Informing the Debate

Michigan Applied Public Policy Brief A Survey of Attitudes toward Product Counterfeiting, Related Law Enforcement Priority Setting, & Internet Medicines Purchasing Behaviors

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The IPPSR program, Michigan Applied Public Policy Research Program or MAPPR, generates research on current issues held in urban communities with special attention to Michigan. Policy researchers author summary briefs of their research outcomes and their implications. The funded research projects and related policy briefs focus on main headings of discussion being held in the policy arena.

When developing the paper series initiative in 1992, the topics of the papers were submitted following a two-day meeting with leaders from the business sector, nonprofit agencies, foundations, and university faculty and staff. That group evolved into the Urban Research Interest Group.

The Urban Research Interest Group recognized the pressure on urban core leaders to make critical decisions that continue to impact people long into the future. A commitment to generating background research to add to the core of debate on possible solutions to complex, urban problems was made.

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Informing the Debate

Annual Survey Study of Product Counterfeiting by Michigan Residents Utilizing the State of the State Survey: *Update 2011-2012-2013* A Survey of Attitudes toward Product Counterfeiting, Related Law Enforcement Priority Setting, and Internet Medicines Purchasing Behaviors

Fall 2013

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Executive Summary

Annual Survey Study of Product Counterfeiting by Michigan Residents Utilizing the State of the State Survey:

Update 2011-2012-2013

A Survey of Attitudes toward Product Counterfeiting, Related Law Enforcement Priority Setting, and Internet Medicines Purchasing Behaviors

Fall 2013

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Overview of the Issue: Product Counterfeiting is growing in scope, scale, and threat. This threat includes counterfeit prescription medicines (e.g. rogue product from Canadian pharmacies is a major focus for Federal agencies based in Michigan, as well as State enforcement and prosecution efforts), medical devices (e.g. counterfeit Michigan branded ambulance gurneys), food ingredients (e.g. including Michigan concentrated Cherry juice), finished food products including fish (e.g. Michigan Whitefish), automobile parts, shampoo, perfume, consumer electronics, and even certifications themselves (e.g. Michigan's NSF International food equipment certifications). This research focuses on consumer products that may or may not be packaged, and does not cover digital copyright piracy, currency, identity or document fraud, or artwork fraud.

In Michigan: Product counterfeiting impact in Michigan is similar to other States in many ways consistent with the demographics, the balance of population in dense cities or rural communities, and geography such as international land border with Canada. The national nuances are easy to aggregate but difficult to pinpoint. This study provides insight specifically on the population of Michigan.

 Relevant Research, Best Practices: State and Federal agencies have prioritized the fight against intellectual property rights infringement, and specifically, product counterfeiting of products that pose a public health threat such as counterfeit medicines sold over the internet. For example, the Protecting Intellectual Property Rights Act of 2008 created the Intellectual Property Enforcement Coordinator (IPEC), who reports through the US Office of Management and Budget to the Executive Branch of the US Government (IPEC, 2010a; 2010b). Other related activities include the Food Safety Modernization Act of 2011 and the Rogue Sites Legislation Bill in 2011. In the Rogue Sites bill, the Federal Government is considering legislation which would enable agencies to seize website domain names (URLs) that are clearly offering counterfeit product (e.g. "BuyFakeViagra.com") or that are intended to dupe unsuspecting consumers who would think they are at a legitimate brand website (e.g. "ViagraRewards.com"). Even foods are covered under the US Food Safety Modernization Act (FDA, 2011; 2012). This legislation will have impacts on resource allocation for State agencies.

IPPSR/ MAPPR Research Project Conclusions: General conclusions for the survey data are here:

- Attitudes towards Product Counterfeiting: There is a relatively low rate of Michigan residents seeking counterfeit products. It would be good to continue to leverage national-level advertising and build awareness of the society-wide costs of counterfeits (e.g. lost jobs) and health risks (e.g. sunglasses that shatter or contain toxic components). Over the three years, the results stayed consistent with 16 percent knowingly purchased counterfeits and 10 percent who were deceived when they later found a purchased product to be counterfeit.
- Internet Prescription Medicines Purchasing Behavior: There is a very low rate of purchasing prescription medicines over the internet. Purchasing prescription medicines on-line, through legitimate service providers is usually a cost-savings venture. There is an opportunity to increase the awareness of the availability and cost savings of internet medicines. In 2013 there was an increase doubling from 4 to 8 percent of the respondents purchasing prescription medicines on the internet with a prescription. This increase correlated to an increase in both safe (e.g. recommended by an insurance company or healthcare professional) and unsafe (e.g. responding to an email, open internet search, or recommendation from a friend) procurement practices. Over the three years, the results stayed consistent for those purchasing medicines on the internet without a prescription at a 1% rate that said, in this case, that was 13 to 15 out of the sample of 1013 respondents.
- Related Law Enforcement Priority-Setting: While there is general support for investigating and prosecuting product-counterfeiting incidents, there is little support for increasing funding or incarceration rates if it takes away from other types of law enforcement activity. There is an opportunity for State and Local law enforcement to continue to try to pursue federal or industry-funded enforcement. In 2013, there was a drop in the respondents who thought the "government" should do "more" to combat counterfeiting. There was also a drop in the percent for tax support 71% did not support more taxes to fund the anti-counterfeit activities.

Public Policy Trends

This research provides important insights on several aspects of product counterfeiting that are important for a holistic and all-encompassing perspective on public policy trends. These include:

Attitudes Toward Product Counterfeiting

- Lack of Resident Outrage of Counterfeits: Consumers do seek counterfeit products, so there is an underlying acceptance; at the least, there does not seem to be outrage at the prevalence of counterfeit products.
- **Consumers are Cheated:** Though many consumers purchased counterfeit products, a large group of residents have been cheated. There could be a level of outrage, or at least sensitivity to counterfeit products.

Internet Purchasing Behaviors

- Few Consumers Buy Legal Prescription Medicines Legally Online: Since there is a low level of consumers legally purchasing prescription medicines legally online <u>with</u> a prescription, the residents incur a higher cost for their medicines. There is an opportunity to help reduce residents' medicines costs by increasing awareness of the opportunities and methods to safely purchase prescription medicines online <u>with</u> a prescription.
- Some Risky Behavior in Finding an Online Pharmacy: Of those residents who do try to legitimately purchase products online, a majority use risky behavior to find sources. There is an opportunity to provide more consumer information on how to safely purchase medicines.
- Few Consumers Buy Legal Prescription Medicines Online Illegally: Those few residents who do buy legal (genuine and FDA approved) prescription medicines online illegally, <u>without</u> a prescription, do so for refilling a prescription, self-treating a common condition, or to get a cheaper price. There is an opportunity for providing consumers with information about opportunities to re-fill prescriptions or to find lower priced products online.

Law Enforcement Priority Setting

- **Residents Expect more Enforcement vs. Counterfeiting:** A majority of residents expect the "government" to do more to combat product counterfeiting.
- No More Taxes and No Diverting Crime Fighting or Prison Space. Those same residents do not want increased taxes to support these activities. They also do not want to divert resources from other crime fighting or shift prison cells to counterfeiters.

Next Steps

This is the third year of an annual survey of Michigan residents.

- More Detailed Statistics After Year Five: More complex regression analysis, with multiple variables, can be accomplished in the future with more data probably after gathering a bigger data set after the fifth year of the surveys. The current data set was small and did not warrant more complex analysis.
- Add Additional Questions: The analysis of the results has led to the awareness that more detailed survey information is needed to provide more insights. Specifically:
 - The type of counterfeit product purchase, e.g. medicines, luxury goods, etc.
 - The level of outrage that counterfeits are in the marketplace, by product type
 - More detail on reasons for not-buying prescription medicines on the Internet
 - More detail on messages that would educate and reinforce safe online purchasing habits
- Researcher Next steps:
 - **Correlate with Other Ongoing Research:** The researchers are involved in a wide range of public health, public policy, trade, and crime research projects. This may yield additional insights that will contribute to the impact on public policy in this annual study.
 - Include More Economic Indicators: The local, State, Federal and international economies have changed quite a bit from 2010 to 2014. These indicators should be added to the data set. This could provide especially interesting insight as the economy is growing, unemployment numbers reported to be improving and the stock market hitting record highs
 - Additional Law Enforcement, Prosecution, and Incarceration Data: The shifting economic and political climates have led to shifts in priority-setting. Additional data would provide more insights on the public policy trends.

Introduction

This is the 2013, third, continuation of our IPPSR/MAPPR State of the State Survey (SOSS) regarding product counterfeiting. This update includes the 2013 survey data. This research is was to monitor the evolving awareness and activities for State of Michigan residents. This changing behavior and perspective is critical to the State of Michigan and Michigan-based Federal agencies involved to support public policy decision-making initiatives and regulatory efforts both to combat counterfeiting (negative impact on economic development, tax revenue, and jobs) and protect public health (healthcare costs for citizens as well as State and Federal first responders, healthcare practitioners, enforcement, and prosecution).

We are still pursuing funding for the 2014, fourth, survey.

Rationale for Research: Product Counterfeiting is growing in scope, scale, and threat. This threat includes counterfeit prescription medicines (e.g. rogue product from Canadian pharmacies is a major focus for Federal agencies based in Michigan, as well as State enforcement and prosecution efforts), medical devices (e.g. counterfeit Michigan branded ambulance gurneys), food ingredients (e.g. including concentrated Michigan Cherry juice), finished food products including fish (e.g. Michigan Whitefish), automobile parts, shampoo, perfume, consumer electronics, and even certifications themselves (e.g. Michigan's NSF International food equipment certifications). This research focuses on consumer products that may or may not be packaged, and does not cover digital copyright piracy, currency, identity or document fraud, or artwork fraud.

Description of Research: This research will utilize the SOSS survey questions that were used in the first research project in 2010-2011. Each year, a set of additional unique questions is considered in addition to the standard set to assess specific aspects of consumer awareness of counterfeit products and willingness to partake in risky behavior. The use of the standardized assessment instrument will allow comparisons year-on-year.

Public Policy Relevance of the Research: State and Federal agencies have prioritized the fight against intellectual property rights infringement, and specifically, product counterfeiting of products that pose a public health threat such as counterfeit medicines sold over the internet. For example, the Protecting Intellectual Property Rights Act of 2008 created the Intellectual Property Enforcement Coordinator (IPEC), who reports through the US Office of Management and Budget to the Executive Branch of the US Government. Other related activities include the Food Safety Modernization Act of 2011 and the Rogue Sites Legislation Bill in 2011. In the Rogue Sites bill, the Federal Government is considering legislation which would enable agencies to seize website domain names (URLs) that are clearly offering counterfeit

product (e.g. "BuyFakeViagra.com") or that are intended to dupe unsuspecting consumers who would think they are at a legitimate brand website (e.g. "ViagraRewards.com"). This legislation will have impacts on resource allocation for State agencies.

This research will provide an Annual perspective on consumer awareness and trends related to product counterfeiting. The final report is available for lawmakers and regulators to understand voter opinion, and to prioritize awareness and enforcement countermeasures.

The researchers are not aware of any other studies of this scale or nature.

Background

The foundation of protecting consumers is the definition of what is legal or illegal. While product fraud covers many issues involving consumer protection, the core foundation is intellectual property rights. There are three levels of laws and regulations: international agreements, national laws and regulations, and individual state laws and regulations. Each state may have additional laws that are stricter than the federal laws or focus on specific products. In some instances, a state may rely only on the federal laws. For product counterfeiting in Michigan it is important to review the State laws.

1.1 Product Counterfeiting Overview

This research focuses on consumer products that may or may not be packaged, and does not cover digital copyright piracy, currency, identity or document fraud, or artwork fraud. This is consistent with "material goods" as defined by the International Standards Organization's Technical Committee 247 on Fraud Countermeasures and controls (ISO, 2010). Material goods include physical products such as medicines, medical devices, food, automobile parts, clothing, shoes, consumer electronics, and industrial parts.

Important aspects of product counterfeiting are the applicable specific intellectual property rights laws and consumer safety laws. Intellectual property rights are defined world-wide by the World Trade Organization and primarily under the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs) regulations (WTO, 1994). Most countries have laws and regulations that are aligned with TRIPs. Intellectual property rights include trademark, patent, trade dress (a combination of trademark and patent), copyright, and trade secrets. Trademarks and patents apply to material goods.

While trademarks are often very well understood by consumers, patents and exactly what is legal is often confusing. There is a prevalence of legal "replicas" in the marketplace (e.g. the US National Football League often grants licenses [permission] for companies to make copies of their jerseys) where other

common counterfeits are often so present or so openly marketed that consumers don't believe they are illegal (e.g. a luxury handbag company allowing a low-quality, low-priced, unauthorized reproduction) (Fenoff, 2012). So there is a confusing point that "replicas" are legal while other seemingly similar product offerings are clearly illegal.

While the IP infringement is one key point, another is whether the consumer is deceived or if the consumer is seeking a counterfeit product (Bian & Veloutsou, 2007; Chaudhry, Zimmerman, Peters, & Cordell, 2009; Eisend & Schuchert-Güler, 2006; Jen-Te, 2005; Luuk Van, 2003; OECD, 2007c). A *deceptive counterfeit* is one that is presented to the consumer as a genuine product. The consumer is seeking and believing they received genuine products (OECD, 2007c; Spink, 2012). A *non-deceptive counterfeit* is one that is presented as a "knock-off" or "fake" product (OECD, 2007c; Spink, 2012). For example, and \$1000 purse sold for \$100 at a flea market is not deceptive. A reasonable consumer would clearly understand this \$100 product was not the same as the \$1000 product sold in a department store. While core IP laws focus on the rights of the brand owner many other consumer protection laws focus on the consumer being defrauded.

Product counterfeiting is growing in scope, scale, and threat as recognized by many organizations such at the World health Organizations (WHO), Organization for Economic Co-Operation and Development (OECD), the US Intellectual Property Enforcement Coordinator (IPEC), and the US Government Accountability Office (GAO) (GAO, 2008, 2010; IPEC, 2010; OECD, 2007b; WHO, 2003, 2009). It is important to define there is a significant economic and public health threat, quantifying the risk is often difficult if not impossible (Everstine, Spink, & Kennedy, 2013; GAO, 2010; Spink & Fejes, 2012; Spink, Moyer, Park, & Heinonen, 2013, Under Review; Wheatley & Spink, 2013). The complexity of product counterfeiting is a challenge of the likes of Interpol and the European Union who are taking a focus on prevention (EU, 2013, Interpol, 2013).

With the likes of Interpol involved it is clear that law enforcement takes a leading role in combating product counterfeiting (Spink et al., Under Review; Spink & Moyer, 2011, Under Review). The law enforcement focus is on enforcement and prosecution. These are key contributors to prevention but only part of the equation. Reducing a crime includes detection, deterrence (including enforcement and prosecution), and prevention (see (CIB, 1997, 2007; Collins, 2004; GMA, 2010; GMA, 2007; OECD, 2007a; Spink, 2012)). The role of law enforcement is important in how it contributes to prevention. Beyond the pure focus on prevention, it is important to understand consumer attitudes towards counterfeits before assessing the priority setting for law enforcement. This research project will explore these concepts and provide insight for informed public policy making.

1.2 Federal Laws

Before reviewing the State laws, the Federal laws will be presented. These laws form the national foundation, which the State laws then build upon (see Table 1 and Table 1) (IACC, 2010a). The Federal laws also contribute to, and are correlated with, international agreements such as the Anti-Counterfeiting Trade Agreement (ACTA)(USTR, 2010). These are the IP laws, so they cover trademark, patent, and copyright. Some of the laws apply to the act of product counterfeiting, such as acquiring equipment to make the fakes, the transfer of funds (wire fraud), moving the goods (smuggling), or deception to cover the activity (document fraud).

Table 1. Major US Federal Laws Pertaining to Intellectual Property Rights for Product Counterfeiting and Specifically Trademark (IACC, 2010)

- Criminal Statutes (18 U.S.C.)
- § 2318: Trafficking in Counterfeit Labels
- § 2319: Criminal Copyright Infringement
- § 2320: Trafficking in Counterfeit Goods or Services
- § 2323. Forfeiture, destruction, and restitution
- Civil Statutes (15 U.S.C.)
- § 1111. Notice of registration; display with mark; recovery of profits and damages in infringement suit
- § 1114. Remedies; infringement; innocent infringement by printers and publishers
- § 1115. Registration on principal register as evidence of exclusive right to use mark; defenses
- § 1116. Injunctive relief
- § 1117. Recovery for violation of rights
- § 1118. Destruction of infringing articles
- § 1124. Importation of goods bearing infringing marks or names forbidden
- § 1125. False designations of origin, false descriptions, and dilution forbidden
- § 1127. Construction and definitions; intent of chapter
- Customs Laws (19 U.S.C.)
- § 1337. Unfair practices in import trade
- Others:
- 18 U.S.C. § 1343: Fraud by wire, radio, or television
- 18 U.S.C. § 1341: Frauds and Swindles
- 18 U.S.C. § 542: Entry of goods by means of false statements
- 18 U.S.C. § 545: Smuggling goods into the United States
- 18 U.S.C. § 1001: Statements or entries generally
- 18 U.S.C. § 3663: Order of restitution§ 1526. Merchandise bearing American trade-mark
- Related Applicable Statues
- Title 18, U.S.C. §1961 et. seq. RICO
- Title 18, U.S.C. §371 Criminal Conspiracy
- Title 18, U.S.C. §1956; §1957 Money Laundering
- Title 18, U.S.C. §1341 Mail Fraud
- Title 18, U.S.C. §1343 Wire Fraud
- Title 18, U.S.C. §542 Entry of Goods by Means of False Statements
- Title 18, U.S.C. §545 Smuggling Goods into the United States

Table 2. Major US Code of Federal Regulations Related to Intellectual Property Protection for Trademarks (19 C.F.R.)

- Section 133.21 Articles bearing counterfeit trademarks
- Section 133.22 Restrictions on importation of articles bearing copying or simulating trademarks
- Section 133.23 Restrictions on importation of gray market articles
- Section 133.24 Restrictions on articles accompanying importer and mail importations
- Section 133.25 Procedure on detention of articles subject to restriction
- Section 133.26 Demand for redelivery of released merchandise
- Section 133.27 Civil fines for those involved in the importation of merchandise bearing a counterfeit mark

The federal laws are the foundation, while State laws are often stricter or address more specific products or activities. The selection of which law to apply to a case is determined by the nature of the activity and identification of the Federal or State law that most directly applies, or creates the strongest case, or has the available resources for enforcement or prosecution.

1.3 Michigan Laws

The State of Michigan has a set of IP laws that apply to product counterfeiting in the Michigan Compiled Laws Annotated (MCLA) "Chapter XLI. Forgery and Counterfeiting," section 750.263 to 750.264 (MCLS, 1995). There are also laws related to unauthorized recordings (piracy) that apply in section 752.1051 to 752.1057 (MCLS, 1995a). A challenge of estimating the activity in this area is that the Uniform Crime Report (UCR) only includes detail down to "Forgery and Counterfeiting"—a broad category that includes from drug counterfeiting to creating fake fishing licenses. There are a wide variety of offenses that fall under this category, many of which do not apply to product counterfeiting.

Michigan publishes details on section 750.263 in Criminal Court Dispositions by Offense and Type of Disposition – All Offences. The major laws are Federal, so prosecutions would be conducted at the Federal level and not included in the data set. This is a key point—the analysis only presents state prosecution and incarceration. Federal cases that cover product counterfeiting in Michigan would be in addition to this data.

It should be emphasized that there are challenges in trying to research whether cases were referred to the Federal level and prosecuted, or if product counterfeiting was pleaded to a lower violation included in the prosecution. Multiple offenses are often handled and recorded as a single event, including events that occur within three months, with the incident categorized by the most severe violation. Also, investigations that start as an IP case could change categories if there is evidence of a higher crime that is easier to prosecute such as those involving drugs, guns, or violence. Those cases would start at IP cased but if the charges are dropped then they would not add data to the summary of IP cases.

While there are other laws that apply to some aspects of product counterfeiting, this is the major law (see Table 3). In the laws, Section 750 covers product counterfeiting or trademark issues and Section 752 covers piracy or copyright infringement.

Table 3. State of Michigan Laws Pertaining to Intellectual Property Rights (IACC, 2010a) MICH. COMP. LAWS ANN.

- MICH. COMP. LAWS ANN. §§ 750.263-.264. Trademark Infringement: (Felony)
- MICH. COMP. LAWS ANN. § 752.1052(1)(a), (c). Bootlegging: (Felony)
- MICH. COMP. LAWS ANN. § 752.1052(1)(b)-(c). Unauthorized Duplication: (Felony)
- MICH. COMP. LAWS ANN. §§ 752.1052(1)(d), 752.1053. True Name and Address: (Felony)

Michigan does publish detail in Criminal Court Dispositions by Offense and Type of Disposition – All Offences. From 2006-2009, Michigan identified 13 cases with three serving prison or jail time. The major laws are Federal and the big cases appear to be conducted at the Federal level. While there are other laws that apply to some aspects of product counterfeiting, this is the major law.

Within the laws, definitions and several statements are important. Several key sections and definitions are included. The underlined emphasis is provided to highlight key phrases:

§ 750.263. Counterfeit marks.

(1) A person who willfully counterfeits an identifying mark with <u>intent to deceive or defraud</u> <u>another person</u> or to represent an item of property or service as bearing or identified by an authorized identifying mark is guilty of a misdemeanor punishable by imprisonment for not more than 1 year or a fine of not more than \$1,000.00, or both.

(b) "Counterfeit mark" means either of the following:

(i) A copy or imitation of an identifying mark without authorization by the identifying mark's owner.
 (ii) An identifying mark affixed to an item of property or identifying services without authorization by the identifying mark's owner.

A key aspect of this law is "intent to deceive." This is important since "(1)" would not technically apply to non-deceptive counterfeits. With non-deceptive counterfeits, the retailer is presenting the product as counterfeit, so the consumer is not deceived. In this instance, though, the brand owner is still cheated and the act is a violation of other laws. Selling "Luxury Replica" purses would not be a violation of this part of the law.

It is also important that this is a misdemeanor. The classification of this act as a misdemeanor defines this as a more minor crime. Also, the maximum sentence is 1 year and only \$1,000, or both. For reference of the risk versus reward, a federal case uncovered \$3.5 million dollars in sales of counterfeit athletic shoes over a three-year period (IPR Center, 2011). The law further defines other attributes which shift the crime from a misdemeanor to a felony.

(2) Except as provided in subsection (3), a person who willfully delivers, offers to deliver, uses, displays, advertises, or possesses with <u>intent to deliver</u> any item of property or services bearing, or identified by a counterfeit mark, is guilty of a <u>misdemeanor</u> punishable by imprisonment for not more than 1 year or a fine of not more than \$1,000.00 or 3 times the aggregate value of the violation, whichever is greater, or both imprisonment and a fine.

(3) A person who violates subsection (2) is guilty of a <u>felony</u> punishable by imprisonment for not more than 5 years or a fine of not more than \$50,000.00 or 3 times the aggregate value of the violation, whichever is greater, or both imprisonment and a fine, <u>if any of the following apply</u>:
(a) The person has a prior conviction under this section, section 264 or 265a, or former section 265 or a law of the United States or another state substantially corresponding to this section, section 264 or 265a, or former section 265.

(b) The violation involved more than 100 items of property.

(5) <u>Willful possession of more than 25 items</u> of property bearing or identified by a counterfeit mark gives rise to a rebuttable presumption that the person possessed those items with <u>intent to deliver</u> them in violation of subsection (2).

Considering this statement, then "purse parties"—meetings held in homes where a seller brings counterfeit purses for friends and neighbors of the homeowner to review and purchase—are clearly defined as a violation of State law. Not only is this a violation but it is defined as a felony; a felony insinuates this is a very serious crime. Selling "Luxury Replica" purses at a retail store would lead to multiple violations of this law.

(7) As used in this section and section 264:

(a) "Aggregate value of the violation" means the total value of all items of property or services bearing or identified by a counterfeit mark and involved in the violation, determined <u>using the defendant's regular or intended selling price for each item or service</u> or, if an item of property is intended as a component of a finished product, the defendant's regular or intended selling price of the finished product in which the component would be used.

This section clarifies that the State defines the value of the counterfeit product as the street value of the items. For example, a genuine purse may sell for \$1,000 at a retail store, and the counterfeit "street value" may be \$100 (the actual price paid by the consumer for the non-deceptive counterfeit), so the State would define the value as \$100. The genuine and counterfeit values of a product are key points when reviewing the global, US, or State impact of counterfeiting and piracy. There are additional complexities, such as defining lost tax revenue on the counterfeit goods (some counterfeit purses are sold at retail outlets that do pay taxes) or the difference in taxes on the genuine versus counterfeit products. A key point for the lost revenue or lost tax revenue is the ratio of counterfeit product sales to lost genuine product sales. Or, how many \$100 counterfeit purse sales cannibalize a \$1000 genuine purse sale. Further discussion of this is outside the scope of this research paper.

Section 752 covers copyright and digital piracy (MCLS, 1995a). This includes illegal copying of software, music, and printed materials such as books or artwork.

§752.1051. Definitions.

Sec. 1. As used in this act:

(a) "Owner" means a person who owns the sounds fixed in a master recording on which sound is recorded and from which the transferred sounds are directly or indirectly derived, or the person who owns the rights to record or authorize the recording of a live performance.

(b) "Person" means an individual, partnership, corporation, association, limited liability company, or other legal entity.

(c) "Recording" means the tangible medium upon which sounds or images are recorded or otherwise stored. Recording includes any original phonograph record, disc, wire, tape, audio or video cassette, film, or other medium now known or later developed on which sounds or images are or can be recorded or otherwise stored, or any copy or reproduction that duplicates, in whole or in part, the original.

§ 752.1052. Prohibited conduct; applicability of subsection (1)(a) and (b). Sec. 2.

(1) A person shall not directly or indirectly do any of the following:

(a) Transfer a live performance onto a recording without the consent of the owner for commercial advantage or private financial gain.

Furthermore, there are other resources for providing definitions such as in the Michigan Juvenile Crime Analysis report (MDHS/BJJ, 2009)

Uniform Crime Code

The Uniform Crime Code (UCC) has several key components that apply to this research (FBI, 2004).

Part I is divided into violent offences and property offences (burglary, larceny, motor vehicle theft, and

arson). Part II includes embezzlement, forgery/ counterfeiting, and fraud.

"Uniform Crime Reports: This program was conceived in 1929 by the International Association of Chiefs of Police to meet a need for reliable, uniform crime statistics for the nation. In 1930, the FBI was tasked with collecting, publishing, and archiving those statistics."

"**Part I offenses (also known as Index offenses):** In Part I, the UCR indexes reported incidents in two categories: violent crime arrests and property crime arrests. Aggravated assault, rape, homicide, and robbery are classified as violent while arson, burglary, larceny, and motor vehicle theft are classified as property crimes."

"**Part II offenses:** Part II offenses are "less serious" offenses and include drunkenness and vagrancy, disorderly conduct, driving under the influence of alcohol or narcotics, embezzlement, crimes against family and children, forgery and counterfeiting, fraud, violation of gambling laws, violation of liquor laws, violation of narcotic laws, negligent manslaughter, non-aggravated assault, prostitution and common vice, runaways, sex offenses (except rape, prostitution, and common vice), stolen property, vandalism, and weapons."

These reports include several key definitions of terms or explanations of the way crimes are organized; the definitions and organization provide insights on how crime-fighting is prioritized. The UCC glossary of terms organizes the IP terms under "All Other Offenses," which is defined as "All violations of state or local laws not specifically identified as Part I or Part II offenses, except traffic violations" (FBI, 2004).

"Forgery and counterfeiting: The altering, copying, or imitating of something, without authority or right, with the intent to deceive or defraud by passing the copy or thing altered or imitated as that which is original or genuine; or the selling, buying, or possession of an altered, copied, or imitated thing with the intent to deceive or defraud. Attempts are included."

It is important to note that both terms include deception but they are based on very different activities and laws. Summarizing all these activities under one entry ("forgery and counterfeiting) section provides confusion when trying to identify the enforcement and prosecution of specific acts. This definition is also usually categorized under property crimes and not crimes against people. In reality, when considering counterfeit medicines or food, the act definitely attacks people. The act of producing the product may be a more traditional property crime or white collar crime but the completion of the crime includes direct contact of people with the product, and is a public health threat (Heinonen, Spink, & Wilson, Under Review).

The emphasis on the "intent to deceive" leads to confusion as to whether non-deceptive counterfeits are included under this definition (FBI, 2004).

"Fraud: The intentional perversion of the truth for the purpose of inducing another person or other entity in reliance upon it to part with something of value or to surrender a legal right. Fraudulent conversion and obtaining of money or property by false pretenses. Confidence games and bad checks, except forgeries and counterfeiting, are included."

In Summary: The UCC is a critical reference point for quantifying these crimes, as well as for understanding the crime-fighting priority setting. Product counterfeiting is most often a misdemeanor and considered a lower grade crime, and the crime is recorded in a category that includes a broad range of individual and commercial fraud actions. Product counterfeiting is not an individually recognized crime so it is impossible to determine the impact within the most important US crime classification system, the UCC. An important aspect of the prosecution is the actual sentences carried out. The willingness – or ability – to incarcerate is based on the availability of prison cells. This will be covered in the next section.

1.3.1 Federal Prison Population

The Congressional Research Service (CRS) report on The Federal Prison Population Buildup: Overview, Policy Changes, Issues, and Options apply to the challenges of enforcement and prosecution of product counterfeiting in the USA and in Michigan (CRS, 2013). The CRS is the research group serving the US Congress. They are tasked by Congress to review important topics that are related to laws. The increasing prison population has been defined as a concern by the US Congress. The total number of Federal inmates increased from 25,000 in 1980 to 219,000 in 2012. This has been an accelerating increase, increasing, on average, by about 6,100 inmates per year. Of the population, 70% are sentenced to five years or less (maximum length of stay). Furthermore, about 30% were sentenced to one year or less. From 2000 to 2012, the annual cost of incarceration increased from \$21,603 to \$29,027. Sentence and actual stay often varies for a number of reasons beyond just available prison cells.

These additional inmates resulted in an average overcrowding of 38%. For security concerns of prison population and employees it is concerning that the high- and medium-security prisons are operating at 51% and 47% over-capacity, respectively. An issue before Congress is "…whether policymakers consider the rate of growth in the federal prison population sustainable, and if not, what changes could be made to federal criminal justice policy to reduce the prison population while maintaining public safety." Also, "Should Congress choose to consider policy options to address the issues resulting from the growth in the federal prison, policymakers could choose options such as increasing the capacity of the federal prison system by building more prisons, investing in rehabilitative programming, or placing more inmates in private prisons.""

The CRS report identified specific options for the US Congress (CRS, 2013).

"Policymakers might also consider whether they want to revise some of the policy changes made over the past three decades that have contributed to the steadily increasing number of offenders being incarcerated. For example, Congress could consider options such as: (1) modifying mandetany minimum papelting

- (1) modifying mandatory minimum penalties,
- (2) expanding the use of Residential Reentry Centers,
- (3) placing more offenders on probation,
- (4) reinstating parole for federal inmates,
- (5) expanding the amount of good time credit an inmate can earn, and
- (6) repealing federal criminal statutes for some offenses."

The CRS report data on the prison population is summarized in Figure 1. The downward trend of new prisoners for all categories—including property crimes—with the exception of increasing rates for immigration offences is applicable to the product counterfeiting discussion. The population rate for property-crime new inmates has decreased from 18% to 12%.



Figure 1. Conviction Offenses of Inmates Entering Federal Prisons, FY 1998-FY2010 (adapted from CRS, 2013).

The federal prison new inmate and total population rate are also decreasing. This is consistent with state trends. Before reviewing the State prison trends, it is important to also review some of the challenges of product counterfeiting law enforcement.

1.4 Laws and Enforcement Challenges

One complexity of IP enforcement is the jurisdiction of the enforcement agencies, as well as the range of laws that could apply to a single incident. Product counterfeiting activities are often complex with a wide range of operations across several states or even across several countries. There are product counterfeiters who intentionally set-up different operations in different countries to complicate the law enforcement activities or even to create a situation where the individual act are not illegal (deKieffer, 2006a, 2006b, 2010; Liang, 2006; Rand Corporation, 2009). The product becomes an IP violation when the components are put together, or when on final step is creates the infringement such as putting a logo's watch facing on a generic watch. Another challenge when investigating an IP case is that if there is a public health threat the case is usually made public for recall of the product. Public notice and recalls limit evidence-gathering because the criminals are alerted, and the priority of public health often leads to evidence that is inadmissible in a criminal case.

Challenges of IP investigation and prosecution include (Spink, 2013):

- Complex priority and jurisdiction since the criminal violation could be intellectual property, public safety, document fraud, or tax avoidance. In reporting, the most severe crime of a multiple offense is recorded, so an IP prosecution may be hard to identify.
- There are ranges of federal and state laws which apply.
- There are different agencies with different levels of resources applied.
- Product counterfeiting is often perceived by courts and juries as non-violent and commercial, so cases have a lower priority and ability to prosecute. The length of sentences reflects this perception – and then defines the crime as less severe.
- Public health priority often shifts a case from classified to public information. This limits the ability to covertly investigate or to maintain the proper evidence-gathering procedures or the appropriate chain-of-custody for that evidence since product (evidence) is collected through civilian branches of agencies (rather than through the enforcement branch, such as the US FDA Office of Criminal Investigation). Thus, it is challenging to find more evidence (since the bad guys were alerted and could destroy remaining inventory) evidence may not be admissible in court (if it was seized under quick and efficient public health mechanisms)...
- The cases are quite varied and they are complex, compared to other possession or violent-action incidents.

In addition, the Cyber Crime and Intellectual Property section (CCIPS) of the US Department of Justice handles these cases. Their activities include cyber-crime scams, identify theft, and child pornography, in addition to product counterfeiting, patent violations, and piracy copyright infringement. There is strong jury appeal and public pressure for this group to focus on child pornography, which reduces the time and efforts available to pursue IP cases.

Government prosecutors will consider these complexities when selecting which cases to pursue. When compared to other cases with drugs or guns, counterfeit product cases are often as challenging since they have a much lower perceived threat to public safety (violence), public health, or even economic impact of disrupting markets or large scale impacts. While an example of a complex IP product case provided by the US CBP estimated the total sales of counterfeit product at \$3.5 million, a racketeering case related to tax avoidance smuggling was estimated at a US tax loss of \$40 million. Setting priorities and complexity are considerations in the directions provided to US Attorneys (Federal prosecutors) in the "Deciding Whether to Prosecute an Intellectual Property Case" (Goldstone, 2001). Sections of that report include:

- b. The Nature and Seriousness of the Offense
 - "Limited federal resources should not be diverted to prosecute inconsequential cases or cases in which the violation is only technical." Prosecutors may consider any number of factors to determine the seriousness of an IP crime, including:
 - potential health or safety issues (*e.g.*, counterfeit medications or airplane parts);
 - The scope of the infringing or counterfeiting activities;
 - The scale of the infringing or counterfeiting;
 - The number of participants and the involvement of any organized criminal group.
- c. The Deterrent Effect of Prosecution
 - Deterrence of criminal conduct is one of the primary goals of criminal law...Some defendants may respond to such civil remedies by changing the item upon which they are infringing, such as counterfeiting shirt ...Others close shop only to quickly reopen under a different corporate identity.
- d. The Adequacy of a Noncriminal Alternative in an IP Case (e.g. ex parte seizure)

1.4.1 Results of Federal IP Prosecution

The DOJ provides results of prosecution activities. The 2003 report details are included here (DOJ.gov, 2003):

- Referrals and Cases:
 - Number of Investigative Matters Received by U.S. Attorneys: 120 (Number of Defendants: 186)
 - Number of Cases Filed: 70 (Number of Defendants: 125)
 - Number of Cases Resolved/Terminated: 35 (Number of Defendants: 65)
- Prison Sentencing for Convicted Defendants (# represents defendants):
 - No Imprisonment: 17
 - 1 to 12 Months Imprisonment: 7
 - 13 to 24 Months: 6
 - 25 to 36 Months: 1
 - 37 to 60 Months: 7
 - 61 + Months: 1

Tallying the number of IP cases is challenge for many reasons such as noted here as quoted in the MDOC 2009 (MDOC, 2009):

- Section: Limitations of UCR and Data
- "Offenses/Dispositions for the same offender that occurred three or more months apart were reported as separate disposition events. (It is possible that these separate events were combination events, as discussed in the next bullet.)"
- "Offenses/Dispositions for the same offender that occurred less than three months apart were
 aggregated together into one disposition event using the following sequence in order to report
 the most severe details for the disposition event: "The most severe disposition was reported
 (e.g., a disposition to prison was reported over a disposition to jail).
- Section: Arrest Data as a Measure of Crime
- "According to McCord et al. (2001), there are drawbacks to using arrest data as a measure of crime. They state that arrest statistics do not reflect the number of different people arrested each year, because an unknown number of people may be arrested more than once in a year and for some crimes, no arrests are made." (MDHS/BJJ, 2009)
- "There are several types of omissions. Not all crimes are reported to the police. Not all victims and/or witnesses of criminal acts report their victimization or eyewitness accounts of criminal behavior. This non-reporting of criminal behaviors might be attributed to a number of factors including the unawareness that a crime occurred, not wanting to make public that one has been victimized, fear of reporting, etc.
- "In attempts to assess the actual volume of crime, there exists a "Dark Figure of Crime" (Hagen, 2006) that is inclusive of unreported, undetected, non-sanctioned deviant behavior that is not captured in criminal justice statistics. In short, there are criminal offenses that occur that remain undetected. One type of unreported crime is victimless offenses (e.g., drug abuse, drunkenness, etc.) whereby only the alleged perpetrator could report such an offense."
- "In addition, the UCR data-collection system uses the "Hierarchy Rule" to record offenses by the FBI. This means that only the most serious offenses are included in the data. While an alleged offender may violate several criminal laws in the commission of a criminal act, only the most serious offense is included in the UCR. For example, if someone is arrested for aggravated assault and was also charged with a narcotic law violation (possession), only the aggravated assault would be included in the UCR data (FBI, 2007)."

These are general crime statements about the limitations of drawing conclusions from data or the prosecutions. IP crimes have even fewer cases and convictions than many general crimes. Also, IP cases have a potential to lead to a more "severe" crime such as including drugs, guns, or violence. On the other end of the spectrum, some cases are so complex that lower laws are applied such as smuggling. These issues all add to the complexity of researching IP crimes.

1.5 Michigan Department of Corrections (Prisons)

Among the many issues to consider in prioritizing the prosecution and sentencing of IP crimes are calibration with the total number of other criminals, and the reality of budget constraints on the capacity of the prisons and jails.

The goal of the Michigan Department of Corrections (MDOC) is "...to provide the greatest amount of public protection while making the most efficient use of the State's resources." Budget cuts have led to a smaller state prison population and more paroles in general. For State and Local prisons, the "Average Length of Stay" is measured in days and has 20 days.

1.5.1 Prison Population

Both the number of prosecuted offenders and the average daily population of prisons and jails are down (see Table 4).

Table 4. State of Michigan Total State and Local Thison Topulation, 2000-2005							
	Offenders on	Average Daily	State Wide	Average			
	Record	Population	Jail Capacity	Length of			
	(Annual Total)		(A)	Stay (days)			
				(B)			
2006	299,442	15,047	16,318	19.5	(MDOC, 2007)		
2007	290,679	15,441	16,274	20.1	(MDOC, 2008)		
2008	284,749	15,171	16,282	20.0	(MDOC, 2009)		
2009	257,198	13,962	15,531	20.5	(MDOC, 2010)		

Table 4	State of Michigan	Total State and Local Prison Population, 2006-	2009
	State of Michigan	Total State and Local I fison i opulation, 2000	2003

Note: (A) this data point includes an only 80% survey response rate (B) this is days.





The prison population was reduced due to reduce costs during a period of government budget reductions. The cost of incarceration was a major factor in the reduction of the prison population.

1.5.2 Cost of Incarceration

MDOC supervises 122,835 offenders, including prisons and prison camps (50,818), and alternate incarceration programs, re-entry centers, parole violators in jail, electronic monitoring, parolees and probationers (53,694) (MDOC, 2010). The total MDOC appropriation is \$1,884,478,700, with 95.7% from

the State general fund (SRA, 2007). \$1,547,599,900 is for incarceration; the field program costs are \$48,559,300 for community corrections and programs; field operations \$164,300,600; and substance abuse testing and treatment is \$18,311,000. This is a total of \$231,170,900. At 489, Michigan is 11th in its incarceration rate per 100,000 residents, compared to other states; the average is 401.

Incarcerated

- Individuals in prisons and camps 50,818
- Alternate incarceration programs 434
- Re-entry centers 236
- Parolees in jail 229
- Electronic monitoring 1508
- Parolees 15,916
- Probationers 53,694
- So, the total incarcerated is 51,047 and in outside programs are 71,788.

The cost per offender per year

- Incarcerated \$30,317
- Programs \$ 3,220

Reducing the incarceration costs are the key driver to reducing prison populations (SRA, 2007 and supported by CRS, 2013).

"The most effective way to reduce incarceration costs significantly is to have fewer prisoners. This would reduce the number of employees, which would lower the base from which employee costs grow. Additionally, fuel, utility, food, and medical costs would be reduced. If the number of employees or the amount of employee salaries or fringe benefits were reduced, employee cost growth would start from a lower base, but there would be no reduction in other incarceration costs. [...]Incarcerating fewer prisoners can be achieved by policies that reduce crime, reduce prison sentences, reduce sentence lengths, and/or increase the parole rate. In the long run, however, only policies that have the effect of reducing crime will reduce the budget of the MDOC and other governmental criminal justice agencies, and have a positive financial impact on the State as a whole."

1.5.3 Parole Rates by Offences

Parole approval rate is another way to control the prison population. With a decreasing prison population, some of those incarcerated are paroled at a faster rate. The changes are noted below in Figure 2. Across the board, parole approval rates are increasing, sometimes rapidly. The drug offenses and violent

offenders are trending up slightly, and "other non-violent offenders" and even "sex offenders" parole approval rates have spiked upward. Those convicted of non-violent or property crimes face an ever dwindling prison stay, if they serve any time at all.





1.5.4 Criminal Court Dispositions

A challenge to assessing the main reports on the disposition of the prosecuted cases is the use of the category "Forgery and Counterfeiting." This category includes document fraud such as driver's licenses and currency counterfeiting.¹ IP, and specifically trademark counterfeiting, is a much more specific crime. Determining all the cases that included counterfeit products is impossible since the counterfeit product violations were often dropped if the defendant pleaded to a different crime. All "product counterfeiting" is "Forgery and Counterfeiting" but not vice versa. There is some specific data by statute.

¹ From the 2000 State Total, Non-Index Crimes, Forgery and Counterfeiting, the definition of "Forgery & Counterfeiting is the making, altering, uttering, or possessing with intent to defraud, anything false in the semblance of that which is true. Offenses are the unlawful acts reported to a law enforcement agency. Arrests are those individuals seized, held, summoned, or cited by law enforcement agencies for involvement in an unlawful act." For comparison, 7,440 Forgery & Counterfeiting Offenses were reported to the Michigan Uniform Crime Reporting Program in 2000 and 1,275 Forgery & Counterfeiting Arrests were reported to the Michigan Uniform Crime Reporting Program in 2000.

The State of Michigan has laws or regulations to track crimes and sentencing (MDOC, 2012). A key program is identifying "points" for the crime and the criminal. Under Michigan Truth in Sentencing² (MJI, 2013), with no prior low severity offenses (including Crimes Against Property, such at trademark counterfeiting), the offender would receive "0 points," "5 points" for one prior low severity conviction, and for "30 points" for 4 or more. For comparison, one prior high severity conviction would be "25 points." The major exception is if "A victim was killed," which could be "100 points" or "10 or more victims were placed in danger of physical injury or death" which would be "25 points."

The guideline for sentencing trademark counterfeiting offenses is a statutory maximum sentence of five years. The recommended first offense sentence for a crime against property and non-violent crime is 3-34 months ("0 points"), per the Sentencing Grid for Class E Offenses-MCL 777.66 (see Table 5) (MJI, 2013). It is important to note that the guidelines do not always correlate with the actual sentence or length of incarceration. (Analyzing the sentence versus maximum guidelines and actual length of incarceration is the subject of a future research project.)

Felonies	By MCL#	Group	Class	Description	Statutory Maximum Sentence
750	263	Property	E	Delivery/use/display items w/ counterfeit mark – subsequent offense or \$1000+ or 100+ items	(Years) 5
750	264	Property	E	Manufacturing items with counterfeit mark	5

 Table 5. Truth In Sentencing Guidelines for 750.263-264 (MJI, 2013)

Note: Counterfeiting currency or coins has a minimum of 10 years

The product counterfeiting laws and prosecution are generally covered in a broad range of systems. A product counterfeit incident is usually considered a lower crime, although, if there is a death it could instantly become a very high priority. This is especially challenging for counterfeit pharmaceuticals, where the action of producing the counterfeit would be a low crime unless a consumer dies—which has a high probability, especially with lifesaving medicines or especially toxic fakes—the case is a very high priority.

Among all those with the potential for prison or jail time in Michigan from 1995 to 2009, the percent of Total Felony Dispositions (Offenders) who were sent to prison ranged from 21 to 26 percent; 74 to 79 percent of felonies did not lead to prison time (see Table 6). A convicted product counterfeiter under

² "Truth in Sentencing - A 1998 state law which eliminates Disciplinary Credits, good time and corrections centers for certain offenders and requires offenders to serve the entire minimum sentence in prison prior to being considered for parole" (MDOC, 2013).

Michigan law, having committed a "lower offense," even a felony, has a less than 21% chance of serving prison time.

Table 6. MDOC report of Trademark Infringement (750.263-264), Criminal Court Dispositions by
Offense and Type of Disposition – All Offences (MDOC, 2010)

		Total	Prison	Probation	Jail	Other	
2006	Total	4	1	2	0	1	(MDOC, 2007)
2007	Total	5	0	4	0	1	(MDOC, 2008)
2008	Total	3	1	1	1	0	(MDOC, 2009)
2009	Total	1	0	1	0	0	(MDOC, 2010)
	TOTAL	13	2	8	1	2	

Law enforcement and prosecution play a critical role in protecting consumers and the economy from product counterfeiting. Many of the challenges—and their results—have been discussed above. The direction of public policy for enforcement and prosecution is driven by consumer perception. An important aspect of this is that consumers understand that these products are unauthorized reproductions and illegal. The next section will begin to frame the concepts that influence "law enforcement priority-setting," so it can be more fully understood.

1.6 Consumer Perception: Global Survey on Counterfeiting

The challenges of law enforcement are significant, and the attitude of the consumers is an important consideration. Understanding the "attitudes of consumers toward product counterfeiting" is a core focus of this report and it is important for understanding the "attitude towards enforcement priority setting." This *Global Survey on Counterfeiting and Piracy* provides excellent insight into the research question. This survey was commissioned by Underwriters Laboratories Inc, conducted by the Michael Cohen Group, LLC, and issued on September 11, 2012 (UL, 2012). This was conducted in 2012 and consisted on 2,400 online surveys from ten countries on four continents. The focus included findings on:

- Awareness & Familiarity,
- Consumer Participation,
- Consumer Attitudes and Perceptions of Counterfeiting and Piracy, and
- Child Familiarity with and Participation in Counterfeiting and Piracy.

There were several key findings in the report that apply to consumer attitudes towards counterfeit products.

• Consumers were ok using counterfeits as long as there was no public health threat.

- The consumers rationalized their purchases in some cases because the genuine original product was "unaffordable."
- Over half the consumers considered the purchase of counterfeits to be "part of their nation's way of life" – that is, widely available and purchasing counterfeits is acceptable, and even a key contributor to the economy. The purchase of counterfeit products were common and part of the "daily fabric of life" but "acceptance is not deeply entrenched." The criminalization of consumers who buy counterfeits was perceived to be a "strong deterrent."
- The level of "consumer participation" in the US was 72%, compared to the high growth countries of Brazil at 93%, Russia at 93%, India at 95%, and China at 91% -- these are known as the "BRICs."
- That said, only slightly more than half (52%) of the respondents from all countries felt it was acceptable to purchase counterfeits.
- Overall, 39% believed counterfeits were "always illegal".
- Consumption was pretty even across socio-economic status, with the lower-status consumption about 2% lower than the middle and higher groups.
- Younger people (16-24) were more likely to engage in purchasing counterfeits, at about a 10% higher rate.
- "Overall, fashion items were reported as the most commonly purchased products (77%), and medicines [non-generics] were reported as the least frequently purchased (30%)." This was in part because the legal status of counterfeits was "unclear or ill-defined." Consumers perceived that production of counterfeits both "negatively impacted the economy but also provided jobs."
- "Overall, the government is seen as having the key role in combating counterfeiting. The results were that 70% felt the government should be more active in combating counterfeits. That said, only 49% of the US respondents agreed the government should have a larger role the lowest of the ten countries. This was also a consistent ratio when asked about more aggressive legal action where 65% of the total population supported more aggressive legal action but the US lagged all countries with only 40% supporting stricter laws. Of the US respondents, 23% felt the government should have "less strict laws.""

The results of this global survey provide insights into the attitudes towards counterfeit product. This provides a perspective for comparing the attitudes of the global and national populations with the Michigan survey results below.

1.7 Internet Purchasing and Counterfeits

The final section of this survey reviewed internet medicines purchasing behavior. One aspect of consumer attitudes is awareness and acceptance of internet purchasing behaviors. The purchase of medicines is especially risky.

The Internet has created an opportunity for tremendous growth for reaching more customers and increasing sales. Consumers can find more unique products offered directly from manufacturers, they can price shop more easily, and they can purchase products privately and anonymously. While there are benefits are also new risks. One risk is the access and ability to intentionally or unintentionally buy counterfeit products. Those products may include medicines that are usually only procured with a prescription at an authorized pharmacy.

Counterfeit medicines—even if they are an attempt at an exact replica of the genuine product and only a violation of a patent—highlight a public health vulnerability. The manufacturing and supply chain processes are not defined, and the consumer cannot verify that the products are of good quality or that they have been properly handled throughout the supply chain. The fraudulent product does not have functional traceability—serialized numbers, lot code, batch details, or other features—that would allow identifying a product that is recalled, or to even provide insights on other products that are suspicious (for more information see (CACP, 2006; Dietrich, Puskar, Grace, Allen, & Schmitt, 2006; Spink, 2012; Spink, Singh, & Singh, 2011)).

In 2010, the US FDA Office of Criminal Investigations conducted a survey of online pharmacies (FDA, 2011; Krebs, 2005). Of the more than 1,100 pharmacies they surveyed, only 11% actually provided genuine products, and fewer than 5% were actually registered pharmacies. Many of the pharmacies said they were registered but had forged or counterfeited the certificates that they were authorized pharmacies. The safety of the products was not tested but the fact that they were counterfeit at least defines public health vulnerability.

Buying medicines on the Internet is safe if safe practices are followed. One safe practice is purchasing from a reputable company recommended by an employer, a health insurance company, or a healthcare professional. Risky purchasing behaviors include responding to an unsolicited email (spam), an open internet search such as on Google or Yahoo, or to the recommendation of family member or friend. There are also systems such as Verified Internet Pharmacy Practice Sites (VIPPS) (VIPPS, 2013), which provide a list of reputable and registered online pharmacies. Consumers can go to the VIPPS website to find reputable sites. It should be noted, however, that consumers should not rely on a VIPPS certification statement on a pharmacy's website – that certificate, too, could be a fake.

1.8 Summary

The goal of this product counterfeiting research project was to provide State of Michigan focused background information to inform public policy decision-making, related to law enforcement priority and protecting public health. These may seem like two very different deliverables but the insights are rooted in the same basic concept: attitudes and behaviors of consumers regarding counterfeit products.

Methods

This State of the State Survey (SOSS) research project focused on three areas: counterfeit product purchases, expectations for law enforcement, and, specifically, purchasing medicines on the internet (IPPSR, 2013).

The SOSS is conducted annually by Michigan State University's Institute for Public Policy and Social Research (IPPSR) for multiple research projects, so there were more questions in the survey than those used for this project. The overall survey also included demographics and related questions were comprised of multiple parts. The product counterfeiting research survey was conducted in "Part 4" and "Part 5." Part 4 was on the prevalence of counterfeit products, as well as the respondents' views on enforcement of the related laws, and included four main questions with three follow-up detail questions. Part 5 was on the purchase of medications on the internet purchased with and without a prescription. This section included two main questions with nine follow-up detail questions. While the two concepts may seem unrelated, when combined, they provide insight on public policy making for product counterfeiting in general.

The survey introduction included:

"This research utilized Michigan State University's State of the State Survey (SOSS). This is a quarterly telephone survey of approximately 1,000 random citizens across seven Michigan regions. The major goal is to assess public opinion on timely issues. This is administered within the MSU Institute for Public Policy and Social Research (IPPSR) which "connects scholarly work with the policymaking community through applied and survey research, community dialogue and political leadership training."

"SOSS is a quarterly survey of the citizens of Michigan. It employs Computer Assisted Telephone Interviewing (CATI) technology to interview a stratified random sample of Michigan citizens. Originally based only on household landline telephones, SOSS began including samples of cell phone telephone subscribers in Round 62 of SOSS, in summer 2012."

Also,

"The demographic core contains questions on the social background and status of the respondents (age, sex, education, employment status, type of community, marital status, number

of children, size of household, income, ethnic identity, etc.). This block of questions is repeated in each round, though more detailed questions on some of the dimensions (e.g., the number and ages of children) might be included in certain rounds."

"The non-demographic core contains additional questions that are repeated in every round of the survey in order to gauge broad shifts in the economic, social, and political orientations and status of the population."

The introduction to the Counterfeit Products section (Part 5) included:

Next, we would like to ask you some questions about product counterfeiting. When we say product counterfeiting, we are not talking about money or false documents such as passports or driver's licenses. Instead, we are talking about fake consumer products, such as handbags, watches, sports jerseys, sunglasses, electronics, and medicines.

Counterfeit products can be deceptive in that a consumer may think they are buying a real product when they are not. These counterfeit products can also be non-deceptive where a consumer knows or is quite sure that they are a fake.

The question set for Part 4 included:

- 1. Have you ever intentionally purchased a product you knew was a counterfeit product such as a luxury handbag or team jersey?
- 2. Have you ever purchased a designer product and later discovered that it was actually a fake or a counterfeit version of the product?
- 3. In your opinion, should State government increase funding to arrest, prosecute, and imprison product counterfeiters?
 - a. Would you still recommend increased funding for prosecuting product counterfeiters, including more prison time, even if it led to higher taxes?
 - b. Would you still recommend increased funding for prosecuting product counterfeiters, including more prison time, even if it took resources away from fighting other types of crime?
 - c. Would you still recommend more prison time for product counterfeiters, even if it meant that other types of criminals got probation or some other diversion program, instead of prison time?

The question set for Part 5 included:

- 1. Have you ever purchased prescription medicines on the Internet with a prescription?
 - a. About how many times in the "past year" have you purchased prescription medications on the Internet?
 - b. I am going to read you a list of different ways people may find websites to purchase prescription medicines with a prescription. For each, please tell me if you have used the

method. Found a website using an Internet search engine such as Google or Yahoo Search?

- c. A website referred to you by your employer?
- d. A website referred to you by a health-care professional, such as a doctor or another hospital employee?
- e. A website referred to you by family, friends, or co-workers?
- f. You responded to an online advertisement?
- g. You responded to an advertisement you read in a newspaper or magazine?
- h. What other methods have you used to find websites to purchase prescription drugs with a prescription?
- Have you ever purchased prescription medicines on the Internet <u>with</u> a prescription? (Use this probe if necessary: "Please remember that this interview is confidential and that you cannot be linked to your responses in any way")
 - a. About how many times in the past year have you purchased prescription medications on the Internet?
 - b. I am going to read you a list of different ways people may find websites to purchase prescription medicines <u>with</u> a prescription. For each, please tell me if you have used the method. Found a website using an Internet search engine such as Google or Yahoo Search?
 - c. A website referred to you by your employer?
 - d. A website referred to you by a health-care professional, such as a doctor or another hospital employee?
 - e. A website referred to you by family, friends, or co-workers?
 - f. You responded to an online advertisement?
 - g. You responded to an advertisement you read in a newspaper or magazine?
 - h. What other methods have you used to find websites to purchase?
- 3. Have you ever purchased a prescription medicine on the Internet without a prescription?
- 4. In your opinion, should State government increase funding to arrest, prosecute, and imprison product counterfeiters?
 - a. Would you still recommend increased funding for prosecuting product counterfeiters, including more prison time, even if it led to higher taxes?
 - b. Would you still recommend increased funding for prosecuting product counterfeiters, including more prison time, even if it took resources away from fighting other types of crime?
 - c. Would you still recommend more prison time for product counterfeiters, even if it meant that other types of criminals got probation or some other diversion program, instead of prison time?

Results and Discussion

The survey results will be combined with the discussion. This section will include a review of the overall survey structure, the overall demographics, the raw survey responses for the product-counterfeit-related questions, and then a more detailed analysis of the data.

The survey was conducted in Spring 2013, and includes data from previous surveys from 2011 and 2012. The data analysis was completed by the MSU Center for Statistical Consulting in March 2013. The overall research project and preliminary results were presented at MSU IPPSR Public Policy Forum, Lansing, January 16, 2013, Counterfeit Products: Bad for the Economy, Bad for Michigan. There were over 75 including staff of State legislators. The program was recorded and is posted on <u>www.IPPSR.msu.edu</u>.

From the methodology summary (IPPSR, 2013):

"Sampling Error. The sampling error can be estimated for each region and for the state as a whole at the 95% confidence level. ... Taking the Design Effects from landlines vs. cell phone, listed vs. unlisted, and across regions into account, the overall margin of sampling error statewide is + 4.2%."

When presenting these findings, there is a health-risk communication consumer behavior theory that recommends emphasizing consumer compliance with a safer alternative to reinforce safer behavior, like stating that "95% of Michigan residents wash their hands after using the toilet" versus "5% of Michigan residents do not wash their hands after using the toilet." Providing any percentage to the action of not washing hands provides some validation for the action. Residents could rationalize not washing their hands because "a lot of people don't wash their hands—it's not that deviant." Whereas, hearing "95 percent do" leads to the psychological reinforcement to follow the normal action. Thus, there is an emphasis on reinforcing the norm in summaries or marketing materials (see the 2010 Backgrounder report in the Appendix).

While this is good for reinforcing consumer behavior, the opposite is true for influencing public policy. To spur action, it is important to elicit the psychological response that "there is a lot of deviant behavior that needs to be addressed."

1.1 Demographics

Based on the 2011 data, the survey demographic is considered representative of Michigan: average age 40 to 50, average income \$40,000 to \$90,000, 84% white and 9% black, evenly split Republican/ Democrat/ Other, 50% married with 26% single or never married, 43% employed full time, and the education is skewed to the more educated, 33% with some college and 34% with a college degree. To gauge demographics and political ideology, by response, for the overall survey (See Appendix Table 12).

To assess the impact of this product counterfeiting research, specific aspects of the overall demographics were reviewed.

- Of the survey population, two-thirds believe information provided by academic scientists is better for providing unbiased research than information provided by government or industry researchers. Over 90% felt that scientists from Universities were "very trustworthy" or "trustworthy." Academics are the most trusted researchers.
- A point that may, at first, seem contradictory is that the survey population feels that the best unbiased research is funded by the government (36%) or private individuals (37%) rather than by business or industry. The question did not specifically ask about private individuals funding through associations or direct gifts. Governments are the most trusted source of research funding.

The full data set is included here for the 2011, 2012, and 2013 SOSS surveys. A discussion of each set of questions is valuable and is included in the text. To note, due to the analysis of the data the total percent may not equal 100 and due to unanswered questions the total may not equal 1013.

1.2 Discussion of Question Set 1 – Attitudes Towards Product Counterfeiting

The data for Question Set 1 surveys are presented in

Table 7. This covered consumer activity regarding counterfeit product purchases of products they knew were counterfeit (non-deceptive counterfeits) (Question 1a) and products they later discovered were counterfeits (deceptive counterfeits) (Question 1b).

Over the three years, the results stayed consistent, and within the sampling error, and is essentially unchanged.

For 2013, there were 15 percent knowingly purchased counterfeit products, compared to 85 percent of those surveyed who did not purchase non-deceptive counterfeit products (As noted above, if they knew they purchased counterfeit products, then these would be categorized as non-deceptive counterfeits). Although these were still illegal and the brand owners had some level of loss, the consumers were not deceived. The question did not address the number of purchases, so the affirmative response could be one or one-hundred purchases. This is an important addition for future surveys.
There were 11 percent who bought products that they later found were counterfeit products, compared to 89 percent who did not. Since they only found out the products were counterfeit after the purchase, these were deceptive counterfeits, and the consumer was cheated.

The types of products were not identified in the survey. There is extensive literature reviewing the rationale and motivation for purchasing non-deceptive counterfeits. There is also extensive research regarding consumer concerns with products that would pose a public health threat, such as medicines and food.

In summary, there were a fairly high percentage of consumers who knowingly purchased counterfeit product but not as high as the research team originally expected. More research on US- or world-population-wide consumer purchasing behavior would add to this analysis. Also, 10 percent of Michigan residents were deceived, and found that they had been cheated and unknowingly bought a counterfeit. So, while there are a fairly high percentage of consumers whose purchasing behavior would condone counterfeits, there is also a fairly high percentage that was cheated. The impact of these two conclusions should be reviewed further to understand the impact on public policy.

Table 7.	Annual Study of Counterfeiting Opinion in Michigan 2011-2013, Question Set 1
Attitude	s Towards Product Counterfeiting

	2011	2011	2012	2012	2013	2013	2011-12 Delta 11-	2012-13 Delta 12-	2011-13
		N=947		N=1015		N=1013	12	13	Average
	%	Ν	%	Ν	%	Ν	%	%	%
1a Counterfeit Purchase: Known					 				
Yes	19.1	180	14.2	144	15.1	152	-4.9	0.9	16
No	80.9	765	85.8	868	84.9	853	4.9	-0.9	84
DNK		0	0	0	4	8			
Refused			0			9			
NA		0							
1b Counterfeit Purchase: Discovered	2011	2011	2012	2012	2013	2013	Delta 11- 12	Delta 12- 13	Average
Later	%	Ν	%	Ν	%	Ν	%	%	%
Yes	11.1	105	7.5	76	10.8	109	-3.6	3.3	10
No	88.9	841	92.5	938	89.2	898	3.6	-3.3	90
DNK		1		0		8			
Refused		0		2		9			
NA		0							

1.3 Discussion of Question Set 2 – Internet Medicines Purchasing – <u>With</u> a Prescription

The data for the Question Set 2 is presented in

Table 8. This covered consumer activity regarding purchasing medicines on the Internet <u>with</u> a prescription (Question 2) and frequency (Questions 2a). A key part of this question is "with a prescription." So the residents had consulted with a healthcare professional, receiving a formal and legal diagnosis, as well as authorization to receive medicine. Often, counterfeit medicines illegally sold on the Internet do not require a prescription.

Over the three years, the results stayed consistent, and within the sampling error, and is

essentially unchanged. That said, there was an increase in the 2013 results with the raw number of those who purchased medicines on the internet with a prescription increased from 43-46 to 86. This is an increase from around 4 percent of the sample increasing to 8 percent.

For 2013, there were 8 percent of respondents purchased medicines on the Internet with a

prescription (compared to 5 and 4 percent in previous years), compared to 89 percent who did not. Of those who did purchase medicines on the Internet, 13 percent purchased only once, 57 percent purchased four or fewer times, and 19 percent purchased over ten times. These results remained almost exactly the same over the time period and within the sample error.

Medicines sold over the Internet (e.g. "mail order prescriptions") are often less expensive than medicines sold in a retail pharmacy. Internet ordering requires more planning. The consumer must figure in shipping time—even if that is the quickest overnight service, which usually incurs an extra charge and possibly negates the cost savings. Many prescriptions are to treat urgent maladies where consumers want the medicines immediately – thus they cannot plan ahead and need the product immediately. Internet ordering is more convenient for medicines that are taken daily, for a long period of time, with prescription refill cycles that are often every 30 to 90 days. With this frequency of orders or re-orders, it would seem that the residents who were using medicines for long periods of time would be those purchasing product more than ten times in a year. There was only 19 percent of the group who had purchased medicines online more than ten times (and an average of 25 percent over the there years), which was only 5% of the overall sample to begin with.

Neither the types of products (heart, diabetes, arthritis, ADD/ADHD, or other more infrequent or "leisure" medicines, such as those that treat short term sleep disorders or erectile dysfunction), nor the treatments (treating chronic or acute maladies) were identified in the survey. There is extensive literature reviewing prescription medicine consumption and demographics.

To continue the health risk communication consumer behavior theory, which recommends emphasizing consumer compliance to a safer alternative to reinforce a safer behavior, it should be emphasized that "only 8% of Michigan residents" legally purchase medicines on the Internet.

While this is good for reinforcing consumer behavior, the opposite is true for influencing public policy. To spur action, it is important to elicit the psychological response that "a lot of residents are not taking advantage of the cost and convenience benefits."

In summary, there were a low percentage of consumers who legally purchased medicines on the Internet. It also appears that consumers who could benefit the most—those taking the same medicines, consistently, for a long period of time—are an even lower percentage. There is a great opportunity for Michigan residents to conduct more legal purchases of medicines on the Internet, to possibly reduce the cost of medicines for the resident as well as the health care system.

Table 8. Annual Study of Counterfeiting Opinion in Michigan 2011-2013, Question Set 2 – Internet
Medicines Purchasing – <u>With</u> a Prescription

2 Prescription Medication - Internet Purchase - Purchased with	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average
a Prescription	%	Ν	%	Ν	%	Ν	%	%	%
Yes	4.8	46	4.3	43	8.1	82	-0.5	3.8	6
No	95.2	901	95.7	971	91.9	931	0.5	-3.8	94
DNK		0		1		8		0	
Refused		0				0			
NA		0							
2a Prescription Medication - Internet Purchase - How Often with	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average
Rx	%	N	%	N	 %	N	 %	%	%
0					6.2	4			
1	13.7	6	12.4	5	13.9	9	-1.3	1.5	13
2	5.6	2	12.3	5	14.5	9	6.7	2.2	11
3	26.9	11	16.5	6	5.7	4	-10.4	-10.8	16
4	16.3	7	20.2	8	22.8	15	3.9	2.6	20
5	2	1	1.1	0	0.5	0	-0.9	-0.6	1
6	7.2	3	15.1	6	4.7	3	7.9	-10.4	9
8	0.3	1	2.8	1	0.6	0	2.5	-2.2	1
10	6.7	3	2.8	1	2.4	2	-3.9	-0.4	4
12	13.3	5	7.4	3	6.9	5	-5.9	-0.5	9
20	2.2	1	0.9	0	1.3	1	-1.3	0.4	1

	25	0	0	2.3	1	15.1	9	2.3	12.8	6
	40	0	0	0.8	0	4	3	0.8	3.2	2
	50	3.3	1	5.4	2	1.5	1	2.1	-3.9	3
DNK			4		2		15			
Refused			2		3		3			
NA			901		972		931			

1.4 Discussion of Question Set 2b-h – Internet Medicines Purchasing – With a Prescription -- Sources

The data for Question Set 2b-h is presented in Table 9. This covered consumer activity regarding purchasing medicines on the Internet <u>with</u> a prescription, regarding how they found an online pharmacy. This is a key question since the consumers are seeking genuine product but they may be exhibiting risky behavior in finding their product source. Numerous other surveys found that consumers do not seek counterfeit medicines – they may seek unauthorized sources (e.g. unauthorized patent violating generics, or lower priced imported products subsidized by other governments) but they are looking for genuine medicines. The lowest risk process is to receive a recommendation from an employer, healthcare provider, or a health-care professional. Often, a resident's insurance company has a recommended or authorized online pharmacy. On the other hand, there are many very risky processes to find a product source, including an open internet search, and responding to online advertising ("spam" emails), or others.

Over the three years, there has been an increase in risky purchasing heavier each year and there is also an increase in other consumers taking less risky behavior of relying on websites recommended by their healthcare professional. The results for this section include a larger number of respondents, to the insight is more supported. The details are discussed below.

For 2013, a high percentage of Michigan residents conduct very risky online purchasing behavior. Since there were multiple purchases, the number of consumers who bought product online (N=46 using 2012 data) is much lower than the identified sources for finding an Internet pharmacy (N=78). Thus, the totals must be considered for each question, not for a total of all the questions (which would result in over 100% response). This set of survey questions was asked in a way that would provide many opportunities -- ask the same question a different way --for the resident to identify one of the purchasing methods. The important assessment is the general risky behavior.

The results of using risky behavior to find a source of product by the residents seeking online medicines were 37 percent from an open Internet search (up from 16 and 27 percent), 13 percent from friends (originally 7 then 19 percent), 12% from an online advertisement (originally 5 then 25 percent), and 12% from a newspaper/ magazine advertisement (originally 3 then 19 percent).

The results for those who used safer behavior to find a source were: 48% from an employer (originally 57 then 57 percent), and 45% from a health-care professional (originally 21 then 32 percent).

In summary, there were a large percentage of consumers who used risky methods of finding medicines on the internet. There is an important public health opportunity to provide more information to Michigan residents about how to legally find medicines on the Internet. If the recommendations from the previous section are implemented, this will be a critical piece of the message. Health risk communication consumer behavior professionals should be consulted to increase the success of the messaging.

Table 9. Annual Study of Counterfeiting Opinion in Michigan 2011-2013, Question Set 2 – InternetMedicines Purchasing – With a Prescription -- Sources

2b	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average
Internet Purchase -									
Search Engine - Google									
or Yahoo	%	Ν	%	Ν	%	Ν	%	%	%
Yes	15.6	7	27.3	12	36.6	28	11.7	9.3	27
No	84.4	38	72.7	32	63.4	49	-11.7	-9.3	74
DNK		0				8			
Refused		1				0			
NA		901		972		931			
2c	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average
Internet Purchase -									-
Website referred by									
employer	%	Ν	%	Ν	%	Ν	%	%	%
Yes	57	25	57.2	25	47.6	37	0.2	-9.6	54
No	43	19	42.8	19	52.4	41	-0.2	9.6	46
DNK		0				8			
Refused		2				0			
NA		901		972		931			
2d	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average
Internet Purchase -									
Website referred by									
health-care professional	%	Ν	%	Ν	%	Ν	%	%	%
Yes	20.5	9	32.4	14	44.9	35	11.9	12.5	33
No	79.5	36	67.6	29	55.1	43	-11.9	-12.5	67
DNK		0				8			
Refused		1				0			
NA		901		972		931			
2e	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average

Website referred by									
family, friends or co-									
workers	%	Ν	%	Ν	%	Ν	%	%	%
Yes	6.8	3	19.2	8	12.9	10	12.4	-6.3	13
No	93.2	41	80.8	35	87.1	69	-12.4	6.3	87
DNK		0				8			
Refused		2				0			
NA		901		972		931			
2f	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average
Internet Purchase -									
Online Advertisement	%	Ν	%	Ν	%	Ν	%	%	%
Yes	5.1	2	25.4	11	11.7	9	20.3	-13.7	14
No	94.9	43	74.6	32	88.3	70	-20.3	13.7	86
DNK		0				8			
Refused		1				0			
NA		901		972		931			
spnk2g Internet Purchase - Newspaper/Magazine	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average
Advertisement	%	N	%	Ν	%	N	%	%	%
Yes	3.7	2	19.4	8	11.2	9	15.7	-8.2	11
No	96.3	43	80.6	35	88.8	70	-15.7	8.2	89
DNK		0		8		8			
Refused		1				0			
NA		901		972		931			
2h Internet Purchase - Other Method, what	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average
other	%	Ν	%	Ν	%	Ν	%	%	%
NONE; NO OTHER METHOD	66.7	29	63.8	28	81.1	64	-2.9	17.3	71
INSURANCE COMPANY/THROUGH EMPLOYER INSURANCE/		0	19.2	8	8.4	7	NA	-10.8	9
		0		8	0.4	0	NA		9
		U	2.4	1		U	INA	-2.4	I
		0	0.7			0	NA	-0.7	_
ORGANIZATION DOCTOR		0		0	2.0	2	NA		0
DOCIOK		14	0.7	6	3.2	6	-20.1	2.5 -6	18
MISC	33.3								

REFUSED	2	0	0	
NA	901	972	931	

1.5 Discussion of Question Set 3 -- Internet Medicines Purchasing - Without a Prescription

The data for Question Set 3 are presented in

Table 10. This covered consumer activity about purchasing medicines on the Internet <u>without</u> a prescription (Question 3) and why they pursued this purchase (Question 3a). It is illegal to dispense a prescription medicine without a prescription. Some pharmacies illegally dispense the medicines, often by shipping product from an international supplier or by conducting a criminal enterprise. Due to the nature of the Internet—anonymity, the ability to hide identity, and the challenges of enforcement and prosecution—there are many opportunities for residents to procure medicines illegally without a prescription.

Over the three years, the results stayed consistent, and within the sampling error, and is essentially unchanged. Fortunate for the public health threat, the average is very low at 1 percent. The total respondents for each of the years were 4, 15, and 13.

For 2013, when pursuing medicines without a prescription, consumers are either knowingly seeking illegal product or they don't realize the action or product is illegal. For example, a resident may not realize that a widely advertised sleep aid such as Ambien® requires a prescription.

There was only 1 percent of the Michigan residents surveyed who conducted the very risk behavior of purchasing medicines without a prescription. There were so few incidents recorded that it is not practical to draw conclusions.

In summary, there were very few residents who engaged in this dangerous activity. If the recommendations from the previous section are implemented, then there should be clarification that a prescription is required.

Table 10. Annual Study of Counterfeiting Opinion in Michigan 2011-2013, Question Set 3 - Internet Medicines Purchasing – <u>Without</u> a Prescription

3 Internet Purchase -	2011	2011	2012	2012		2013	2013	Delta 11-12	Delta 12-13	Average
Without Prescription	%	Ν	%	Ν		%	Ν	%	%	%
Yes	0.4	4	1.5	15		1.3	13	1.1	-0.2	1
No	99.6	943	98.5	1000		98.7	999	-1.1	0.2	99
DNK		0		0			8			
Refused		1		0			0			
NA		0			_		931			
	I	-		11					1	I
3a Internet Purchase - Without Prescription -	2011	2011	2012	2012		2013	2013	Delta 11-12	Delta 12-13	Average
Why?	%	Ν	 %	N		%	Ν	%	%	%
REPLACING AN EXPIRED PRESCRIPTION	NA(1)			1			0	NA	NA	1
SELF-MEDICATING FOR A COMMON MEDICAL CONDITION		4					0			32
TO BUY A SLEEP AID					_		0			0
BIRTH CONTROL PILLS WITHOUT SOMEONES KNOWLEDGE							1			3
BUY LIFESTYLE MEDICATION		0					0			1
AID CONCENTRATION							0			0
AID SPORTS PERFORMANCE				0			0			1
RECREATIONAL USE				4			0			9
DID NOT NEED PERSCRIPTION				0			0			1
PURCHASED FLEA MEDICATION FOR PET				0			0			0
LESS EXPENSIVE/CHEAPER				10			2			28
Misc/ Other							4			
Refused							3			
NA		943		1000			1000			

Note: (1) so few results that percentages are not included

1.6 Discussion of Question Set 4 – Law Enforcement Priority Setting

The data for Question Set 4 are presented in Table 11. This covered insights for related law enforcement priority-setting. The main components of controlling the fraud opportunity are detection, deterrence, and

prevention. A key component of deterrence is investigation, enforcement, and prosecution. Federal, State, and Local governments provide the resources for these functions. The attitudes and opinions of the Michigan residents in this survey provide insights for the priority-setting.

Over the three years, the results stayed consistent. In 2013, there was a decrease in the respondents who felt the government should do less to combat counterfeiting (originally 56 and 59 then dropping to 51 percent). The result was outside the sampling error so signified a trend.

For 2013, there were 51 percent who felt the "government" should do more to address counterfeiting (originally 56 then 59 percent). Of that majority who wanted more to be done, 59 percent would support higher taxes for more prison sentences. In 2013 there were more respondents who "did not know" or "refused" to answer, so those who were against higher taxes decreased to 41% (originally 47 then 46 percent). So, while 28 percent of the overall sample supported higher taxes activities to combat counterfeiters and considering the full data set there were 71 percent against higher taxes to combat product counterfeiting. That was a surprisingly high percent for the researchers but still far less than a majority.

Of the group that thought the government should do more, 82 percent did <u>not</u> support diverting resources from other crime fighting activities to pursue counterfeiters, and 76 percent did <u>not</u> support increased prison time for counterfeiters if it meant other prisoners would be released.

In summary, product counterfeiting creates a dilemma for public policy decisions, where a majority of the residents feel the "government" should do more but the vast majority don't support higher taxes to pursue those activities, and don't support shifting resources from fighting other crimes.

Table 11. Annual Study of Counterfeiting Opinion in Michigan 2011-2013, Question Set 4 – LawEnforcement Priority Setting

4 Increase Anti- Counterfeiting Funding 1 - should government increase funding activity	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average
VS.	%	Ν	%	Ν	%	Ν	%	%	%
Yes	56.1	518	58.5	555	50.9	487	2.4	-7.6	55
No	43.9	406	41.5	394	49.1	471	-2.4	7.6	45
DNK		21		61		8	0		
Refused		2		5		9	0		
NA		0					0		
4a	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average

Increase Anti- Counterfeiting Funding 2 - increase if prison meant higher taxes	%	Ν	%	Ν	%	Ν	%	%	%
Yes	52.6	259	56.6	278	59	280	4	2.4	56
No	47.4	233	46.4	241	41	194	-1	-5.4	45
DNK	+1.+	233	+0.+	34	1	8	0	-0.4	
Refused		3		2		9	0		
NA		429		460		526	0		
INA		429		400		520	0		
4b Increase Anti- Counterfeiting Funding 3 - increase if took resource from other crime	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average
fighting	%	N	%	N	%	N	%	%	%
Yes	19	95	21.2	111	18.2	83	2.2	-3	19
No	81	406	78.8	414	81.8	375	-2.2	3	81
DNK		15		23		8	0		
Refused		3		8		9	0		
NA		429		460		526	0		
4c Increase Anti- Counterfeiting Funding 4 - increase if	2011	2011	2012	2012	2013	2013	Delta 11-12	Delta 12-13	Average
others let out	%	Ν	%	Ν	%	Ν	%	%	%
Yes	27.8	135	26	127	24.2	110	-1.8	-1.8	26
No	72.2	251	74	361	75.8	343	1.8	1.8	74
DNK		23		59		8	0		
Refused		9		8		9	0		
NA		429		460		526			

1.7 Summary

The three years of survey data from 2011, 2012, and 2013 were collected and analyzed as one data set. With only three years of survey data, and considering the nature of the survey methods, it is too early to conduct meaningful statistical trend analysis. As more annual data is collected, the trend analysis will become more valuable.

Conclusions

General conclusions for the survey data are here:

- Attitudes towards Product Counterfeiting: There is a relatively low rate of Michigan residents seeking counterfeit products. It be efficient to leverage national-level advertising and build awareness of the society-wide costs of counterfeits (e.g. lost jobs) and health risks (e.g. sunglasses that shatter or contain toxic components). Over the three years, the results stayed consistent with 16 percent knowingly purchased counterfeits and 10 percent who were deceived when they later found a purchased product to be counterfeit.
- Internet Pharmaceutical Medicines Purchasing Behavior: There is a very low rate of purchasing pharmaceutical medicines over the internet. Purchasing pharmaceutical medicines on-line, through legitimate service providers is usually a cost-savings activity. There is an opportunity to increase the awareness of the availability and cost savings of internet medicines. In 2013 there was an increase doubling from 4 to 8 percent of the respondents purchasing medicines on the internet with a prescription. This increase correlated to an increase in both safe (e.g. recommended by an insurance company or healthcare professional) and unsafe (e.g. responding to an email, open internet search, or recommendation from a friend) procurement practices. Over the three years, the results stayed consistent for those purchasing medicines on the internet without a prescription at a 1% rate that said, in this case, that was 13 to 15 respondents out of the sample of 1013.
- Related Law Enforcement Priority-Setting: While there is general support for investigating and prosecuting product-counterfeiting incidents, there is little support for increasing funding or incarceration rates if it takes away from other types of law enforcement activity. There is an opportunity for State and Local law enforcement to continue to try to pursue federal or industry-funded enforcement. In 2013 there was a drop in the respondents who thought the "government" should do "more" to combat counterfeiting (from 56 then 59% to 51% in 2013). There was also a drop in the percent for tax support 71% did not support more taxes to fund the anti-counterfeit activities.

1.1 Public Policy Trends

This research provides important insights on several aspects of product counterfeiting that are important for a holistic and all-encompassing perspective on public policy trends. These include:

<u>Attitudes Toward Product Counterfeiting</u>

- Lack of Resident Outrage of Counterfeits: Consumers do seek counterfeit products, so there is an underlying acceptance; at the least, there does not seem to be outrage at the prevalence of counterfeit products.
- **Consumers are Cheated:** Though many consumers knowingly purchased counterfeit products, a large group of residents have been cheated when they bought a product that they later determined to be counterfeit. There could be a level of outrage, or at least sensitivity to counterfeit products.

Internet Purchasing Behaviors

- Few Consumers Buy Legal Pharmaceutical Medicines Legally Online: Since there is a low level of consumers legally purchasing legal pharmaceutical medicines online with a prescription, the residents incur a higher cost for their medicines. There is an opportunity to help reduce residents' medicines costs by increasing awareness of the opportunities and methods to safely purchase prescription medicines online with a prescription.
- Some Risky Behavior in Finding an Online Pharmacy: Of those residents who do try to legitimately purchase products online, a majority use risky behavior to find sources. There is an opportunity to provide more consumer information on how to safely purchase medicines.
- Few Consumers Buy Legal Medicines Online Illegally: Those few residents who do buy legal medicines online illegally, <u>without</u> a prescription, do so for refilling a prescription, selftreating a common condition, or to get a cheaper price. There is an opportunity for providing consumers with information about opportunities to re-fill prescriptions or to find lower priced products online.

Law Enforcement Priority Setting

- **Residents Expect more Enforcement vs. Counterfeiting:** A majority of residents expect the "government" to do more to combat product counterfeiting.
- No More Taxes and No Diverting Crime Fighting or Prison Space. Those same residents
 do not want increased taxes to support these activities. They also do not want to divert
 resources from other crime fighting or shift prison cells to counterfeiters.

1.2 Next Steps

This is the second year of an annual survey of Michigan residents. The third year survey has already been conducted and will be presented in the next update.

- More Detailed Statistics After Year Five: After a preliminary review of the third year of data, additional more complex regression analysis, with multiple variables, can be accomplished in the future with more data probably after gathering a bigger data set after the fifth year of the surveys. The current data set was small and did not warrant more complex analysis.
- Add Additional Questions: The analysis of the results has led to the awareness that more detailed survey information is needed to provide more insights. Specifically:
 - The type of counterfeit product purchased
 - The level of outrage that counterfeits are in the marketplace, by product type
 - · More detail on reasons for not-buying medicines on the Internet
 - More detail on messages that would educate and reinforce safe online purchasing habits
- Researcher Next steps:
 - **Correlate with Other Ongoing Research:** The researchers are involved in a wide range of public health, public policy, trade, and crime research projects. This may yield additional insights that will contribute to the impact on public policy in this annual study.
 - Include More Economic Indicators: The local, State, Federal and international economies have changed quite a bit from 2010 to 2014. This could provide especially interesting insight as the economy is growing, unemployment numbers reported to be improving and the stock market hitting record highs. These indicators should be added to the data set.
 - Additional Law Enforcement, Prosecution, and Incarceration Data: The shifting economic and political climates have led to shifts in priority-setting. Additional data would provide more insights on the public policy trends.

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This Informing the Debate Paper Series is created for the Institute for Public Policy and Social Research (IPPSR) at Michigan State University. The State of the State Survey has been conducted since 1994 and was utilized under the Michigan Applied Public Policy Grants (MAPPR). This is the third year of an annual study.

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Appendix

1.1 Political and Ideology Survey Responses from the SOSS Survey

Table 12. Political and Ideology Survey Responses from the SOSS Survey in 2011 (listed in question order, not grouped by themes)

- P01 Obama (Democratic US President) rating: 11% (n=87) excellent, 33% (n=264) good, 29% (n=234) fair, 25% (n=203) poor. Note: democratic leaning
- P02 Snyder (Republican Michigan Governor) rating: 6% (n=51) excellent, 24% (n=189) good, 36% (n=282) fair, 31% (n=242) poor
- Pure5a are you a leader in your groups: 40% (n=379) somewhat agree, 34% (n=325) strongly agree
- Pure5d do you organize others to accomplish tasks 38% (n=364) somewhat agree, 49% (n=464) strongly agree
- Pure5e people follow my ideas 48% (n=453) somewhat agree, 34% (n=322) strongly agree
- Pub1 believe there is scientific evidence of climate change 35% (n=332) strongly agree, 45% (n=417) some scientific evidence, 19% (n=179) little or no evidence, 10% (n=8) did not know
- Pub2 climate change is a result of human activity 20% (n=147) direct result, 68% (n=500) both human and natural changes, 11 (n=86) natural, 14 (n=8) don't know
- Pub4 main source of news 11% (n=106) radio, 30% (n=282) television, 20% (n=18) newspapers, 7% (n=67) magazines, and 31% (n=297) internet
- Pub4a radio station information from 62% (n=67) public/ mainstream radio, 29% (n=31) talk radio, 2% (n=2) religious, 5% (n=6) other/ combination, 841 not applicable
- Pub4b TV comes from 38% (n=105) traditional networks, 15% (n=41) cable CNN, MSNBC, 26% (n=72) Cable Fox News, 16% (n=44) PBS or Public stations, 2% (n=7) Other or a combination
- Pub4c newspaper from 4% (n=8) national, 51% (n=97) Michigan wide (e.g. Detroit News), 43% (n=82) local (e.g. Lansing State Journal)
- Pub4d magazines 41% (n=27) Time, 27% (n=18) Newsweek, 31% (n=20) other
- Pub4e internet 11% (n=34) cnn.com, 5% (n=15) msn.com, 12% (n=35) fox.com, 14% (n=43) yahoo.com, 50% (n=147) others/ combination (+.9+4.3%, + 12+2)
- Pub5 climate change would be better if more scientists were involved 34% (n=326) strongly agree, 48% (n=455) somewhat agree, 9% (n=88) somewhat disagree, 6% (n=59) strongly disagree
- Pub7 information from scientists is better than private information 35% (n=330) strongly agree, 32% (n=301) somewhat agree, 5% (n=46) neutral, 17% (n=165) somewhat disagree, 9% (n=85) strongly disagree
- Pub12 environmental projects must balance economic impact 45% (n=431) strongly agree, 46% (n=435) somewhat agree, 1% (n=13) neutral, 4% (b=42) somewhat disagree, 2% (n=20) strongly disagree
- Pub13 best source of funding for unbiased scientific research 36% (n=314) federal government, 26% (n=224) business and industry, 37% (n=324) private individuals
- Pub17b trustworthy scientists government 16% (n=152) very trustworthy, 57% (n=540) somewhat trustworthy, 15% (n=141) not very trustworthy, 10% (n=102) not trustworthy at all
- Pub17c university scientists 44% (n=417) very trustworthy, 51% (n=466) somewhat trustworthy, 3% (n=29) not very trustworthy, 1% (n=4) not trustworthy at all
- Pub17d corporate scientists 9.4% (n=87) very trustworthy, 52% (n=489) somewhat trustworthy, 26% (n=249) not very trustworthy, 11% (n=111) not trustworthy at all
- Pub17e politicizing 0.3% (n=3) very trustworthy, 20% (n=196) somewhat trustworthy, 37% (n=349) not very trustworthy, 41% (n=394) not trustworthy at all
- CD7@b republican 40% (n=83) strongly, 59% (n=122) not very strong
- CD7@c democrat 35% (n=99) not very strong, 64% (n=181) strong q: question order? Bias?
- CD7@d independents closer to 34% (n=131) republican, 28% (n=109) neither, 36% (n=138) democ
- P17Qa political ideology 39% (n=356) conservative, 37% (n=342) neither, 18% (n=169) liberal
- Inca more than \$40,000, 67% (n=597) yes
- Incd more than \$60,000 69% (n=406) yes
- Incg more than \$100,000 44% (n=180) yes
- Inci more than \$150,000 24% (n=45) yes

1.2 Appendix – Summary of 2013 IPPSR Policy Forum Series presentation

2013 IPPSR Policy Forum Series (Spink, 2012)







1.3 Appendix – Backgrounder Overview, 2011 Survey

MSU A-CAPPP Backgrounder Series for IPPSR/MAPPR Grant award 2010-2011 (Spink, 2012)

Product Counterfeiting in Michigan and the Expectations and Priorities for State and Local Law Enforcement: Assessing the Awareness of and Response to the Problem

John Spink, PhD Justin Heinonen, PhD

Backgrounder Spring 2012

The crime of product counterfeiting is growing in scope, scale, and threat. These threats impact the citizens of the State of Michigan, as they do others throughout the U.S. and the world. This Backgrounder presents results of a survey that questioned respondents on their purchases of counterfeit products, their opinions on priorities for law enforcement, and their use of the Internet to purchase medicines.

Introduction

Michigan State University's State of the State Survey (SOSS) is a quarterly telephone survey conducted of approximately 1,000 adult citizens across seven regions in Michigan. The major goal is to assess public opinion on timely issues. The survey is administered by the MSU Institute for Public Policy and Social Research (IPPSR), which "connects scholarly work with the policymaking community through applied and survey research, community dialogue and political leadership training."

This Backgrounder reports research conducted by the authors from the Spring 2011 SOSS survey, which was conducted between May and July (see the end of this report for sample size and estimates of sampling error). Every SOSS survey gathers background demographic data and includes questions that gauge broad shifts in opinions about the economy, government, and general outlook. The remainder of the Spring 2011 survey covered six specific topics, two of which are relevant to this Backgrounder: (1) the perceived prevalence of counterfeit products in Michigan, and citizens' views on the enforcement of related laws, and (2) the purchase of medications via the Internet. The product counterfeit and law enforcement section included four main questions, with three detailed follow-up questions. The Internet medicines portion consisted of two main questions and eight follow-ups. Beyond these 17 questions related to product counterfeiting, 21 questions were drawn from the demographic and general opinion sections for the purposes of this report.

The demographics of the survey respondents were representative of Michigan: average age 40 to 50; average income \$40,000 to \$90,000; 84% white and 9% black; political affiliation evenly split between Republican/Democrat/Other; 50% married, 26% single and never married, and 24% widowed or divorced; 43% employed full time; a portrayal of an educated population—33% with some college and 34% with a college degree.

Major findings

Purchasing Counterfeits. Most Michigan residents (80%) do not purchase products that they know are counterfeit, including apparel, handbags, and luxury goods. Just 11 percent of respondents had purchased what they thought was a genuine product only to learn later that it was counterfeit.

Expectations and Priorities for Law Enforcement. Over half of the respondents (56%) thought that the State should do more to fight product counterfeiting, and most of these individuals (52%) felt this way even if it meant increased taxes. However, most of these individuals did not support doing more to fight product counterfeiting if that effort took resources from other crime fighting activities (80%), or if it led to more probation for other types of criminals to offset the incarcerated counterfeiters (72%). When the full survey population was considered, including those who did not think the State should do more to address the threat, support for higher taxes to combat counterfeiting was less than one third (27%). Nearly three-quarters of Michigan citizens objected to incarcerating counterfeiters if it meant releasing other types of criminals.

Internet Medicines. Only a few respondents reported purchasing medicines over the Internet with a prescription (5%), and just a fraction of those made more than 12 total purchases in the previous year (0.6%). Very few respondents (0.4%) reported purchasing medications on the Internet without a prescription, and many of those stated that they were self-treating what they considered to be a common medical condition. Most of those who purchased medicines online (65%) used websites recommended by what are considered reputable sources (e.g., insurance company, doctor, or employer). About a quarter of respondents (26%) exhibited what could be considered risky behavior in how they found Internet medicines (e.g., buying from websites found in an unsolicited "spam" email).

These results provide important insights into the perceptions of Michigan citizens regarding the threat of counterfeit products, how the State should respond to this problem, and at what resource expenditure. A follow-up study—an annual analysis of these survey items—was also funded by IPPSR will continue this study with an additional survey in 2012. This further report is forthcoming.

SOSS Spring 2011 details: A split sample approach included random digit dial samples of phone numbers (60%) and re-interviews of previous participants who had agreed to continue participation (40%). The sampling error was 3.2 percent statewide (947 interviews), ranging from 7.2 percent to 13.1 percent within the seven regions (57 to 187 interviews per region). The sample was weighted to represent the adult population of Michigan.

Acknowledgement

This research was funded by a Michigan Applied Public Policy Research grant from the Michigan State University College of Social Science's Institute for Public Policy and Social Research (<u>http://www.ippsr.msu.edu/default.asp</u>). The research utilized the MSU State of the State Survey, conducted within their focus on "Determinants of Complex Policy: Understanding the Role of Science in Public Policy." The Principle Investigator was John Spink and the Co-Principle Investigator was Justin Heinonen. Both are with the Anti-Counterfeiting and Product Protection Program (A-CAPPP) within the School of Criminal Justice at Michigan State University. An Annual study for 2011-2012 was also funded. A report of results is forthcoming.

Appendix: State of Michigan Glossary of Terms

Definitions/Glossary (MDOC, 2013)

- Community Residential Programs The division within the department's Field Operations Administration responsible for electronic monitoring and corrections centers.
- Corrections Center A community facility operated by the Department of Corrections in which prisoners are supervised prior to release on parole. Prisoners are carefully screened for this "community status," are required to work or be in school while living in these facilities and pay a per diem to partially offset room and board expenses. A Corrections Center is supervised by employees of the Department of Corrections but not necessarily owned by the department. Some of these facilities are leased by the department. The department began closing some centers in anticipation of a declining center population caused by Truth in Sentencing legislation that went into affect in 1998. By the end of 2001, the center population stood at 455. Many of the offenders formerly in centers were supervised on electronic monitoring devices.
- Felon A person convicted of a felony crime.
- Felony In Michigan, any serious crime for which the possible maximum sentence is more than one year in prison. (Probation can be an alternative to prison in most felony crimes.)
- Indeterminate Sentencing In Michigan, which has a modified indeterminate sentencing structure, convicted felons, with few exceptions, are given a minimum and a maximum portion to their sentences. The maximum is usually determined by law, and the minimum is set by a judge with the legal restriction that it is not to exceed two-thirds of the maximum. The Michigan Parole Board has jurisdiction over the prisoner when he or she has served the minimum portion of the sentence.
- Jail A county institution usually for persons awaiting trial, unsentenced felons and misdemeanants and sentenced misdemeanants and felons.
- Misdemeanor A crime less serious than a felony for which the maximum sentence is usually not more than one year in a county jail. A sentence usually involves probation, jail time, a fine, or a combination of any or all of these three. Except in certain specific instances, persons convicted of a misdemeanor cannot be sentenced to prison.
- Parole A term of community supervision afforded by the Parole Board to a prisoner who has served the minimum portion of his or her sentence, less good time or disciplinary credits if applicable. While on parole, a parolee is supervised by an agent who is an employee of the Department of Corrections. At the successful completion of the parole period, the offender is "discharged" from his or her sentence. If a parolee violates the parole terms, he or she can be sent back to prison. The Parole Board retains jurisdiction until the maximum-sentence is served in prison or the offender discharges from parole.
- **Prison** An institution for offenders sentenced to the Department of Corrections.
- Probation A term of supervision afforded either a convicted felon or a convicted misdemeanant by a court as an alternative to prison or jail, although some judges may sentence offenders to a combination of both probation and jail or boot camp. The Michigan Department of Corrections supervises convicted felons who are serving probation sentences under the jurisdiction of the sentencing court.
- Sentencing Guidelines Sentencing guidelines, signed into law by Gov. John Engler in 1998, are numeric ranges used by sentencing judges to determine an appropriate minimum sentence. They are

determined by the seriousness of the offense and the prior criminal record of the offender and are expected to further shift punishment for appropriate felons toward community sanctions to help reserve prison beds for the most dangerous and persistent offenders. They will impact offenders whose crimes occurred after Jan. 1, 1999. Replacing guidelines imposed by the Michigan Supreme Court in 1988, the guidelines represent the state's best efforts at deciding an appropriate sentence for a specific crime. The guidelines were developed and recommended to the Legislature by the Sentencing Guidelines Commission, whose makeup was determined by law and which considered the potential impact of the guidelines on the state's prison population.

Truth in Sentencing - A 1998 state law which eliminates Disciplinary Credits, good time and corrections centers for certain offenders and requires offenders to serve the entire minimum sentence in prison prior to being considered for parole. It replaces Disciplinary Credits with "disciplinary time" or bad time, which is accumulated for incurring misconducts while in prison. This bad time is not to be formally added to the minimum sentence, but the Parole Board must consider the amount of time each prisoner has accumulated when it considers parole. The new law applies to assaultive crimes committed on or after Dec. 15, 1998, and all other crimes committed on or after Dec. 15, 2000.

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Informing the Debate

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