

Provided for non-commercial research and education use.  
Not for reproduction, distribution or commercial use.



This article appeared in a journal published by Elsevier. The attached copy is furnished to the author for internal non-commercial research and education use, including for instruction at the authors institution and sharing with colleagues.

Other uses, including reproduction and distribution, or selling or licensing copies, or posting to personal, institutional or third party websites are prohibited.

In most cases authors are permitted to post their version of the article (e.g. in Word or Tex form) to their personal website or institutional repository. Authors requiring further information regarding Elsevier's archiving and manuscript policies are encouraged to visit:

<http://www.elsevier.com/copyright>



Contents lists available at ScienceDirect

Journal of Criminal Justice



## Differentiating identity theft: An exploratory study of victims using a national victimization survey<sup>☆</sup>

Heith Copes<sup>a,\*</sup>, Kent R. Kerley<sup>a</sup>, Rodney Huff<sup>b</sup>, John Kane<sup>b</sup>

<sup>a</sup> Department of Justice Sciences, University of Alabama at Birmingham, 1201 University Blvd., Suite 210, Birmingham, AL 35294, United States

<sup>b</sup> National White Collar Crime Center, 1000 Technology Drive, Suite 2130, Fairmont, WV 26554, United States

### A B S T R A C T

Despite the widespread attention given to identity theft, there is much confusion on how best to define and measure it. Recent attempts to measure its extent through victimization surveys or law enforcement files have varied considerably in the types of crimes included as identity theft. Some studies include credit card fraud, while others exclude it. This inconsistency in data collection has made it difficult to assess properly the extent of the crime. The current study uses data from the National Public Survey on White Collar Crime to determine the degree to which including credit card fraud as a type of identity theft affects victim profiles encompassing demographic characteristics, risky activities, and reporting decisions. Specifically, we compare victim profiles for victims of existing credit card fraud, new credit card fraud, and existing bank account fraud. Findings from our exploratory study suggest that including existing credit card fraud may obscure the fact that those who are female, black, young, and low income are disproportionately victimized by existing bank account fraud, which is the type of identity theft most financially damaging and most difficult to clear up for individuals.

© 2010 Elsevier Ltd. All rights reserved.

### Introduction

Since the turn of the new century few crimes have captured the public's attention as much as identity theft. Indeed, it is not uncommon to hear identity theft referred to as "the fastest growing crime in America" (Cole & Pontell, 2006, p. 125) or the "crime of the new millennium" (Hoar, 2001). Americans are bombarded with news stories describing security breaches of data, the predatory practices of identity thieves, and the many dangers of engaging in routine business transactions. In response to the rise in identity theft crime control agencies have developed programs to protect citizens from the growing menace of identity thieves and citizens are increasingly willing to pay for these services (Piquero, Cohen, & Piquero, *in press*). In order to offer such protection it is necessary that crime control agents have accurate data regarding the patterns and prevalence of identity theft. While many associated with universities, private think-tanks and government agencies have sought to provide such information, reliable statistics are difficult to obtain.

One of the primary reasons for the lack of reliable data on identity theft is that not all investigators agree on how best to define it or what

crimes should be included under this umbrella concept (Bureau of Justice Statistics [BJS], 2007; Cole & Pontell, 2006; Newman & McNally, 2005). Although no universally agreed upon definition of identity theft exists, basic patterns have emerged among policy makers and researchers trying to establish one. Specifically, most agree that identity theft involves "the misuse of another individual's personal information to commit fraud" (President's Identity Theft Task Force, 2007, p. 2; see also McNally & Newman, 2008). The vagueness of this definition contributes to the lack of reliable data, which is evidenced by the varying crimes that scholars have examined when studying identity theft. Crimes falling under the identity theft umbrella include checking and credit card fraud, counterfeiting, forgery, mail fraud, mortgage fraud, human trafficking, and terrorism, to name a few.

Problems in defining identity theft precisely have also made it difficult to gauge its extent and patterns. Nearly all agree that the use of another's personal information to create new accounts or to access existing bank accounts constitutes identity theft; however, there is no consensus about whether using existing credit cards constitutes identity theft. While this may seem like a minor point, the ubiquity of credit card fraud could alter estimates of the extent of identity theft and impact the profile of victims, complicating crime control efforts. Victimization surveys tend to include use of existing credit card fraud in their questioning (BJS, 2010; FTC, 2004, 2007; ITRC, 2009; Pontell, Brown, & Tosouni, 2008), while studies using police reports and offender interviews tend not to include this type of fraud or treat it as a separate offense (Allison, et al., 2005; Copes & Vieraitis, 2009a, 2009b; Copes, Vieraitis, & Jochum, 2007; Gordon, et al., 2007; Rebovich, 2009).

<sup>☆</sup> This project is supported by grant number 2005-WC-CX-K092, awarded by the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice. Points of view in this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice.

\* Corresponding author. Tel.: +1 205 975 9489; fax: +1 205 934 2067.

E-mail address: jhcopes@uab.edu (H. Copes).

The goal of this exploratory study is to provide more information on the victims of identity theft and to determine the degree to which including credit card fraud as a type of identity theft affects victim profiles (e.g., demographic characteristics, risky activities, and reporting decisions). Specifically, we use data from the National Public Survey on White Collar Crime to compare profiles for victims of existing credit card fraud, new credit card fraud, and existing bank account fraud. Findings from this study will contribute to the limited information on victims of identity theft, as well as highlight the similarities and differences among these three types of fraud victims. Such a nuanced understanding of the victims of these various crimes is necessary if we are to understand and ultimately reduce victimization.

### Identity theft in context

The rise in identity theft since the turn of the millennium has been supported by numerous sources. According to the [Federal Trade Commission \(2004\)](#), reports of identity theft increased from 86,212 to 214,905 in three years (a 250 percent increase). According to the [Privacy and American Business \(2003\)](#) survey, the incidence of identity theft nearly doubled from 2001 to 2002. The Social Security Administration's Fraud Hotline received about 65,000 reports of social security number misuse in 2001, which is more than a fivefold increase from about 11,000 in 1998 ([U.S. General Accounting Office, 2002](#)).<sup>1</sup> Recent data from the FTC indicate that identity theft was the most prevalent form of fraud committed in the United States, and constituted 36 percent (246,035) of the 674,354 complaints filed in the year 2006 ([FTC, 2007](#)). According to the National Crime Victimization Survey, the percentage of households victimized by identity theft rose from 5.5 percent in 2005 to 6.6 percent in 2007 ([BJS, 2010](#)). Theft of personal information was the only form of identity theft that did not increase from 2005 to 2007.

### Costs of identity theft

In 2007, the FTC released a report on estimates of the incidence and costs of identity theft. According to the report, approximately eight million people were victimized by identity thieves and these victims lost nearly \$16 billion ([Synovate, 2007](#)). Estimates from the National Crime Victimization Survey (NCVS) vary from the FTC report. According to the NCVS, 6.4 million households (5.5 percent of the households in the United States) had at least one member of the household victimized by identity thieves during the previous six months. Financial loss estimates from these victimizations were roughly \$3.2 billion ([BJS, 2007](#)).

All estimates suggest that identity theft is a costly crime. According to estimates from the FTC's Identity Theft Clearinghouse, the average cost to businesses is approximately \$4,800 and the average out-of-pocket expenses to individuals is about \$500. This amounts to a combined loss of over \$50 billion a year ([Synovate, 2003](#)). In addition, the data show that victims of new account fraud lose on average \$1,180, while victims of existing credit card fraud lose \$160. In the 2006 survey, estimates were considerably lower with the average amount obtained by the offender equal to \$1,882 and the average victim loss totaling \$371 ([Synovate, 2007](#)).<sup>2</sup> Estimates from the most recent NCVS ([BJS, 2010](#)) show that average amounts lost per victimized households was \$1,830 (for all types of identity theft). Disaggregating the data shows considerable variation in the amount lost by type of identity theft. Specifically, those experiencing misuse of personal information reported an average loss of \$5,650, those victimized by fraud from other existing accounts lost an average of \$1,140, and those experiencing theft of existing credit card accounts lost an average of \$1,300.

As with other estimates of identity theft it is difficult to get accurate assessments of the actual costs incurred by victims. In most

cases, the person whose information was misused is not legally responsible for the costs of the fraudulent transactions because it is typically the credit card company or merchants who lose money. Even in these cases victims will likely incur expenses when they try to resolve problems (e.g., closing existing accounts or opening new ones, disputing charges with merchants, monitoring credit reports, and paying higher interest rates on loans and other credit accounts) created by the theft. A survey with CALPIRG found that the average amount of time spent by victims to regain financial health was 175 hours, which took an average of two years to complete. [Pontell et al. \(2008\)](#) reported that the median amount of money lost from missing work to clear up a victimization was \$4,000. According to the Identity Theft Resource Center's 2003 survey, the average time spent by victims clearing their financial records was close to 600 hours. According to a report from the [ITRC \(2009\)](#), victims spent an average of \$739 dollars in out-of-pocket expenses for damages done to existing accounts and \$951 for damages from new accounts.

Again there is considerable variation in the resources necessary to clear up the various types of identity theft. Victims of existing credit card fraud were more easily able to get problems resolved and required less time doing so than were victims of other identity theft related frauds ([BJS, 2007](#); see also [Newman & McNally, 2005](#)). For instance, data from the FTC survey showed that it took victims of new account fraud an average of 60 hours to resolve the problems associated with the crime, but it only took victims of existing credit card fraud an average of 15 hours to do so ([Synovate, 2003](#)).

In addition to time spent resolving problems created by identity theft, victims may experience a great deal of emotional distress, including feelings of anger, helplessness and mistrust, disturbed sleeping patterns, and a feeling of lack of security ([Davis & Stevenson, 2004](#)). Results from the [ITRC \(2009\)](#) survey suggest that victims often experience short-term feelings of being defiled, betrayed, and powerless. Additionally, 30 percent experienced such long-term consequences as being unable to trust people. Four percent claimed to having suicidal ideations.

### Victims of identity theft

According to [Anderson's \(2006\)](#) analysis of the FTC's 2003 data, it appears that those at the greatest risk of identity theft victimization are consumers between the ages 25–54, with higher levels of income (i.e., those with incomes greater than \$75,000), who reside in households headed by women with three or more children, and who reside in the Pacific states. Those with the lowest risk include the elderly (i.e., those aged 75 and older) and persons residing in the Mountain states. Interestingly, it appears that educational attainment and marital status have little effect on risk of victimization ([Anderson, 2006](#)). [Kresse, et al.'s \(2007\)](#) study of identity thefts reported to the Chicago Police Department from 2000–2006 supports these claims. They found that over 65 percent of victims were between the ages of 20 and 44 and that young people (under age 20) and older persons (over 65) were under-represented among identity theft victims. The NCVS reported that those most likely to experience identity theft were those who lived in households headed by persons ages 18–24, in the highest income bracket, and those earning \$75,000 ([BJS, 2010](#)). Conversely, those with the lowest risks resided in households headed by persons ages 65 and older.

As the previous review attests, there appears to be considerable variation in reports about the prevalence, extent, costs, and victim characteristics of identity theft. We argue that part of this discrepancy may be the result of varying operationalizations of the crime. Specifically, some include fraud from existing credit cards as a form of identity theft, while others do not. Including existing credit card fraud, the most common type of identity theft related crimes, may skew findings related to patterns, prevalence and costs of the crime. To explore this idea we compare characteristics (e.g., demographics,

risky behaviors, and reporting behaviors) of those victimized by existing account fraud, existing credit card fraud, and new credit card fraud to determine how including credit card fraud affects victim profiles. The results of this exploratory study will not only provide more information on the characteristics and behaviors of identity theft victims in general, but also will inform how including or excluding certain offenses affects these patterns. Knowing this information will allow for more effective programs designed to reduce the prevalence and incidence of identity theft victimization and inform others on how best to operationalize.

## Data and methods

### Sample

This study uses data derived from the second wave of the National Public Survey on White Collar Crime. Currently this is the only nationally representative survey of the victims of white-collar and high-technology crimes (N = 1,605). The survey was developed by National White Collar Crime Center staff along with subject matter experts across the United States. The second wave of the survey, from which the current study is based on, was conducted in 2005.

Data collection for the survey was performed on a contractual basis with the Center for Survey Research (CSR) at the University of Virginia. CSR employs a trained staff of interviewers specializing in survey research both local and nationwide. A pre-test of the survey instrument was performed in July, 2005, with 26 respondents to determine potential issues with questionnaire design, sample peculiarities, question phrasing, definition of terms, and interview length. The pre-test resulted in minor adjustments to the survey instrument before full data collection began.

Data were collected from August to December, 2005. Respondents were selected from a random sample of U.S. telephone numbers using random digit dialing (RDD). Participation required that each respondent be over the age of 18 and a member of the household being surveyed. Survey responses were tracked and stored utilizing the Computer Assisted Telephone Interviewing (CATI) system. The CATI system is a useful tool for allowing survey responses to be simultaneously stored throughout the survey process, which minimizes the possibility of data contamination and allows for administrative accuracy (Groves, 1990).

Calls were conducted from 6:00 p.m. to 9:00 p.m. Sunday through Thursday, with additional calls being made on Sunday from 2:00 p.m. to 5:00 p.m. Up to ten calling attempts were made for each number. If the respondent was unwilling to consent to the survey, alternative callback times were recommended, either by appointment or at the discretion of the interviewer. To ensure a high rate of responses and increased representativeness of the sample, households exhibiting a routine refusal were attempted again after an interval of no less than four days. Due to the technique of random sampling employed through the RDD process, the final sample is principally representative of the U.S. population in terms of demographic variables, and, as such, the responses generated from the survey are theoretically generalizable to the U.S. population. The final sample included 1,605 respondents, which represented an overall survey response rate of 71 percent.

In designing questionnaire content, the NW3C survey followed the common practice of an offense-based approach to measuring white-collar and high-technology crimes (Benson & Walker, 1988; Shover & Cullen, 2008; Weisburd, Waring, & Chayet, 2001). Acknowledging the ever-changing scope of white collar crime, the second wave of the survey defined white collar crime as encompassing traditional economic crimes as well as emerging high-tech crimes, irrespective of offender status, which includes identity theft. The survey was divided into three key sections: crime seriousness, victimization, and respondent demographics.

### Dependent variables

There are four dependent variables used in our analysis. The first is *existing credit card fraud*. Respondents were asked whether they or someone in their household discovered that another had used their existing credit cards to make charges without their permission. The second is *existing account fraud*, which determined whether respondents or others in their household discovered that someone used an existing account (other than a credit card) to make charges or to take money from them without permission. The third measure is *new credit card fraud*. For this item respondents were asked whether they or someone in their household discovered that another used their personal information to obtain new credit cards and/or accounts without permission. All three items were simple dichotomous measures (0 = no victimization and 1 = victimization) and referred to victimization during the previous twelve months. The final variable *identity theft* was created by summing responses to the previous three variables. In addition, all respondents were asked if they as individuals were victimized by each of the frauds.

### Independent variables

Several key demographic characteristics are included in our analysis of identity theft victimization: gender, age, race, education, income, and marital status. Respondents' *age* was measured using a 6-category scale (18–24, 25–34, 35–44, 45–54, 55–64, and 65 and older). *Gender* was a binary indicator. *Race* was measured on a 6-category scale with categories White, Black, Asian, American Indian, Pacific Islander, and Other. These responses were then collapsed into White, Black, and Other. *Education* was measured with a 6-category scale ranging from "1 = Less than 12th grade" to "6 = Doctorate." *Income* was measured with a 7-category scale that ranged from "1 = less than \$15,000" to "7 = more than \$150,000." *Marital status* categories included Married, Never Married, Separated, Widowed, Divorced, and Other, which were collapsed into Married and Not Married.

In addition to these demographic characteristics, the survey also included measures of risky behavior, including two measures of Internet use. These measures allowed us to assess how identity theft victimization was related to the level of exposure to potential offenders such as hackers and phishers (Holt & Lampke, 2010; Pratt, Holtfreter, & Reisig, in press). The first measure was a binary indicator of whether respondents use the Internet. The second item tapped respondents overall *Internet use*. Responses on the 6-category scale ranged from "less than once a month" to "several times a day." To measure other risky behaviors that may be associated with identity theft, respondents were asked how often they respond to solicitations, give out personal information, and check the background of businesses or people they do business with. Response categories include Never, Seldom, Occasionally, Frequently, and Always.

Knowing the reporting patterns of victims is important for law enforcement agents. To this end, respondents were asked if they reported the frauds. In addition, they were asked to whom they reported to determine the frequency with which victims reported the crimes to law enforcement agents. These questions are consistent with previous research on reporting of white-collar crime (Copes, et al., 2001; Holtfreter, Reisig, & Pratt, 2008; Schoepfer & Piquero, 2009).

Finally, we sought to determine if victims of the various frauds have different perceptions of the seriousness of white-collar and common crimes. The NW3C survey is consistent with other national public perceptions of white collar crime surveys regarding such assessments (Holtfreter, Van Slyke, Bratton, & Gertz, 2008; Piquero, Carmichael, & Piquero, 2008; Rebovich & Kane, 2002). To determine crime seriousness, respondents were asked to rate twelve crimes on a scale from 1–7, with 1 being "not serious" and 7 being "very serious." They were told that a base line crime (auto theft) should be

**Table 1**  
Twelve month household victimization and reporting behaviors

	Existing Account Fraud	New Credit Card Fraud	Credit Card Fraud	Combined Identity Theft
Number of Victimitizations	94	60	182	337
Percent Reported	87.0%	84.3%	94.8%	89%
Percent Reported to Crime Control Agency	23.3%	34.8%	22.5%	19.6%

Note: These figures are for households and not for individuals. Additionally, households may be victimized by more than one type of identity theft.

considered a 4. They were then given hypothetical scenarios for eight white-collar crimes and four traditional crimes (see Table 5 for full list of crimes).

**Results**

As shown in Table 1, respondents reported that within the previous twelve months their households were affected most often by existing credit card fraud (n=182), followed by existing account fraud (n=94), and then new credit card fraud (n=60). The combined number of victimizations was 337 (2 percent of full sample).<sup>3</sup> This finding supports previous research that existing credit card fraud is more prevalent than other forms of identity theft (BJS, 2006, 2007). Additionally, the two percent overall victimization rate is comparable to that found by the BJS (2006). This finding is important because

**Table 3**  
Internet use and patterns of identity theft victimization

	Existing Account Fraud	New Credit Card Fraud	Credit Card Fraud	Combined Identity Theft
% Using Internet	68.4	67.3	75.6	69.5
% Using Internet daily	53.9	67.8	73.2	67.4

existing credit card fraud represents over half of all identity theft victimizations. As a consequence, including existing credit card fraud in any statistical analysis may have an impact on patterns of identity theft. In fact, this inclusion may obscure differences in victims of other forms of identity theft, thus providing a biased portrait of offenders.

Respondents suffering direct victimization were asked whether or not they reported the victimization to a crime control entity or some other entity able to provide recourse (e.g., credit card company, personal lawyer, or Better Business Bureau). Table 1 shows that of those households that were victimized by identity theft related crimes, 89 percent reported to another person and 19.6 percent reported to a crime control agency. This overall reporting rate to crime control agencies is relatively low; however, such low reporting rates are common among victims who perceive themselves as sharing culpability for the crime (Kidd & Chayet, 1984; Mason & Benson, 1996). In addition, the reporting trends vary by type of identity theft. Victims of existing credit card fraud are more likely to report the offense (94.8 percent reported to someone) than victims of existing account fraud and new credit card fraud (87 percent and 84.3 percent

**Table 2**  
Demographic characteristics of individual victims of existing account, new credit card, existing credit card, and total fraud in last 12 months

	Existing Account Fraud (n = 66)	New Credit Card Fraud (n = 45)	Credit Card Fraud (n = 126)	Combined Identity Theft (n = 207)	Estimated US Population <sup>1</sup>
<b>Age</b>					
18-24	5.5	2.1	.8	2.7	12.2
25-34	21.6	12.5	14.6	16.2	18.2
35-44	21.6	31.2	21.2	23.3	20.5
45-54	15.8	17.8	22.7	19.4	19.4
55-64	19.6	21.9	23.1	21.0	13.6
65 and up	16.0	14.6	17.7	17.3	16.1
<b>Gender</b>					
Male	43.0	45.3	47.6	46.0	48.2
Female	57.0	54.7	52.4	54.0	51.8
<b>Race</b>					
White	72.0	66.3	82.6	77.5	75.5
Black	19.8	20.3	11.3	13.9	12.2
Other	8.2	13.4	6.1	8.6	12.2
<b>Education</b>					
Less than 12th grade	8.3	7.8	3.4	5.6	16.1
High school graduate	24.6	18.8	18.6	20.5	29.5
Some College	14.8	21.9	19.5	18.1	20.3
2 year college degree	22.3	15.8	15.0	17.2	7.1
4 year college degree	23.1	14.9	23.6	22.8	17.2
Grad./Professional Degree	6.9	20.8	19.9	15.8	9.9
<b>Income</b>					
Less than 15K	14.6	15.6	8.5	11.2	15.2
15K to 35K	21.3	22.9	17.2	18.3	24.3
35K to 50K	19.7	16.8	20.4	19.4	15.5
50K to 75K	22.9	20.5	19.6	21.9	19.0
75K to 100K	5.7	21.8	18.2	15.3	11.1
100K to 150K	11.6	-	10.0	8.9	9.4
Over 150K	4.1	2.4	6.2	5.0	5.5
<b>Married</b>					
Yes	50.5	56.7	52.5	52.2	54.4
No	49.5	43.3	47.5	47.8	45.6

1. Marital status is derived from 2000 US Census data. All others based on 2004 U.S. Census Data.

**Table 4**  
Risky behaviors related to identity theft victimization

	Existing Account Fraud	New Credit Card Fraud	Credit Card Fraud	Combined Identity Theft
<b>How often do you respond to solicitations?</b>				
Never	48.3	51.5	56.1	62.5
Seldom	37.6	37.7	36.6	30.9
Occasionally	7.3	8.9	6.7	4.8
Frequently	6.7	2.0	0.0	1.2
Always	0.0	0.0	0.7	0.6
<b>How often do you give out personal information?</b>				
Never	74.6	74.4	80.9	79.0
Seldom	18.1	17.8	15.6	15.7
Occasionally	6.0	7.8	3.6	3.8
Frequently	1.3	0.0	0.0	1.4
Always	0.0	0.0	0.0	0.1
<b>How often do you check into the background of people you do business with?</b>				
Never	23.7	20.5	14.5	21.3
Seldom	22.3	18.5	15.3	18.0
Occasionally	13.3	8.1	24.6	17.8
Frequently	25.3	28.1	22.6	20.3
Always	15.3	24.8	23.1	22.6

respectively), but are the least likely to report to crime control agencies (22.5 percent). This findings is consistent with prior research on identity theft reporting (Newman & McNally, 2005).

It is important to determine the demographic profile of victims of crime so that prevention efforts can be directed towards the appropriate groups. Thus, we sought to determine the characteristics of those directly victimized by the three identity theft related crimes. To determine their likelihood of victimization we compare demographic patterns of identity theft victims to their representation in the general U.S. population. For combined identity theft, findings suggest that those under the age of 34 are under-represented as victims. The age groups that are most over-represented as victims are those over the age of 55 (38.3 percent of victims but 29.7 percent of the population) and those between the ages of 35 and 44 (23.3 percent of victims but 20.5 percent of the population). The results show considerable variation in victimization rates by age and type of

identity theft fraud. Generally, victims of existing account fraud tend to be younger than victims of existing credit card fraud. The greatest difference among the three is for the 25-34 age group. This age group is over-represented as victims for existing account fraud (21.6 percent of victims) but under-represented in the other two frauds (12.5 percent for new credit card fraud and 14.6 percent for existing credit card fraud). Thus, including existing credit card fraud obscures the fact that those under the age of 44 are more likely to be victimized by the more financially damaging types of identity theft (i.e., existing account fraud).

Women are slightly over-represented as victims when all three crimes are combined. While females are over-represented as victims in all three crimes, there is considerable variation in the gender distribution among them. The greatest gender disparity is for existing account fraud (57 percent are female) and the least is for existing credit card fraud (52.4 percent are female). This suggests that existing credit card fraud better reflects the general population for gender victimization. Thus, including existing credit card fraud with the others obscures the fact that the other identity frauds are more likely to impact women.

We observe two important relationships between race and identity theft victimization. First, although the combined theft percentage for Whites is similar to that of the U.S. population (77.5 vs. 75.5 percent), they are much more likely to be victims of existing credit card fraud (82.6 percent) than the other, more damaging, types of identity theft. Second, Blacks' combined victimization is similar to their percent in U.S. population (13.9 vs. 12.2 percent), but they are more likely to be victimized by existing account (19.8 percent) and new credit card fraud (20.3 percent) than existing credit card fraud (11.3 percent). An examination of only combined identity theft would not display any clear patterns by race; however, in viewing the three identity theft crimes separately, we note that Blacks appear to have a higher likelihood of victimization for the more damaging acts of existing credit and new credit card fraud than do Whites.

An interesting finding for educational attainment is that, overall, individuals with a high school degree or less have a much smaller likelihood of being victimized by all three forms of identity theft than their percentage in the U.S. population. On the other hand, those with

**Table 5**  
Perceptions of crime seriousness for victims of identity theft frauds

	Existing Account Fraud	New Credit Card Fraud	Credit Card Fraud	Combined Identity Theft
<b>Perceptions of White Collar Crime</b>				
A bank teller embezzles \$10,000 out of account over the course of two years.	5.5	5.9	5.5	5.5
A small factory, in order to cut costs and sustain the town's job market, knowingly disposes of toxic waste that pollutes the community's water supply. As a result, several residents fall ill.	6.5	6.5	6.5	6.4
A corporation reports false quarterly earnings to increase the value of their stock.	5.3	5.6	5.5	5.5
A pharmaceutical company releases a new drug but hides information revealing important health and safety issues for consumers.	6.2	6.5	6.3	6.3
A person sells one antique bracelet through an online auction to fifty consumers, collects payment from each person, and does not deliver the item to anyone.	5.0	5.0	5.4	5.0
A well-respected insurance agent sells the county an insurance policy, misrepresenting coverage and grossly inflating cost. The agent pockets the additional money.	5.8	6.0	5.6	5.6
A group of young computer hackers steals personal patient information from a healthcare clinic's database and then sells this information to a third party for profit.	5.7	5.9	5.6	5.6
A physician files false claims to an insurance company to receive payment for services not rendered, causing patients to pay higher premiums and be tagged with false medical records.	5.8	6.1	5.8	5.8
<b>Perceptions of Traditional Crime</b>				
A teenager attacks a jogger in the park and robs him of \$100. The man is taken to the hospital but is not seriously injured.	5.2	5.4	5.3	5.3
A man carjacks a vehicle, shooting and killing one of the passengers.	6.9	6.9	6.9	6.9
A burglar steals \$500 worth of jewelry from an elderly couple's home.	5.0	5.3	5.0	5.0
During a bar room fight, one patron attacks another with a broken beer bottle. The man is seriously injured and requires rehabilitation as a result.	5.4	6.0	5.7	5.7

Note: These figures are based on a scale of 1-7 from "not serious" to "very serious."

a 2-year college degree or more have a higher likelihood of victimization for all three categories and combined identity theft than their percent in population. The results are particularly striking among those in the 2-year college degree category. People in this category represent 7.1 percent of the total U.S. population, but rates for the three crime types are 22.3 percent, 15.8 percent, and 15.0 percent. Given the well-established link in the stratification literature between education and income, this pattern appears to suggest that individuals in the lower strata of society may be less vulnerable to identity theft victimization because they lack the economic resources to make them more attractive fraud targets.

For income, we note that the majority of identity theft victims (56.6 percent) have incomes that fall within the \$35,000 - \$100,000 range. Those with annual incomes of less than \$15,000 and \$15,000-35,000 are victimized by existing account and new credit card fraud consistent with their percent in the U.S. population, but have a much lower rate of victimization for credit card fraud (8.5 percent and 17.2 percent). This finding may be reflective of exposure given that those in the lower economic strata may not be as likely to have existing credit cards, yet are still vulnerable to fraud using their existing accounts or identities to create new accounts. The most striking difference between victimization and percent population is in the \$75,000-100,000 category. This category comprises 11.1 percent of the U.S. population, and yet rates of victimization are very different for existing account fraud (5.7 percent), new credit card fraud (21.8 percent), and existing credit card fraud (18.2 percent). This group appears much less vulnerable to existing account fraud, but much more vulnerable to victimization in the other two categories.

In terms of marital status, we did not observe any clear patterns among identity theft victims. There were no clearly observable differences in victimization across the three types of identity theft, and the percent victimization for each crime type by marital status was consistent with population data.

Prior research suggests that risky behaviors such as remote purchasing or Internet usage increases peoples chances of becoming victims of fraud (Anderson, 2006; Bossler & Holt, 2010; Holtfreter et al., 2008; Pratt et al., in press; Reisig, Pratt, & Holtfreter, 2009). As seen in Table 3, a large percentage of victims use the Internet. This is especially true for those who are the victims of existing credit card fraud, of whom three-fourths use the Internet. Victims of existing credit card fraud are also more likely to use the Internet daily as compared to victims of the other frauds. Nearly three-quarters of existing credit card fraud victims use the Internet daily, whereas only 54 percent of victims of existing account fraud do. Thus, combining existing credit card fraud with the others obscures the fact that frequent, daily Internet use increases the likelihood of becoming a victim of existing credit card fraud more than it does for the other identity thefts.

To determine if victims engaged in risky behavior relating to fraud victimization they were asked how often they responded to solicitations, gave out personal information, and checked into the backgrounds of the people they do business with (Holt & Bossler, 2009). Overall, we found that it is uncommon for victims of any type to respond to solicitations or to give out their personal information; however, victims of existing account fraud and new credit card fraud were more likely to respond occasionally or frequently to these questions than were victims of existing credit card fraud. Similarly, victims of existing account fraud and new credit card fraud were less likely to check the backgrounds of people they do business with than were victims of existing credit card fraud. Specifically, 46 percent of the victims of existing account fraud and 39 percent of the victims of new credit card fraud rarely checked the backgrounds of people they do business with. Conversely, only 29.8 percent of victims of existing credit card fraud rarely did so.

From the analysis in Table 5, it appears that victims of the various frauds have comparable perceptions of white-collar and traditional

crimes. For white-collar crimes the largest difference between any of the victims was .4 on a seven-point scale. For traditional crimes the largest difference was .3. This suggests that victimization has either a limited effect on victims' perceptions of the seriousness of crimes or has a common effect on victims. Not surprisingly, crimes that result in physical harm of victims are rated as more serious than other crimes (e.g., carjacking and the selling of unsafe drugs). Results also show that respondents perceive white-collar crimes as more serious than auto theft (the baseline crime), burglary, and robbery with minor injuries. This finding is consistent with recent research on perceptions of white-collar crimes (Holtfreter, Van Slyke, Bratton, & Gertz, 2008; Rebovich & Kane, 2002).

It is interesting that all of the crimes had higher scores than the baseline crime of auto theft, even ones that would appear to be less serious (e.g., online auction fraud and burglary). It is possible that the higher scores suggest that respondents did not understand the scoring mechanism used for the study. However, previous research shows that this finding (i.e., inflated seriousness scores) is not unusual in research investigating crime seriousness ratings (Rossi et al., 1974). Thus, it is not considered a serious limitation of the study.

## Conclusion

Few would disagree that media attention devoted to identity theft has increased dramatically since the turn of the new millennium. Whether this increase in attention is simply a moral panic or a natural consequence of increased prevalence is still unknown (Morris & Longmire, 2008). Regardless, it does appear that the number of identity theft victims has increased (FTC, 2007). This increase in attention to the crime has led many to change the way they do routine business transactions (Higgins et al., 2010). Despite the media attention and the dramatic increase in the prevalence of identity theft related crimes, we still know relatively little about those who choose to engage in this type of fraud or about those who fall prey to it (Copes & Vieraitis, 2009b). Part of this confusion is likely due to the ambiguity in how to define the crime and in determining which crimes fall under its umbrella.

Our goals in this exploratory study were to provide more information about the victims of identity theft and to determine if including existing credit card as a type of identity theft affects profiles of victims. Regarding the first goal we found that the typical victim of identity theft (when including existing credit card fraud, existing account fraud, and new credit card fraud) was white, female, between 35 and 54, earned \$50,000-\$75,000 per year, and had graduated from college. These victims typically reported the crime, but not to crime control agencies. They generally did not engage in any more risky behavior than did other citizens; that is, they rarely gave out personal information or responded to unwanted solicitations. In addition, they did not appear to use the Internet more often than average Americans.

We also sought to determine how including existing credit card fraud as an identity theft crime affects an overall victim profile. Our results show that existing credit card fraud is the most common type of identity theft crime committed: it represents over half of all victimizations (BJS, 2006, 2007, 2010). Thus, including it in general descriptions of identity theft will certainly lead to higher estimates of prevalence and total amount lost. In addition, its inclusion may have a significant impact on victim profiles. The results suggested that including it may obscure trends in the other two forms of identity theft; thus, making it appear as if identity thieves are more democratic in their victim selection than they may be. Specifically, victims of the other two forms of identity theft appear more likely to be female, Black, young, and have lower incomes. This fact may be obscured when existing credit card fraud is included as a type of identity theft. This is important to note because these under-represented groups appear to have a heightened risk of the forms of identity theft that are more costly and damaging to individual victims (Newman & McNally,

2005; Synovate, 2003). It is much easier to clear one's name and not suffer undue financial losses when someone uses an existing credit card as all major credit card companies have policies that protect victims. Clearing one's name and recouping losses from money stolen from personal bank accounts is not as easily done. It is estimated that victims spend considerable time attempting to "fix" these types of victimizations (Newman & McNally, 2005).

Additionally, victims of the three identity theft crimes appear to engage in different types of risky behavior. Victims of existing account fraud and of new credit card fraud seem to be less likely to spend time on the Internet than victims of existing credit card fraud. Thus, it appears that Internet use is not an equal risk factor for the various types of fraud (Holt & Bossler, 2009). Including existing credit fraud again may obscure this fact. In addition, including existing credit card fraud may also be fueling media reports that the majority of identity thefts are committed by hackers or other computer criminals despite evidence to the contrary (Copes & Vieraitis, 2009a, 2009b; Gordon et al., 2007; Morris, 2010). Recent popular press works have even suggested that the Internet has become the new international war zone of the 21<sup>st</sup> Century and that a "cybersecurity czar" is necessary for national security (Clarke, 2010).

While limited, the available research on where offenders get information suggests that the vast majority of them do not use the Internet. For example, Gordon et al. (2007) found that only 9.9 percent of offenders used the Internet exclusively and 19.7 percent used the Internet in any way to commit identity theft. It is much more common for offenders to steal identifying information from dumpster diving, mailboxes, or their employment than by phishing or hacking (Copes & Vieraitis, 2009b; Gordon et al., 2007; Rebovich, 2009).

Although our study uses survey data from a nationally representative sample, it has limitations beyond those commonly associated with victimization surveys (see Gottfredson & Hirschi, 1977; Stolzenberg, Eitle, & D'Alessio, 2006). First, we note that there are other forms of identity theft not captured by the NW3C survey (e.g., utilities fraud, income tax fraud, or mortgage fraud). Although existing account fraud, new credit card fraud, and existing credit card are three of the most common forms of identity theft, we cannot know for certain how the profiles of these victims would compare to victims of other types of identity theft. Second, because the survey was administered at the household level, it is not always possible to ensure that that responses about victimization and reporting correspond to the responding individual's experience or whether it reflects the experiences of multiple individuals in the same household. Other major victimization surveys (e.g., NCVS) have this same potential limitation. Third, we note that the cross-sectional survey data do not allow for a determination of the exact causal ordering of risky behaviors and fraud victimization. Readers could question whether these risky behaviors indeed preceded fraud victimization or instead altered victims' behavior after they realized they had been victimized. Given the exploratory nature of this study and the cross-sectional data used, we note that the findings are associational and not casual. Even without the precise establishment of temporal order, our findings suggest a definite relationship between risky behaviors and fraud victimization. Fourth, because of the lack of prior research on this topic and the small number of victims—in particular for existing account fraud ( $n = 66$ ) and new credit card fraud ( $n = 45$ )—our goal simply was to provide an exploratory analysis of three types of identity theft to determine how their victim profiles compare. The next step for investigators is to build upon our findings using larger samples and multivariate statistical techniques.

Survey results presented here provide basic victim patterns for three identity theft crimes and display possible differences in the characteristics of victims among the three types. Overall, our findings suggest that by lumping various crimes together under the concept of identity theft, investigators may fail to attain a nuanced understanding of these crimes. Doing so may handicap the efforts of researchers and criminal justice practitioners to understand identity theft and to

offer practical solutions to prevent it. Moreover, to educate consumers on how best to protect themselves from identity theft crimes, it is necessary to target educational messages to the right victims. This is especially important considering that those most likely to be victimized by the more serious forms of identity theft may come from underprivileged backgrounds.

## Notes

1. The FTC cautions that this increase may be due to victims' increased willingness to report rather than to an increase in criminal behavior.

2. The FTC cautions, however, that these changes may be attributed to differences in methodology between the 2003 and 2006 surveys.

3. In Tables 1–5, note that values in the combined identity theft column may not necessarily be the numeric average of the other three crime types. This is because households and individuals may have been victimized by more than one type of identity theft, and thus the numbers represent overlapping subsets.

## References

- Allison, S., Schuck, A., & Lersch, K. M. (2005). Exploring the crime of identity theft: prevalence, clearance rates, and victim/offender characteristics. *Journal of Criminal Justice*, 33, 19–29.
- Anderson, K. B. (2006). Who are the victims of identity theft? The effect of demographics. *Journal of Public Policy and Marketing*, 25, 160–171.
- Benson, M. L., & Walker, E. (1988). Sentencing the white-collar offender. *American Sociological Review*, 33, 301–309.
- Bossler, A. M., & Holt, T. J. (2010). The effect of self-control on victimization in the cyberworld. *Journal of Criminal Justice*, 38, 227–236.
- Bureau of Justice Statistics. (2006). *Identity theft, 2004*. Washington, DC: U.S. Government Printing Office.
- Bureau of Justice Statistics. (2007). *Identity theft, 2005*. Washington, DC: U.S. Government Printing Office.
- Bureau of Justice Statistics. (2010). *Identity theft reported by households, 2007—Statistical tables*. Washington, DC: U.S. Government Printing Office.
- Clarke, R. A. (2010). *Cyber war: The next threat to national security and what to do about it*. New York: HarperCollins.
- Cole, S. A., & Pontell, H. (2006). Don't be low hanging fruit: identity theft as moral panic. In T. Monahan (Ed.), *Surveillance and security* (pp. 125–147). London: Routledge.
- Copes, H., Kerley, K., Mason, K., & Van Wyk, J. (2001). Reporting behavior of fraud victims and Black's theory of law: An empirical assessment. *Justice Quarterly*, 18, 343–363.
- Copes, H., & Vieraitis, L. (2009a). Bounded rationality of identity thieves: Using offender-based research to inform policy. *Criminology and Public Policy*, 8, 237–262.
- Copes, H., & Vieraitis, L. (2009b). Understanding identity theft: Offenders' accounts of their lives and crimes. *Criminal Justice Review*, 34, 329–349.
- Copes, H., Vieraitis, L., & Jochum, J. M. (2007). Bridging the gap between research and practice: How neutralization theory can inform Reid Interrogations of identity thieves. *Journal of Criminal Justice Education*, 18, 444–459.
- Davis, K., & Stevenson, A. (2004). They've got your numbers. *Kiplinger's Personal Finance*, 58 January, 72–77.
- Federal Trade Commission. (2004). National and state trends in fraud and identity theft: January–December 2003. Retrieved on May 13, 2010, from <http://www.ftc.gov/>
- Federal Trade Commission. (2007). National and state trends in fraud and identity theft: January–December 2006. Retrieved on May 13, 2010, from <http://www.ftc.gov/>
- Gordon, G. R., Rebovich, D., Choo, K., & Gordon, J. B. (2007). Identity fraud trends and patterns: Building a data-based foundation for proactive enforcement. Center for Identity Management and Information Protection. Retrieved on May 13, 2010, from <http://www.utica.edu/academic/institutes/cimip/publications/index.cfm>
- Gottfredson, M. R., & Hirschi, T. (1977). A consideration of telescoping and memory decay biases in victimization surveys. *Journal of Criminal Justice*, 5, 205–216.
- Groves, R. M. (1990). Theories and methods of telephone surveys. *Annual Review of Sociology*, 16, 221–240.
- Higgins, G., Hughes, T., Ricketts, M. L., & Fell, B. D. (2010). Self-protective identity theft behaviors of college students: An exploration using the Rasch person-item map. *Southwest Journal of Criminal Justice*, 7, 24–46.
- Hoar, S. (2001). Identity theft: The crime of the new millennium. *Oregon Law Review*, 80, 1423–1442.
- Holt, T. J., & Bossler, A. M. (2009). Examining the applicability of lifestyle-routine activities theory for cybercrime victimization. *Deviant Behavior*, 30, 1–25.
- Holt, T. J., & Lampke, E. (2010). Exploring stolen data markets online: Products and market forces. *Criminal Justice Studies*, 23, 33–50.
- Holtfreter, K., Reisig, M., & Pratt, T. (2008). Low self-control, routine activities, and fraud victimization. *Criminology*, 46, 189–220.
- Holtfreter, K., Van Slyke, S., Bratton, J., & Gertz, M. (2008). Public perceptions of white-collar crime and punishment. *Journal of Criminal Justice*, 36, 50–60.
- Identity Theft Resource Center. (2009). Identity theft: The aftermath 2008. Retrieved from [http://www.idtheftcenter.org/artman2/uploads/1/Aftermath\\_2008\\_20090520.pdf](http://www.idtheftcenter.org/artman2/uploads/1/Aftermath_2008_20090520.pdf)
- Kidd, R. F., & Chayet, E. F. (1984). Why do victims fail to report? The psychology of victimization. *Journal of Social Issues*, 40, 39–50.
- Kresse, W., Watland, K., & Lucki, J. (2007). Identity theft: Findings and public policy recommendations. Final report to the Institute for Fraud Prevention. Retrieved on May 13, 2010, from [http://info.ethicspoint.com/files/web\\_seminars/2008/Red\\_Flag/Identity\\_Theft\\_Xavier\\_Study.pdf](http://info.ethicspoint.com/files/web_seminars/2008/Red_Flag/Identity_Theft_Xavier_Study.pdf)



- Mason, K., & Benson, M. (1996). The effect of social support on fraud victims' reporting behavior. *Justice Quarterly*, 13, 511–524.
- McNally, M., & Newman, G. (2008). *Perspectives on identity theft*. Monsey, NY: Criminal Justice Press.
- Morris, R. G. (2010). Identity thieves and sophistication levels: Findings from a national probability sample of American newspaper articles 1995–2005. *Deviant Behavior*, 31, 184–207.
- Morris, R. G., & Longmire, D. R. (2008). Media constructions of identity theft. *Journal of Criminal Justice & Popular Culture*, 15, 76–93.
- Newman, G. R., & McNally, M. (2005). *Identity theft literature review*. Washington DC: U.S. Department of Justice, National Institute of Justice.
- Piquero, N., Carmichael, S., & Piquero, A. (2008). Research note: Assessing the perceived seriousness of white-collar and street crimes. *Crime and Delinquency*, 54, 291–312.
- Piquero, N., Cohen, M., & Piquero, A. (in press). How much is the public willing to pay to be protected from identity theft? *Justice Quarterly*.
- Pontell, H. N., Brown, G. C., & Tosouni, A. (2008). Stolen identities: A victim survey. In G. Newman & M. McNally (Eds.), *Crime Prevention Studies: Identity Theft and Opportunity* (pp. 57–86). New York: Criminal Justice Press.
- Pratt, T. C., Holtfreter, K., & Reisig, M. D. (2010). Routine online activity and internet fraud targeting: Extending the generality of routine activity theory. *Journal of Research in Crime and Delinquency*, 1431, 267–296.
- President's Identity Theft Task Force. (2007). Combating identity theft: A strategic plan. Retrieved on May 13, 2010, from <http://www.idtheft.gov/reports/StrategicPlan.pdf>
- Privacy and American Business. (2003). *Identity theft: New survey and trend report*. Retrieved December 29, 2007, from <http://www.bbbonline.org/idtheft/IDTheftSrvyAug03.pdf>
- Rebovich, D. (2009). Examining identity theft: Empirical explorations of the offense and the offender. *Victims and Offenders*, 4, 357–364.
- Rebovich, D., & Kane, J. L. (2002). An eye for an eye in the electronic age: Gauging public attitudes toward white-collar crime and punishment. *Journal of Economic Crime Management*, 1, 1–19.
- Reisig, M. D., Pratt, T., & Holtfreter, K. (2009). Perceived risk of Internet theft victimization. *Criminal Justice and Behavior*, 36, 369–384.
- Rossi, P., Waite, E., Bose, C., & Berk, R. (1974). The seriousness of crimes: Normative structure and individual differences. *American Sociological Review*, 39, 224–237.
- Schoepfer, A., & Piquero, N. L. (2009). Studying the correlates of fraud victimization and reporting. *Journal of Criminal Justice*, 37, 209–215.
- Shover, N., & Cullen, F. T. (2008). Studying and teaching white-collar crime: Populist and patrician perspectives. *Journal of Criminal Justice Education*, 19, 155–174.
- Stolzenberg, L., Eitle, D., & D'Alessio, S. J. (2006). Race, economic inequality, and violent crime. *Journal of Criminal Justice*, 34, 303–316.
- Synovate. (2003). *Federal trade commission—Identity theft survey report*. Retrieved on May 13, 2010, from <http://www.ftc.gov/os/2003/09/synovatereport.pdf>
- Synovate. (2007). *Federal trade commission—2006 identity theft survey report*. Retrieved on May 13, 2010, from <http://www.ftc.gov/os/2007/11/SynovateFinalReportIDTheft2006.pdf>
- U.S. General Accounting Office. (2002). *Identity theft: Prevalence and cost appear to be growing*. Report to Congressional Requesters GAO-02-363. Retrieved on May 13, 2010, from <http://www.gao.gov/new.items/d02363.pdf>
- Weisburd, D., Waring, E., & Chayet, E. F. (2001). *White-collar crime and criminal careers*. New York: Cambridge University Press.