴⁰ For the purposes of this Comment, it is enough to note again that a first offense for marijuana possession is an undefined misdemeanor in Virginia.¹⁴¹ The sanctions involved with a first offense for marijuana possession are thirty days in jail, a \$500 fine, or both.¹⁴² The statutory categorization of marijuana possession indicates that the Virginia General Assembly considers a first offense for marijuana possession somewhere between a Class 2 and Class 3 misdemeanor.¹⁴³ A subsequent offense for marijuana possession is a Class 1 misdemeanor,¹⁴⁴

¹³⁵ GETTMAN & FULLER, *supra* note 11, at 7-8.

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ 1972 Va. Acts 1233; *Drug Control Plan Offered by Del. Smith*, *supra* note 23, at B3.

¹³⁹ Va. H. Doc. 66, *supra* note 13, at 5.

¹⁴⁰ For more on the legalization question, see Eric Blumenson, *No Rational Basis: The Pragmatic Case for Marijuana Law Reform*, 17 VA. J. SOC. POL'Y & L. 43 (2009); see also Steven B. Duke, *The Future of Marijuana in the United States*, 911 OR. L. REV. 1301 (2013).

¹⁴¹ VA. CODE ANN. § 18.2-250.1 (2011).

¹⁴² *Id.*

¹⁴³ VA. CODE ANN. § 18.2-11.

¹⁴⁴ VA. CODE ANN. § 18.2-250.1.

which is as serious as an offense can be without being a felony.¹⁴⁵ In Virginia, drinking alcohol in public is a Class 4 misdemeanor,¹⁴⁶ and underage alcohol possession and public intoxication are Class 1 misdemeanors.¹⁴⁷ As misdemeanors those charges would all remain on a defendant's record. Since alcohol is legal in some contexts, and marijuana is prohibited in almost all contexts, it is unlikely that the Virginia General Assembly would categorize marijuana possession as a less serious charge than those alcohol charges. Further, only four of the fifty states so far have legalized possession of small amounts of marijuana.¹⁴⁸ Thus, this Comment presumes that Virginia legislators still consider marijuana possession to be a somewhat serious criminal offense, and attempts to present a realistic solution that can be accomplished without requiring major statutory reform. The Virginia General Assembly should repeal Virginia Code § 18.2-251, and prosecutors should not waive the possibility of jail time for first offenders.

Ultimately, the policy goals of the Commonwealth would be better served if prosecutors sought harsher sentences for first-time marijuana offenders. Because the purported leniency of the first-offender statute does not significantly benefit defendants, the more efficient policy would be for prosecutors to forego the first-offender statute and not waive the right to seek a jail sentence for these defendants. This practice would provide the accused with legal counsel, reduce recidivism, and in the long run, decrease the number of defendants in the courtroom by deterring potential offenders. The only difference between a first offense of marijuana possession and a Class 3 misdemeanor is the thirty days jail sentence that a prosecutor can ask for in the marijuana case.¹⁴⁹ If the prosecution did not waive the right to ask for those thirty days, then first-time defendants who could not afford an attorney would be eligible for court-appointed counsel.¹⁵⁰ Defendants who were able to afford an attorney would either hire their own or be required to formally waive their right to an attorney,¹⁵¹ and perhaps the possibility of actual jail time would entice them to hire counsel.

At first glance, this suggestion seems to fly in the face of the underlying policy rationales advanced for the first-offender statute. Having prosecutors ask for jail time seems contrary to the goals of leniency, fixing overcrowded jails, and the conservation of judicial resources; however, when one considers the unintended consequences of the first-offender statute, this approach is actually more favorable. Addressing the leniency aspect first,

¹⁴⁵ VA. CODE ANN. § 18.2-11.

¹⁴⁶ VA. CODE ANN. § 4.1-308.

¹⁴⁷ VA. CODE ANN. §§ 4.1-305, 18.2-388.

¹⁴⁸ Dan Frosch, *Measures to Legalize Marijuana are Passed*, N.Y. TIMES (Nov. 6, 2013), http://www.nytimes.com/2013/11/07/us/measures-to-legalize-marijuana-are-passed.html?_r=0.

¹⁴⁹ VA. CODE ANN. §§ 18.2-11, 18.2-250.1.

¹⁵⁰ VA. CODE ANN. § 19.2-160.

¹⁵¹ *Id.*

defendants face a significant disadvantage in information and bargaining power against the prosecutor because they are denied the right to counsel when the prosecutor waives jail time. As illustrated above, a marijuana charge negatively affects an individual's ability to gain employment or afford a college education.¹⁵² The presence of counsel would help first-time marijuana offenders understand the long-term consequences of a plea. Hopefully, the defendant would leave the courtroom with a better understanding of the legal system, and surely the Commonwealth places some subjective value on having a more legally educated and socially responsible populous. Also, an attorney would be able to identify winnable cases in which defendants would be found not guilty. In those cases that would result in acquittal, the marijuana arrest would actually be expunged from the defendant's record.¹⁵³ With the information that counsel could provide, defendants would be able to conduct more informed cost-benefit analyses when deciding whether to accept a plea offer or go to trial. Currently, the Virginia first-offender statute represents apparent, but false, leniency. If the statute were repealed, and prosecutors did not waive the possibility of jail, Virginia policy would appear more strict, but would actually be placing defendants in a position to make more informed decisions.

The recommendation that prosecutors not waive jail for first offenders will also be met with resistance on the grounds that it will overpopulate Virginia's prisons and jails.¹⁵⁴ However, the Commonwealth does not have to ask for actual jail time at trial simply because they did not waive the possibility of it at advisement. The Commonwealth could still ask that the court impose a fine or suspended jail sentence.¹⁵⁵ Such a practice would still allow defendants the access to counsel without overburdening Virginia's jails, because time is not automatically served with a suspended sentence.¹⁵⁶ Even if the full sentence were imposed, the marijuana possession statute only allows for a maximum of thirty days in jail.¹⁵⁷ If the Virginia General Assembly were still unwilling to accept this statutory structure, they could amend the marijuana possession statute to only allow for ten days of jail to mitigate concern for overpopulated jails. The important aspect of this proposed policy is not the amount of jail time; it is that the potential for jail time exists so that defendants gain access to counsel.¹⁵⁸

Viewing marijuana enforcement through an economic lens, repealing the first-offender statute and asking for harsher sanctions would address two other problems: high recidivism and low deterrence. Initially, this rec-

¹⁵² Baugh, *supra* note 54, at 61; Dickerson, *supra* note 59, at 431-53.

¹⁵³ VA. CODE ANN. § 19.2-392.2(A)(1).

¹⁵⁴ Va. H. Doc. 66, *supra* note 13, at 1.

¹⁵⁵ VA. CODE ANN. §§ 18.2-250.1, 19.2-303.

¹⁵⁶ *Id.*

¹⁵⁷ VA. CODE ANN. § 18.2-250.1.

¹⁵⁸ VA. CODE ANN. § 19.2-160.

ommendation would seem to consume more of the Commonwealth's resources by resulting in more trials, more court-appointed counsel, and on the margin, more defendants in jail. However, in the long run, the class of potential repeat offenders would be more legally informed which would hopefully lead to increased deterrence and decreased recidivism.

The elimination of Virginia's first-offender drug statute would result in the deterrence of more potential offenders. As noted earlier, stricter sanctions will deter more potential offenders on the margin.¹⁵⁹ Even if a jail sentence is almost never handed down after a conviction, the mere possibility of jail would hopefully scare some people away from possessing marijuana. In order to effectively deter, incarceration is a necessary option as a last resort in the punishment of a misdemeanor.¹⁶⁰ The possibility of a jail sentence would also significantly help with specific deterrence. Under the current statutory framework, a defendant would not become aware of the actual "sentence" he received until he applied for a job, college, or a student loan down the road.¹⁶¹ Conversely, if that defendant had spent only one day in jail, the tangible, immediate consequence of a conviction would likely have a more significant effect on the defendant. Immediacy of a consequence more effectively deters a defendant and combats the time discounting issues discussed above.¹⁶² The reality of time in jail likely will be apparent enough to the individual defendant and the general public to serve as an effective subjective deterrent.¹⁶³ Friends and family members of offenders, who will either be deterred from or encouraged to possess marijuana by what they observe, are more likely to be deterred when the defendant receives an immediate jail sentence than if the defendant is denied employment ten years in the future.

Repealing the first-offender statute and asking for higher sanctions would also likely combat the high rates of recidivism. Because defendants would have access to counsel under this proposed framework,¹⁶⁴ they would leave the courtroom with more information about the legal consequences of their actions. When offered a plea agreement pursuant to the first-offender statute, it is unlikely that the prosecutor or judge will tell the defendant how much more severe the sanctions are for a subsequent marijuana charge.¹⁶⁵ In the current framework, the defendants' cases are dealt with quickly and, at the time, relatively without pain. That experience could easily cause defendants to underestimate how seriously a subsequent charge would be

¹⁵⁹ See A. Mitchell Polinsky & Steven Shavell, *Punitive Damages: An Economic Analysis*, 111 HARV. L. REV. 869 (1998) (Offering an economic analysis of the role punitive damages play in deterring behavior).

¹⁶⁰ LARRY K. GAINES & PETER B. KRASKA, *DRUGS, CRIME, AND JUSTICE* 391 (1997).

¹⁶¹ Baugh, *supra* note 54, at 61; Dickerson, *supra* note 59, at 431-53.

¹⁶² WILSON & HERRNSTEIN, *supra* note 77, at 49.

¹⁶³ KENNEDY, *supra* note 124, at 108.

¹⁶⁴ VA. CODE ANN. § 19.2-160 (2011).

¹⁶⁵ VA. CODE ANN. § 18.2-250.1.

treated. If the first-offender plea was not offered, and the defendant was aware of the seriousness of a marijuana charge *the first time*, a second charge would be much less likely.

CONCLUSION

Virginia's first-offender misdemeanor drug statute attempts to be lenient, but unintentionally punishes defendants in the long run. Normally, criminal statutes function to publicly penalize defendants in order to deter the general population; however, Virginia's first offense statute fails to accomplish that goal. Lack of general deterrence, frequent recidivism, and a relatively high number of arrests negate any conservation of judicial resources that Virginia's first-offender statute claims to accomplish. Virginia's current approach to marijuana possession is too lukewarm to be effective. By attempting to be lenient, the statute denies defendants the essential assistance of an attorney. The Commonwealth does not go too far in its leniency, however, by refusing to allow a first-time marijuana offense to be expunged,¹⁶⁶ and by steeply increasing the punishment for a second offense.¹⁶⁷ This contrast has resulted in a statute that is too lenient to allow access to counsel, successfully act as a deterrent, or prevent recidivism, but is also too harsh to allow defendants to easily obtain admission into college or employment at a good job in the future.

Due to failed policy goals, negative unintended consequences, and overall economic inefficiency, Virginia Code § 18.2-251 should be repealed, and prosecutors should not waive jail time for first offenders. This change in policy would more effectively deter potential defendants with high sanctions. Further, if prosecutors sought a jail sentence for a first offense, more defendants would seek or be appointed counsel. This would result in defendants conducting more informed cost-benefit analyses, and would reduce the high amount of recidivism. Ultimately, the Commonwealth would conserve government resources by deterring more potential offenders and decreasing recidivism. By appearing to be more severe, the Commonwealth would actually accomplish its goal of leniency by creating a class of more informed defendants that are not surprised by negative, hidden consequences in the long run.

¹⁶⁶ Commonwealth v. Dotson, 276 Va. 278 (2008).

¹⁶⁷ VA. CODE ANN. § 18.2-250.1.

CALIFORNIA MEDICAL MARIJUANA LAW: THE VOTERS AND
LEGISLATURE HAVE MADE THEIR DECISION; NOW LET THEM
INTERPRET IT!

*Damian A. Martin**

INTRODUCTION

Patrick Kevin Kelly suffered from a variety of ailments including “hepatitis C, back problems . . . , nausea, fatigue, cirrhosis, loss of appetite, and depression.”¹ Unsatisfied with ten years of painful and costly medical treatments, Mr. Kelly “decided to seek a recommendation to use marijuana.”² After a review of Mr. Kelly’s medical records and a fifteen-page form, a physician provided a written recommendation for Mr. Kelly to use marijuana.³ Afterward, Mr. Kelly began growing marijuana in his backyard.⁴ California voters had decriminalized the use and cultivation of marijuana for medical use by passing Proposition 215, which became the Compassionate Use Act of 1996 (CUA).⁵ The California legislature continued the work started by voters and made “a dramatic change in the prohibitions on the use, distribution, and cultivation of marijuana” by implementing the Medical Marijuana Program Act (MMPA).⁶ However, after observing Mr. Kelly’s plants growing in the backyard, law enforcement obtained a warrant and searched his home.⁷ Law enforcement found no traditional indicia of marijuana sales, other than a scale, and there was no “record of complaints by neighbors specifically concerning excessive foot traffic.”⁸ Moreover, law enforcement found the physician’s recommendation for Mr. Kelly to

* Damian A. Martin is a UCLA School of Law Juris Doctor Candidate for May 2016. He received a B.S. in Business Administration from the University of Maryland University College, graduating *summa cum laude* in 2007 and a Master of Business Administration from the University of Maryland University College, graduating in 2010.

¹ *People v. Kelly*, 222 P.3d 186, 191 (Cal. 2010).

² *Id.*

³ *Id.*

⁴ *Id.* at 192.

⁵ EDMUND G. BROWN JR., OFFICE OF THE ATT’Y GEN., CAL. DEP’T OF JUSTICE, GUIDELINES FOR THE SECURITY AND NON-DIVERSION OF MARIJUANA GROWN FOR MEDICAL USE 1 (2008) [hereinafter ATT’Y GEN. GUIDELINES] (citing CAL. HEALTH & SAFETY CODE § 11362.5 (West 2013)), *available at* http://www.ag.ca.gov/cms_attachments/press/pdfs/n1601_medicalmarijuanaguidelines.pdf.

⁶ *People v. Wright*, 146 P.3d 531, 538, 540 (Cal. 2006) (quoting *People v. Urziceanu*, 33 Cal. Rptr. 3d 859, 883 (Ct. App. 2005)).

⁷ *Kelly*, 222 P.3d at 192.

⁸ *Id.*

use marijuana in his bedroom and posted in the garage.⁹ Upon locating the physician's recommendation, law enforcement called the physician and verified the recommendation.¹⁰ Nevertheless, Mr. Kelly was arrested and charged with cultivation of marijuana and possession of marijuana for sale.¹¹

As highlighted by the case of Mr. Kelly, despite the enactment of the CUA and MMPA, rather than declining, the number of felony marijuana arrests in California has remained relatively stable and even increased from 2007 to 2010.¹² However, when these felony arrest statistics are viewed in light of the subsequent case law interpreting the CUA and MMPA, they are not surprising at all. A common misperception is that a physician's recommendation to "use marijuana medicinally, is a shield from any search, any arrest, or any prosecution for *all* marijuana offenses."¹³ Instead of interpreting the CUA as providing any kind of immunity from arrest, the California courts have interpreted the CUA to only provide a defense upon arrest.¹⁴ Although this is certainly a conceivable interpretation, an interpretation providing all medical marijuana patients immunity from arrest better effectuates the intent of the California voters and the legislature.¹⁵ Furthermore, the defense upon arrest interpretation fails to promote judicial economy for a court system already experiencing a "budget crisis."¹⁶ However, due to the courts' narrow approach to interpreting the CUA and MMPA, the California courts will not alter their original interpretations of the CUA and MMPA.¹⁷ If the California courts are unwilling to provide all medical mari-

⁹ *Id.*

¹⁰ *See id.*

¹¹ *Id.* at 192-93.

¹² *See California Arrest and Prisoner Data*, CAL. NORML, <http://www.canorml.org/arrestsprisoners.html> (last visited Nov. 14, 2013).

¹³ Jared Willis, Comment, *The Hazy Cloud Engulfing Cultivation, Possession, and Transportation of Aggregate Amounts of Collectively Cultivated Medical Marijuana Pursuant to California Health and Safety Code Section 11362.775*, 40 W. ST. U. L. REV. 135, 137 (2013).

¹⁴ *See, e.g.*, *People v. Wright*, 146 P.3d 531, 540 (Cal. 2006); *People v. Mower*, 49 P.3d 1067, 1074 (Cal. 2002); *People v. Trippet*, 66 Cal. Rptr. 2d 559, 569 (Ct. App. 1997).

¹⁵ *See, e.g.*, 2003 Cal. Stat. ch. 875, § 1(b)(1) (2003) (In enacting the MMPA it was "the intent of the Legislature . . . to . . . [c]larify the scope of the application of the [CUA] . . . in order to *avoid unnecessary arrest* and prosecution of [medical marijuana patients] and provide needed guidance to law enforcement officers." (emphasis added)). Compare the MMPA's statement of legislative intent with the requirement that the California courts' "role in construing a statute is to ascertain the intent of the Legislature so as to effectuate the purpose of the law." *Wright*, 146 P.3d at 538 (citing *Alford v. Superior Court*, 63 P.3d 228, 232 (Cal. 2003)).

¹⁶ *See The Judicial Branch Budget Crisis*, ADMIN. OFFICE OF THE CTS., JUD. COUNCIL OF CAL., <http://www.courts.ca.gov/partners/courtsbudget.htm#ad-image-0> (last visited Nov. 14, 2013).

¹⁷ *See, e.g.*, *City of Riverside v. Inland Empire Patients Health & Wellness Ctr., Inc.*, 300 P.3d 494, 501 (Cal. 2013) (California's court "decisions have stressed the narrow reach of the [CUA and MMPA].").

juana patients immunity from arrest, the voters or the legislature must reemphasize their intent to do so.

Part I of this comment provides background on the CUA and MMPA and looks at state felony marijuana arrests¹⁸ since their enactment. It then views these arrest statistics through the lens of the subsequent court decisions interpreting the CUA and MMPA and shows that the arrest statistics are shaped by these decisions. Part II examines the rationales put forth by the California courts for finding that the CUA only provides a defense upon arrest. Using state norms of statutory interpretation, Part II argues that an interpretation which provides all medical marijuana patients immunity from arrest better effectuates the intent of California voters and the legislature. Part III looks at the promotion of judicial-economy public policy encompassing the CUA and MMPA along with the current “budget crisis” facing the California courts to argue that the defense upon arrest interpretation fails to promote judicial economy, while an interpretation providing immunity from arrest would. Finally, Part IV argues that because of precedent, and the courts’ narrow approach to interpreting the CUA and MMPA, the California voters or the legislature will need to reemphasize their intent to provide all medical marijuana patients immunity from arrest.

I. BACKGROUND

In 1996, California voters decriminalized the use and cultivation of marijuana for medical purposes by passing Proposition 215, which became the CUA.¹⁹ The California legislature continued the work started by voters and made “a dramatic change in the prohibitions on the use, distribution, and cultivation of marijuana” by implementing the MMPA in 2004.²⁰ Not

¹⁸ The focus of this article is on felony marijuana arrests rather than misdemeanor marijuana arrests since the protections afforded by the CUA and MMPA are particularly geared towards felony marijuana offenses. Compare CAL. HEALTH & SAFETY CODE § 11362.5(d) (West 2013) (indicating California Health and Safety Code § 11358 “shall not apply to a patient, or to a patient’s primary caregiver”), with *id.* § 11358 (indicating “[e]very person who plants, cultivates, harvests, dries, or processes any marijuana or any part thereof, except as otherwise provided by law, shall be punished by imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code.”), and CAL. PENAL CODE § 1170(h)(1) (West 2013) (indicating “a felony punishable pursuant to this subdivision where the term is not specified in the underlying offense shall be punishable by a term of imprisonment in a county jail for 16 months, or two or three years”). Furthermore, the issue of misdemeanor marijuana arrests in California is largely resolved. In 2010, the California legislature passed a law reducing possession of less than 28.5 grams of marijuana from a misdemeanor to an infraction causing misdemeanor drug arrests to decline by nearly fifty percent. See *California: Law Change Leads to Dramatic Decline in Misdemeanor Marijuana Arrests*, NORML (Aug. 1, 2013), <http://norml.org/news/2013/08/01/california-law-change-leads-to-dramatic-decline-in-misdemeanor-marijuana-arrests>.

¹⁹ ATT’Y GEN. GUIDELINES, *supra* note 5.

²⁰ *People v. Wright*, 146 P.3d 531, 538, 540 (Cal. 2006) (quoting *People v. Urziceanu*, 33 Cal. Rptr. 3d 859, 883 (Cal. Ct. App. 2005)).

only did the MMPA expand decriminalization from use and cultivation to “other marijuana-related offenses,”²¹ the MMPA

requires the California Department of Public Health (DPH) to establish and maintain a program for the voluntary registration of qualified medical marijuana patients and their primary caregivers through a statewide identification card system. Medical marijuana identification cards are intended to help law enforcement officers identify and verify that cardholders are able to cultivate, possess, and transport certain amounts of marijuana without being subject to arrest under specific conditions.²²

It may then come as somewhat of a surprise that, despite these monumental legal developments,²³ rather than declining, the number of felony marijuana arrests in California has remained relatively stable since 1996 and even increased substantially from 2007 to 2010.²⁴ However, when these felony arrest statistics are viewed in light of the subsequent case law interpreting the CUA and MMPA, they are not surprising at all.

A. *The Applicability of the CUA and MMPA to State Felony Marijuana Arrests*

The protections afforded by the CUA and MMPA are particularly geared toward decriminalizing felony marijuana offenses. Specifically, the CUA states

Section 11357, relating to the possession of marijuana, and Section 11358, relating to the cultivation of marijuana, shall not apply to a patient, or to a patient’s primary caregiver, who possesses or cultivates marijuana for the personal medical purposes of the patient upon the written or oral recommendation or approval of a physician.²⁵

The MMPA expands these exemptions over the course of two of its sections.²⁶ Section 11362.765 indicates that qualified patients, persons with

²¹ *Id.* at 539.

²² ATT’Y GEN. GUIDELINES, *supra* note 5, at 2.

²³ Although the United States Drug Enforcement Agency (“DEA”) classifies marijuana as a Schedule I drug with “no currently accepted medical use and a high potential for abuse,” *Drug Scheduling*, U.S. DRUG ENFORCEMENT AGENCY, <http://www.justice.gov/dea/druginfo/ds.shtml> (last visited Nov. 14, 2013), following the passage of the CUA in California, twenty-two other states and the District of Columbia “enacted laws to legalize medical marijuana,”²³ *Legal Medical Marijuana States and DC*, PROCON.ORG (Jan. 8, 2015, 2:50 PM), <http://medicalmarijuana.procon.org/view.resource.php?resourceID=000881>.

²⁴ *See California Arrest and Prisoner Data*, *supra* note 12.

²⁵ CAL. HEALTH & SAFETY CODE § 11362.5(d) (West 2013).

²⁶ *See People v. Wright*, 146 P.3d 531, 538 (Cal. 2006) (“The Legislature extended certain protections . . . includ[ing] immunity from prosecution for a number of marijuana-related offenses that had not been specified in the CUA . . .”).

valid identification cards, and designated primary caregivers “shall not be subject, on that sole basis, to criminal liability under Section 11357, 11358, 11359, 11360, 11366, 11366.5, or 11570,”²⁷ while § 11362.775 states

[q]ualified patients, persons with valid identification cards, and . . . designated primary caregivers . . . , who associate within the State of California in order collectively or cooperatively to cultivate marijuana for medical purposes, shall not solely on the basis of that fact be subject to state criminal sanctions under Section 11357, 11358, 11359, 11360, 11366, 11366.5, or 11570.²⁸

Violations of sections 11357 (possession of marijuana),²⁹ 11358 (cultivation of marijuana),³⁰ 11359 (possession of marijuana for sale),³¹ 11360 (transportation of marijuana),³² and 11366.5 (making a location available for the manufacture, storage, or distribution of marijuana)³³ are punishable as felonies by “term[s] of imprisonment in a county jail.”³⁴ Whereas violations of § 11366 (maintaining a place for the sale of marijuana) are punishable as felonies by terms of imprisonment in a county jail or state prison.³⁵

In addition, the MMPA mandates “a statewide identification card system . . . to help law enforcement officers identify and verify that cardholders are able to cultivate, possess, and transport certain amounts of marijuana without being subject to arrest.”³⁶ Specifically, § 11362.71(e) states “[n]o person . . . in possession of a valid identification card shall be subject to arrest for possession, transportation, delivery, or cultivation of medical marijuana.”³⁷ However, participation by patients in the identification card system is voluntary,³⁸ and, as of September 11, 2013, only a total of 70,088 medical marijuana identification cards had been issued by the California Department of Public Health.³⁹ With an estimated 550,000 to 615,000 med-

²⁷ CAL. HEALTH & SAFETY CODE § 11362.765(a) (West 2013).

²⁸ *Id.* § 11362.775.

²⁹ *Id.* § 11357.

³⁰ *Id.* § 11358.

³¹ *Id.* § 11359.

³² *Id.* § 11360.

³³ *Id.* § 11366.5 (West 2013).

³⁴ CAL. PENAL CODE § 1170(h)(1) (West 2013).

³⁵ *Compare* CAL. HEALTH & SAFETY CODE § 11366 (West 2013) (“Every person who opens or maintains any place for the purpose of unlawfully selling, giving away, or using any controlled substance . . . shall be punished by imprisonment in the county jail for a period of not more than one year or the state prison.”), *with* CAL. PENAL CODE § 17(a) (“A felony is a crime that is punishable . . . by imprisonment in the state prison . . .”).

³⁶ ATT’Y GEN. GUIDELINES, *supra* note 5, at 2.

³⁷ CAL. HEALTH & SAFETY CODE § 11362.71(e) (West 2013).

³⁸ *Id.* § 11362.71(a)(1).

³⁹ MEDICAL MARIJUANA PROGRAM, CAL. DEP’T OF PUB. HEALTH, CALIFORNIA MEDICAL MARIJUANA IDENTIFICATION CARD DATA BY COUNTY AND FISCAL YEAR 1 (2013).

ical marijuana patients in California,⁴⁰ this only represents between 11 and 13% of all medical marijuana patients in the state. Given its voluntary nature, the statewide identification card system is unpopular because “many people are reluctant to enter personal information on a government database since marijuana still is illegal under federal law.”⁴¹ Moreover, a medical marijuana identification card does not prevent law enforcement from detaining and searching a medical marijuana patient.⁴²

B. *California State Felony Marijuana Arrests*

Despite the broad exemptions offered by the CUA and MMPA for medical marijuana patients from state felony marijuana crimes and an estimated 572,762 to 615,000 medical marijuana patients in California,⁴³ there has not been an significant reduction in state felony marijuana arrests.⁴⁴ Table 1 shows the number of state felony marijuana arrests from 1990 to 2012.⁴⁵ After the enactment of the CUA and MMPA, state felony marijuana arrests remain at the same levels as they did before the enactments. In fact, from 2007 to 2010, felony marijuana arrests increased to levels not seen since 1990.

⁴⁰ Because California has voluntary registration of medical marijuana patients, the number of medical marijuana patients in California must be estimated. See *Number of Legal Medical Marijuana Patients (as of Oct. 27, 2014)*, PROCON.ORG (Nov. 13, 2014, 12:28 PM), <http://medicalmarijuana.procon.org/view.answers.php?questionID=001199>. The number of medical marijuana patients in California has been estimated using per capita patient figures from those states with mandatory registration. See, e.g., *id.* (estimating 572,762 medical marijuana patients in California “based on Oregon’s patients per capita”); Lisa Leff, *California Medical Marijuana Numbers: Amount of Patients with Pot Prescriptions Is Difficult to Gauge Because California Doesn’t Require Registration*, HUFFPOST LOS ANGELES (Mar. 24, 2012, 6:02 PM), http://www.huffingtonpost.com/2012/03/24/california-medical-marijuana-numbers_n_1377171.html (estimating 615,000 medical marijuana patients in California based on Colorado’s patients per capita).

⁴¹ Leff, *supra* note 40.

⁴² See *People v. Strasburg*, 56 Cal. Rptr. 3d 306, 311 (Cal. Ct. App. 2007).

⁴³ See Leff, *supra* note 40.

⁴⁴ See *California Arrest and Prisoner Data*, *supra* note 12.

⁴⁵ See *infra* Table 1.

Table 1: California Felony Marijuana Arrests 1990–2012⁴⁶

Year	Felony Marijuana Arrests	Annual Percent Change
2012	13,434	-4.7%
2011	14,092	-15.0%
2010	16,585	-2.5%
2009	17,008	-0.7%
2008	17,126	6.2%
2007	16,124	19.0%
2006	13,548	3.6%
2005	13,075	-0.2%
2004	13,106	0.6%
2003	13,022	2.7%
2002	12,682	5.8%
2001	11,986	-8.3%
2000	13,067	-7.7%
1999	14,158	-1.2%
1998	14,333	-1.0%
1997	14,483	-5.6%
1996	15,347	1.5%
1995	15,116	3.1%
1994	14,656	2.1%
1993	14,349	-4.1%
1992	14,962	6.5%
1991	14,050	-16.5%
1990	16,819	N/A

C. Felony Marijuana Arrests in Relation to Judicial Decisions

The felony marijuana arrests make sense when considered in light of the judicial interpretations of the CUA and MMPA. Immediately following the enactment of the CUA on November 5, 1996, state felony marijuana arrests experienced a slight decline.⁴⁷ In *People v. Trippet*, the first appellate level decision interpreting the CUA, California’s First District Court of Appeal, Division Two determined that the CUA provides a defense upon arrest, rather than providing immunity from arrest.⁴⁸ Following this decision in 1997, felony marijuana arrests remained at over 14,000 per year.⁴⁹

⁴⁶ Data compiled by Damian A. Martin from the following sources: KAMALA D. HARRIS, OFFICE OF THE ATT’Y GEN., CAL. DEP’T OF JUSTICE, CRIME IN CALIFORNIA 2012, at 20 (2013) [hereinafter CRIME IN CALIFORNIA 2012], available at <http://oag.ca.gov/sites/all/files/agweb/pdfs/cjsc/publications/candd/cd12/cd12.pdf>; EDMUND G. BROWN JR., OFFICE OF THE ATT’Y GEN., CAL. DEP’T OF JUSTICE, CRIME IN CALIFORNIA 2006, at 116 (2007) [hereinafter CRIME IN CALIFORNIA 2006], available at <http://ag.ca.gov/cjsc/publications/candd/cd06/dataTables.pdf>; BILL LOCKYER, OFFICE OF THE ATT’Y GEN., CAL. DEP’T OF JUSTICE, CRIME IN CALIFORNIA 2005, at 116 (2006), available at <http://ag.ca.gov/cjsc/publications/candd/cd05/dataTables.pdf>; BILL LOCKYER, OFFICE OF THE ATT’Y GEN., CAL. DEP’T OF JUSTICE, REPORT ON DRUG ARRESTS IN CALIFORNIA FROM 1990 TO 1999, at 12 (2000) [hereinafter DRUG ARRESTS IN CALIFORNIA 1990–1999], available at <http://ag.ca.gov/cjsc/publications/misc/drugarrests/drugarrests.pdf>.

⁴⁷ See DRUG ARRESTS IN CALIFORNIA 1990–1999, *supra* note 46, at 12.

⁴⁸ See *People v. Trippet*, 66 Cal. Rptr. 2d 559, 568 n.8, 569, 571 n.17 (Ct. App. 1997).

⁴⁹ DRUG ARRESTS IN CALIFORNIA 1990–1999, *supra* note 46, at 12.

Then, in 1999, California's First District Court of Appeal, Division One decided *People v. Rigo*.⁵⁰ Although the issue decided in *Rigo* was whether "a doctor's recommendation . . . must predate the cultivation or use of marijuana,"⁵¹ in its discussion, the court pointed out that the defendant argued that the CUA provides immunity from arrest, rather than a defense upon arrest.⁵² Even though the court declined to address the issue,⁵³ the discussion in *Rigo* indicated that the issue of whether the CUA provided immunity from arrest or only a defense upon arrest was unsettled law.⁵⁴ Otherwise, the court in *Rigo* could have dealt with the issue by citing the decision in *Trippet*, rather than declining to address the matter.

Following the ambiguity resulting from *Rigo*, felony marijuana arrests declined, hitting a twenty-three year low of less than 12,000 arrests in 2001.⁵⁵ However, in 2002, the Supreme Court of California resolved the ambiguity by providing a comprehensive "determination of the meaning and effect of [the CUA]" in *People v. Mower*.⁵⁶ In *Mower*, the court held that although the CUA provides the "basis for a motion to set aside an indictment or information prior to trial . . . [and] a defense at trial,"⁵⁷ the CUA "does not grant any immunity from arrest."⁵⁸ After *Mower* the decline in state felony marijuana arrests ceased, and the number of arrests returned to over 13,000 arrests per year from 2003 to 2006.⁵⁹ Then in the early part of 2007, the other shoe dropped with California's First District Court of Appeal, Division One's decision in *People v. Strasburg*.⁶⁰ In light of the interpretation of the CUA in *Mower*, finding no immunity from arrest, the court in *Strasburg* held that presenting a medical marijuana identification card or physician's recommendation does not prevent law enforcement from investigating a medical marijuana patient.⁶¹ Rather, the odor or presence of marijuana, even if for medical purposes, provides law enforcement probable cause to detain and search a patient.⁶² Almost immediately, the court's decision in *Strasburg* was integrated into state law enforcement training and

⁵⁰ *People v. Rigo*, 81 Cal. Rptr. 2d 624, 624 (Ct. App. 1999).

⁵¹ *Id.* at 626.

⁵² *Id.* at 627.

⁵³ *Id.*

⁵⁴ Compare *id.*, with *People v. Trippet*, 66 Cal. Rptr. 2d 559, 569, 571 n.17 (Ct. App. 1997).

⁵⁵ See *supra* Table 1.

⁵⁶ *People v. Mower*, 49 P.3d 1067, 1072 (Cal. 2002).

⁵⁷ *Id.* at 1074.

⁵⁸ *Id.*

⁵⁹ CRIME IN CALIFORNIA 2006, *supra* note 46, at 116.

⁶⁰ *People v. Strasburg*, 56 Cal. Rptr. 3d 306, 311 (Ct. App. 2007).

⁶¹ *Id.*

⁶² See *id.* See also Willis, *supra* note 13, at 154 ("The current [medical marijuana] laws are a catch-22 because self-incrimination is required to avoid arrest, but that self-incrimination will likely result in arrest.").

operations.⁶³ Not surprisingly, the number of state felony marijuana arrests increased substantially following *Strasburg*.⁶⁴ By the end of 2007, the number of arrests increased to more than 16,000 from just over 13,500 in 2006.⁶⁵

From 2008 to 2010, state felony marijuana arrests remained at over 16,000 per year, reaching a twenty-three year high of 17,126 arrests in 2008—the first full year following the *Strasburg* decision.⁶⁶ However, during 2009 and 2010, California courts made three specific decisions and state felony marijuana arrests returned to pre-*Strasburg* levels. In *County of Butte v. Superior Court*, decided in July 2009, California’s First District Court of Appeal determined that even though the CUA only allows a defense upon arrest, the Constitution of California allows medical marijuana patients to present justiciable civil claims against law enforcement when they are subjected to an unreasonable search and seizure.⁶⁷

Next, in *People v. Kelly*, decided in January 2010, the Supreme Court of California determined that the provision of the MMPA stating that medical marijuana patients “may possess no more than eight ounces . . . [and] no more than six mature or 12 immature marijuana plants”⁶⁸ unconstitutionally amended the CUA by establishing a limitation on the amount of medical marijuana a patient may possess.⁶⁹ Instead, the court reaffirmed that medical marijuana patients are entitled to possess an amount reasonable in light of their “current medical needs” even if that reasonable amount exceeds eight ounces or six mature plants.⁷⁰ Prior to the Court’s decision in *Kelly*, the quantity limitation provision of the MMPA, “provide[d] an objective, bright-line standard”⁷¹ that “gave . . . law enforcement clarity . . . with respect to how much marijuana a patient may possess for medical use [under the CUA].”⁷² By taking away this “bright-line standard” in *Kelly*, the Court

⁶³ See RYAN G. ADAMS, CHIEF OF POLICE, GLENDALE POLICE DEP’T, TRAINING ORDER 2007-02 at 1 (2007), available at [http://cannabislawinstitute.com/cli/Los_Angeles_files/Glendale%20Police%20Department%20Training%20Order%20\(May%202,%202007\).pdf](http://cannabislawinstitute.com/cli/Los_Angeles_files/Glendale%20Police%20Department%20Training%20Order%20(May%202,%202007).pdf).

⁶⁴ See *supra* Table 1.

⁶⁵ CRIME IN CALIFORNIA 2012, *supra* note 46, at 20; CRIME IN CALIFORNIA 2006, *supra* note 46, at 116.

⁶⁶ See *supra* Table 1.

⁶⁷ See *Cnty. of Butte v. Superior Court*, 96 Cal. Rptr. 3d 421, 424-25, 428 (Ct. App. 2009). In *County of Butte*, a deputy sheriff “came to [the defendant’s] home without a warrant.” *Id.* at 424. Although the defendant presented the deputy copies of his medical marijuana recommendation, the deputy ordered the defendant to destroy medical marijuana plants growing on his property, “under threat of arrest and prosecution.” *Id.*

⁶⁸ CAL. HEALTH & SAFETY CODE § 11362.77(a) (West 2013).

⁶⁹ *People v. Kelly*, 222 P.3d 186, 190 (Cal. 2010).

⁷⁰ See *id.* at 212 (citing *People v. Trippet*, 66 Cal. Rptr. 2d 559, 570 (Ct. App. 1997)).

⁷¹ *Id.* at 196.

⁷² See ARNOLD SCHWARZENEGGER, OFFICE OF THE GOVERNOR OF THE STATE OF CAL., SB 1494 VETO MESSAGE 1 (2004), available at http://www.leginfo.ca.gov/pub/03-04/bill/sen/sb_1451-1500/sb_1494_vt_20040719.html.

denied law enforcement a possession threshold, over which medical marijuana patients clearly crossed into unlawful activity.

Finally, in *Qualified Patients Association v. City of Anaheim*, decided in August 2010, a medical marijuana dispensary sought a declaratory judgment against a city ordinance “imposing criminal penalties for the operation of a medical marijuana dispensary.”⁷³ The trial court dismissed the case on the basis that the “complaint fail[ed] to state a cause of action . . . because federal law preempts [the CUA and MMPA].”⁷⁴ However, California’s Fourth District Court of Appeal, Division Three reversed the trial court’s dismissal and allowed the dispensary to pursue its declaratory judgment action, holding that federal regulation of marijuana in the Controlled Substances Act “[d]oes [n]ot [p]reempt the CUA or the MMPA.”⁷⁵

The combined effect of *County of Butte, Kelly*, and *Qualified Patients Association* is that: (1) law enforcement cannot establish a criminal violation solely on the basis that a medical marijuana patient possesses more than eight ounces of marijuana, and (2) should a medical marijuana patient bring a civil action against law enforcement for unreasonable search and seizure, a California state court may not dismiss the action because of federal marijuana prohibitions. In other words, law enforcement no longer have a clear safe harbor for making an arrest, and should law enforcement make an erroneous arrest, they could be subject to suit in state court. In 2011, the first full year following *County of Butte, Kelly*, and *Qualified Patients Association*, state felony marijuana arrests declined by fifteen percent to just over 14,000, and in 2012, arrests declined to around 13,500 for the first time since 2006.⁷⁶

For a summary, Figure 1 shows the timing of all of the court decisions referenced above in relation to annual state felony marijuana arrests.⁷⁷

⁷³ *Qualified Patients Ass’n v. City of Anaheim*, 115 Cal. Rptr. 3d 89, 92 (Ct. App. 2010).

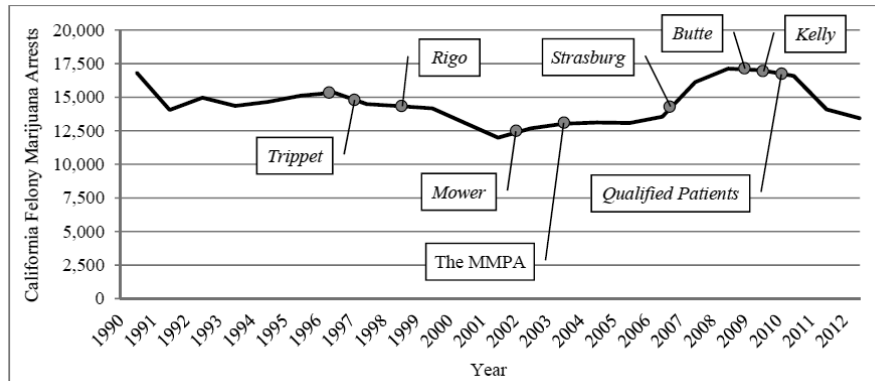
⁷⁴ *Id.* at 105.

⁷⁵ *Id.*

⁷⁶ *See supra* Table 1.

⁷⁷ *See infra* Figure 1.

Figure 1: California Court Decisions in Relation to Felony Marijuana Arrests 1990–2012⁷⁸



II. INTERPRETATION OF THE CUA AND MMPA

Ultimately, state felony marijuana arrests have not decreased following the enactment of the CUA and MMPA because rather than providing immunity from arrest, the CUA only provides medical marijuana patients a defense upon arrest.⁷⁹ However, neither the CUA nor the MMPA directly reference a defense upon arrest.⁸⁰ The defense upon arrest is a judicial creation by the California courts based on interpretation of the CUA and MMPA. A defense upon arrest is certainly a conceivable interpretation given the norms of California statutory interpretation.⁸¹ However, based on those same norms, an interpretation providing all medical marijuana patients immunity from arrest better effectuates the intent of California's voters and legislature.⁸²

⁷⁸ Data compiled by Damian A. Martin from the following sources: *supra* Table 1; *supra* Part I.C.

⁷⁹ *See, e.g.*, *People v. Wright*, 146 P.3d 531, 540 (Cal. 2006); *People v. Mower*, 49 P.3d 1067, 1074 (Cal. 2002); *People v. Trippet*, 66 Cal. Rptr. 2d 559, 569 (Ct. App. 1997).

⁸⁰ *See* CAL. HEALTH & SAFETY CODE §§ 11362.5, 11362.7-9 (West 2013).

⁸¹ *See, e.g.*, *Mower*, 49 P.3d at 1074.

⁸² In enacting the MMPA it was “the intent of the Legislature . . . to . . . [c]larify the scope of the application of the [CUA] . . . in order to *avoid unnecessary arrest* and prosecution of [medical marijuana patients] and provide needed guidance to law enforcement officers.” 2003 Cal. Stat. ch. 875, § 1(b)(1) (2003) (emphasis added).

A. *The Court's Rationales for Providing Only a Defense upon Arrest*

Trippet, the first appellate level decision interpreting the CUA was also the first to consider the statute as providing only a defense upon arrest.⁸³ On appeal, the defendant contended that “patients get the benefit of any doubt as to law or fact; and their ‘right to obtain and use marijuana’ gets ‘Compassionate’ protection.”⁸⁴ However, the court rejected this contention viewing it “as a sort of ‘open Sesame’ . . . [that] would be tantamount to . . . ‘put[ting] one over’ on the voters.”⁸⁵ The court relied primarily on statements from the CUA’s ballot pamphlet in reaching this conclusion.⁸⁶ First, District Attorney Terence Hallinan, a proponent of medical marijuana, stated in the pamphlet’s rebuttal to the argument against the CUA that, “[p]olice officers can still arrest anyone for marijuana offenses. [The CUA] simply gives those arrested a defense in court”⁸⁷ Second, the legislative analyst stated in the pamphlet’s neutral analysis that “the proposed law does not change other legal prohibitions on marijuana”⁸⁸

The interpretation employed by the court in *Trippet* was essentially affirmed by the Supreme Court of California in *Mower*.⁸⁹ In *Mower*, the defendant contended that the CUA, “grants a defendant complete immunity from prosecution, shielding him not only from prosecution but even from arrest.”⁹⁰ However, the court rejected this contention relying on, in addition to statements from ballot pamphlets used in *Trippet*, interpretation of other statutes providing immunity from arrest.⁹¹ First, citing California Penal Code § 1334.4 as an example, the court indicated “that immunity from arrest is exceptional, and, when granted, ordinarily is granted expressly”⁹² and noted that the CUA “[p]lainly . . . does not expressly grant immunity from arrest.”⁹³ Second, the court indicated that the CUA cannot, “reasonably be read to grant immunity from arrest by implication.”⁹⁴ Rather than providing its own analysis of the CUA’s text, the court supported this assertion by relying on the statement in the ballot pamphlet by District Attorney Halli-

⁸³ See *Trippet*, 66 Cal. Rptr. 2d at 569, 571 n.17.

⁸⁴ *Id.* at 568 n.8.

⁸⁵ *Id.* at 568.

⁸⁶ See *id.* at 567-69 & n.7.

⁸⁷ *Id.* at 568 (citing CAL SEC’Y OF STATE, CALIFORNIA BALLOT PAMPHLET: GENERAL ELECTION NOVEMBER 5, 1996 at 61 (1996) [hereinafter BALLOT PAMPHLET 1996]).

⁸⁸ *Id.* (internal quotation marks omitted) (citing BALLOT PAMPHLET 1996, *supra* note 87, at 59).

⁸⁹ See *People v. Mower*, 49 P.3d 1067, 1077 (Cal. 2002).

⁹⁰ See *id.* at 1072 (internal quotation marks omitted).

⁹¹ See *id.* at 1074, 1078.

⁹² *Id.* at 1074 (citing CAL. PENAL CODE § 1334.4 (West 2013)).

⁹³ *Id.*

⁹⁴ *Id.*

nan, also cited in *Trippet*, that “[p]olice officers can still arrest anyone for marijuana offenses.”⁹⁵

B. *The Text of the CUA Supports an Interpretation Providing Immunity from Arrest*

California courts interpret voter initiatives using “the same principles that govern statutory construction.”⁹⁶ As a result, the fundamental task in interpreting the CUA is to determine the voter’s “intent so as to effectuate the law’s purpose.”⁹⁷ “Because the statutory language is generally the most reliable indicator of that intent,” courts first look to the “words themselves.”⁹⁸ The *Mower* court first looked to the words, noting that the text of the CUA “[p]lainly . . . does not expressly grant immunity from arrest.”⁹⁹ In that regard, the CUA does not use the words “immunity from arrest” anywhere within the text of the initiative.¹⁰⁰ However, the statutory text does contain a declaration of the initiative’s purpose.¹⁰¹ Specifically, § 11362.5(b)(1)(B) states that the purpose of the CUA is “[t]o ensure that patients . . . who obtain and use marijuana for medical purposes upon the recommendation of a physician *are not subject to criminal prosecution or sanction.*”¹⁰² Courts must give initiatives a construction that conforms to the apparent purpose and intention of the voters.¹⁰³

The courts in both *Trippet* and *Mower* mention § 11362.5(b)(1)(B).¹⁰⁴ However, neither court conducted an analysis of the text of the section.¹⁰⁵ This is likely because the terms “prosecution”¹⁰⁶ and “sanction”¹⁰⁷ have

⁹⁵ See *People v. Mower*, 49 P.3d 1067, 1074 (Cal. 2002) (quoting BALLOT PAMPHLET 1996, *supra* note 87, at 61).

⁹⁶ Prof’l Eng’rs in Cal. Gov’t v. Kempton, 155 P.3d 226, 239 (Cal. 2007) (citation omitted).

⁹⁷ See *People v. Lewis*, 181 P.3d 947, 1002 (Cal. 2008) (citation omitted).

⁹⁸ *Alford v. Superior Court*, 63 P.3d 228, 232 (Cal. 2003) (citation omitted).

⁹⁹ See *Mower*, 49 P.3d at 1074.

¹⁰⁰ See CAL. HEALTH & SAFETY CODE § 11362.5 (West 2013).

¹⁰¹ *Id.* at § 11362.5(b)(1).

¹⁰² *Id.* at § 11362.5(b)(1)(B) (emphasis added).

¹⁰³ See *Clean Air Constituency v. Cal. State Air Res. Bd.*, 523 P.2d 617, 624 (Cal. 1974) (“[C]ourts must give statutes a reasonable construction which conforms to the apparent purpose and intention of the lawmakers.”). See also Prof’l Eng’rs in Cal. Gov’t, 155 P.3, at 239 (indicating that “[i]n interpreting a voter initiative . . . , we apply the same principles that govern statutory construction” (alteration in original) (quoting *People v. Rizo*, 996 P.2d 27, 30 (Cal. 2000))).

¹⁰⁴ *Mower*, 49 P.3d at 1073, 1075-76, 1078, 1082; *People v. Trippet*, 66 Cal. Rptr. 2d 559, 566 (Ct. App. 1997).

¹⁰⁵ See *Mower*, 49 P.3d at 1073, 1075-76, 1078, 1082; *Trippet*, 66 Cal. Rptr. 2d at 566.

¹⁰⁶ BLACK’S LAW DICTIONARY 1341 (9th ed. 2009) (defining prosecution as “[a] criminal proceeding in which an accused person is tried”).

¹⁰⁷ *Id.* at 1458 (defining criminal sanction as “[a] sanction attached to a criminal conviction, such as a fine or restitution”).

widely understood *legal* meanings. Under these legal meanings, “criminal prosecution or sanction”¹⁰⁸ from § 11362.5(b)(1)(B) can hardly be meant to include arrest. The legal meanings noted, when examining an initiative’s words, courts should “giv[e] them a plain and commonsense meaning.”¹⁰⁹ The legal meaning and plain, commonsense meaning of “prosecution” are in agreement and, plainly, do not encompass arrest.¹¹⁰ On the other hand, the legal meaning and plain, commonsense meaning of “sanction” are not in agreement with regard to whether or not they encompass arrest.¹¹¹ The legal meaning of sanction as “attached to a criminal conviction” is clearly something that occurs post-arrest,¹¹² while the plain, commonsense meaning of sanction as “coercive intervention . . . as a means of enforcing the law”¹¹³ includes “arrest.”¹¹⁴ Furthermore, arrest in itself is certainly a “detriment . . . annexed to a violation of a law.”¹¹⁵ To demonstrate, for many people the pretrial process occurring upon arrest is “the real punishment.”¹¹⁶ Thus, the plain, commonsense meaning of “sanction” includes arrest. Given competing plain, commonsense and legal meanings, the plain, com-

¹⁰⁸ CAL. HEALTH & SAFETY CODE § 11362.5(b)(1)(B) (West 2013).

¹⁰⁹ See *People v. Lewis*, 181 P.3d 947, 1002 (Cal. 2008) (“We begin by examining the statute’s words, giving them a plain and commonsense meaning.” (quoting *People v. Murphy* 19 P.3d 1129, 1133 (Cal. 2001))).

¹¹⁰ Compare BLACK’S LAW DICTIONARY 1341 (9th ed. 2009) (defining prosecution as “[a] criminal proceeding in which an accused person is tried”), with *prosecution*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/dictionary/prosecution> (last visited Nov. 14, 2013) (defining prosecution as “the institution and continuance of a criminal suit involving the process of pursuing formal charges against an offender to final judgment”).

¹¹¹ Compare BLACK’S LAW DICTIONARY 1458 (defining criminal sanction as “[a] sanction attached to a criminal conviction, such as a fine or restitution”), with *sanction*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/dictionary/sanction> (last visited Nov. 14, 2013) (defining sanction as “the detriment, loss of reward, or coercive intervention annexed to a violation of a law as a means of enforcing the law”).

¹¹² See BLACK’S LAW DICTIONARY 1458 (9th ed. 2009) (defining criminal sanction as “[a] sanction attached to a criminal conviction, such as a fine or restitution” (emphasis added)).

¹¹³ See MERRIAM-WEBSTER, *sanction*, *supra* note 111 (defining sanction as “the detriment, loss of reward, or coercive intervention annexed to a violation of a law as a means of enforcing the law”).

¹¹⁴ See BLACK’S LAW DICTIONARY 124 (9th ed. 2009) (defining arrest as “the apprehension of someone for the purpose of securing the administration of the law” (emphasis added)); *arrest*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/dictionary/arrest> (last visited Oct. 13, 2013) (defining arrest as “to take or keep in custody by authority of law” (emphasis added)).

¹¹⁵ See MERRIAM-WEBSTER, *sanction*, *supra* note 111 (defining sanction as “the detriment, loss of reward, or coercive intervention annexed to a violation of a law as a means of enforcing the law”).

¹¹⁶ See MATT DELISI & PETER J. CONIS, *AMERICAN CORRECTIONS: THEORY, RESEARCH, POLICY AND PRACTICE* 164 (2010) (noting that “the pretrial process . . . is burdensome, uncomfortable, bewildering, and seemingly based on the subjective judgments of various criminal justice practitioners” and “the contingencies of being arrested and being released on bond can and do often interfere with work and family obligations” (citations omitted)). Accord Willis, *supra* note 13, at 156 (noting that medical marijuana patients “are still subject to arrest, booking, jail, bail/bond, arraignment, [and] preliminary hearing if charged by information . . .”).

monsense meaning controls, especially in the case of initiatives where laws are enacted by voters rather than by legislators assumed to have knowledge of existing legal terminology.¹¹⁷ Overall, this should compel California courts to conclude that the purpose of the CUA is “[t]o ensure that patients . . . who obtain and use marijuana for medical purposes upon the recommendation of a physician are not subject to criminal prosecution or sanction” including arrest.¹¹⁸

C. *The CUA Ballot Arguments Support an Interpretation Providing Immunity from Arrest*

Even if the plain, commonsense meaning of “sanction” does not compel California courts to conclude that the purpose of the CUA is to ensure medical marijuana patients are not subject to arrest, if nothing else, the commonsense meaning’s lack of agreement with the legal meaning creates an ambiguity. “If the text [of an initiative] is ambiguous and supports multiple interpretations, [California courts] may then turn to . . . ballot summaries and arguments for insight into the voters’ intent.”¹¹⁹ The courts in both *Trippet* and *Mower* employed the ballot arguments to interpret the CUA.¹²⁰ In particular, the courts relied on statements from District Attorney Terence Hallinan, a proponent of medical marijuana, in the pamphlet’s rebuttal to the argument against the CUA.¹²¹ However, statements from District Attorney Hallinan in the pamphlet’s rebuttal also support the conclusion that the CUA does provide immunity from arrest.

First, although District Attorney Hallinan’s statement that “[p]olice officers can still arrest anyone for marijuana offenses”¹²² indicates that the CUA may not provide immunity from arrest, his contrasting statement that “[p]olice can still arrest anyone that grow too much [marijuana], or tries to

¹¹⁷ See *People v. Jones*, 4 Cal. Rptr. 3d 916, 924 (Ct. App. 2003) (“When a term or phrase is not defined in a statutory initiative, ‘it can be assumed to refer not to any special term of art, but rather to a meaning that would be commonly understood by the electorate.’” (quoting *People ex rel. Lungren v. Superior Court*, 926 P.2d 1042, 1047 (Cal. 1996))). On that note, a definition for “sanction” is not provided in the CUA’s statutory text or its ballot pamphlet arguments. See CAL. HEALTH & SAFETY CODE § 11362.5; BALLOT PAMPHLET 1996, *supra* note 87, at 58-61. Compare *Jones*, 4 Cal. Rptr. 3d at 924, with *Estate of McDill*, 537 P.2d 874, 878 (Cal. 1975) (“It is assumed that the Legislature has in mind existing laws when it passes a statute.”). It would be completely unrealistic to make the same assumption about voters when they approve an initiative, especially when legal terms are not defined in the statutory text or ballot pamphlet arguments.

¹¹⁸ See CAL. HEALTH & SAFETY CODE § 11362.5(b)(1)(B) (West 2013).

¹¹⁹ *People v. Mentch*, 195 P.3d 1061, 1066-67 (Cal. 2008).

¹²⁰ See *Mower*, 49 P.3d at 1074, 1076, 1078, 1083 (Cal. 2002); *Trippet*, 66 Cal. Rptr. 2d at 567-68, 568 n.7, 570-71 (Ct. App. 1997).

¹²¹ See *Mower*, 49 P.3d at 1074 (citing BALLOT PAMPHLET 1996, *supra* note 87, at 61); *Trippet*, 66 Cal. Rptr. 2d at 568 (citing BALLOT PAMPHLET 1996, *supra* note 87, at 61).

¹²² BALLOT PAMPHLET 1996, *supra* note 87, at 61.

sell it”¹²³ indicates that the CUA provides immunity from arrest, until a person crosses some threshold of conduct. Second, while District Attorney Hallinan’s statement that the CUA “gives those arrested a defense in court”¹²⁴ plainly supports the availability of a defense upon arrest, his statement that “I support [the CUA] because I don’t want to send cancer patients to jail for using marijuana”¹²⁵ supports an immunity from arrest interpretation.¹²⁶ To demonstrate, after an arrest a person is booked and taken to jail.¹²⁷ Therefore, cancer patients will be sent to jail for using marijuana unless the CUA provides at least some immunity from arrest. Overall, this should compel California courts to conclude that the CUA must provide immunity from arrest; otherwise, the CUA cannot prevent cancer patients from going to jail for using marijuana.

D. *The Statutory Scheme Supports an Interpretation Providing Immunity from Arrest*

Even if the statement from District Attorney Hallinan that he does not “want to send cancer patients to jail for using marijuana,”¹²⁸ does not compel California courts to conclude that the CUA must provide some immunity from arrest, his conflicting statements in the ballot argument create further ambiguity. When confronted with an initiative that is reasonably susceptible to more than one interpretation, California courts “may consider . . . the statutory scheme encompassing the statute.”¹²⁹ This includes provisions not only in the same statutory scheme, but also, “provisions relating to the same subject matter.”¹³⁰ The CUA and MMPA are explicitly related. The purpose of the CUA is “[t]o encourage the federal and state governments to implement a plan to provide for the safe and affordable distribution of marijuana to all patients in medical need of marijuana.”¹³¹ The

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ Furthermore, the availability of a defense upon arrest for medical marijuana patients does not preclude the availability of immunity from arrest for medical marijuana patients. *Mower* followed a similar line of reasoning by underscoring that, although “[the CUA’s] ballot pamphlet materials do not speak directly to the issue whether section 11362.5(d) permits a motion to set aside an indictment or information prior to trial[,] they say nothing to the contrary.” *Mower*, 49 P.3d at 1076.

¹²⁷ See *California Criminal Law Process*, LAWYERS.COM, <http://research.lawyers.com/California/Criminal-Process-in-California.html> (last visited Nov. 14, 2013).

¹²⁸ BALLOT PAMPHLET 1996, *supra* note 87, at 61.

¹²⁹ See *People v. King*, 133 P.3d 636, 639 (Cal. 2006) (internal quotation marks omitted).

¹³⁰ See *Bode v. L.A. Metro. Med. Ctr.*, 94 Cal. Rptr. 3d 890, 899 (Ct. App. 2009) (citation omitted).

¹³¹ CAL. HEALTH & SAFETY CODE § 11362.5(b)(1)(C) (West 2013).

MMPA is the California legislature's response to the CUA's encouragement.¹³²

Similar to the CUA, the MMPA does not use the words “immunity from arrest” anywhere within the text of the initiative.¹³³ Also like the CUA, the MMPA contains a statement of intent, although the MMPA's statement is uncodified.¹³⁴ However, unlike the CUA's statement of intent which uses the terms “prosecution or sanction,”¹³⁵ the MMPA's statement of intent directly references “arrest,” indicating that it was “the intent of the Legislature . . . to . . . [c]larify the scope of the application of the [CUA] . . . in order to avoid unnecessary *arrest* and prosecution of [medical marijuana patients].”¹³⁶ Furthermore, the section of the MMPA establishing a statewide identification card system indicates that “[n]o [medical marijuana patient] in possession of a valid identification card shall be subject to *arrest* for possession, transportation, delivery, or cultivation of medical marijuana.”¹³⁷ Taken together, these “provisions seem to suggest that some degree of immunity from arrest should be afforded to lawful [medical marijuana] patients engaged in lawful [medical marijuana] activities.”¹³⁸ The Supreme Court of California agreed to a certain extent in *Kelly*, when it stated as a matter of fact¹³⁹ “[the MMPA's] identification card [system] . . . , unlike the CUA—which . . . provides only an *affirmative defense* to a charge of possession or cultivation—*provides protection against arrest*.”¹⁴⁰

Despite the legislature's intent to avoid unnecessary arrests and the Supreme Court of California's statement in *Kelly*, the MMPA has failed to reduce state felony marijuana arrests.¹⁴¹ This is due to the voluntary nature of the MMPA's statewide identification card system and the identification card system's unpopularity resulting from “many people [being] reluctant to enter personal information on a government database since marijuana still is illegal under federal law.”¹⁴² On that note, the Supreme Court of

¹³² See *People v. Colvin*, 137 Cal. Rptr. 3d 856, 860 (Ct. App. 2012) (“In response to the CUA's encouragement to implement a plan to provide for the safe and affordable distribution of marijuana to all patients in need of it, our Legislature enacted the MMPA.” (citations omitted) (internal quotation marks omitted)). See also 2003 Cal. Stat. ch. 875, § 1(c) (2003) (“It is . . . the intent of the Legislature to address additional issues that were not included within the [CUA], and that must be resolved in order to promote the fair and orderly implementation of the [CUA].”).

¹³³ See CAL. HEALTH & SAFETY CODE §§ 11362.7-9 (West 2013).

¹³⁴ 2003 Cal. Stat. ch. 875, § 1 (2003).

¹³⁵ CAL. HEALTH & SAFETY CODE § 11362.5(b)(1)(B) (West 2013).

¹³⁶ 2003 Cal. Stat. ch. 875, § 1(b)(1) (2003) (emphasis added).

¹³⁷ CAL. HEALTH & SAFETY CODE § 11362.71(e) (West 2013) (emphasis added).

¹³⁸ Willis, *supra* note 13, at 145 n.60.

¹³⁹ The Supreme Court of California included the statement within the Facts section of the opinion. See *People v. Kelly*, 222 P.3d 186, 188-89 (Cal. 2010).

¹⁴⁰ *Id.* at 189 (internal quotation marks omitted).

¹⁴¹ See *supra* Part I.

¹⁴² Leff, *supra* note 40.

California has already shown itself mindful of the difficulties federal law creates within the context of the CUA and MMPA. In *Kelly*, the court recognized that the MMPA's requirement that a medical marijuana patient obtain a physician's recommendation in order to possess more than eight ounces of marijuana represented a substantial burden because, in light of federal law prohibiting marijuana for medical use, the California Medical Association counseled physicians to "avoid offering advice concerning . . . how much [medical marijuana] a patient should take."¹⁴³ Similarly, in light of federal law prohibiting marijuana for medical use, the requirement for individuals to register personal information in a government database represents a substantial burden for medical marijuana patients to participate in the identification card system and benefit from the immunity from arrest it offers. Overall, recognition of this burden should compel the California courts to at least extend the immunity from arrest provided by the MMPA to all medical marijuana patients with verifiable physicians' recommendations.¹⁴⁴

III. THE DEFENSE UPON ARREST INTERPRETATION AND THE COURT'S "BUDGET CRISIS"

The analysis in Part II demonstrated that an interpretation of the CUA and MMPA that provides all medical marijuana patients immunity from arrest better effectuates the intent of the voters and the legislature.¹⁴⁵ However, assuming for the sake of argument that the analysis only demonstrates that immunity from arrest is a conceivable interpretation in addition to the defense upon arrest interpretation, the California courts "may consider . . . public policy, and the statutory scheme encompassing the statute."¹⁴⁶ An implicit public policy rationale contained within the *Mower* decision that the CUA provides a defense upon arrest that includes the basis to set aside an indictment prior to trial is the promotion of judicial economy.¹⁴⁷ The judicial-economy rationale is also an implicit consideration in

¹⁴³ *Kelly*, 222 P.3d at 210 n.60 (internal quotation marks omitted).

¹⁴⁴ Law enforcement is clearly able to verify a written physician's recommendation as demonstrated by *Kelly* where law enforcement found Mr. Kelly's physician's recommendation during the search of his residence, then called the physician and verified the recommendation. *See id.* at 192.

¹⁴⁵ *See supra* Part II.B-D.

¹⁴⁶ *See People v. King*, 133 P.3d 636, 639 (Cal. 2006) (internal quotation marks omitted).

¹⁴⁷ *See People v. Mower*, 49 P.3d 1067, 1077 (Cal. 2002) ("[I]n the absence of reasonable or probable cause to believe that a defendant is guilty of possession or cultivation of marijuana, in view of his or her status as a qualified patient or primary caregiver, the grand jury or the magistrate should not indict or commit the defendant in the first place, but instead should bring the prosecution to an end at that point."). *See also Willis*, *supra* note 13, at 139-40 ("Pretrial disposition of a valid CUA claim is encouraged under *People v. Mower*, which allows a pretrial motion to set aside an indictment or infor-

enacting the MMPA as demonstrated by the California legislature's intent "to *avoid unnecessary* arrest and prosecution of [medical marijuana patients] and provide needed guidance to law enforcement officers."¹⁴⁸

As demonstrated by Part I, both the CUA and MMPA have failed to promote judicial economy by reducing state felony marijuana arrests.¹⁴⁹ Furthermore, the CUA defense upon arrest that includes the basis to set aside an indictment has also failed to promote judicial economy.¹⁵⁰ As a result of the ability to set aside an indictment, one would expect pretrial dismissals in felony marijuana cases to have increased since *Mower*. The California Department of Justice does not provide the disposition data for state felony marijuana arrests in their publicly available data and cautions the use of the disposition data.¹⁵¹ Nevertheless, anecdotal observations coupled with legal analysis demonstrate that pretrial dismissals in felony marijuana cases have not increased. Willis, during his time with the Orange County Public Defender,¹⁵² observed that "[a]lthough a judge has the power to dismiss a [medical marijuana] case pretrial, issues that should be presumed to be lawful are often left to the whims of the jury."¹⁵³ Willis's observation is consistent with the current law. Even though *Mower* allows a medical marijuana patient to set aside an indictment, "[t]o prevail, a [medical marijuana patient] must show that . . . he or she was indicted or committed without reasonable or probable cause to believe that he or she was guilty . . . in view of his or her *status as a qualified patient or primary caregiver*."¹⁵⁴ However, an individual establishes his or her status as a qualified patient or primary caregiver by possessing marijuana "reasonably related to *the patient's current medical needs*."¹⁵⁵ "[T]he 'patient's current medical needs' is . . . a *factual question to be determined by the trier of*

mation, to promote judicial economy and protect a qualified patient from unnecessary exposure to the criminal justice system.").

¹⁴⁸ See 2003 Cal. Stat. ch. 875, § 1(b)(1) (2003) (emphasis added).

¹⁴⁹ See *supra* Part I.B-C.

¹⁵⁰ See Willis, *supra* note 13, at 154-57 ("Notwithstanding *Mower*, [medical marijuana] defense issues are commonly left as a matter of fact for the jury to decide rather than a matter of law that a judge decides in limine.").

¹⁵¹ See CRIME IN CALIFORNIA 2012, *supra* note 46, at 49 ("Caution should be used when interpreting this information because final dispositions are underreported.").

¹⁵² Willis, *supra* note 13, at 137 n.7 ("Most of these discussions stem from my three internships with the Orange County Public Defender in Santa Ana, California, where I worked on several cases involving a statutory medical defense to felony possession, cultivation, sales, possession for sales, and transportation of marijuana.").

¹⁵³ *Id.* at 156 (2013) (citation omitted).

¹⁵⁴ *People v. Mower*, 49 P.3d 1067, 1076 (Cal. 2002) (emphasis added) (internal quotation marks omitted).

¹⁵⁵ See *People v. Trippet*, 66 Cal. Rptr. 2d 559, 570 (Ct. App. 1997) (emphasis added). *Accord* *People v. Kelly*, 222 P.3d 186, 213 (Cal. 2010) ("[A] person may assert, as a defense in court, that he or she possessed or cultivated an amount of marijuana reasonably related to meet his or her current medical needs.").

*fact.*¹⁵⁶ Therefore, even though the judicial interpretation providing a defense upon arrest includes the ability to set aside an indictment, the interpretation still fails to promote judicial economy because the legal basis to set aside an indictment is directly tied to a factual question resolved at trial.

The need for the CUA and MMPA to promote judicial economy is even more imperative given the California courts' current budget crisis. According to the Judicial Council of California, the California courts are in the midst of "budget crisis" resulting from \$1 billion in cuts.¹⁵⁷ As a result, the California courts are struggling to serve people "in a manner that is fair and just."¹⁵⁸ For instance, the courts are experiencing increased case processing backlogs¹⁵⁹ and the inability to process urgent matters in a timely manner.¹⁶⁰ The defense-upon-arrest interpretation for medical marijuana patients exacerbates these problems. Regarding the problem of increased case processing backlogs, year after year, the California courts are unable to dispose of a number of cases greater than or equal to the number of cases filed.¹⁶¹ As a result, year after year, a backlog of cases accumulates to which felony marijuana arrests contribute. As demonstrated by Table 2, that contribution is significant, and a reduction in felony marijuana arrests would allow the California courts to start approaching a scenario in which they actually dispose of a number of felony cases at least equal to the number of felony cases filed.¹⁶² Therefore, providing medical marijuana patients immunity from arrest would decrease felony criminal filings and promote judicial economy by reducing backlogs in the California courts.

¹⁵⁶ *Trippet*, 66 Cal. Rptr. 2d at 570 (emphasis added).

¹⁵⁷ ADMIN. OFFICE OF THE CTS., JUD. COUNCIL OF CAL., *supra* note 16.

¹⁵⁸ *Id.*

¹⁵⁹ Memorandum from Hon. Laurie Earl, Trial Ct. Presiding JJ., Chair, Advisory Comm. to Hon. Barry Goode, Presiding J., Contra Costa Cnty. Super. Ct. 3, 6 (Mar. 11, 2013), *available at* <http://www.courts.ca.gov/partners/documents/20130312-PJ-Instant-Survey-Impacts.pdf> ("Our biggest backlog of cases currently is felonies. . . . The system has completely broken down. The floors in our clerks offices are lined with boxes of criminal cases waiting to be filed and calendared for court. As of today there are 18 boxes of felony cases waiting to be processed." (internal quotations marks omitted)).

¹⁶⁰ *See id.* at 3.

¹⁶¹ *See* JUD. COUNCIL OF CAL., JUD. COUNCIL OF CAL., 2013 COURT STATISTICS REPORT: STATEWIDE CASELOAD TRENDS 2002–2003 THROUGH 2011–2012, at 39 (2013) [hereinafter 2013 COURT STATISTICS REPORT], *available at* <http://www.courts.ca.gov/documents/2013-Court-Statistics-Report.pdf>.

¹⁶² *See infra* Table 2.

Table 2: 2012 California Felony Clearance Rate Based on Posited Reductions in Marijuana Arrests¹⁶³

Felony Filings ¹⁶⁴	Felony Marijuana Arrests ¹⁶⁵	Arrest Reduction ¹⁶⁶	Filings after Reduction ¹⁶⁷	Felony Dispositions ¹⁶⁸	Clearance Rate ¹⁶⁹
243,270	13,434	0%	243,270	227,810	94%
243,270	13,434	10%	241,927	227,810	94%
243,270	13,434	25%	239,912	227,810	95%
243,270	13,434	50%	236,553	227,810	96%
243,270	13,434	75%	233,195	227,810	98%

Regarding the problem of timely processing of urgent matters, the California courts report that they “are unable to process domestic violence temporary restraining orders the same day they are filed.”¹⁷⁰ Given limited court resources, disposing of felony marijuana arrests presents an opportunity cost for processing domestic violence temporary restraining orders and other urgent matters. As demonstrated by Table 3, that opportunity cost is significant and a reduction in felony marijuana arrests would allow the California courts to process additional domestic violence temporary restraining orders.¹⁷¹ Therefore, providing medical marijuana patients im-

¹⁶³ Data compiled by Damian A. Martin. Caseload trends (filings and dispositions) are reported by fiscal year. 2013 COURT STATISTICS REPORT, *supra* note 161, at 44. On the other hand, arrests are reported by calendar year. CRIME IN CALIFORNIA 2012, *supra* note 46, at 1-2. Here, “2012” refers to fiscal year 2011–2012 for the purpose of felony filings and dispositions, yet calendar year 2012 for the purpose of felony marijuana arrests. The time periods are treated as concurrent for demonstrative purposes.

¹⁶⁴ 2013 COURT STATISTICS REPORT, *supra* note 161, at 75.

¹⁶⁵ CRIME IN CALIFORNIA 2012, *supra* note 46, at 20.

¹⁶⁶ As demonstrated by pre-*Mower* felony marijuana arrest levels when the question of whether the CUA provided immunity from arrest or only a defense upon arrest was unsettled law, an immunity from arrest interpretation would result in a reduction in felony marijuana arrests. *See supra* Part I.C. The obvious question is the magnitude of reduction that would actually occur. Forecasting the actual felony marijuana arrest reduction that would result from an interpretation providing immunity from arrest is beyond the scope of this article. The arrest reduction levels presented in Table 2 are for demonstrative purposes.

¹⁶⁷ “Filings after Reduction” equals “Felony Filings” minus “Felony Marijuana Arrests” multiplied by “Arrest Reduction.”

¹⁶⁸ 2013 COURT STATISTICS REPORT, *supra* note 161, at 75.

¹⁶⁹ “Clearance Rate” equals “Felony Dispositions” divided by “Filings after Reduction.” “Clearance rates show the number of outgoing cases as a percentage of the number of incoming cases. They measure whether the court is disposing of cases in a timely fashion or whether a backlog of cases is growing.” 2013 COURT STATISTICS REPORT, *supra* note 161, at 64.

¹⁷⁰ Memorandum from Hon. Laurie Earl, *supra* note 159, at 2. “A domestic violence restraining order is a court order that helps protect people from abuse or threats of abuse from someone they have a close relationship with.” *Domestic Violence*, ADMIN. OFFICE OF THE CTS., JUD. COUNCIL OF CAL., <http://www.courts.ca.gov/selfhelp-domesticviolence.htm> (last visited Nov. 14, 2013).

¹⁷¹ *See infra* Table 3.

munity from arrest would promote judicial economy by supplying additional resources that could be allocated to more urgent matters.

Table 3: Domestic Violence Temporary Restraining Orders (DVTRO) Available Based on Posited Reductions in 2012 Marijuana Arrests¹⁷²

Felony Marijuana Arrests ¹⁷³	Arrest Reduction ¹⁷⁴	Felony Case Workload (minutes) ¹⁷⁵	Minutes Available after Reduction ¹⁷⁶	Family Law Case Workload (minutes) ¹⁷⁷	DVTRO Processing Availability ¹⁷⁸
13,434	0%	197	0	84.5	0
13,434	10%	197	264,650	84.5	3,132
13,434	25%	197	661,625	84.5	7,830
13,434	50%	197	1,323,249	84.5	15,660
13,434	75%	197	1,984,874	84.5	23,490

Undoubtedly then, the failure of the defense upon arrest interpretation to promote judicial economy is only heightened by the California courts' current budget crisis. Overall, this should compel the California courts to reinterpret the CUA to provide medical marijuana patients immunity from arrest on the grounds that the defense-upon-arrest interpretation did not promote judicial economy as originally intended.

IV. THE VOTERS OR THE LEGISLATURE MUST ACT . . . AGAIN

Despite the statutory text, ballot pamphlet, statutory scheme, and judicial-economy rationales that support an interpretation of the CUA and MMPA providing all medical marijuana patients immunity from arrest, California courts will be unwilling to alter their initial interpretation. The first issue concerns precedent. The Supreme Court of California's interpretation in *Mower* that the CUA only provides a defense upon arrest is indisputably "good law" within the state. Without even mentioning the numerous Court of Appeals decisions citing *Mower*, the interpretation from *Mower* that the CUA only provides medical marijuana patients a defense upon

¹⁷² Data compiled by Damian A. Martin based on the information sources listed for each column heading below.

¹⁷³ CRIME IN CALIFORNIA 2012, *supra* note 46, at 20.

¹⁷⁴ See *supra* note 166.

¹⁷⁵ ADMIN. OFFICE OF THE CTS., JUD. COUNCIL OF CAL., FACT SHEET: THE CALIFORNIA JUDICIAL WORKLOAD ASSESSMENT 2 (2007) [hereinafter JUDICIAL WORKLOAD ASSESSMENT].

¹⁷⁶ "Minutes Available after Reduction" equals "Felony Marijuana Arrests" multiplied by "Arrest Reduction" multiplied by "Felony Case Workload (minutes)."

¹⁷⁷ JUDICIAL WORKLOAD ASSESSMENT, *supra* note 175, at 2. Domestic violence temporary restraining orders are requested under California's "Family Law." See CAL. FAM. CODE § 6222 (West 2013).

¹⁷⁸ "DVTR Available" equals "Minutes Available after Reduction" divided by "Family Law Case Workload (in minutes)."

arrest is cited in nearly every subsequent Supreme Court of California decision involving the CUA or MMPA.¹⁷⁹ Moreover, currently¹⁸⁰ there are no published¹⁸¹ appellate level decisions from the state challenging, or even questioning, the defense-upon-arrest interpretation.

In addition to the issue of precedent, the California courts will be unwilling to alter their initial interpretation because of their overall approach to deciding cases implicating the CUA and MMPA. A recent decision by the Supreme Court of California, *City of Riverside v. Inland Empire Patients Health and Wellness Center*, provides a synopsis of the overall approach.¹⁸² As far as the California courts are concerned, the CUA and MMPA represent “modest,”¹⁸³ “limited[,] and specific”¹⁸⁴ steps toward providing for the medical use of marijuana.¹⁸⁵ As a result, California’s court “decisions have stressed the narrow reach of these statutes.”¹⁸⁶ The courts’ narrow approach has gone to the extent of limiting the scope of the CUA’s statements of intent. For example, although the CUA states that its purpose is “[t]o ensure that seriously ill Californians have *the right* to obtain and use marijuana for medical purposes,”¹⁸⁷ the courts have decided that the CUA “create[s] *no broad right* to use [medical] marijuana without hindrance or inconvenience.”¹⁸⁸ Applying the courts’ precedent with this narrow treatment of intent statements to the analysis in Part II.B, demon-

¹⁷⁹ See, e.g., *People v. Dowl*, 161 Cal. Rptr. 3d 103, 108 (Cal. 2013); *People v. Kelly*, 222 P.3d 186, 187 (Cal. 2010); *People v. Mentch*, 195 P.3d 1061, 1073 n.12 (Cal. 2008); *People v. Wright*, 146 P.3d 531, 533-42 (Cal. 2006). Of the Supreme Court of California decisions implicating either the CUA or MMPA, only *City of Riverside v. Inland Empire Patients Health and Wellness Center* and *Ross v. RagingWire Telecommunications* fail to cite the *Mower* defense upon arrest interpretation. See *City of Riverside v. Inland Empire Patients Health & Wellness Ctr., Inc.*, 300 P.3d 494, 494-14 (Cal. 2013); *Ross v. RagingWire Telecomm., Inc.*, 174 P.3d 200, 200-16 (Cal. 2008). However, neither of these cases involves an individual arrested for a marijuana offense. See *City of Riverside*, 300 P.3d at 496 (involving a city’s ban on facilities that distribute medical marijuana and an injunctive order); *Ross*, 174 P.3d at 202 (involving an employee fired after a drug test required for new employees revealed marijuana use and a “disability-based discrimination” civil suit).

¹⁸⁰ Current as of the time the author of wrote this article, November 2013.

¹⁸¹ “[A]n opinion of a California Court of Appeal or superior court appellate division that is not certified for publication or ordered published must not be cited or relied on by a court or a party in any other action.” 2013 CAL. R. CT. 8.1115.

¹⁸² See *City of Riverside v. Inland Empire Patients Health & Wellness Ctr., Inc.*, 300 P.3d 494, 500-06 (Cal. 2013).

¹⁸³ *Id.* at 500.

¹⁸⁴ *Id.*

¹⁸⁵ *Id.* *Contra* *People v. Wright*, 146 P.3d 531, 540 (Cal. 2006) (“[T]he [MMPA] represents a *dramatic change* in the prohibitions on the use, distribution, and cultivation of marijuana . . .”) (emphasis added) (quoting *People v. Urziceanu*, 33 Cal. Rptr. 3d 859, 883 (Ct. App. 2005) (internal quotation marks omitted)).

¹⁸⁶ *City of Riverside*, 300 P.3d at 501.

¹⁸⁷ CAL. HEALTH & SAFETY CODE § 11362.5(b)(1)(A) (West 2013) (emphasis added).

¹⁸⁸ *City of Riverside*, 300 P.3d at 506 (alteration in original) (emphasis added) (quoting *Ross v. RagingWire Telecomm., Inc.*, 174 P.3d 200, 206 (Cal. 2008) (internal quotations marks omitted)).

strating that the purpose of the CUA is to ensure medical marijuana patients are not subject to criminal prosecution or sanction including arrest,¹⁸⁹ it becomes clear that California courts will not alter their interpretation of the CUA and MMPA to provide all medical marijuana patients immunity from arrest.

Since the California courts will not provide all medical marijuana patients immunity from arrest, the voters or the legislature must reemphasize¹⁹⁰ their intent to do so in a manner that can withstand the courts' narrow approach to interpreting medical marijuana statutes. As noted by the Supreme Court of California in *Mower*, the courts require that the voters or the legislature provide immunity from arrest, expressly and plainly.¹⁹¹ With regard to medical marijuana law, the Supreme Court of California in *Kelly* highlighted language that expressly and plainly provides immunity from arrest.¹⁹² In *Kelly*, the court determined, as a matter of fact,¹⁹³ that § 11362.71(e) of the MMPA, stating in part that “[n]o [medical marijuana patient] in possession of a valid identification card shall be subject to arrest for possession, transportation, delivery, or cultivation of medical marijuana,”¹⁹⁴ provides medical marijuana patients protection from arrest.¹⁹⁵ However, § 11362.71(e) only applies to patients in possession of a valid state issued identification card,¹⁹⁶ and the MMPA's identification card system is voluntary.¹⁹⁷

Therefore, the voters and the legislature can reemphasize their intent to provide all medical marijuana patients immunity from arrest by passing statutory language that either makes the MMPA's identification card system mandatory or that expands the protections afforded by § 11362.71(e) of the MMPA to all medical marijuana patients. If all medical marijuana patients were required to register in the state's identification card system, then all would receive the immunity from arrest offered by § 11362.71(e) of the MMPA.¹⁹⁸ However, only the voters can make the MMPA's identification

¹⁸⁹ See *supra* Part II.B.

¹⁹⁰ The “reemphasize” point is worth stressing since an interpretation of the CUA and MMPA that provides all medical marijuana patients immunity from arrest better effectuates the intent of California voters and the legislature. See *supra* Parts II-III.

¹⁹¹ See *People v. Mower*, 49 P.3d 1067, 1074 (Cal. 2002) (noting “that immunity from arrest is exceptional, and, when granted, ordinarily is granted expressly” and that “[p]lainly [the CUA] does not expressly grant immunity from arrest”).

¹⁹² See *People v. Kelly*, 222 P.3d 186, 189 (Cal. 2010).

¹⁹³ The Supreme Court of California included the statement within the Facts section of the Opinion. See *id.* at 188-89.

¹⁹⁴ CAL. HEALTH & SAFETY CODE § 11362.71(e) (West 2013).

¹⁹⁵ *Kelly*, 222 P.3d at 189 (noting “[the] ‘identification card’ [system] . . . provides protection against arrest.”).

¹⁹⁶ CAL. HEALTH & SAFETY CODE § 11362.71(e) (West 2013).

¹⁹⁷ *Id.* § 11362.71(a)(1). See *supra* Part I.A, for a discussion on how the MMPA has failed to reduce felony marijuana arrests due to the voluntary nature of its statewide identification card system.

¹⁹⁸ See CAL. HEALTH & SAFETY CODE § 11362.71(e) (West 2013).

card system mandatory.¹⁹⁹ Because the Constitution of California prevents the legislature from amending statutes passed by initiative,²⁰⁰ any effort by the legislature to make the identification card system mandatory would unconstitutionally amend the CUA by requiring a state-issued identification card where the voters initially only required a physician's recommendation.²⁰¹

On the other hand, either the voters or the legislature could expand the protections afforded by § 11362.71(e) of the MMPA to all medical marijuana patients since, for the purpose of the Constitution of California, "an amendment includes a legislative act that changes an existing initiative statute by taking away from it."²⁰² A statute expanding immunity from arrest from only those medical marijuana patients possessing state issued identification cards to all medical marijuana patients would not take away from the CUA.²⁰³ As a result, either the voters or the legislature can reemphasize their intent to provide all medical marijuana patients immunity from arrest and withstand the courts' narrow approach to interpreting medical marijuana statutes by passing statutory language that combines the qualified patient language from the CUA with the language from § 11362.71(e) of the MMPA:

No person or designated primary caregiver entitled to the protections of § 11362.5 in possession of a verifiable²⁰⁴ physician's recommendation or approval or in possession of a valid state issued identification card shall be subject to arrest for possession, transportation, deliv-

¹⁹⁹ See Leff, *supra* note 40 ("Retired state [Senator] John Vasconcellos, who sponsored the legislation creating the voluntary [identification card system], predicted current lawmakers would be preempted from making the [system] mandatory . . .").

²⁰⁰ See Kelly, 222 P.3d at 211 (noting that "the [California] Legislature is powerless to act *on its own* to amend an initiative statute.").

²⁰¹ See CAL. HEALTH & SAFETY CODE § 11362.5(d) (West 2013) (criminal sanctions "relating to the possession . . . [and] cultivation of marijuana[] shall not apply to a patient . . . upon the written or oral recommendation or approval of a physician" (emphasis added)); see also Leff, *supra* note 40 (in retired state Senator John Vasconcellos's view, "[t]he Legislature . . . cannot override voters who established at the ballot box that eligible patients only need a doctor's recommendation to be legal").

²⁰² See Kelly, 222 P.3d at 197.

²⁰³ This is a simplified assessment regarding the constitutionality of the legislature enacting a statute expanding the MMPA's immunity from only those medical marijuana patients possessing state issued identification cards to all medical marijuana patients. For example, one could also argue that a statute expanding the MMPA's immunity from arrest to all medical marijuana patients does not even add to the CUA but instead amends the MMPA, which is "a separate legislative scheme [from the CUA] providing separate protections for persons engaged in the medical marijuana programs." See Kelly, 222 P.3d at 212 ("[T]he [MMPA], in effect, amended provisions of the Health and Safety Code regarding regulation of drugs adopted by the Legislature, not provisions of the CUA.") (quoting *Cnty. of San Diego v. San Diego NORML*, 81 Cal. Rptr. 3d 461, 486 (Ct. App. 2008)). However, a full discussion and analysis regarding the constitutionality of the legislature expanding the MMPA's immunity from arrest all medical marijuana patients is beyond the scope of this article.

²⁰⁴ See *supra* note 144 ("Law enforcement is clearly able to verify a written physician's recommendation . . .").

ery, or cultivation of medical marijuana in an amount established pursuant to § 11362.77, unless there is reasonable cause to believe that the information contained in the recommendation, approval, or card is false or falsified, the recommendation, approval, or card has been obtained by means of fraud, or the person is otherwise in violation of the provisions §§ 11362.5–11362.9.²⁰⁵

V. CONCLUSION

Despite California's enactment of two statutes—the CUA and MMPA—decriminalizing the use of marijuana for medical purposes, statewide felony marijuana arrests have not declined. Felony arrests have not declined because, instead of providing all medical marijuana patients immunity from arrest, the California courts' interpretations of the CUA and MMPA only provide a defense upon arrest for patients who do not register in the unpopular statewide medical marijuana identification card system. However, an interpretation that provides all medical marijuana patients immunity from arrest better effectuates the intent of the voters and legislature. First, the text of the CUA indicates that the voters intended to ensure that medical marijuana patients are not subject to sanctions that include arrest. Second, the ballot pamphlet arguments accompanying the CUA indicate that the voters intended to avoid sending medical marijuana patients to jail, which requires immunity from arrest in order to take effect. Third, the statutory scheme accompanying the CUA—the MMPA—includes a provision that provides immunity from arrest but only for those patients that register in the statewide identification card system. However, registration is a substantial burden for medical marijuana patients given federal law prohibiting marijuana for medical use, and there are other means of verifying a physician's approval to use marijuana other than a state issued identification card.

In addition to the statutory text, ballot pamphlet, and statutory scheme rationales, the public policy of promoting judicial economy also supports the immunity from arrest interpretation. To begin, even though the defense upon arrest offered to medical marijuana patients includes the ability to set

²⁰⁵ Compare CAL. HEALTH & SAFETY CODE § 11362.5(d) (West 2013) (Criminal sanctions “relating to the possession . . . [and] cultivation of marijuana[] shall not apply to a patient, or to a patient's primary caregiver, who possesses or cultivates marijuana for the personal medical purposes of the patient upon the written or oral recommendation or approval of a physician.”), and *id.* § 11362.7(f) (“Qualified patient means a person who is entitled to the protections of Section 11362.5, but who does not have an identification card issued pursuant to [the MMPA].” (internal quotation marks omitted)), with *id.*, at § 11362.71(e):

No person or designated primary caregiver in possession of a valid identification card shall be subject to arrest for possession, transportation, delivery, or cultivation of medical marijuana in an amount established pursuant to this article, unless there is reasonable cause to believe that the information contained in the card is false or falsified, the card has been obtained by means of fraud, or the person is otherwise in violation of the provisions of this article.

aside an indictment, it still fails to promote judicial economy by increasing pretrial dismissals because the legal basis to set aside an indictment is directly tied to a factual question that needs to be resolved at trial. Moreover, the current budget crisis afflicting the California courts has heightened the need to promote of judicial economy. Providing all medical marijuana patients immunity from arrest would promote judicial economy by decreasing felony criminal filings—which would reduce case processing backlogs—and by supplying additional resources that could be allocated to urgent matters such as domestic violence temporary restraining orders. Despite the arguments supporting the immunity from arrest interpretation, the courts will not alter their original interpretation because of well-established precedent and the courts' narrow approach to interpreting medical marijuana statutes.

Therefore, the California voters or legislature must reemphasize their intent to provide medical marijuana patients immunity from arrest in a manner that can withstand the courts' narrow approach to interpreting medical marijuana statutes. The voters and the legislature can do so by passing statutory language that either makes the MMPA's identification card system mandatory or that expands the immunity from arrest provided by the MMPA from only those medical marijuana patients possessing state issued identification cards to all medical marijuana patients with verifiable physicians' approvals. Nevertheless, in providing all medical marijuana patients immunity from arrest, the issue regarding the Constitution of California and the constitutionality of the legislature passing laws that amend voter approved initiatives is worthy of further consideration. As already pointed out,²⁰⁶ only the voters can actually make the MMPA's identification card system mandatory because of the Constitution of California prevents the legislature from amending statutes passed by initiative. However, this is potentially debatable, as is the legislature's ability to expand the immunity from arrest provided by the MMPA to all medical marijuana patients. In the end, any action taken solely by the legislature to provide all medical marijuana patients immunity from arrest will have state constitutional underpinnings that require exploration and resolution.

²⁰⁶ See *supra* Part IV.