Exploring the Relationship between Age and Victimisation Risk

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Abstract

Extensive research has examined the relationship between age and offending, which is reflected in the established age-crime curve. The age-crime curve shows that offending typically rises during adolescence, peaks in late adolescence, and declines through the twenties and beyond. But less attention has been given to investigating age-related patterns of victimisation. Therefore, in this thesis we[1] sought to answer two research questions. First, is there an age-victimisation curve comparable to the well-established age-crime curve? Second, if present, does the age-victimisation curve differ across broad crime categories (property vs interpersonal crime)? To answer these questions, we analysed data from two main sources – the New Zealand Recorded Crime Victims Statistics (RCVS) and the New Zealand Crime and Victims Survey (NZCVS). We plotted both the frequency and rates of victimisation across age using line graphs. For both our research questions, we found that there were age-victimisation curves that mirrored the age-crime curve for the RCVS samples, but not necessarily for our NZCVS samples. Generally, our research showed that the rate and frequency of victimisation increases from teenage years well into people's twenties, before decreasing as age increases. However, the NZCVS samples showed a gradual decline rather than a discernible curve, with some spikes around middle adulthood. Future research should use longitudinal data to better understand the distribution of victimisation over the life-course and examine the age of onset of victimisation to inform targeted prevention and intervention efforts.

Keywords: integrated data infrastructure (IDI), police data, victimisation survey, cross-sectional, young adults

[1] This research is my own, however, it was conducted in a lab environment. In this thesis I use "we" to acknowledge the guidance from my supervisor and student peers.

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Disclaimers

These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) which is carefully managed by Stats NZ. For more information about the IDI please visit https://www.stats.govt.nz/integreated-data/.

Access to the data used in this study was provided by Stats NZ under conditions designed to give effect to the security and confidentiality provisions of the Statistics Act 1975. The results presented in this study are the work of the author, not Stats NZ or individual data suppliers.

This manuscript was prepared using ChatGPT version 4.1 to assist with clarity of expression and minor R and SQL code troubleshooting. All substantive intellectual contributions, including research design, data analysis, interpretation, and conclusions, are the sole work of the author and their supervisors. The author takes full responsibility for the accuracy and integrity of the content.

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Exploring the Relationship between Age and Victimisation Risk

The impacts of crime on victims can be severe and extensive. Understanding who is most at risk of victimisation is a crucial step in preventing harm and delivering effective support to victims. Age is one factor that may shape vulnerability of victimisation (Beckley et al., 2021; Brennan et al., 2010). While extensive research has examined age-related patterns in offending (Bekbolatkyzy et al., 2019; Fenimore & Jennings, 2021; Moffit, 1993), less attention has been given to victims. Therefore, in this study, we sought to answer the following questions. First, is there an age-victimisation curve comparable to the well-established age-crime curve? Secondly, if present, does the age-victimisation curve differ across broad crime categories (i.e., property vs interpersonal crime)?

Victimisation

Victimisation causes various forms of harm, including financial, physical, psychological, and sexual harm (Morgan, 2019). Victimisation can also occur in the form of offences against property, such as damage to motor-vehicles, theft, and related crimes (NZ Police, 2020). There are two common ways to measure the severity of victimisation – prevalence and harm (Ashby, 2018).

Prevalence

In 2024, there were approximately 329,000 victimisation incidents in New Zealand as reported by the Police (NZ Police, 2026). Of the 329,000, approximately 40,000 incidents were personal crimes, while the remaining approximate 289,000 were property crimes (NZ Police, 2026). According to the New Zealand Crime and Victimisation Survey, 30% of adults were victimised, with an estimated 17% of adults experiencing at least one personal offence (such as fraud, interpersonal violence, or theft and damage) and 16% experiencing at least one household

offence (such as property damage, vehicle offences, or trespassing; Ministry of Justice [MoJ], 2025). In New Zealand, an estimated 4% of people are highly victimised, meaning they experienced four or more victimisation events in 12 months (MoJ, 2023). The relatively low proportion of adults and households affected by crime, alongside the high volume of offences, shows a concentration of victimisation whereby a handful of people experience a disproportionate amount of harm (Curtis-Ham & Walton, 2017; Pease & Farrell, 2016).

Crime Harm

Crime harm is the various negative costs and impacts that crime imposes on victims, their families, and wider society (Curtis-Ham & Walton, 2018; Greenfield & Paoli, 2013). Victims may endure various mental and physical health impacts, face financial burdens, and time losses associated with medical care and justice-related processes (Ashby, 2018; Cohen, 2020a; Meehan & Schober, 2024; Morgan, 2019; Wickramasekera et al., 2015). These harms can vary depending on the type of crime that they experience (Wickramasekera et al., 2015). For example, victims of violent crime may experience numerous health consequences, including prolonged emotional and psychological distress, sleep disturbances, and broader social impacts (Cohen, 2020a). Similarly, victims of property crime may suffer from stress, anxiety, or even trauma, as well as the financial consequences of victimisation, depending on the severity and situational context of the offense (Cohen, 2020a; Morgan, 2019). These harms may extend beyond the direct victim to affect family, friends, and communities as well, who may experience psychological distress and a decreased sense of safety (Cohen, 2020b; Cook & McManus, 2024; Miller et al., 2021; Morgan, 2019). Overall, the impacts of crime are far-reaching, particularly given the prevalence of victimization.

However, these harms are not experienced uniformly across the population, with younger people experiencing elevated levels of victimisation (Brennan et al., 2010). Young peoples' elevated risk is particularly concerning considering the severe developmental, health, and behavioural harms associated with early victimisation (Hughes et al., 2017; Leban & Doherty, 2025). Additionally, such stress may result in neurodevelopmental changes that affect emotional regulation, impulse control, and reasoning (Krieg et al., 2012). The harms associated with victimisation are cumulative, with developmental effects being most severe when victimisation occurs at a younger age (Beckley et al., 2017; Guiney et al., 2024; Kreig et la., 2012).

These impacts can follow young people beyond childhood. Early victimisation (during childhood and adolescence) is associated with poor mental health, substance misuse, sexual risk-taking, violence, offending, and further victimisation later in life (Barbieri et al., 2019; Beckley et al., 2017; Guiley et al., 2024; Hughes et al., 2017; Leban & Doherty, 2025; Wortley et al., 2023). For example, victims who experienced sexual assault in childhood have higher rates of experiencing further sexual assault after the age of 16 than those who did not (Holcomb et al., 2019). Because early victimisation increases the likelihood of both offending and further victimisation in later years (Barbieri et al., 2019, Decamp & Zaykowski, 2015), it is important to consider how such risks unfold across the life course. Understanding who is at risk of experiencing the most harm is instrumental to ensuring effective allocation of limited support services. The age–crime curve provides a framework for understanding these age-related patterns.

Age and Crime

Age has been consistently linked to crime through official statistics for nearly 200 years, particularly through the relationship between age and offending, with younger people at greater

risk of engaging in crime (Hirschi & Gottfredson, 1983). The age-crime curve in its original conceptualisation is the finding that the overall frequency of offending dramatically increases during adolescence, sharply peaks at about age 17, rapidly decreases in late 20s, then plateaus into older age (Hirschi & Gottfredson, 1983; Lober & Farrington, 2014; Moffit, 1993). Young people are more likely to offend because they are generally more impulsive, more likely to engage in risky behaviours, and more likely to be influenced by their deviant peers (Beckley et al., 2017; Lober & Farrington, 2014; Siraj et al., 2021). However, conducting research in this area is challenging due to measurement and data issues.

Data collection and analyses

Although longitudinal data are ideal for examining the relationship between age and crime, such data are difficult and expensive to collect (Broadbent & Osbourne, 2022). Moreover, longitudinal studies face issues of small or selected samples, attrition, low response rates, and reliance on retrospective accounts, which make it difficult to keep large and accurate samples (Thompson et al., 2023). Alternatively, researchers may rely on archival data, adapting their research aims to fit available data (which can be like fitting a square peg into a circle hole; Fisher et al., 2024). Police data are one of the most used sources in this research area and are used in the present study. However, police data have their own limitations.

Researchers using police data are limited to offenders who are detected, of whom only a subset are arrested or taken into custody, resulting in an overall underestimation of total criminal events in official records (Curtis-Ham et al., 2024). Youth offenders are particularly underrepresented, as they are frequently diverted to other agencies or initiatives to keep them from getting snared in the justice system (Tuttle, 2024). Consequently, police data are likely to

significantly underestimate the prevalence and extent of youth crime involvement (Wikström et al., 2012). Issues with police data, however, extend beyond just estimations of youth crime.

It is empirically established that most crime goes unreported and thus, undetected by law enforcement (Tuttle, 2024), with victimisation surveys internationally indicating that over half of victims do not report their experiences to police (Estienne & Morabito, 2016; MoJ, 2025). Decisions to report are influenced by offence, offender, and victim characteristics, including perceived seriousness, weapon use, injury and threats of harm, location, and whether the offender is a stranger (Cording et al., 2025, Estienne & Morabito, 2016; Varline, 2024). Victims also may not perceive their experience as a crime, so do not report it (Cording et al., 2025). Victims of family and sexual violence in particular may not report victimisations due to feared stigma, not wanting to be labelled or identified as a victim, and potential retaliation as consequences for reporting (Cording et al., 2025). Overall, while crime reporting is generally thought to increase with age (Estienne & Morabito, 2016), evidence is inconsistent and age-related reporting appears to vary by crime type (Boateng, 2018; Varline, 2024). These under-reporting issues make it difficult to accurately analyse the relationship between age and crime. Notwithstanding this, research has consistently shown that there is an overlap between offender and victim populations.

Explaining Offending and Victimisation Risk

The victim-offender overlap is the empirical finding that people who offend are often also victimised, and vice versa, with evidence suggesting it is a bidirectional relationship, with each increasing the risk of the other (Erwin et al., 2023; Jennings et al., 2012; Leban & Doherty, 2025). High frequencies of offending are associated with high frequencies of victimisation, indicating shared risk factors (Decamp et al., 2018). The victim-offender overlap exists over

various geographic locations, cultures, and life stages (Klevens et al., 2002; Reisig & and Holtfreter, 2018). Given the shared risk factors between offending and victimisation, the following section examines theories used to explain both offending and victimisation, specifically through the lens of age, through discussions of impulsivity, social learning theory, the routine activities approach, and general strain theory. Drawing on these perspectives allows us to develop theoretical expectations for the presence and shape of an age–victimisation curve.

Impulsivity

Impulsivity is conceptualised in many ways, including being measured as both a state (behaviour manifesting in the short term) and trait (genetically inherited predisposition, with trait expression being impacted by the environment; Molero Jurado et al., 2020; Wortley, 2023). Impulsivity is often thought to be the pursuit of smaller, immediate benefits over large, delayed rewards (Kalenscher et al., 2006; Wilcox & Cullen, 2018), and is sometimes characterised by limited consideration of the negative consequences of an action (Alford et al., 2020; Holcomb et al., 2019). One common aspect of impulsivity is sensation-seeking, the personality trait where people seek out new, different, complex, and intense sensations or experiences, which can, in some circumstances, put their physical health and social, legal, and economic situations at risk (Molero Jurado et al., 2020).

While some impulsivity is considered normal, elevated levels are often associated with engaging in risky behaviours – which also increases the likelihood of both offending and victimisation (Jurado et al., 2020; Kalenscher et al., 2006; Wikström et al., 2012). However, impulsivity declines with age, and even individuals who display high impulsivity in youth tend to show corresponding reductions in delinquency as they age, supporting the view that reduced

impulsivity plays a role in desistance from crime (Beckley et al., 2017; Lober & Farrington, 2014). People become less impulsive as they age for multiple reasons.

Biochemistry.

Two main neurotransmitters are linked to impulsivity, delinquency and victimisation: dopamine and serotonin. Dopamine is associated with feelings of pleasure; heightened sensitivity to dopamine has been linked to addiction, impulsivity and aggression, while lower levels are associated with affective disorders and compensatory risk-seeking behaviours, which may increase the likelihood of offending and/or victimisation (Kalenscher et la., 2006; Wortley, 2023). Serotonin regulates mood, impulse control, social behaviour, and other executive functions (Wortley, 2023). Higher levels of serotonin are related to better self-control, while lower levels are associated with aggression and increased impulsivity (Wortley, 2023). Both neurotransmitters change with age: dopamine peaks in adolescence, while serotonin increases across the life course (Wortley, 2023). This pattern helps explain why youth are more prone to risk taking and impulsivity and are therefore more vulnerable to victimisation.

Neuroanatomy.

Alongside these neurotransmitters, areas of the brain are also linked to impulsivity. The frontal lobes handle a variety of functions such as reasoning, planning, problem-solving, social skills, and of particular interest, impulse control (Wortley, 2023). The frontal lobe is also one of the last regions of the brain to develop and does not fully mature until around the mid-20's (Arain et al., 2013; Wortley, 2023). An individual's experiences play a key role in shaping brain development across the life course (Wortley, 2023).

Gene-environment interaction

The expression of traits — including impulsivity — is influenced by a person's experiences (Wortley, 2024). As mentioned earlier, victimisation early in life has severe impacts on development (Hughes et al., 2017; Leban & Doherty, 2025). Victimisation itself may lead someone to act more impulsively or engage in risk-seeking behaviours, generally as a coping strategy (Holcomb et al., 2019; Decamp & Zaykowski, 2015). For example, a victim of sexual violence may engage in risky sexual behaviours, increasing the risk of negative health outcomes (e.g., STIs, STDs and unexpected pregnancies; Holcome et al., 2019). Victims may also turn to substances as a coping strategy, which can have various negative health and behavioural consequences, including increased susceptibility to later victimisation (Ruback et al., 2013, Wright et al., 2013). Indeed, high rates of substance abuse have been seen among young people who were either aggressors or victims (Molero Jurado et al., 2020). This increase in impulsivity also contributes to increases in offending risk through the engagement of risky activities (Kübel et al., 2023). These behaviours are shaped not only by the individuals' coping response, but also by the people behaviour is learned from (Wortley, 2024).

Social Learning Theory

Social learning theory explains that most behaviour is learned through watching and imitating others (Bandura, 2007). After observing a behaviour, a person may then try to replicate it themselves and, depending on the outcome, that behaviour may be avoided or maintained in future (Bandura, 2007). Family members are prominent models of behaviour, and children who observe aggression or witness violence between their parents or caregivers are at an increased risk – compared to those who do not – of both experiencing and perpetrating similar behaviours later in life (Bandura, 2007; Ehrensaft & Langhinrichsen-Rohling, 2022; Wortley, 2024). Children may learn that violence is an acceptable and effective method of conflict resolution and

be more likely to engage in or accept such behaviours in their own relationships (Ehrensaft & Langhinrichsen-Rohling, 2022). But, social learning increasingly occurs beyond the home environment as people mature.

As youth transition into adolescence, they switch from depending on adult caregivers as behaviour models to relying on peer influences, who are often similarly socially mature (Beckley et al., 2017). Peer influence plays a key role in shaping risk-taking behaviours (Siraj et al, 2021), with having more delinquent peers linked to increased risk of offending and victimisation in adulthood (Decamp and Zaykowski, 2015; Leban & Doherty, 2025). Social rewards for imitating behaviours, such as praise and peer approval, are strong reinforcers of that behaviour (Archer et al., 2010; Bandura, 2007). These social rewards may encourage continued delinquency, as youth may then develop and accept beliefs and attitudes that violence perpetration and victimisation is normal and acceptable (Leban & Doherty, 2025). Relying on delinquent peers' influence, however, can lead youth to being involved in risky situations (Beckley et al., 2017).

Routine Activities Approach

The routine activities approach (RAA) asserts that our routines put potential targets (such as victims or property) into contact with motivated offenders, in places without proper guardianship, which creates the opportunity for crime to occur (Cohen & Felson, 1979). Situational factors within people's routines such as alcohol and other drug use, being out alone at night, and being in public spaces increases the risk of both offending and victimisation (Hopkins & Tilley, 2001). Involvement with delinquent lifestyles is linked to increases in victimisation (Erwin et al., 2023; Decamp et al., 2018; Lauritsen et al., 1991). For example, offending may put someone in contact with other offenders, which increases their risk of being a victim of crime (Lauritsen et al., 1991). Additionally, offenders who are victimised are perceived to be less

willing to report victimisation to police due to their own criminal involvement, so are a more attractive target (Sparks, 1982, as cited in Lauritsen et al., 1991). Importantly, patterns of routines of routine activities differ by age.

Youth who are engaged in structured and supervised prosocial activities have a lower risk of delinquency compared to youth who spend more time in unstructured and unsupervised settings (Lauritsen et al., 1991; Ozkan & Worrall, 2017; Wilcox & Cullen, 2018; Wortley, 2024). Regardless, overall risk declines with age as individuals' gain greater autonomy over their routines and engage in more prosocial roles, such as employment or marriage, which reduces time spent with delinquent peers (Wilcox & Cullen., 2018; Laub & Sampson, 1993). This pattern may explain why married individuals are at a decreased risk of victimisation compared to those who are single, separated, or divorced (Brennan et al., 2010). Additionally, age-related routines may increase the risk of particular crime types. For example, being school aged increases the risk of bullying, while clubbing/drinking increases the risk of violence (most common in late adolescence/early 20's; Zahnow et al., 2022), while owning a home and property to steal tends to happen later in life (typically 30+; Cotality & Westpac, 2025).

General Strain Theory

General strain theory explains that offending occurs when individuals are prevented from achieving positively valued goals and may then use illegitimate channels (e.g., offending) to achieve those goals (Agnew, 1992). Additionally, this theory posits that people who experience physically, socially, or emotionally stressful life events (e.g., victimisation) may engage in delinquent behaviours to cope with the negative impacts (Bandura, 2007; Barbieri et al., 2019; McLachlan, 2024; Reisig & and Holtfreter, 2018). The negative outcomes of victimisation, such

as poor mental health outcomes and substance misuse, indirectly increase the likelihood of offending and further victimisation (McLachlan, 2024; Ruback et al., 2014).

Contemporary Shifts in the Age-Crime Curve

With the main theoretical explanations for offending and victimisation risk summarised, we now turn to contemporary developments in age-crime curve research. Recent research has investigated how the shape of the age-crime curve varies by crime type, gender, and geographic location (Lober & Farrington, 2014; Steffensmeier et al., 2025). Compared with the generations used to construct the original age-crime curve, younger generations exhibit overall lower offending rates, contributing to a flatter curve with a later peak, now occurring around ages 25-29 rather than 17 (Steffensmeier et al., 2024; Tuttle, 2024). This delayed peak may reflect broader societal-level trends. First, youth are increasingly diverted from formal justice system involvement through diversionary initiatives, thereby keeping them from getting snared by involvement in the justice system (Moffit, 1993; Oranga Tamariki, n.d.; Polglase & Lambie, 2023). Second, greater access to and completion of basic education may play a role as higher educational attainment is empirically associated with a reduced risk of offending (Swisher et al., 2016). Third, there is likely a delayed entry into adulthood, where young people are postponing traditional milestones like moving out of their parents' home, getting married, gaining full-time employment, and becoming parents (Steffensmeier et al., 2024). While much research has examined these changing frequencies of offending by age, the same has not yet been done for victims.

This study

We seek to answer two research questions. First, does an age-victimisation curve exist that mirrors the age-crime curve (peaking in adolescence or early adulthood and declining

sharply thereafter; RQ1)? Second, if present, does the age-victimisation curve differ across broad crime categories (i.e., property vs interpersonal crime; RQ2)? Because offending and victimisation share many risk factors (Decamp et al., 2018; Erwin et al., 2023; Jennings et al., 2012; Leban & Doherty, 2025), we expect victimisation to occur at similar rates as offending. Therefore, our hypothesis for RQ1 is that we expect to observe an age-victimisation curve that mirrors the modern age-crime curve. If this is supported, given the higher prevalence of property crime (NZ Police, 2026) and the availability of property to steal across the life course, for RQ2 we hypothesise that the age-victimisation curve for property crime will be larger in volume and peak later than the personal age-victimisation curve.

Method

Data Sources

In this study we analysed data from multiple sources, accessed through the Integrated Data Infrastructure (IDI) with strict confidentiality obligations[2]. The IDI contains de-identified information collected by various New Zealand government organisations about people living in New Zealand (Stats NZ, 2022). These data are linked through unique person identifiers, meaning data from one government organisation can be connected to another and analysed together (Stats NZ, 2022). Data on victimisations came from New Zealand Police's Recorded Crime Victims Statistics (RCVS) and the New Zealand Crime and Victims Survey (NZCVS). The RCVS records victims only, so population counts from the experimental Administrative Population Census (APC) were used to calculate victimisation rates per 1,000 people. The NZCVS includes data from both victims and non-victims, so victimisation rates (i.e., out of 1,000 people, how

[2] Access to the data used in this study was provided by Stats NZ under conditions designed to give effect to the security and confidentiality provisions of the Data and Statistics Act 2022. The results presented in this study are the work of the author, not Stats NZ or individual data suppliers.

many were victimised) can be calculated directly. Additionally, we use the IDI personal details derived table for demographic information and age estimates for all datasets (Stats NZ, n.d.).

New Zealand Police: Recorded Crime Victims Statistics (RCVS)

The RCVS was introduced in July 2014 to record more detailed information about crime victims and the offences they experience, where those offences fall within scope of the Australian and New Zealand Standard Offence Classification (ANZSOC; Australian Bureau of Statistics, 2023; New Zealand Police, 2016). We accessed RCVS data using the Victimisation Events code module[3] (Stats NZ, 2025c). We used RCVS data collected between 2014 and 2024 to estimate the number of offences individuals experienced, when the offence/s occurred, and the type of offences experienced. In this dataset, an offence is defined as an event reported to police that meets ANZSOC criteria, excluding offences dealt with by infringement notices or other enforcement agencies, offences without a specific identifiable victim (e.g., drug use offences), and homicide and related offences (New Zealand Police, 2016). An offence could have multiple victims and multiple types of crime occur within it (e.g., assault and trespassing).

New Zealand Crime and Victims Survey (NZCVS)

The NZCVS is an annual national survey that measures the nature and impacts of New Zealanders' experiences of crime in the 12 months prior to the survey (MoJ, 2025). The NZCVS was first administered in 2018 and continues to interview around 7,000 people per year (MoJ, 2025). A 'main' sample is gathered by selecting one person aged 15 years or older per sampled household identified by the Stats NZ Household survey (MoJ, 2025). An additional Māori

[3] Code modules are accessible tables within the IDI environment, containing high-quality code and documentation for researchers' benefit (Stats NZ, 2025b).

booster sample is collected to increase the sample size for Māori (MoJ, 2025). We analysed data from respondents who consented to their data being entered in the IDI.

We used NZCVS data from 2018-2024 to estimate the number of offences individuals experienced, when the offence/s occurred, and what type of offences they experienced. In this dataset, an offence is defined as an event reported by survey respondents that meets ANZSOC criteria, as coded by trained law students (MoJ, 2025). Respondents may fill out multiple forms if they were victimised more than once within the survey period.

Experimental Administrative Population Census (APC)

The APC aims to estimate census-type information from administrative data during and in-between official census cycles, allowing for annual population estimates (Stats NZ, 2023). The APC draws its data from administrative sources such as the Ministry of Social Development, Department of Internal Affairs, Ministry of Business, Innovation and Employment, and Census cycles (Stats NZ, 2023). We used data from the APC to estimate total population counts from 2015 to 2024.

Personal Details Derived Table

The personal details derived table, like the APC, combines information from various data sources within the IDI for the "best guess" at individuals' demographic information. Information is presented from the most reliable data source using a ranked system (i.e., information from the Department of Internal Affairs is ranked the most reliable; Stats NZ, n.d.) We used data from this table to estimate individuals' sex, ethnicity, birth date, and their deceased date (if applicable; Stats NZ, 2025a).

Sample Characteristics

As seen in Table 1, in the RCVS there were 880,359 victims who experienced a total of 1,382,073 offences. Over half of the RCVS sample were male and the majority identified as European. In the RCVS personal crime victims' sample, there were 326,979 victims who experienced 541,347 offences. Over half the sample were women and identified as European. In the RCVS property crime victims' sample, there were 650,559 victims who experienced 848,319 offences. Over half were men and over half identified as European. Across all RCVS samples, the median and mode number of offences was 1.

As seen in Table 2, we identified a total of 41,478 respondents (victims and non-victims, 2018-2024) in our NZCVS sample. There were a total of 6,207 victims of property and personal crimes in the NZCVS who experienced a total of 12,672 offences. In the NZCVS personal crime victims' sample, there were 2,787 victims who experienced 7,926 offences, and in the NZCVS property crime victims' sample, there were 3,900 victims who experienced 4,746 offences. Across all NZCVS samples, most respondents were female and identified as European, and the median and mode number of offences was 1.

Table 1

Recorded Crimes Victims Statistics Sample Descriptive Statistics by Victim Group (2015-2024)

	Personal and property crime victims	Personal crime victims	Property crime victims
	n	*n*	*n*
Gender			
Men	479,700	159,393	367,794
Women	400,617	167,568	282,735
Other gender	42	15	33
Ethnicity[a]			
European	570,561	196,587	433,071
Māori	201,627	113,616	122,982
Pacific	74,553	36,987	46,737
Asian	142,794	41,328	114,468
Middle Eastern, Latin American, and/or African	20,166	6,987	15,558
Other ethnicity	10,092	3,348	7,767
Total number of unique victims	880,359[b]	326,979	650,559
Total number of offences	1,382,073	541,347	848,319
Median	1	1	1
Mode	1	1	1

Note. To follow Stats NZ confidentiality requirements, all numbers are randomly rounded to base 3, so totals may not sum precisely.

[a] Respondents could respond as identifying as more than one ethnicity, so they were reported as such.

[b] Respondents could feature in both the personal and property crime victim samples, so the total does not add up.

Table 2

New Zealand Crime and Victims Survey Sample Descriptive Statistics by Victim Group (2018-2024)

	Victims and non-victims	Personal and property crime victims	Personal crime victims	Property crime victims
	n	*n*	*n*	*n*
Gender				
Men	18,156	2,631	1,101	1,737
Women	23,325	3,576	1,689	2,163
Other gender	0	0	0	0
Ethnicity[a]				
European	29,565	4,479	2,082	2,757
Māori	11,223	2,088	1,083	1,209
Pacific	2,817	414	174	258
Asian	4,353	564	186	411
Middle Eastern, Latin American, and/or African	537	99	42	66
Other ethnicity	405	69	36	39
Total number of unique people	41,478	6,207	2,787	3,900
Total number of offences		12,672[b]	7,926	4,746
Median		1	1	1
Mode		1	1	1

Note. To comply with Stats NZ confidentiality requirements, all numbers are randomly rounded to base 3, so totals may not sum precisely.

[a] Respondents could respond as identifying as more than one ethnicity, so they were reported as such.

[b] Respondents could feature in both the personal and property crime victim samples, so the total does not add up.

Measures

Age

Age was calculated using the birth date provided in the personal details derived table across all datasets. For the APC sample, we used the birth date to calculate a persons' age for each administrative year on the reference date of the 30th of June each year. To calculate a respondents' age at the time of the offence in the NZCVS and the RCVS, we subtracted the respondents' birth date from the estimated offence date for each offence. Since a victim could have experienced multiple offences within an administrative year, we created a new variable that averaged their age at offence across all offences for that year and rounded it to the nearest "whole age year" (e.g., 16 instead of 16.3). We then included only one count of this average age per year per victim within our analyses to avoid double counting.

Since the NZCVS only interviews people aged 15+ on their previous year's victimisation experiences (meaning victims could have been 14 years old at the time of offence), we applied a lower limit of 14 years old across all datasets (MoJ, 2025). Due to anonymity practices within the IDI and fewer people in the older age brackets, we chose to combine rather than exclude people aged 90-100 to ensure a more complete representation of victimisation experiences. Therefore, across all datasets, we analysed ages 14-89, with an additional 90+ category that included people aged 90-100.

Administrative Year

Due to different data collection start dates, age was only able to be calculated for the NZCVS sample from 2018 to 2024, while the RCVS was calculated between 2015 and 2024. To ensure consistency between datasets, we only included people who were estimated to be a part of the New Zealand population either at the time of offence or on the reference date. Therefore, our total "Victims and Non-Victims" sample within Table 2 is different to the complete NZCVS

sample. An administrative year, consistent with APC methods, was considered the time between the 30th of June of the preceding year to the 29th of June of the current year. For example, data for 2018 included offences that occurred between the dates of 30-06-2017 and 29-06-2018. Therefore, we analysed data from 30-06-2017 to 29-06-2024 for the RCVS (presented as 2015-2024), and data from 30-06-2017 to 29-06-2024 for the NZCVS (presented as 2018-2024).

Offences

Though both the NZCVS and RCVS use the ANZSOC system, they use different versions of the system and differ in which codes they cover. To ensure comparability between datasets for all curves, we only included offence types that could be matched between datasets (see Appendix B). In particular, it should be noted that burglary has been excluded from all analyses because the RCVS records the property as the victim rather than a person, which prevents us from linking age to the victim. Additionally, murder and manslaughter have been excluded since they are not reported in the NZCVS, due to the inability of victims to respond.

RCVS.

For the RCVS, an exact offence date is not given, so we calculated the "mid-point" offence date by estimating the half-way point between the earliest and latest possible offence date. Because a single offence in the RCVS can involve multiple victims, keeping only one observation per offence would result in an underrepresentation of victims and victimisations. For example, an offender might assault two people at the same time, so that offence has two victims. Therefore, we created a new variable as a unique victim/event identifier to ensure that each victim was counted for each event. We then summed the number for this variable for our offence frequency estimates.

NZCVS.

For the NZCVS, respondents were asked to estimate how many months (up to 12 months) prior to the date that they completed the survey the offence occurred. To create an offence date variable, we subtracted the reported number of months prior to the survey away from the survey date (MoJ, 2025). The NZCVS can hold multiple forms for a single victim if they experienced multiple offences. Restricting the dataset to one observation per victim would therefore remove important victimisation information. To address this, we created a "UniqueFormID" by combining each victim's unique Stats NZ identifier with the NZCVS form number, ensuring that all forms were accurately represented without double counting them. If a victim had multiple forms within an administrative year, the number of offences across all their forms were added together.

Analytic Plan

This study was pre-registered through the website Aspredicted (see Appendix A; Aspredicted, 2025). We used the statistical program R, version 4.5.2 (R Core Team, 2025) and packages "lubridate" (Spinu et al., 2024), "dplyr" (Wickham et al., 2023), "tidyr" (Wickham et al., 2025), "modeest" (Poncet, 2019), and "openxlsx" (Schauberger et al., 2025) for analysis. The first step of the analysis was to calculate the number of victims and offences for each sample (i.e., NZCVS and RCVS), by age. Second, we calculated victimisation rates by age for both samples using the following calculations: NZCVS victims divided by NZCVS overall respondents (multiplied per 1,000 people), and APC victims divided by RCVS population estimates (multiplied per 1,000 people). Third, we calculated the number of victims and offences for each sample, by age and year, separately for personal and property offences (see Appendix B

for offence type categorisations). For the samples including all offences, and samples split by personal and property offences, we calculated the mean number of offences per victim.

Results

Overall Victimisation

RCVS Frequency and Rates of Overall Victimisation

As seen in Figure 1, the frequency of RCVS victims and offences over the life course (measured in age-years) both form a right skewed curve[4] akin to the age-crime curve. Both the victim (37,014 victims) and offence curves (43,743 offences) peak at age 24, and both reach their lowest at age 89 (with 363 victims and 384 offences). The higher number of offences than victims indicates that some victims are being repeatedly victimised. This within-person concentration is further illustrated in Appendix C, which presents the mean number of offences per victim by age-year. Ages 30 and 32 show the highest concentration of offences per victim (1.19) and age 88 shows the lowest concentration (1.03). Across the whole sample, the mean is 1.14 offences per victim. Given that the modal number offences is 1, as illustrated in Table 1, most victims experienced only a single offence.

Figure 2 displays the standardised frequency of victims by the estimated population, presenting age-specific RCVS rates of victimisation (victims per 1,000 population). These rates also form a right skewed curve akin to the age-crime curve, peaking at age 24 (54.94 victims per 1,000 population) and declining steadily as age increases, reaching a low in the 90+ category (3.67 victims per 1,000 population). Together, these results support the presence of an age–victimisation curve that mirrors the age-crime curve within the RCVS crime victim sample.

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[4] It is important to note that we generally expect a Poisson distribution in analysis of crime and victimisation data (MacDonald & Lattimore, 2010). However, we refer to these as "curves" to remain consistent with the age–crime literature.

Figure 1

Recorded Crimes Victims Statistics Sample Frequency of Victims and Offences per Age-year (n = 880,359)

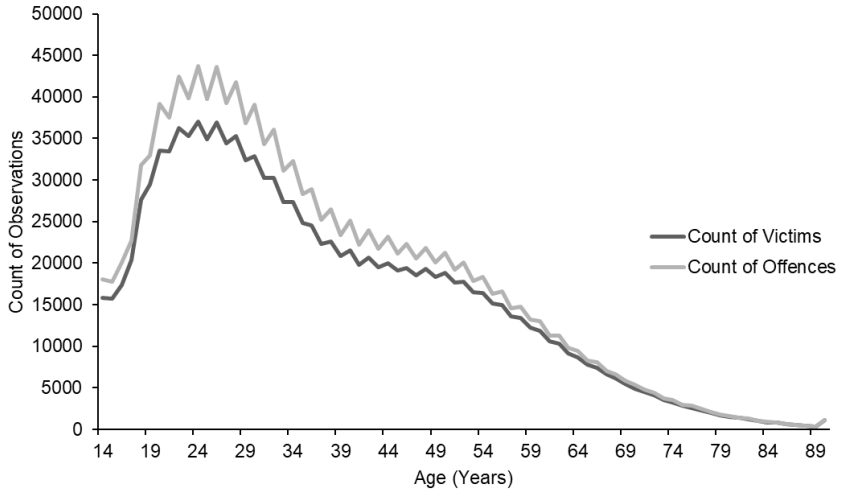
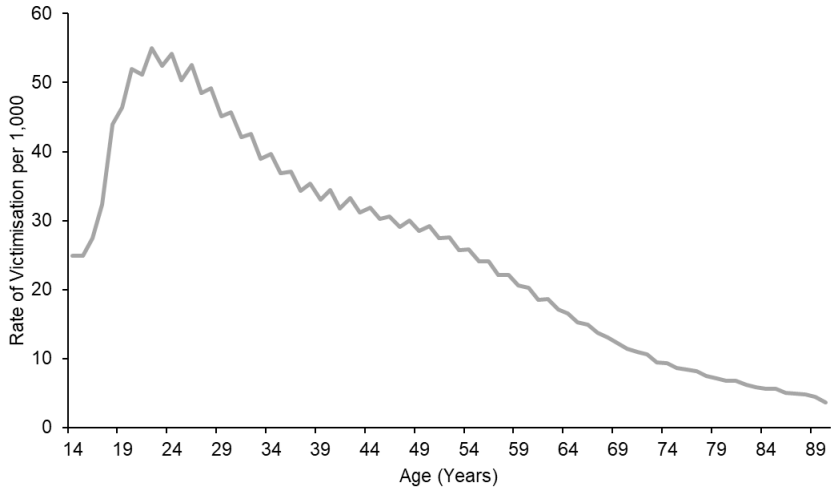


Figure 2

Recorded Crimes Victims Statistics Sample Rates of Victimisation per 1,000 per Age-year



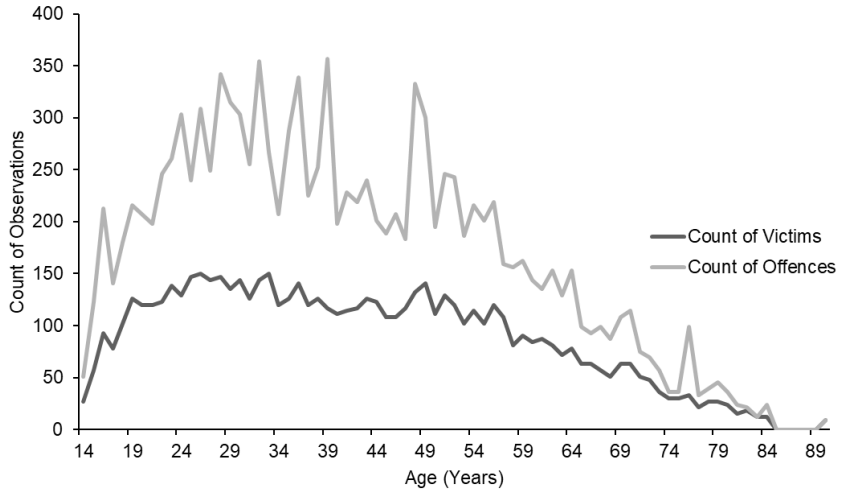
NZCVS Frequency and Rates of Overall Victimisation

With a smaller sample size than the RCVS, Figure 3 displays a more volatile frequency of NZCVS victims and offences over the age-years with no obvious age-victim curve that mirrors the age-crime curve. The frequency of victims is the highest at age 26 (150 victims), dips, then increases again at age 33 (150 victims), followed by a decline that becomes negligible from age 85 (values suppressed due to low victim count). The frequency of offences reached its highest at age 39 (357 offences) then has an unstable decline, which also becomes negligible from age 85. As was observed in the RCVS sample, there are more offences than there are victims, indicating re-victimisation. However, Appendix D illustrates a larger offence to victim concentration, with ages 39 (3.05 offences per victim) and 79 (3.00 offences per victim) experiencing the highest concentration, ages 85-89 being the lowest (suppressed due to low victim count), and an overall mean of 1.92 offences and a mode of 1 offence per victim. These results, alongside those of the previous section, may imply that victims are experiencing more offences than they are reporting to police.

Figure 4 standardises the frequency of victims by survey population. The rate of NZCVS victimisation peaks at age 14 (428.57 victims per 1,000 respondents) and follows an unsteady decline, becoming negligible for ages 85-89 (suppressed due to low victim count). These results taken together display that victimisation decreases as age increases but does not support the existence for an overall age-victimisation curve that mirrors the age-crime curve using NZCVS data.

Figure 3

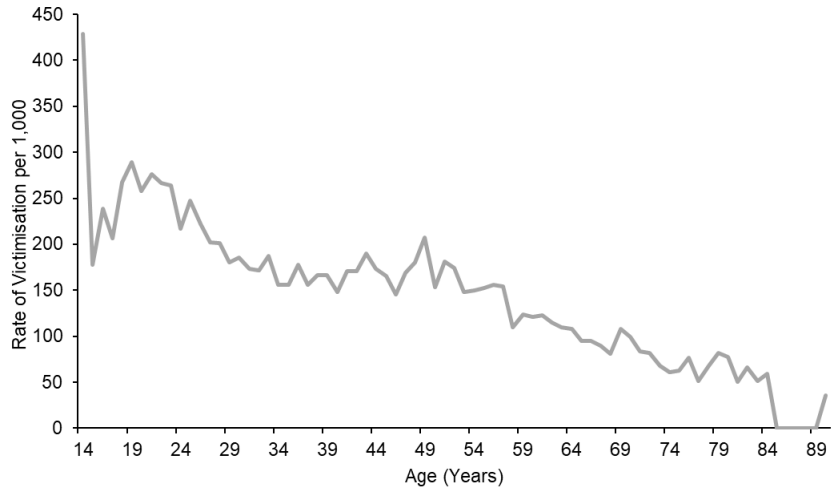
New Zealand Crime and Victims Survey Sample Frequency of Victims and Offences per Age-year (n = 6,207)



Note. Values appearing as 0 are suppressed due to low victim count, so may be >=0.

Figure 4

New Zealand Crime and Victims Survey Sample Rates of Victimisation per 1,000 per Age-year



Note. Values appearing as 0 are suppressed due to low victim count, so may be >=0.

Personal Crimes Victimisation

RCVS Frequency and Rates of Personal Crime Victimisation

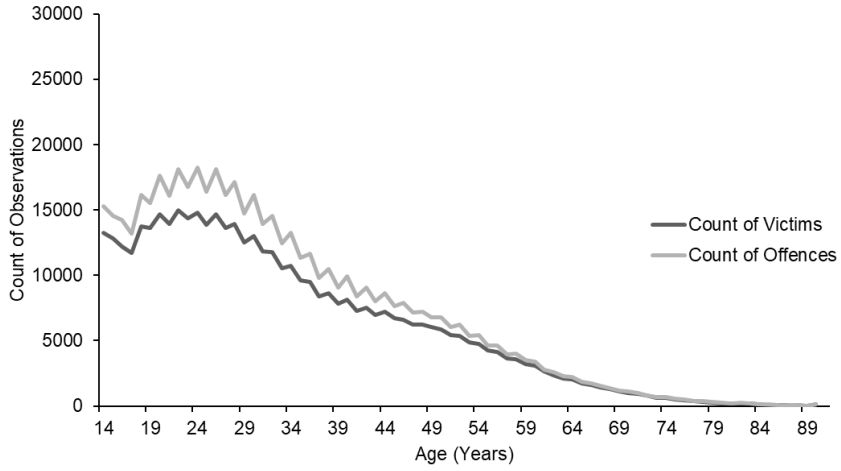
As seen in Figure 5, the frequency of RCVS personal crimes victims and offences over the age-years both form a right skewed curve similar to the overall victimisation curve, although less steep. The number of personal crime victims peaks at age 22 (14,982 victims), while the number of offences peaks slightly later at age 24 (18,225 offences). Both curves then decline as age increases, reaching their lowest levels at age 89 (36 victims and 39 offences).

These results indicate that some victims are experiencing multiple offences. Appendix E illustrates this concentration of offences per victim by age-year, with age 30 (1.25 personal crime offences per victim) experiencing the most offences while the lowest is observed among those aged 90+ (1.02 personal crime offences per victim), with an overall average of 1.17 personal crime offences per victim. Although these results display that some victims are experiencing multiple victimisations, given that the modal number offences is 1 (as illustrated in Table 1) most victims report experiencing one personal crime.

Figure 6 presents age-specific RCVS rates of personal crime victimisation standardised by the estimated national population (personal crime victims per 1,000 population). These rates also form a curve, peaking at 20 (22.77 personal crime victims per 1,000 population) and declining steadily as age increases, reaching a low at age 89 (0.44 personal crime victims per 1,000 population). Together, these results support the presence of an age–victimisation curve that mirrors the age-crime curve within the RCVS personal crime victim sample.

Figure 5

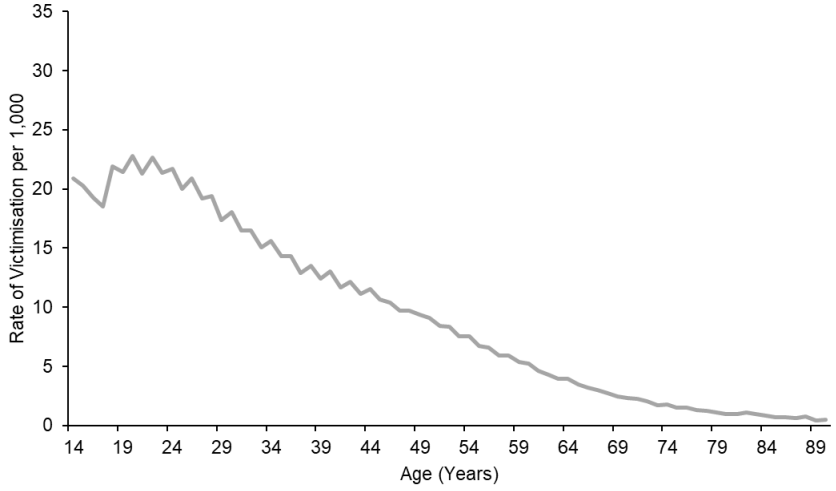
Recorded Crimes Victims Statistics Sample Frequency of Personal Crimes Victims and Offences per Age-year (n = 326,979)



Note. The y-axis has been edited for comparability to Figure 9

Figure 6

Recorded Crimes Victims Statistics Sample Rates of Personal Crime Victimisation per 1,000 per Age-year



Note. The y-axis has been edited for comparability to Figure 10

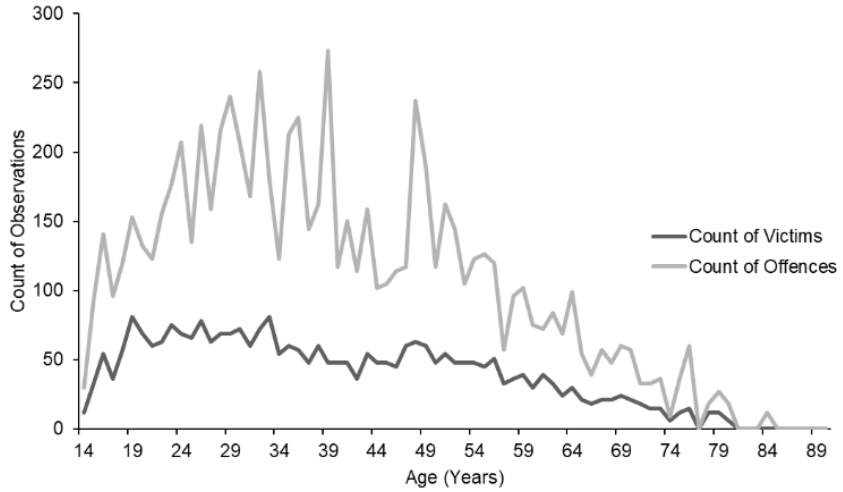
NZCVS Frequency and Rates of Personal Crime Victimisation

In contrast, as shown in Figure 7, the frequency of personal crimes victims and offences over the age-years from the NZCVS sample is more volatile with no obvious age-victim curve that mirrors the age-crime curve. The frequency of personal crime victims' reaches a height at ages 19 and 33 (81 personal crime victims), following a slight decline that becomes negligible from age 81 (values are suppressed between ages 81 – 90+ due to low victim count). The frequency of personal crimes offences forms a highly volatile curve that reaches a height at age 39 (273 personal crime offences), then broadly declines as age increases, becoming negligible from age 81 (values are suppressed between ages 81 – 90+ due to low victim count). Appendix F displays that personal crime offences concentrate at ages 39 (5.69 personal crime offences per victim) and 76 (4 personal crime offences per victim), with an overall mean of 2.71 personal crime offences and per victim, the highest concentration of offences per victim across our results. As illustrated in Table 2, the modal number offences is 1.

Figure 8 standardises the frequency of personal crime victims by survey population. It first rises at age 14 (190.48 personal crime victims per 1,000 respondents), dips sharply, then rises a second time at age 19 (186.21 personal crime victims per 1,000 respondents), before declining until negligibility from age 81 (values suppressed due to low victim count). These results display that personal crime victimisation decreases as age increases but, as with the overall NZCVS results, they do not support the existence for a personal crime age-victimisation curve. Additionally, these results imply that victims may be experiencing more personal crimes than they are formally reporting to police.

Figure 7

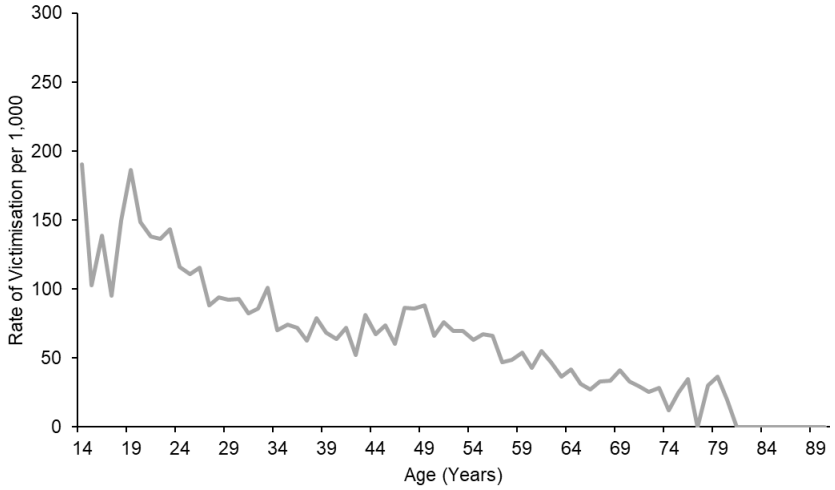
New Zealand Crime and Victims Survey Sample Frequency of Personal Crimes Victims and Offences per Age-year (n = 2,787)



Note. Values appearing as 0 are suppressed due to low victim count, so may be >=0.

Figure 8

New Zealand Crime and Victims Survey Sample Rates of Personal Crime Victimisation per 1,000 per Age-year



Note. The y-axis has been edited for comparability to Figure 12. Values appearing as 0 are suppressed due to low victim count, so may be >=0.

Property Crimes Victimisation

RCVS Frequency and Rates of Property Crime Victimisation

As seen in Figure 9, and similar to before, the frequency of RCVS property crime victims and offences over the age-years forms a right-skewed curve that mirrors the age-crime curve. Both the frequency of RCVS victims (23,436 property victims) and offences (25,473 property offences) peaks at age 26, with both curves displaying a smooth decline with a slight plateau from ages 41 to 50, before declining again. Appendix G illustrates the concentration of property crime offences per victim. Age 28 displays the highest concentration (1.1 property offences per victim), age 15 experiences the least (1.02 property offences per victim), with an overall mean of 1.07 property offences per victim. As illustrated in Table 1, the modal number of offences per

victim is 1. Although these results display that some victims experienced multiple victimisations, most victims reported experiencing one property crime.

Figure 10 presents the RCVS rates of property crime victimisation standardised by the estimated population (property victims per 1,000 population). These rates also form a curve that sharply increases, peaking at 24 (34.14 property victims per 1,000 population) and steadily declining as age increases, reaching a low at the 90+ category (3.20 property victims per 1,000 population). Together, these results support the presence of an age–victimisation curve that mirrors the age-crime curve within the RCVS property crime victim sample.

Figure 9

Recorded Crimes Victims Statistics Sample Frequency of Property Crimes Victims and Offences per Age-year (n = 650,559)

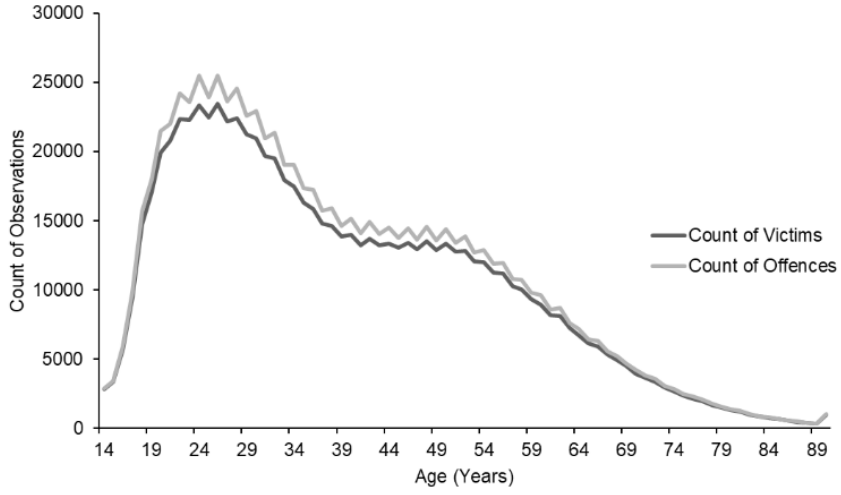
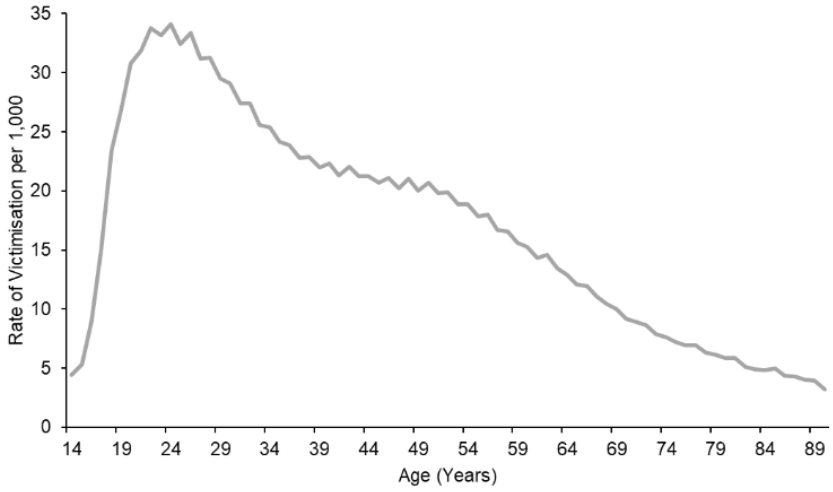


Figure 10

Recorded Crimes Victims Statistics Sample Rates of Property Crime Victimisation per 1,000 per Age-year



NZCVS Frequency and Rates of Property Crime Victimisation

As shown in Figure 11, the frequency of property crimes victims and offences across age-years from the NZCVS sample both form a slight curve, but do not mirror the age-crime curve. The frequency of property crime victims peaks at age 29, plateaus, then peaks again at ages 36 and 49 (each with 87 victims), then gradually declines before becoming negligible at ages 85-90+ (suppressed due to low victim count). The curve for the frequency of property crimes offences follows a similar pattern, also peaking at age 49 (114 offences) before declining and becoming negligible at ages 85-90+.

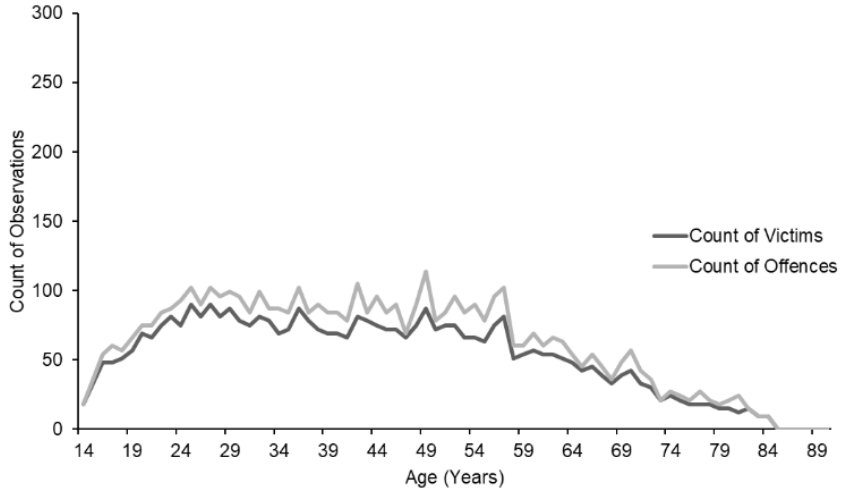
Appendix H illustrates the concentration of NZCVS property crime offences per victim. Age 81 displays the highest concentration (2 property offences per victim), while ages 14, 73, 82, 83, and 84 report the lowest concentration (1 property offence per victim), with ages 85-90+ being suppressed. The overall mean property offences per victim is 1.18. As illustrated in Table

2, the modal number of offences per victim is 1. Although these results show that some victims experienced multiple victimisations, most victims reported experiencing one property crime.

Figure 12 presents the NZCVS rates of property crime victimisation standardised by the survey population (victims per 1,000 respondents). Interestingly, Figure 12 shows the NZCVS rates of property crime victimisation do not follow a curve. They first peaks at age 14 (285.71 victims per 1,000 respondents), dips sharply, then peak a second time at age 22 (162.34 victims per 1,000 respondents), then inconsistently decline as age increases, again becoming negligible at age 85-90+. These results taken together display that property crime victimisation decreases as age increases but does not support the existence for a property crime age-victimisation curve that mirrors the age-crime curve using NZCVS data.

Figure 11

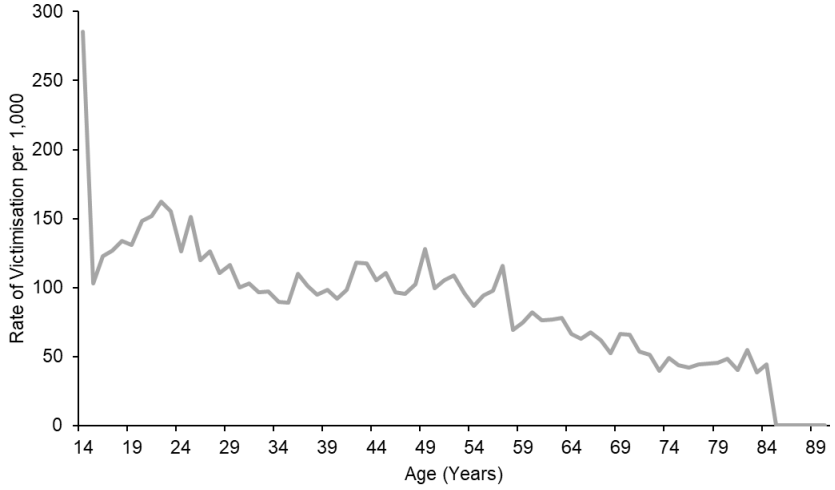
New Zealand Crime and Victims Survey Sample Frequency of Property Crimes Victims and Offences per Age-year (n = 3,900)



Note. The y-axis has been edited for comparability to Figure 7. Values appearing as 0 are suppressed due to low victim count, so may be >=0.

Figure 12

New Zealand Crime and Victims Survey Sample Rates of Personal Crime Victimisation per 1,000 per Age-year



Note. Values appearing as 0 are suppressed due to low victim count, so may be >=0.

Discussion

In this study, we aimed to investigate two questions: is there an overall age-victimisation curve that mirrors the age-crime curve? And if so, does the age-victimisation curve differ when disaggregated into broad crime categories (i.e., personal and property)? Due to the well-documented limitations of police data (e.g., victim underreporting) and self-report data (e.g., sampling bias), we analysed data from these two main sources – the New Zealand Recorded Crime Victims Statistics (RCVS) and the New Zealand Crime and Victims Survey (NZCVS) to mitigate these respective weaknesses. Overall, the findings showed that as age increased, victimisation rates and frequency decreased, with age-victimisation curves that mirror the age-crime curve present in police-recorded data, but not in self-report data. While our results are

descriptive and do not attempt to statistically quantify the characteristics of the curves, summary observations are made at both a population and survey sample level.

The hypothesis for our first research question – that there would be an overall age-victimisation curve mirroring the age-crime curve – was partially supported by the results. Both the frequency and rates of victimisation for our RCVS sample formed a curve like that of the age-crime curve which increased during the teenage years/early adulthood, peaked at age 24, then decreased as age increased, with most victims reporting one crime. However, the frequency of victimisation for our NZCVS sample formed a distribution that did not mirror the age-crime curve, peaking instead at both ages 26 and 33 before deceasing as age increased. The rates of victimisation formed a downward trend from age 14. Therefore, our hypothesis was only partially supported by our results.

We also found partial support for the hypothesis for our second research question – that the property age-victimisation curve would be larger in volume and peak later than the personal age-victimisation curve. In the RCVS sample, the property age–victimisation curve was larger in volume (650,559 victims; 848,319 offences) and peaked later (age 26) than the personal age–victimisation curve (326,979 victims; 541,347 offences; peaked at age 24). Conversely, the NZCVS is less straightforward. The NZCVS personal crimes sample had more offences (7,926 total) but fewer victims (2,787 total) than the property crimes offences (4,746) and victims (3,900), showing that personal crime victims experienced more victimisation than property crime victims. While the NZCVS property victims and offences both formed two peaks at ages 25 and 27, the NZCVS personal victims formed two peaks at ages 26 and 33, with the offences reaching a peak at age 39. Therefore, our hypothesis was only partially supported by our results.

Our results and their presentation are similar to Moffit's (1993) original study – with separate graphs for officially recorded and self-report victimisation data. While the two data sets are vastly different – both in their sizes and limitations (e.g., the RCVS is limited to what people report, while the NZCVS is vulnerable to sampling bias) – presenting both datasets provides a richer picture of the age-victimisation relationship. When interpreted separately, the RCVS samples indicate that there are age-victimisation curves that mirror the age-crime curve for overall, personal, and property victimisation, while the NZCVS sample is not so straightforward and indicates that there may be more going on. Together, our samples display that the relationship is not as visually clean as early age-crime curves, with various ages experiencing higher concentrations of offences per victim than others, victimisation frequency and risk decreasing as age increases, and victims likely experiencing more crime than what is represented by police-recorded statistics.

Indeed, the observation that victims may experience more crime than is captured in police-recorded statistics aligns with research showing that police data underestimates the true extent of crime (Wikstrom et al., 2012; Curtis-Ham et al., 2024). One explanation for this underreporting relates to victims' experiences with the criminal justice system. Individuals who have previously had contact with the system report lower levels of trust and confidence in its effectiveness and may then see limited value in further engagement (MoJ, 2025). Therefore, if these individuals are victimised after an initial contact with the justice system, they may not see the value in reporting to or dealing with the justice system, leading to an underrepresentation of crime occurrences in official statistics.

We see further evidence for the observation that people may not be reporting their victimisation experiences to the police by the overall higher mean offences per personal crime

victim from the NZCVS compared to the RCVS, suggesting that many personal victimisation experiences captured in survey data are not reported to the police, which chimes with other analyses of the NZCVS (Cording et al., 2025). Victims may not perceive these experiences as sufficiently serious enough to warrant formal reporting, or they may judge that the effort required to engage with the justice system outweighs the potential benefits or likelihood of achieving a meaningful 'justice' outcome. These dynamics may be particularly pronounced for youth victimisation, which may be viewed as less "serious" than adult victimisation and may not be reported to police – e.g., a sibling assaulting a child is considered normal childhood behaviour, and so may not be brought to police attention (Millar & Flatley, 2010). This limitation of RCVS data may have downwardly biased our data points at the lower ages. Our results support this observation. In the RCVS, both the rates and frequency of victimisation peaked in the 20's across all age-victimisation curves. In contrast, across all distributions the NZCVS rates peaked sharply at age 14, while the frequency of victims and offences figures had no clear peaks. The NZCVS rates results could suggest that youth victimisation is more visible in self-report data, but less so in police-recorded data, indicating that youth may be less likely to report victimisation to the police. At the other end of the lifespan, older peoples' vulnerability may similarly contribute to lower rates of reporting due to cognitive decline (Dong et al., 2014). We did not specifically investigate elder abuse, so this is missing from estimates of victimisation at the upper end of the age-years we examined.

Separately, the peak ages for frequency of victimisation generally occurred in ages 20 and over rather than during the teenage years, which may reflect broader societal shifts, such as delayed transitions into adulthood. Compared with earlier cohorts, young people are generally achieving milestones reflective of safer routines (Laub & Sampson, 1993) – such as getting

married, having children, and gaining full time employment – at older ages (Steffensmeier et al., 2024). As these social trends change, opportunities for victimisation also change, such as younger people engaging in less "unstructured" time, reducing their likelihood of engaging in risky activities (Buil-Gil., 2024). The general finding that older ages are less victimised also supports the routine activities approach, since older people generally have limited exposure to risky activities (e.g., clubbing).

Implications

Our overall finding - as age increases, victimisation risk decreases - supports various theories presented in this study. In particular, the mirroring of the age-crime curve using the police-recorded data lends further support to the victim-offender overlap phenomenon. However, alongside the NZCVS, our results also imply that there are several ages at-risk across the crime categories. Ultimately, this indicates that age is likely *not* the only factor related to victimisation risk and should be considered alongside situational factors and other personal characteristics (Cho & Lee, 2024).

Additionally, as risk for both victimisation and offending stem from overlapping factors, intervention efforts that target offending risk may also impact victimisation risk. Youth offending intervention programmes such as the NZ Ministry of Justice Youth Crime Action Plan (MoJ, 2013) and Oranga Tamariki Youth Justice initiatives (Ministry for Children, n.d.), which aim to prevent reoffending by working with young offenders, their families, and communities outside the formal justice system, could reduce victimisation risk too. The promotion of protective factors (e.g., building and maintaining pro-social relationships; MoJ, 2013) against offending could also subsequently be protecting against victimisation, but we do not know this

for certain as the bidirectional relationship between victimisation and offending is not well understood.

Our results also reinforce existing evidence that there are likely systemic differences between survey and police-recorded victimisation data. This highlights the importance of not only making reporting more accessible and worthwhile, but the significance of surveys such as the NZCVS. Analysing the RCVS results alone indicates the strong presence of an age-victimisation curve. However, the NZCVS results slightly contradict the RCVS results and introduces a healthy dose of scepticism. Presenting these two samples together illuminates that the relationship between age and victimisation may not be as elegant as the one historically portrayed for age and offending.

Our research is also integral for public education on who is most at risk of victimisation. Risk goes beyond just being a function of victim availability to offenders – if it was, our rates would look more like a horizontal straight line – which implies that young adults are generally experiencing a disproportionate burden of victimisation experiences. The burden of victimisation on young adults is also concerning, consider the detrimental effects (outlined in the introduction) that early victimisation has on health, quality of life, and further victimisation risk. While age is likely not the only reason, there are still age-related reasons underpinning this phenomenon. Therefore, it is important to educate young people on risky behaviours and precautionary measures they can use to protect and potentially prevent themselves from experiencing victimisation.

Limitations

To ensure concordance across RCVS and NZCVS for comparative purposes, we excluded crime types from both data sources. Specifically, burglary was not available to us in the

RCVS as the premise rather than a person was recorded as the victim (Stats NZ, 2025). We therefore excluded burglary offences from the NZCVS as well, which partially explains the comparatively low frequency of property crime in the NZCVS figures. Additionally, we did not examine cybercrime due to it being unavailable in the RCVS.

We deviated from our pre-registration as we only investigated the RCVS and NZCVS when we had originally sought to cover a wider range of data sources. We did not source code or data from the Family Violence and Sexual Violence Indicator code module because ANZSOC coding was available only for MoJ and Police data (Stats NZ, 2024). Other sources, such as the Accident Compensation Corporation and the Ministry of Health, used a different coding scheme, making concordance across datasets difficult to achieve (Stats NZ, 2024). While there is the possibility that the additional sources may have produced different distributions of offences and victims for the personal crime samples, we found that doing so was not feasible within the resource limits of this Master's project. Future studies should endeavour to include these sources.

Future Research

While we have a large data cycle (RCVS = 2015-2024; NZCVS = 2018-2024), we are not following specific samples of people longitudinally, rather just whoever is represented in the datasets. Our research is thus cross-sectional, and we are unable to comment on victimisation over the life course. Longitudinal data and research – like the Dunedin Health Study (University of Otago, 2026) - is needed to conduct this life-course research. Additionally, while research has been conducted for youth/early adult victims (Decamp et al., 2018, Decamp & Zaykowski, 2015), future research should aim to examine common victim trajectories of victimisation into late adulthood. This research may benefit from using self-report data, as relying on police-

reported data will likely mask the true extent of peoples' victimisation experiences (Curtis-Ham et al., 2024).

Our research is the foundation for other projects to build on. Future research should investigate age of onset victimisation to understand what ages are most at risk for experiencing initial victimisations, to understand when to intervene and prevent further victimisation. Additionally, it would be practically useful to determine whether the age-victimisation curve varies by birth cohort (e.g., people born between 1991-2000 compared to people born 2001-2010), to make more concrete societal observations. Also, how the age-victimisation curve varies by specific crime types (e.g., further disaggregating beyond personal and property victims), as there is increasing evidence that recommendations should be provided based on crime type. Finally, future research should aim to statistically quantify the characteristics of the curves presented, possibly using tests such as the Mann-Kendall Trend Test (Mann, 1945).

Conclusion

This thesis used two national New Zealand data sources, accessed through the Integrated Data Infrastructure to investigate whether an age-victimisation curve that mirrors the age-crime curve exists. While we found evidence for age-victimisation curves that mirror the age-crime curve in police-reported data, self-report survey data painted a slightly different picture. However, overall, this study provided evidence that as age increases, victimisation risk decreases. Our results highlight the importance of age considerations when discussing victimisation risk and designing prevention activities, and has provided a basis for further research in this area to build on.

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Appendix A

1) Data collection. Have any data been collected for this study already?

It's complicated. We have already collected all data but explain in Question 8 why readers may consider this a valid pre-registration nevertheless.

2) Hypothesis What's the main question being asked or hypothesis being tested in this study?

We will test the hypotheses:

- An age-victimisation curve that mirrors the age-crime curve in shape exists.
- The property crime age-victimisation curve will peak later in age than the age-victimisation curve for interpersonal crime.

3) Dependent variable Describe the key dependent variable(s) specifying how they will be measured.

1. Estimated age at victimisation experience.

2. Count of victimisation experiences.

3. Count of broad type of victimisation experience (property and interpersonal).

4) Conditions How many and which conditions will participants be assigned to?

Participants will not be assigned to conditions.

5) Analyses Specify exactly which analyses you will conduct to examine the main question/hypothesis.

We will produce descriptive statistics of the distribution of age-year at victimisation to determine the existence of an age-victimisation curve. If an age-victimisation curve exists, we

will disaggregate it into two further age-victimisation curves by broad crime type (property vs interpersonal).

We will produce line charts displaying the rates of victimisation per population in each age-year, frequencies of victimisation experiences per age-year, and frequencies of victimisation by broad crime type per age-year.

6) Outliers and Exclusions Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

We will exclude participants from all victimisation-curve calculations who are missing data on their age at the time of victimisation. We will further exclude participants who did not experience any crimes from frequency victimisation-curve calculations. Finally, we will exclude participants who experienced crimes categorised as ‘other’ (because those crimes have no associated ANZSOC code and we would not be able to disaggregate by crime category) from the offence victimisation-curve.

7) Sample size How many observations will be collected or what will determine sample size?

We will identify victims by linking data across multiple datasets within the Integrated Data Infrastructure (IDI) using a unique Stats NZ identifier, so our total sample size has not yet been determined. We will aim to analyse data from the New Zealand Crime and Victims survey, New Zealand Police victims' data, Oranga Tamariki (Ministry for Children, responsible for the well-being of children) data, Accident Compensation Corporation (ACC; provides injury cover for NZ residents), and Ministry of Health data (specifically looking at hospital visits for violence). Our minimum sample will be 47,000 participants collected from 7 cycles of the New Zealand Crime and Victims survey.

8) Other Anything else you would like to pre-register?

We will be linking and analysing data across multiple datasets within the IDI.

We will be sourcing code from the StatsNZ “Family Violence Sexual Violence Indicator” and “Victimisation Events” code modules, which are opensource and available through the idcomms website.

9) Name Give a title for this AsPredicted pre-registration

Victimisation over the lifecourse: patterns of re-victimisation by age-year

10) Type of study

Archival

11) Data source

Other:

- New Zealand Crime and Victims Survey.
- New Zealand Police victims' data.
- Oranga Tamariki data (Report of concern and referrals, notification events, Child Action Plans).
- ACC (sensitive claims).
- Ministry of Health data (Hospitalisation with a diagnosis of neglect, abuse, deprivation, assault).

Appendix B

NZCVS-RCVS-ANZSOC Concordance and Excluded Variables

NZCVS Offence Code	NZCVS Description	RCVS Offence Codes	ANZSOC Concordance	Property or Personal Mapping
2	Theft of/unlawful takes/converts motor vehicle	711 - theft of a motor vehicle 712 - illegal use of a motor vehicle	0811 - theft of a motor vehicle 0812 - illegal use of a motor vehicle 0810 - motor vehicle theft and related offences not further defined	Property
3	Theft (from motor vehicle)	713 - theft of a motor vehicle parts or contents	0813 - theft of a motor vehicle parts or content	Property
4	Unlawful interference /getting into motor vehicle	710 - motor vehicle related offences, nfd[a]	0812 - illegal use of a motor vehicle 1219 - property damage, nec	Property
5	Damage to motor vehicles	710 - motor vehicle related offences, nfd	21 - property damage	Property
6	Unlawful takes/ converts / interferes with bicycle	792 - theft of other vehicles	0841 - illegal use of property (except motor vehicles)	Property
9	Theft (except motor vehicles – household)	799 - theft, nec.	0829 - theft (except motor vehicles), nec 0820 - theft (except motor vehicles) not further defined	Property
10	Theft (except motor vehicles – personal)	720 - theft from a person	0821 - theft from a person (excluding by force) 0822- theft of intellectual property	Property
12	Robbery	511 - aggravated robbery 512 - non-aggravated robbery	061 - robbery	Personal

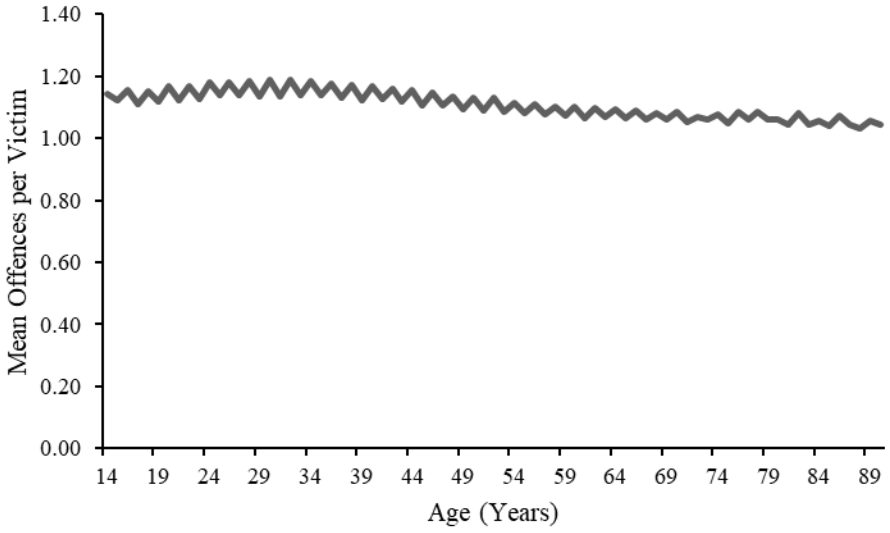
15	Sexual assault	311 - unlawful sexual penetration of an adult 312 - unlawful sexual contact of an adult 321 - unlawful sexual penetration of a child 322 - unlawful sexual contact of a child 341 - produce or distribute child abuse material 342 - possess or access child abuse material 350 - intimate image offences 391 - offensive sexual acts	031 - sexual assault 0323 - sexual servitude offences 0329 - non-assaultive sexual offences, nec 0300 - sexual assault and related offences not further defined	Personal
16	Other assault	211 - choking and strangulation 212 - other serious assault 220 - assault of a prescribed officer, nfd 221 - assault of a police officer 222 - assault of other prescribed officer 230 - common assault 340 - child abuse material offences, nfd	021 - assault 0299 - other acts intended to cause injury, nec 0290 - acts intended to cause injury not further defined 012 - attempted murder	Personal
17	Harassment and threatening behaviour	330 - child procurement or grooming 420 - abduction or kidnapping 520 - blackmail or other extortion	05 - abduction, harassment and other offences against the person 0291 - stalking 0621 - blackmail and extortion	Personal
1	Burglary		07 - unlawful entry with intent/burglary, break and enter	Excluded
7	Property damage (household)		121 - property damage and environmental pollution	Excluded
8	Property damage (personal)		121 - property damage and environmental pollution	Excluded
11	Trespass		1311 - trespass	Excluded

13	Fraud and deception		091 - obtain benefit by deception 0922 - forgery of documents 099 - other fraud and deception offences	Excluded
14	Cybercrime		No direct ANZSOC mapping, but includes: 0911 - obtain benefit by deception 1312 - criminal intent 1612 - offences against privacy	Excluded
18	Other incidents		Other incidents that are regarded as 'in-scope' for the survey, but which are not covered by the above offence codes.	Excluded
		110 – murder 120 – attempted murder 131 –manslaughter 132 – driving causing death 730 – theft from retail premises 791 – public transport fare evasion		Excluded

[a] Not further defined

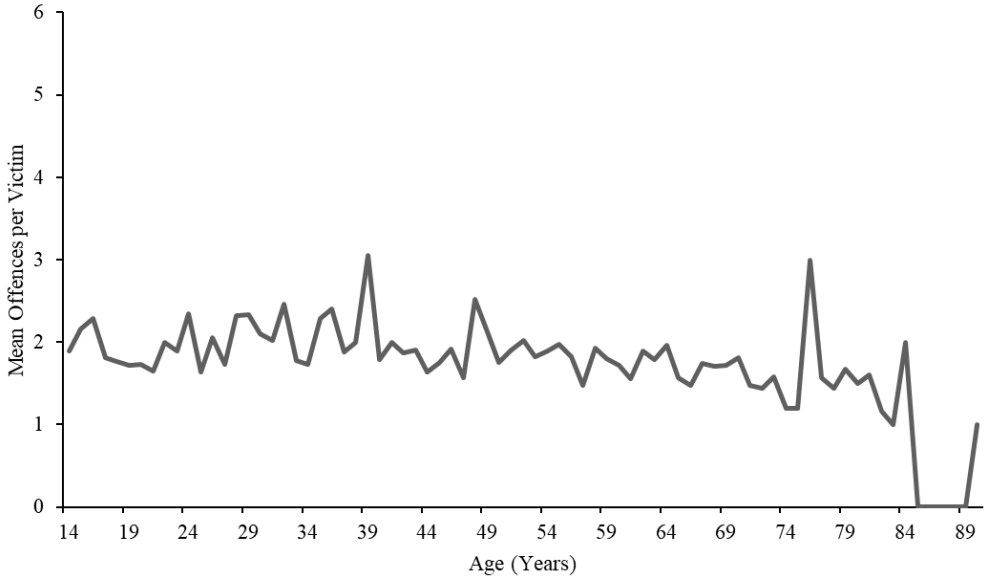
Appendix C

RCVS Mean Overall Offences per Victim per Age-year (n = 880,359)



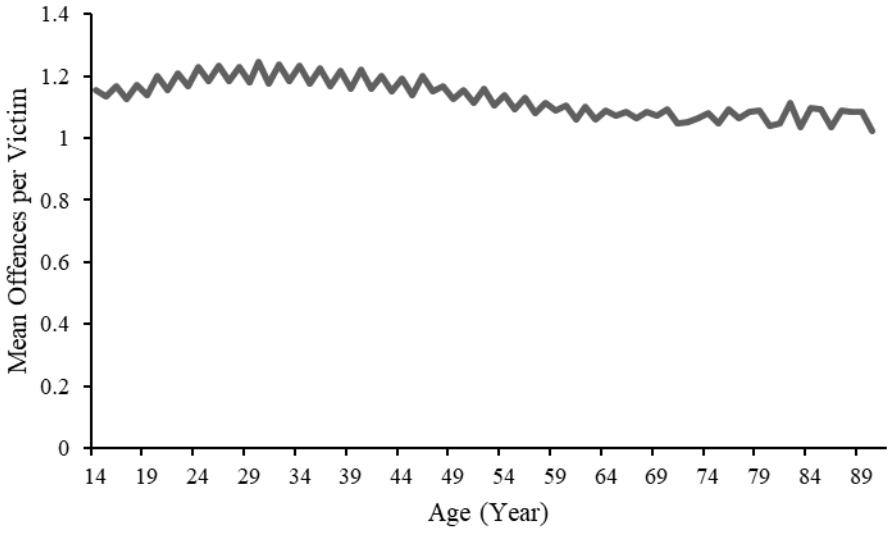
Appendix D

NZCVS Mean Overall Offences per Victim per Age-year (n = 6,417)



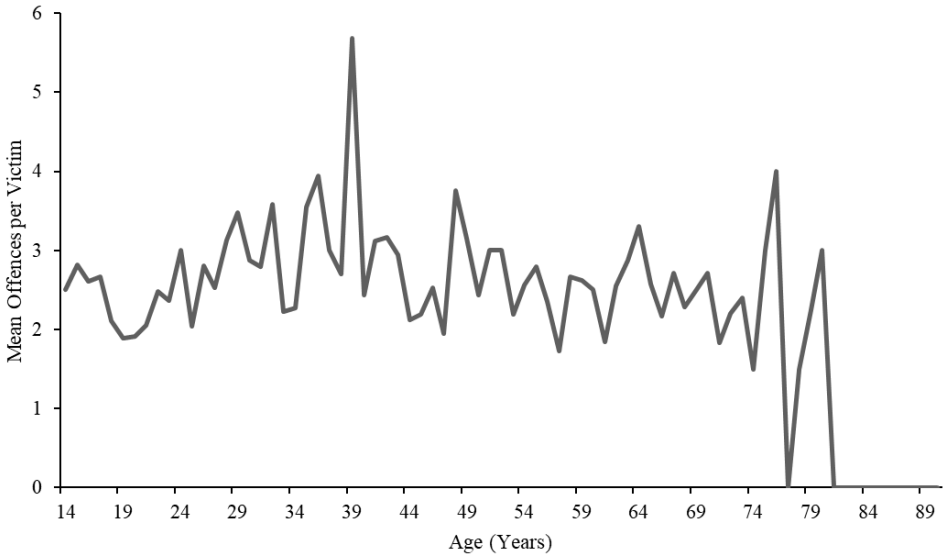
Appendix E

RCVS Mean Personal Offences per Victim per Age-year (n = 326,979)



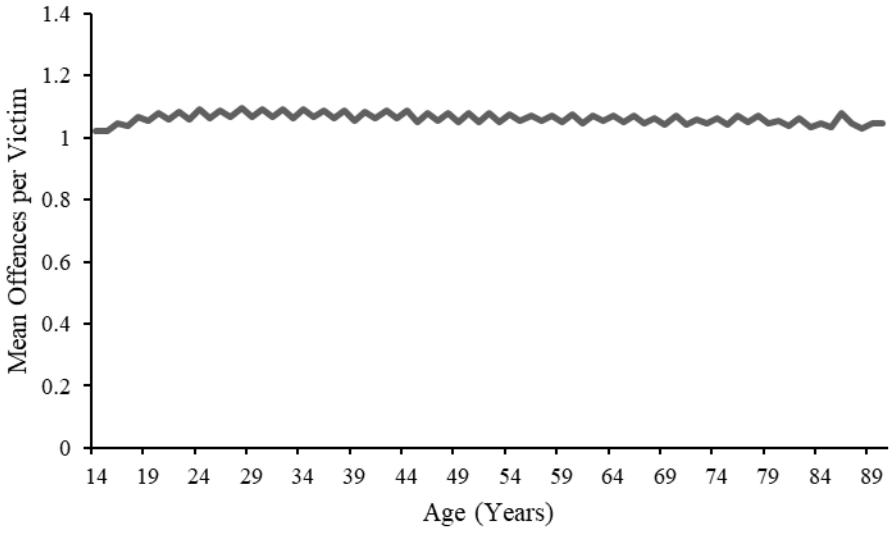
Appendix F

NZCVS Mean Personal Offences per Victim per Age-year (n = 2,940)



Appendix G

RCVS Mean Property Offences per Victim per Age-year (n = 650,559)



Appendix H

NZCVS Mean Property Offences per Victim per Age-year (n = 4,098)