Estimating Crime in Rural America: The Contribution of the First Phase of The West Virginia Community Quality of Life Survey

Walter S. DeKeseredy (ORCID ID: http://orcid.org/0000-0002-3692-5078)
Professor, Anna Deane Carlson Endowed
Chair of Social Sciences, and Director of
the Research Center on Violence
Department of Sociology and Anthropology
West Virginia University
wsdekeseredy@mail.wvu.edu

James Nolan (ORCID ID: http://orcid.org/0000-0003-0008-8009)
Professor of Sociology
Research Center on Violence
West Virginia University
Jnolan2@wvu.edu

Danielle M. Stoneberg
Research Center on Violence
West Virginia University
Dms0072@mix.wvu.edu

Erica E. Turley
Research Specialist
West Virginia Division of Justice & Community Services
Erica.E.Turley@wv.gov

Abstract

The study of crime, law, and social control is now much less urban-biased than it was at the start of this millennium, and there is an ongoing significant increase in international qualitative and quantitative rural criminological research. Nonetheless, a conspicuous absence of reliable estimates of crime victimization in rural parts of the United States continues to exist. This article helps fill a major research gap by presenting the results of the first phase of the West Virginia Community Quality of Life Survey.

Keywords: victimization survey, rural, crime estimates

Introduction

Large-scale crime victimization surveys conducted in the U.S. are in short supply. Salient exceptions are the routinely administered National Crime Victimization Survey (NCVS) and the plethora of campus climate surveys that were conducted since 2014 when the White House created the Task Force to Protect Students from Sexual Assault. Further, to the best our knowledge, there has never been a survey specifically designed to carefully measure the extent, distribution, correlates, and consequences of crime victimization in rural U.S. communities. The main objective of this article is, then, to help fill a major research gap by presenting some of the results of the first phase of the West Virginia Community Quality of Life Survey (WVCQLS).

U.S. rural crime victimization survey data are not totally nonexistent. Those that are available were mainly gathered by the NCVS, which is not as geographically focused as more localized surveys or those that take a subnational sampling frame. As Pease (1992) points out, while national surveys have many sampling points, "the number of interviews at each sampling point is insufficient to reach free-standing conclusions about that area" (p. 304). Additionally, most of the NCVS data on the plight of rural victims that is featured in peer-reviewed journals (e.g., *Feminist Criminology*) focuses almost entirely on intimate violence against women and are derived from secondary data analyses.[1]

This work was criticized for using the NCVS' problematic coding scheme to examine geographic variations in violence against women (see Dubois et al., 2019). Yet, at the time it was published, there were no alternative means of investigating differences between metropolitan and non-metropolitan areas. The vast majority of U.S. rural woman abuse studies done before feminist empirical revisits of the NCVS were qualitative and involved interviews with relatively small samples of female survivors (see DeKeseredy, 2021). Consequently, many researchers questioned whether the results of these small-scale studies could be generalized to larger populations. The only way to respond to this was to use NCVS data and employ the NCVS' definition of place.

Since there were no major surveys of rural woman abuse in the U.S. at the time Rennison et al. (2012, 2013) did their secondary analyses of NCVS data, among rural criminologists, their offerings were considered necessary and criminologically imaginative. But, it is time to move beyond using secondary data sources, including the Uniform Crime Reports (UCR). Numerous mainstream criminologists are likely to strongly disagree with this statement because Nelson et al. (2014) found that much of the secondary data published recently by them appears in highly ranked orthodox periodicals such as *Criminology*, *Criminology and Public Policy*, and *Justice Quarterly*. This trend, nevertheless, should not be an excuse for not conducting novel studies. Unfortunately, there is growing evidence that some (maybe many) criminologists will never collect original data in their entire career (DeKeseredy, 2021). So, what makes the research

featured in this article unique is not only that it is geographically focused, but it alsomoves beyond using secondary analyses of existing data sets. As well, the findings reported here include data on violence against women and other types of crime victimization experiences.

The Broader Context in Which the WVCQLS Was Conducted

Since most media coverage of crime focuses on events that occur in inner-city neighborhoods, the general public is unaware that much crime also occurs in rural and secluded places, like those found in West Virginia (Hodgkinson & Harkness, 2020). It is located in the Appalachian Region, which also includes parts of twelve other states: Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia. The Appalachian region encompasses about 206,000 square miles of land and 423 counties (Appalachian Regional Commission, 2020).

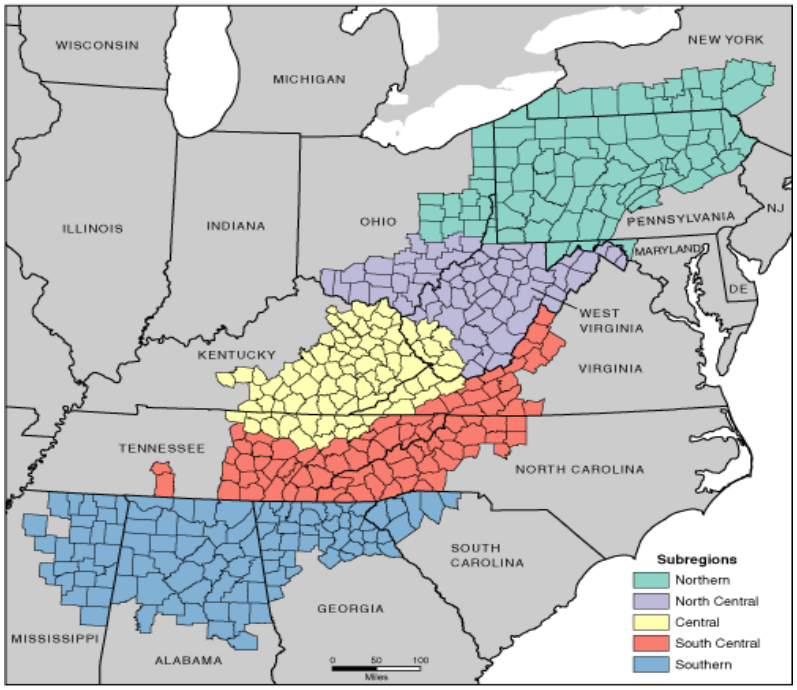
Depicted in Figure 1, the Appalachian Region is very rural and many counties are economically distressed. About 22 million people live there; 42% of the region's population is rural, compared with 20% of the national population (Appalachian Regional Commission, 2021a). According to a recent Appalachian Regional Commission Report (2021b), 78 of these counties were designated as distressed[2] and 104 as at-risk, while 223 counties were categorized as transitional, only 13 as competitive, and two had reached attainment. Most West Virginia counties are rural and are located in one of the few U.S. states that does not have a city with more than 100,000 people. Consider that only 49,736 people live in Charleston, the state capital (World Population Review, 2020).

West Virginia has access to rich analyses of UCR data (e.g., Nolan et al., 2006) but lacked reliable victimization statistics that could be generalized to the state-wide population. This is problematic for two key reasons. First, most crimes never come to the attention of the police. Hence, UCR data greatly underestimate the extent and distribution of crime. Second, practitioners and policy makers require accurate statistical data to determine the amount and type of resources necessary to effectively meet their communities' crime and victimization needs. Therefore, this article is much more than an academic enterprise.

The WVCQLS was commissioned by the West Virginia Division of Justice and Community Services and the U.S. Department of Justice, Bureau of Justice Statistics. Developed and conducted by the Research Center on Violence (RCV) at West Virginia University (WVU), this telephone survey was launched in the summer of 2016. It is the state's first attempt to assess rates of crime victimization outside of official police statistics. The WVCQLS was crafted in collaboration with community stakeholders (e.g., West Virginia Foundation for Rape Information and Services), and includes a broad array of measures related to crime, fear of crime, and the overall quality of life in West Virginia communities. It was twice distributed to a random

sample of West Virginians aged 18 and older via cellular and land line telephones, but only data generated by the first administration are reported here.

Figure 1: The Appalachian Region



The research team used a mixed methods research design by including closed- and open-ended questions in the instrument and requiring interviewers to take survey notes. Portions of these qualitative data are included in this article to contextualize specific types of victimization and community experiences, and victims' statements are paraphrased to protect respondents' identities.

Methods

Sample and Data Collection

Again, the population from which the sample was drawn includes individual residents of West Virginia aged 18 and older who have access to a telephone (n = 1,398,953).[3] The random sample includes 6,310 cellular phone numbers and 3,554 landline numbers.[4] From June 2016 to May 2017, RCV researchers called all 9,864 phone numbers. Only about 13% of the calls resulted in someone answering the phone (n = 1,281). Of those who answered, nearly 30% responded to the survey (n = 358). Table 1 compares the demographic characteristics of WVQLS respondents to the 2016 Bureau of Census demographic estimates of West Virginia residents.

The low response rate is, in this current era, common and is consistent with those of other large-scale surveys (Pickett et a., 2018). Actually, according to a recent President of the American Association of Public Opinion Research, "the survey and polling business is in crisis… response rates have been falling for 30 years… Even high-quality face-to-face surveys rarely reach a 70 percent response rate these days" (Tourangeau, 2017, p. 803). If truth be told, response rates for all types of surveys, including the NCVS, have declined (Pickett et al., 2018), and response rates in typical telephone surveys have dropped below 10% (Keeter et al, 2017).

Tables presented in this article sometimes include population estimates that are calculated by multiplying the same percentage by the estimated population of West Virginia residents with phones. Intervals for these estimates were calculated according to this equation:

$$1.96\sqrt{\frac{N-n}{N}\ \frac{P*(1-P)}{n-1}}$$

In this equation, N is the estimated population of residents in West Virginia aged 18 or older who have access to a phone (n = 1,398,953), n is the sample size (the number of completed responses in each category, P is the percentage of affirmative responses.

Table 1

Demographics of 2016 WVCQLS Compared to 2016 Census Demographics for West Virginia (n = 358)

	WVCQL (%)	2016 Census (%)
Sex *		
Male	42.29	49.50
Female	56.57	50.50
Education		
No High School Degree	6.59	14.70
HS Degree/Some College	65.90	65.70
Bachelor's Degree or higher	27.51	19.60
Race		
White	93.86	96.60
Non-White	6.14	3.40
Age		
Average	50.70	48.50

*Four respondents to the WVCLS listed their sex as "other."

Measures

Crime Victimization

The items in Tables 2 and 3 are modified versions of some of those included in the NCVS. They were selected so that comparisons with national data could be made. To obtain valid estimates of these experiences, the WVCQLs first asked whether a particular incident EVER happened to a respondent and then if it happened in the past 12 months.

Table 2

West Virginian's Experience with Property and Violent Crime Ever

	# Sample	% Sample	Estimated Number	Estimated Rate per 1000*
Property Crime				
Break-in [a]	125	38.50	538,597	385.0
Objects Stolen Inside Home [b]	87	26.60	372,122	266.0
Objects Stolen Outside Home [c]	93	28.50	398,702	285.0
Pocket Picked [d]	23	7.00	97,927	70.0
Car, Bicycle, Motorcycle Stolen [e]	39	12.0	167,874	120.0
Violent Crime				
Robbery [f]	25	7.80	109,118	78.0
Assault [g]	45	14.00	195,853	140.0
Assault with a Weapon [h]	22	6.80	95,128	68.0

Note. See footnote 1 for method for estimating the population of West Virginians 18 or older who have a telephone as 1,398,953.
[a] Break-in is defined as an incident where someone illegally breaks in to your home, car, or garage whether something is stolen or not.
[b] Objects stolen inside the home includes thefts that occur during a break in or by someone with legal access to the home.
[c] Objects stolen outside the home include anything stolen on your property but outside the home.
[d] Pocket picked or purse snatched refers to thefts from your person—inside your pockets or purse—but not with force as in a robbery.
[e] Car, bicycle or motor vehicle stolen includes the thefts of all forms of these conveyances.
[f] Robbery is defined as mugging or robbing via stick up or threatening to hurt the respondent
[g] Assault is defined as being beaten up, attacked, or hit with something
[h] Assault with a weapon is defined as being knifed at, shoot at, or attacked with a weapon

Intimate Partner Violence (IPV)

The eight items in Table 4 are derived from the University of Kentucky's (UK) 2014 Campus Attitudes toward Safety (C.A.T.S.) Survey conducted by UK's Center for Research on Violence Against Women (2014) (Cronbach's alpha = .83). The Center used a modified version of Straus, Hamby, Boney-McCoy, and Sugarman's (1996) Revised Conflict Tactics Scales (CTS). The items were introduced with the following preamble and the response categories are "Never (0 times)," "Once (1 time)," "Sometimes (2-5 times)," "Often (6+ times)," and "Choose not to answer":

We are particularly interested in learning about your intimate or romantic relationships. Since you started at this university, how many times has someone you were dating or a spouse/partner done the following things to you ***that were NOT done in a joking or playful manner?***

Table 3

2016 West Virginian's Experience with Property and Violent Crime Past 12 Months

	# Sample	% Sample	Estimated Number	Estimated Rate per 1000*
Property Crime				
Break-in [a]	25	7.67	107,300	76.7
Objects Stolen Inside Home [b]	18	5.50	76,942	55.0
Objects Stolen Outside Home [c]	19	5.85	81,838	58.5
Pocket Picked [d]	1	0.31	4,337	3.1
Car, Bicycle, Motorcycle Stolen [e]	6	1.84	25,740	18.4
Violent Crime				
Robbery [f]	3	0.94	13,150	9.4
Assault [g]	7	2.19	30,637	21.9

Note. See footnote 1 for method for estimating the population of West Virginians 18 or older who have a telephone as 1,398,953.
[a] Break-in is defined as an incident where someone illegally breaks in to your home, car, or garage whether something is stolen or not.
[b] Objects stolen inside the home includes thefts that occur during a break in or by someone with legal access to the home.
[c] Objects stolen outside the home include anything stolen on your property but outside the home.
[d] Pocket picked or purse snatched refers to thefts from your person—inside your pockets or purse—but not with force as in a robbery.
[e] Car, bicycle or motor vehicle stolen includes the thefts of all forms of these conveyances.
[f] Robbery is defined as mugging or robbing via stick up or threatening to hurt the respondent
[g] Assault is defined as being beaten up, attacked, or hit with something

Table 4

2016 West Virginian's Experience with Intimate Partner Physical Assault Past 12 Months

	# Sample	% Sample	Estimated Number	Estimated Rate per 1000*
Shoved, shook, pinched, or scratched you, or pulled hair.	12	4.1	57,357	41
Slapped you.	12	4.1	57,357	41
Threw something at you that could hurt you.	13	4.4	61,554	44
Bent your fingers or twisted your arms.	5	1.7	23,782	17
Hit, punched, kicked or bit you.	12	4.1	57,357	41
Beat you up.	3	1.0	13,990	10
Burned, choked, or tried to strangle or suffocate you.	1	0.3	4,197	3
Used or threatened to use a weapon against you.	4	1.4	19,585	14
Total IPV Physical Assault * [a]	24	8.2	114,714	82

Note. See footnote 1 for method for estimating the population of West Virginians 18 or older who have a telephone as 1,398,953.
[a] Intimate Partner Physical Assault is defined as any of the following incidents within the context of an intimate or romantic relationship: shoved, shook, pinched, scratched, hair pulled, slapped, object thrown at the respondent, fingers bent back, arm twisted, hit, punched, kicked, bit, dragged by hair, thrown down stairs, thrown out of car, thrown around, beat up, burned, choked, strangled, suffocated, or had a weapon used or threatened to be used against the respondent.

Sexual Assault

The five items in Table 5 are modified versions of some of those included in Koss et al.'s (2007) Revised Sexual Experiences Survey. They were introduced with this preamble and the response categories are "yes" and "no":

> *The following questions concern unwanted sexual experiences that you may have had since you enrolled at this university. We know that these are personal questions and we do not want your name or other identifying information. Your answers are completely confidential. We hope this helps you feel comfortable answering each question honestly. Since you enrolled at this university, did any of the following happen to you?*

Table 5

2016 West Virginian's Experience with Sexual IPV Past 12 Months

In the last 12 months, how often have you had unwanted sex with someone you were dating or a spouse/partner because…	# Sample	% Sample	Estimated Number	Estimated Rate per 1000*
you were pressured	4	1.43	20,005	14.3
you were slipped drugs and/or alcohol and couldn't physically say no	2	0.71	9,933	7.1
he/she took advantage of you when you were physically unable to say no because you had too much to drink and/or used drugs	3	1.08	15,109	10.8
he/she threatened you with physical harm if you did not give in	1	0.36	5,036	3.6
he/she tried to physically force you, but you were able to escape it	1	0.36	5,036	3.6
he/she physically forced you to have sex	2	0.72	10,072	7.2
Total Sexual IPV	7	2.5	34,974	25

*See endnote number 1 for method for estimating the population of West Virginians 18 or older who have a telephone as 1,398,953

Hate Crimes and Bias Incidents Victimization

The 15 items in Table 6 come from a survey instrument developed by the Prejudice Institute (1995) and DeKeseredy and Perry's (2006) Campus Life Questionnaire. They were introduced with the following preamble and the response categories are "yes" and "no":

> *Have any of the following incidents happened to you in your community because of your real or perceived race/ethnicity, national origin, religion, sexual orientation, physical or mental disability, or political orientation?*

Table 6

2016 West Virginian's Experience with Bias Motivated Offenses in Past 12 Months

	# Sample	% Sample	Estimated Number	Estimated Rate per 1000*
Personal property damaged	5	1.60	22,383	16.0
Personal property stolen	4	1.30	18,186	13.0
Had objects thrown at you	2	0.60	8,393	6.0
Been chased or followed by people intent on hurting you	4	1.30	18,186	13.0
Had verbal assaults directed at you	21	6.70	93,730	67.0
Been threatened with physical assault	6	1.70	23,782	17.0
Been threatened with unwanted sexual behaviors	4	1.30	18,186	13.0
Been verbally sexually harassed	9	2.90	40,570	29.0
Been touched sexually when you didn't want to be touched	6	2.00	27,979	20.0
Been threatened with a weapon	2	0.70	9,793	7.0
Received offensive phone calls, letters, emails	8	2.20	30,777	22.0
Been unwilling exposed to racist, sexist, or other offensive on-line images	23	7.30	102,124	73.0
Bias-Motivated Violent Offense [a]	36	12.1	169,273	121.0
Bias-Motivated Property Offense [b]	9	2.9	40,570	29.0

Note. See footnote 1 for method for estimating the population of West Virginians 18 or older who have a telephone as 1,398, 953.
[a] Bias-Motivated Violent Offense combines responses to 9 bias-motivated offenses reported in this table that are alleged to have occurred in the past 12 months and that are directed against a person, including 1) had objects through at you, 2) been chased or followed by people intent on hurting you, 3) had verbal assaults directed at you, 4) been threatened with physical assault,5) been threatened with unwanted sexual behaviors, 6) been verbally sexually harassed, 7) been touched sexually when you didn't want to be touched, 8) been threatened with a weapon, and 9) received offensive letters, phone calls, emails, etc. This category does not include "Being unwilling exposed to racist and sexist, or other offensive online images.
[b] Bias-Motivated Property Offense combines responses to bias motivated offenses reported in this table that are alleged to have occurred in the past 12 months and that are considered property offenses, including1) had personal property damaged and 2) had personal property stolen.

Stalking

Stalking is "the willful, repeated, and malicious following, harassing, or threatening of another person" (Melton, 2007, p. 4). It was operationalized using the eight items in Table 7 that are found in the Centers for Disease Control and Prevention's National Intimate Partner and Sexual Violence Survey (NISVS) (Black et al., 2011). They were introduced with this question: "How many times have one or more of the following things happened to you in the past 12 months?" The response categories are none, 1 or 2, 3-5, 6-8, and more than 8.

Supplementary Open-Ended Question

Getting accurate estimates of the extent of crime victimization continues to be one of the biggest methodological challenges in survey research on this social problem (DeKeseredy et al., 2021; Smith 1987). The problem of underreporting is difficult to overcome and will not be eliminated soon, if ever. Many victims, especially women who have been assaulted by current or

Table 7

2016 West Virginian's Experience with Stalking & Harassment Offenses in Past 12 Months

	# Sample	% Sample	Estimated Number	Estimated Rate per 1000*
Someone watched or followed from a distance and spied on you with a listening device, camera or GPS	13	4.10	57,357	41.0
Someone approached you or showed up in places, such as your home, workplace, or school when you didn't want them to be there.	19	6.00	83,937	60.0
Someone left strange or potentially threatening items for you to find.	4	1.30	18,186	13.0
Someone sneaked into your home or car and did things to scare you by letting you know they had been there.	3	0.90	12,591	9.0
Someone left you unwanted messages, including text or voice messages (not including bill collectors).	19	6.00	83,937	60.0
Someone sent you unwanted emails, instant messages, or messages sent through social media apps.	28	8.80	123,108	88.0
Someone left you cards, letters, flowers, or presents when they knew you did not want them.	1	0.30	4,197	3.0
Someone made hurtful or inappropriate comments to you online that were not done in a joking or playful manner.	23	7.20	100,725	72.0
Someone spread rumors about you online, whether they were true or not.	17	5.40	75,543	54.0
Stalking/Harassment Composite	64	20.3	283,988	203

*See endnote number 1 for method for estimating the population of West Virginians 18 or older who have a telephone as 1,398,953.

former intimate male partners, do not disclose their experiences because of fear of reprisal, reluctance to recall traumatic events, memory error, embarrassment, "forward and backward telescoping," deception, and the belief that some events are too trivial or inconsequential to reveal (DeKeseredy, 2019; DeKeseredy & Schwartz, 2013; Smith, 1994). Still, there may be effective means of minimizing underreporting and one is to add supplementary open-ended questions to mainly quantitative survey instruments. A few studies show that some silent or forgetful victims changed their responses when asked again in different words, and belated responses increased the overall prevalence rates (see DeKeseredy et al., 2021; Smith, 1987).

In addition to giving respondents more opportunities to disclose victimization experiences, including those not listed in quantitative measures, supplementary open-ended questions like ours situated at the end of the WVCQLS help build researcher-respondent rapport and provide rich contextual data that cannot be gleaned numerically (DeKeseredy et al., 2021; Pritchard et al.,

2018; Smith, 1994). This question is a revised version of one of three crafted by Smith (1987) and used in his study of woman abuse in Toronto:

> *We really appreciate the time you have taken to complete this survey. And, we'd like to assure you that everything you have me will remain strictly anonymous. We realize the topics covered in this survey are sensitive and that many people are reluctant to talk about some of their community experiences. But I'm also a bit worried that I haven't asked the right questions. So now that you have had a chance to think about the topics covered in this survey, would you like to provide me with any additional information about the quality of life in your community?Like the rest of your responses to this survey, any information you provide is anonymous and will only be reported grouped with all other comments.*

The responses to this WVCQLS supplementary question are in the process of being carefully analyzed. However, because similar questions helped DeKeseredy et al. (2021) and Smith (1987) uncover higher levels of woman abuse, it is fair to assume that ours increased the rates of various types of crime victimization. Below are some examples of responses:

> *Molestation was a part of my past.*
>
> *My partner threw stuff at me.*
>
> *I experienced sexual assault but don't want to talk about it.*
> *Break-ins are a daily occurrence. One woman had her car broken into three different times and they stole her radio each time.*
>
> *I am Jewish and from Africa. I am worried about being targeted because of my race. I am more worried about verbal than physical assaults.*
>
> *I was stalked for six months by a man I did not know. He followed me everywhere and would drive behind me and park his car. I was sexually touched against my will by a man who works in my apartment building.*

Discussion

Surveys on the extent of crime victimization in predominantly rural places are in short supply in the U.S., and so are large-scale state-wide studies like the WVCQLS. This is surprising because these types of surveys are, in many ways, superior to the NCVS since they examine the unique characteristics at the state, county, and township level (Setari et al., 2016). Furthermore, as the Indiana Criminal Justice Institute (2017) remind us, "Since the NCVS is based on a

national sample of respondents, individual communities or states represent only a small fraction of the overall sample, thereby prohibiting the extraction of reliable state and local crime statistics" (p. 5). This is not to say that there are no other state-wide surveys. One was recently administered in Indiana and another in Kentucky (Indiana Criminal Justice Institute, 2017; Setari et al., 2016). Even so, it is difficult, if not impossible, to make precise comparisons with these two surveys because of methodological differences, such as measurement and sampling.

On the other hand, *some* fairly accurate comparisons can be made. For example, both the WVCQLS and the Indiana Crime Victimization Survey (ICVS) were phone surveys and both used renditions of the CTS. Slightly over 8% of our sample reported experiencing some type of intimate partner violence in the year prior to the study, while 3% of the Indiana respondents reported some form of domestic violence victimization in 2016. The sexual assault measures used in both studies are also somewhat similar. The WVQLS rate is 2.4% and the ICVS figure is 2%. And, the rates of all the stalking items in Table 7 are markedly higher those for similar ones included in the ICVS. Slightly over 20% (20.3%) of WVCQLS experienced one or more of the behaviors in this table and a little over 8% of ICVS respondents were victimized by some type of stalking in 2016.

Regardless of how crime victimization in measured and regardless of whether surveys are administered in metropolitan and non-metropolitan areas, all data on the extent of the harms respondents experience should be considered underestimates due to the ubiquitous nature of underreporting. All the same, WVCQLS statistics reveal higher rates victimization than those found in West Virginia UCR data. WVCQLS data are, then, useful for policy and practice. They offer practitioners and law makers more accurate baseline data from which to determine the nature and number of necessary resources. Before this study, crime information available to all West Virginia stakeholders was limited and did not tell us about crime that does not come to the attention of criminal justice officials.

To advance a better understanding of criminal victimization in rural places and at the state level, and to both prevent and control it, more than just accurate estimates are required. We need to empirically discern the major risk factors associated with the experiences reported in this article, such as race/ethnicity and employment status. This type of analysis provides information on who is at the greatest risk of being victimized. Such correlational research will also assist in the development of much needed theories. Donnermeyer (2019) is correct to spotlight that the explanation of violent acts and other types of crime in rural communities needs a firmer theoretical base than is currently found in the extant rural criminological literature.

Future articles about WVCQLS findings will include risk factor data, as well as information on community context, perceptions of crime and police, and the use of community resources. This study helps fill a major research gap in the rural crime victimization literature, but the

ultimate goal of this project is to enhance all West Virginians' health and well-being. Perfect rural victimization surveys are not possible (Babbie, 1973), but good ones can and should be done (Hay, 1993). The methods used in the WVCQLS constitute an important step toward achieving this goal and hopefully similar studies will be conducted elsewhere.

Endnotes

[1] See DeKeseredy (2021) for a review of the extant literature on NCVS violence against rural women data.
[2] Economic distress is determined by analyzing three-year average unemployment rates, per capita market income, and poverty rates.
[3] The National Center for Health Statistics estimates that 3.9% of West Virginians 18 and older have no phone, neither landline nor cellular (https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless_state_201602.pdf).
[4] The Marketing Systems group provided the research team with the random sample of landline and cellular phone numbers (http://www.m-s-g.com/Web/Index.aspx)

References

Appalachian Regional Commission. (2021a). The Appalachian Region: A data overview from the 2015-2019 American community survey. Retrieved from https://www.arc.gov/report/the-appalachian-region-a-data-overview-from-the-2015-2019-american-community-survey/

Appalachian Regional Commission. (2021b). Poverty rates in Appalachia 2013-2017. Retrieved from https://www.arc.gov/classifying-economic-distress-in-appalachian-counties/

Babbie, E. (1973). *Survey research methods*. Belmont, CA: Wadsworth.

DeKeseredy, W. S. (2019). Innovative methods of gathering survey data on violence against women. In M. Deflem & D. Silva (Eds.), *Methods of criminology and criminal justice research* (pp. 69-84). Bingley, UK: Emerald. https://doi.org/10.1108/S1521-613620190000024008

DeKeseredy, W. S. (2021). *Woman abuse in rural places*. London, UK: Routledge. https://doi.org/10.4324/9781003009290

DeKeseredy, W. S., & Schwartz, M. D. (2013). *Male peer support & violence against women: The history & verification of a theory*. Boston, MA: Northeastern University Press.

DeKeseredy, W. S., Stoneberg, D. M., Nolan, J., & Lory, G. L. (2021). Enhancing the quality of survey data on college campus woman abuse: The contribution of a supplementary open-ended question. *Violence Against Women*, *27*(12-13), 2477-2490. https://doi.org/10.1177/1077801220975496

Donnermeyer, J. F. (2019). The international emergence of rural criminology: Implications for the development and revision of criminological theory for rural contexts. *International Journal of Rural Criminology*, *5*(1), 1-18. https://doi.org/10.18061/1811/88731

Hay, D. (1993). Methodological review of "The incidence and prevalence of woman abuse in Canadian university and college dating relationships: Preliminary results from a national survey," by W. DeKeseredy and K. Kelly. *Journal of Human Justice*, *4*, 53-65. https://doi.org/10.1007/BF02619526

Hodgkinson, T., & Harkness, A. (2020). Introduction: Rural crime prevention in theory and context. In A. Harkness (Ed.), *Rural crime prevention: Theory, tactics and techniques* (pp. 1-16). London, UK: Routledge. https://doi.org/10.4324/9780429460135-1

Indiana Criminal Justice Institute. (2017). *2016 Indiana crime victimization survey: Comprehensive survey report*. Retrieved from https://ncvc.dspacedirect.org/bitstream/id/2397/Indiana%20CVS_IR_508.pdf

Keeter, S., Hatley, N., Kennedy, C., & Lau, A. (2017). *What low response rates mean for telephone surveys*. Washington, D.C.: Pew Research Center.

Koss, M. P., Abbey, A., Campbell, R., Cook, S., Norris, J., Testa, M., …White, J. (2007). Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly*, *31*(4), 357-370. https://doi.org/10.1111/j.1471-6402.2007.00385.x

Melton, H. (2007). Predicting the occurrence of stalking in relationships characterized by domestic violence. *Journal of Interpersonal Violence*, *22*(1), 13-25. https://doi.org/10.1177/0886260506294994

Nolan, J., Haas, S., Lester, T., Kirby, J., & Jira, C. (2006). *Establishing the "statistical accuracy" of Uniform Crime Reports (UCR) in West Virginia*. Charleston, WV: Criminal Justice Statistical Analysis Center, Division of Criminal Justice Services, Department of Military Affairs and Public Safety.

Pease, K. (1992). The local crime survey: Pitfalls and possibilities. In J. Lowman & B. D. MacLean (Eds.), *Realist criminology: Crime control and policing in the 1990s* (pp. 303-312). Toronto, ON: University of Toronto Press. https://doi.org/10.3138/9781487575854-017

Pickett, J. T., Cullen, F. T., Bushway, S. D., Chiricos, T., & Alpert, G. (2018). The response rate test: Nonresponse bias and the future of survey research in criminology and criminal justice. *The Criminologist*, *43*(1), 7-11. https://doi.org/10.2139/ssrn.3103018

Pritchard, A. J., DeKeseredy, W. S., Nolan, J., & Hall-Sanchez, A. (2018). Who speaks first? Analyzing response waves in a large-scale campus climate survey. *Journal of Aggression, Maltreatment & Trauma.* https://doi.org/10.1080/10926771.2018.1468374

Setari, R., Bradley, K., Sampson, S., & Stanek, M. (2016). *Kentucky statewide victimization survey phase 1 report*. Lexington, KY: University of Kentucky College of Education Evaluation Center.

Smith, M. D. (1987). The incidence and prevalence of woman abuse in Toronto. *Violence and Victims*, *2*(3), 173-187.

Smith, M. D. (1994). Enhancing the quality of survey data on violence against women: A feminist approach. *Gender & Society*, *18*(1), 109-127. https://doi.org/10.1177/089124394008001007

Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised conflict tactics scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues*, *17*(3), 283-316. https://doi.org/10.1177/019251396017003001

Tourangeau, R. (2017). Presidential address: Paradoxes of nonresponse. *Public Opinion Quarterley*, *81*, 803-814. https://doi.org/10.1093/poq/nfx031

World Population Review. (2021). West Virginia population 2021. Retrieved from https://worldpopulationreview.com/states/west-virginia-population

Erratum

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