

Kentucky State Victimization Survey (KSVS) Quality Evaluation

Victimization Scale Technical Report

KSVS
Quality Evaluation
2018
Victimization Scale
Technical Report

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INTRODUCTION

The Kentucky Statewide Victimization Survey (KSVS) is a regional crime victimization survey instrument that is designed to accurately measure the criminal victimization experiences of adults residing within Kentucky. Its purpose is to help understand how reliable and valid official sources of data are within Kentucky, to distinguish the circumstances and risk factors that may influence the likelihood of criminal victimization within the Commonwealth, and to help clarify criminal victimization experiences that were not provided from other resources (e.g., national estimates) for providing a complete picture of criminal victimization within the state. Furthermore, the KSVS considers homeless individuals, who are often overlooked by crime victimization surveys. As homeless, transient, and other unstably housed individuals experience a unique type(s) of victimization (Wenzel, Koegel, & Gelberg, 2000), the KSVS was modified to accommodate these groups. This survey also provides respondents with contact information for a mental health professional that can assess needs, provide telephone-based support, and, if needed, provide resources for longer-term follow up within their own community. Beyond an overall look at victimization, sub-constructs included on the instrument are: Perceptions of Risk, Property Offenses, Interpersonal Threat Characteristics, Sources of Violent Crime, Law Enforcement Performance, and Community Resource Utilization.

This report first addresses victimization as a general scale to examine its psychometric qualities. It contains 33 dichotomous (yes/no) items that are related to Property Offenses and Interpersonal Threat Characteristics. These items were developed to measure the incidence of victimization for different types of crime during the past 12 months. Rasch analysis was utilized to examine psychometric qualities of the victimization scale. Before running the analysis, the dataset required minimal cleaning to replace coded missing data with an empty cell: the code “9” indicates that a valid missing in the raw data was removed, and the codes “2”, “11”, and “12” indicate that invalid missing were also removed.

The initial analysis was conducted using all 8,520 respondents. Of these respondents, almost 2/3 answered “no” to every item, and that skewed distribution inhibited the evaluation of the scale. In order to run meaningful psychometric analyses, we removed the all “no” respondents for this evaluation, and used the 3,231 (38%) respondents who experienced at least one type of victimization during the past 12 months.

RASCH MEASUREMENT

The validity and reliability analysis begins with the application of a Rasch (1960) measurement model. The Rasch model expresses item difficulty-to-endorse, and respondent level of victimization, in units commonly referred to as logits. When data fit the assumptions of the model, the analysis provides a sort of ruler for measuring an attribute of interest; in this case the presumed construct is “victimization.” The ruler is an interval scale, meaning two items with difficulty-to-endorse measures of 0 and +1 are the

same distance apart along this hypothetical ruler as items with logits of +2 and +3. It is also an additive scale, so an item with a logit measure of +4 is considered to indicate twice the level of victimization as a +2 logit measure. The Rasch model is based on the idea that a person can be placed along a continuum like this, based on the level s/he has been victimized:

Extremely low level of victimization ←-----some level of victimization-----→extreme level of victimization

The logit score indicates respondent placement along that continuum. That placement should be the same no matter what sample items a respondent answers, as long as those items are indeed within the scope of the construct and targeted relatively close to the respondent's level of victimization.

The item difficulty-to-endorse measures are also independent of the ability distribution of the respondents taking a survey. However, to build a reliable scale, the sample of respondents must have varying levels of the attribute. For example, if the survey is given to a sample of respondents who have had no experiences as a victim, they will provide no information about the level of victimization any one item represents. If a respondent has a higher victimization scale score, that means the respondent experienced more crimes during the past 12 months. In contrast, lower victimization scale score indicates less experiences of victimization during the past 12 months. Similarly, if an item has a higher measure, it indicates the event is difficult to endorse, meaning it is less likely to happen; a lower measure indicates the item is easier to endorse, meaning it is more likely to happen.

Respondents and items are placed on a common scale that looks similar to the victimization continuum above. This allows for the comparison of person ability and item difficulty, to determine the probability that a person will respond in a certain way to any given item. The unconditional, joint maximum likelihood (UCON) estimation procedure estimates the person parameters (i.e., experience, ability, attitude) simultaneously with the item parameters (i.e., difficulty-to-endorse). This procedure is accomplished using WINSTEPS Version 3.92.1 (Linacre, 2016) software that is commercially available and widely used in the testing industry. Person and item measures are very useful in gauging levels of an attribute and measuring change when the data conform to the assumptions of the model and exhibit acceptable measures of reliability. In order to calculate Rasch measures, certain assumptions must be met: the items must be unidimensional, they must exhibit acceptable fit to the model, and items and persons must be well spread along the continuum. These concepts are explained below, within the context of this instrument.

PSYCHOMETRIC QUALITIES OF THE OVERALL INSTRUMENT

The instrument is theoretically unidimensional, but the data indicate that it is a less psychometrically unidimensional instrument with all items. In order to apply the Rasch model to measure an attribute, the items must all be related to the same construct. This survey was designed to measure victimization, and all items were written accordingly. Thus, the instrument is theoretically unidimensional. However, the data indicate that it may be a less unidimensional instrument. Determining dimensionality requires examining the principal component analysis (PCA) of Rasch residual estimates. The PCA of Rasch

residuals returned to a first contrast with an eigenvalue of 2.7. The eigenvalue level of less than 2.0 indicates that the tool can be considered unidimensional (Linacre, 1998). 2.7 is greater than the criteria and only 22% of raw variance is explained by measures, meaning the instrument is less psychometrically unidimensional.

The data exhibit acceptable fit to the model. The Rasch model works under the premise that a person has a certain experience level related to a construct, and that the construct has a difficulty continuum. In this case, personally experiencing victimization is the construct of interest. That means a person who has been victimized less would be placed toward the bottom on the difficulty continuum, while a person who has been victimized more would be placed toward the top of the continuum. An easy-to-endorse item is low on the hypothetical ruler; a difficult item is high on the ruler. In this case, an easy-to-endorse item indicates the type of crime that occurs more often, whereas a difficult item represents the type of crime that occurs less often. Fit reflects the extent to which items can be placed into a hierarchy from easy to difficult-to-endorse. Items will exhibit misfit when many respondents who experienced more victimization did not choose the easy-to-endorse item, while many respondents who experienced overall less victimization selected the difficult-to-endorse item. Fit statistics are computed for each item. This fit statistic quantifies the sum of the squared difference of the observed item performance from the expected performance for all persons. The expectation is 1. Because this is mainly a rating scale survey, mnsq fit statistics between .6 - 1.4 are considered acceptable (see <https://www.rasch.org/rmt/rmt83b.htm>). Most items exhibit acceptable fit, as displayed in Table 1 in the Appendix. However, the item IDthft “has anyone used your financial information without your permission?” misfit since its mnsq fit statistics is 1.74 which beyond the criteria.

The items exhibit internal consistency. The item-total correlation (PtBis or Corr.) provides a measure of internal consistency of the responses. It assesses how well each item measures the trait defined by the set of items as a whole. Typically, respondents who experience more victimization would be expected to answer “yes” to more items, and respondents who experience less victimization would be expected to answer “no” to more items. If these expectations are met, the item-total correlation between the item and the total scale score will be high and positive, indicating that the item is a good discriminator between more-experience and less-experience along the construct. An item-total correlation value above 0.30 is usually considered acceptable. An item-total correlation value below 0.30 indicates that an item may not be measuring what it was intended to measure, and should be reviewed. As seen in Table 1, item-total correlations for most items exceeded the 0.30 criterion, except seven items: VEHICLE (“During the past 12 months, were any of the following items stolen from you - A vehicle?”), SPORTEQ (“During the past 12 months, were any of the following items stolen from you- Sports equipment?”), SOMELSE (“During the past 12 months, were any of the following items stolen from you- Something else?”), OUTSIDE (“During the past 12 months, were any of the following items stolen from you- An item outside your home?”), BKINGCAR (“has anyone broken into your vehicle?”), CALLU (“Did someone make you feel threatened by calling you on the telephone without your permission?”), and IDTHFT (“has anyone used your financial information without your permission?”). The Item IDthft “has anyone used

your financial information without your permission?” has a negative correlation with the whole scale score.

OVERALL INSTRUMENT STATISTICS

Tables 2-4 contain summary descriptive statistics for student performance and item difficulty, including mean score, standard deviation, and minimum and maximum scores. The top halves of the respondent summary tables provide descriptive statistics for respondents measured. The column labeled “Measure” provides the mean and standard deviation of the estimated respondent experience in victimization measures. The “Model Error” column presents similar information for the asymptotic standard errors. The top half of the item summary tables provide the same descriptive statistics outlined above, with the exception that items are the unit of analysis rather than respondents. In this table, “Measure” refers to estimated item difficulty, so the average measure refers to the average difficulty of the items on the survey. The bottom half of the tables contain the Root Mean Square Error (RMSE). RMSE is the “average” measurement error of reported measures. Model RMSE is computed on the basis that the data fit the model, and all misfit is a reflection of the stochastic nature of the model. Real RMSE is computed on the basis that misfit is due to departures in the data from the model specifications. This is a “worst case” reliability, which reports a lower limit to the reliability of measures based on this set of items for this sample.

Item separation reliability is good.

The Victimization scale includes 33 items with dichotomous response options. Item separation statistics indicate how well this sample of students have spread out the items along the hierarchical ruler, and defined a meaningful variable. The item separation is 12.15 (See Table 4), meaning these items are well spread along the difficulty-to-endorse continuum and appropriately represent levels of victimization. The item reliability estimate of .99 is very high, which indicates items with high difficulty-to-endorse measures actually do represent the types of crimes that rarely occurred during the past 12 months, and items with low difficulty-to-endorse measures do represent crimes that occurred most often during the past 12 months. Most items exhibit acceptable fit and internal consistency.

Items do represent levels of difficulty along the continuum. The construct of interest is *Victimization*.

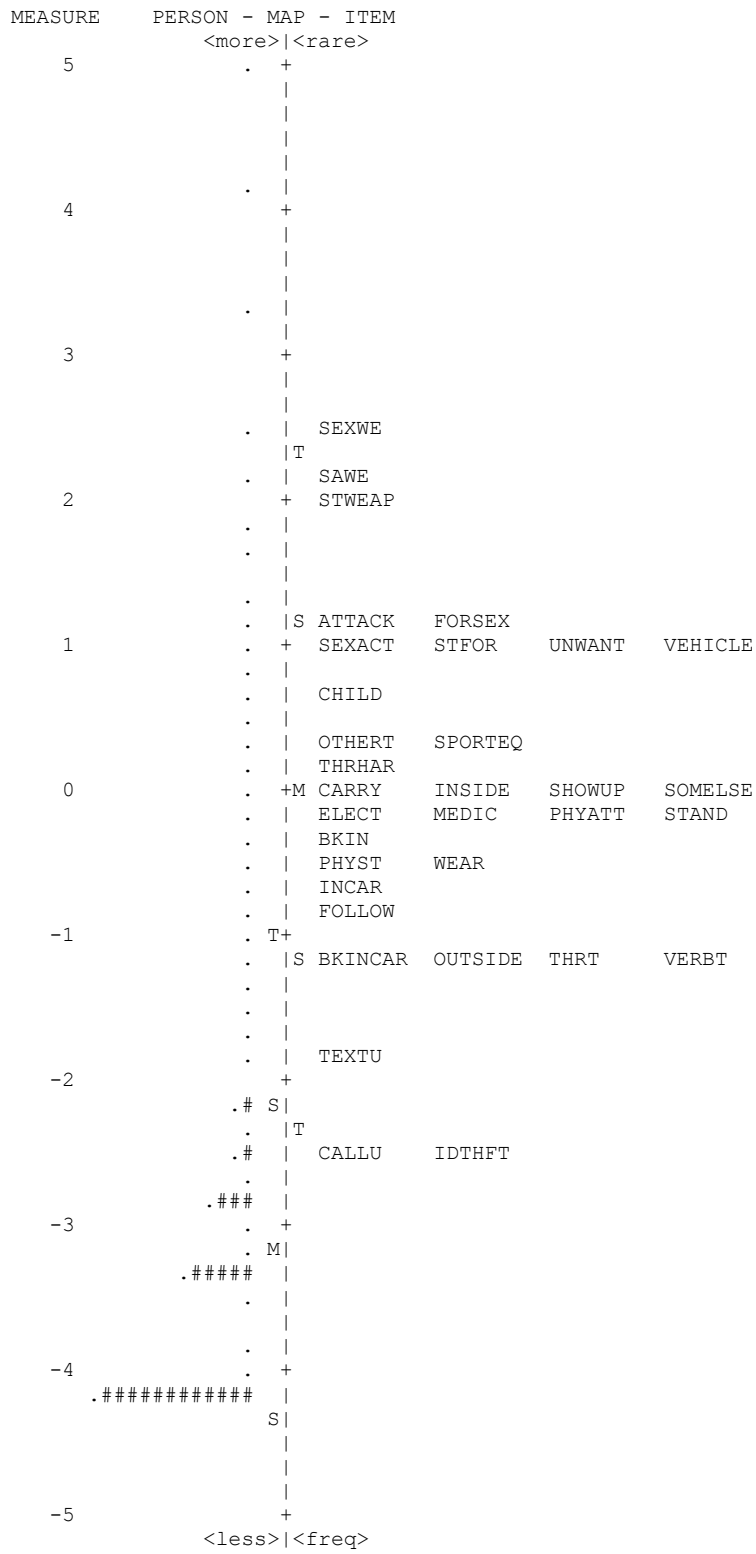
An easy-to-endorse item is low on the hypothetical ruler, while a difficult item is high on the ruler. In this case, item measures fall between +2.56 and -2.54 logits. Item SEXWE “forced you into sexual intercourse using a weapon?” was the most difficult to endorse, meaning this crime was the least likely to be experienced by respondents during the past 12 months; the item IDthft “has anyone used your financial information without your permission?” was the easiest, meaning this crime was the most likely to be experienced by respondents during the past 12 months. Meanwhile, among 33 items, item SAWE “forced you into sexual activity using a weapon?” and item STWEAP “stolen something from you using a weapon?” are also most challenging to answer “yes” for respondents, whereas item CALLU “did someone make you feel threatened by calling you on the telephone without your permission?” and item TEXTU “did someone make you feel threatened by sending you messages without your permission?” are easiest to say “yes” for respondents. In addition, item IDthft “has anyone used your financial

information without your permission?" has a negative correlation with the whole scale score, which indicates this item should be reviewed or revision, such as defining a clearer statement for respondents on the survey.

Figure 1 displays the item map, which is the hypothetical ruler. The # symbol to the left of the ruler represents respondents; those at the top are the ones who reported to experience all types of crimes in the survey. The numbers to the right indicate the items. Ideally, many items are spread along the continuum. Each "#" represents 112 respondents; each "." displays up to 111 respondents. All respondents in the sample experienced at least one type of crime during the past 12 months, and 3 respondents reported that they experienced 33 types of crimes during the past 12 months.

Person separation reliability is low. Person separation reliability refers to the reproducibility of relative measure location for persons. This is not a measure of item quality. High reliability means there is a high probability that respondents with high levels of the attribute actually do have higher measures than respondents with low measures. Conventionally only the person separation reliability measures are reported; it is similar to Cronbach's alpha. For high reliability, a large-size sample and low measurement error are needed. Person separation reliability indicates how well all the items on the instrument work to gauge respondent experience along the construct. Low person separation (< 2 , person reliability < 0.8) with a relevant person sample implies that the instrument may not be sensitive enough to distinguish between more-victimized and less-victimized respondents. With a "best case" person separation of .84, and person reliability of .41 (See Table 3), the scores are not reliable enough for making useful inferences about respondents' level of victimization, but the purpose of the instrument is not to detect levels of victimization among those who have experienced very little crime. Thus, the low person separation reliability measures are not a concern.

Figure 1: Item map



EACH "#" IS 112: EACH "." IS 1 TO 111

SEXWE = forced you into sexual intercourse using a weapon?
SAWE = forced you into sexual activity using a weapon?
STWEAP = stolen something from you using a weapon?

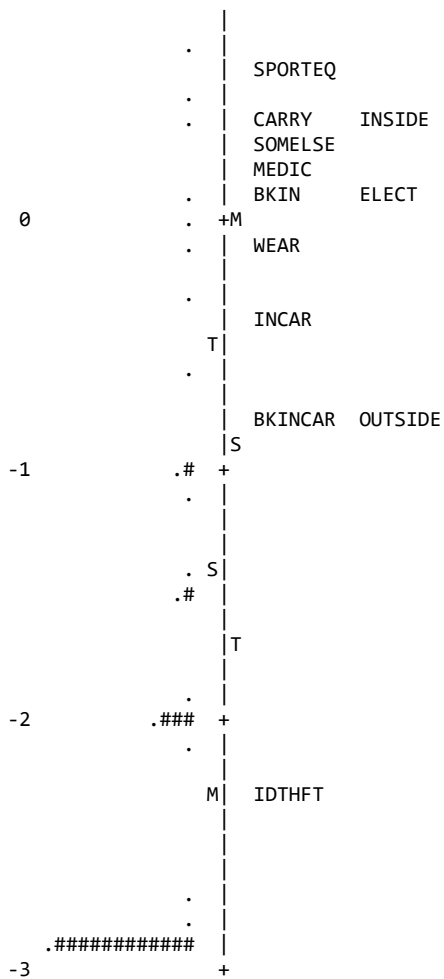
ATTACK = Physically attacked you with a weapon?
 FORSEX = forced you into sexual intercourse?
 SEXACT = forced you into sexual activity?
 STFOR = stolen something from you using force
 UNWANT = did someone make you feel threatened by leaving you unwanted items?
 VEHICLE = a vehicle
 CHILD = a child's belongings
 OTHERT = did someone make you feel threatened in another way not mentioned?
 SPORTEQ = sports equipment
 THRHR = threatened to physically harm you using a weapon?
 CARRY = a carried item
 INSIDE = an item inside your home
 SHOWUP = did someone make you feel threatened by showing up at the same places you were?
 SOMELSE = something else
 ELECT = a portable electronic device
 MEDIC = medication
 PHYATT = physically attacked you?
 STAND = did someone make you feel threatened by standing outside your home, school, workplace,
 etc?
 BKIN = has anyone broken into a place that you are staying?
 PHYST = did someone make you feel threatened by physically threatening you?
 WEAR = something that you wear
 INCAR = something that was inside the vehicle
 FOLLOW = did someone make you feel threatened by following or spying on you?
 BKINCAR = has anyone broken into your vehicle?
 OUTSIDE = an item outside your home
 THRT = threatened to physically harm you?
 VERBT = did someone make you feel threatened by making verbal threats?
 TEXTU = did someone make you feel threatened by sending you messages without your permission?
 CALLU = did someone make you feel threatened by calling you on the telephone without your
 permission?
 IDTHFT = has anyone used your financial information without your permission?

SUBSCALES

Two subscales of interest on this survey are property offenses and interpersonal threat characteristics. All items from both of these scales appear on the overall victimization map. The item maps for each subscale are displayed below.

PROPERTY OFFENSES

MEASURE	PERSON	MAP	ITEM
	<more>		<rare>
3	.	+	
2	.	+	
	.		
			T
	.		
	.		
			VEHICLE
	.		
1	.	+	
			S CHILD



<less>|<freq>
 EACH "#" IS 105: EACH "." IS 1 TO 104
 VEHICLE = a vehicle
 CHILD = a child's belongings
 SPORTEQ = sports equipment
 CARRY = a carried item
 INSIDE = an item inside your home
 SOMELSE = something else
 MEDIC = medication
 BKIN = has anyone broken into a place that you are staying?
 ELECT = a portable electronic device
 WEAR = something that you wear
 INCAR = something that was inside the vehicle
 BKINCAR = has anyone broken into your vehicle?
 OUTSIDE = an item outside your home
 IDTHFT = has anyone used your financial infoamtion without your permission?

INTERPERSONAL THREAT CHARACTERISTICS

MEASURE PERSON - MAP - ITEM
 <more>|<rare>
 4 . +
 . |
 | T
 |

```

3      . +
      |   SEXWE
      |   SAWE
      |   STWEAP
2      . +
      |   S
      |
      |   .
      |   .
1      . + ATTACK  FORSEX
      |   SEXACT  STFOR  UNWANT
      |   .
      |   .
      |   .
0      . +M  OTHERT
      |   THRHR
      |   SHOWUP
      |   T
      |   . PHYATT  STAND
      |   .
-1     . + PHYST
      |   .#
      |   FOLLOW
      |   .# S
      |   S VERBT
      |   THRT
-2     .# +
      |   .
      |   .### TEXTU
      |   M
-3     .##### +
      |   T
      |   CALLU
-4     .##### +

```

<less>|<freq>

EACH "#" IS 55: EACH "." IS 1 TO 54

SEXWE = forced you into sexual intercourse using a weapon?

SAWE = forced you into sexual activity using a weapon?

STWEAP = stolen something from you using a weapon?

ATTACK = Physically attacked you with a weapon?

FORSEX = forced you into sexual intercourse?

SEXACT = forced you into sexual activity?

STFOR = stolen something from you using force

UNWANT = did someone make you feel threatened by leaving you unwanted items?

OTHERT = did someone make you feel threatened in another way not mentioned?

THRHR = threatened to physically harm you using a weapon?

SHOWUP = did someone make you feel threatened by showing up at the same places you were?

PHYATT = physically attacked you?

STAND = did someone make you feel threatened by standing outside your home, school, workplace, etc?

PHYST = did someone make you feel threatened by physically threatening you?

FOLLOW = did someone make you feel threatened by following or spying on you?

VERBT = did someone make you feel threatened by making verbal threats?

THRT = threatened to physically harm you?

TEXTU = did someone make you feel threatened by sending you messages without your permission?

CALLU = did someone make you feel threatened by calling you on the telephone without your permission?

OTHER CONSTRUCTS INCLUDED ON THE INSTRUMENT

Aside from collecting crime statistics, the developers of the KSVS intended for the instrument to measure other constructs that may be associated with victimization. The sub-constructs included on the instrument are: Perceptions of Risk, Sources of Violent Crime, Law Enforcement Performance, and Community Resource Utilization.

PERCEPTION OF RISK SUBSCALE

To assess crime-related anxieties, the survey contains a response matrix of Likert-type questions measuring the perceived likelihood of criminal victimization. From this matrix, researchers and policymakers can infer how unsafe the state seems to its citizens. Research suggests that items related to fear are an inadequate measure of crime-related anxieties because fear is more indicative of the perceived severity of the crime rather than the safety of respondents' communities (Warr & Stafford, 1983).

This section addresses examines the psychometric qualities of the risk perception scale. It contains seven 4-point Likert-type items that are related to respondents' perception about the likelihood of criminal victimization during the next 12 months. Each item has four response options: Very unlikely, Unlikely, Likely, and Very Likely. The codes for these four categories are 0,1,2,3, indicating levels of perception of risk.

Rasch analysis was utilized to examine psychometric qualities of the perception of risk sub-scale. Before running the analysis, the dataset required minimal cleaning to replace coded missing data with an empty cell: the code "9" that indicates a valid missing in the raw data was removed, and the codes "4", "5", "6", "10", "11", "12", and "22" that indicate invalid missing were also removed. The entire sample set, including 8,520 respondents, was used in this current analysis. 80 respondents (around 1%) chose not to answer across all seven items.

The validity and reliability analysis begins with the application of a Rasch (1960) measurement model. The Rasch model expresses item difficulty-to-endorse, and respondent level of perception of risk, in units commonly referred to as logits. When data fit the assumptions of the model, the analysis provides a sort of ruler for measuring an attribute of interest, in this case the presumed construct is "perception of risk." The ruler is an interval scale, meaning two items with difficulty-to-endorse measures of 0 and +1 are the same distance apart along this hypothetical ruler as items with logits of +3 and +4. It is also an additive scale, so an item with a logit measure of +4 is considered to indicate twice the level of perception of risk as a +2 logit measure. The Rasch model is based on the idea that a person can be placed along a continuum like this, based on the level s/he has perceived risk of victimization:

Extremely low level of perception of risk ←-----some level of perception of risk-----→extreme high level of perception of risk

The logit score indicates respondent placement along that continuum. That placement should be the same no matter what sample items a respondent answers, as long as those items are indeed within the scope of the constructed and targeted relatively close to the respondent's level of perception of risk. The item difficulty-to-endorse measures are also independent of the ability distribution of the respondents taking a survey.

Respondents and items are placed on a common scale that looks similar to the competency continuum above. This allows for the comparison of person ability and item difficulty, to determine the probability that a person will respond in a certain way to any given item. The unconditional, joint maximum likelihood (UCON) estimation procedure estimates the person parameters (i.e., experience, ability, attitude) simultaneously with the item parameters (i.e., difficulty-to-endorse). This procedure is accomplished using WINSTEPS Version 3.92.1 (Linacre, 2016) software that is commercially available and widely used in the testing industry. Person and item measures are very useful in gauging levels of an attribute and measuring change when the data conform to the assumptions of the model and exhibit acceptable measures of reliability. In order to calculate Rasch measures, certain assumptions must be met: the items must be unidimensional, they must exhibit acceptable fit to the model, and items and persons must be well spread along the continuum. These concepts are explained below, within the context of this instrument.

PSYCHOMETRIC QUALITIES OF THE PERCEPTION OF RISK SCALE

The data indicate that this is a unidimensional instrument. In order to apply the Rasch model to measure an attribute, the items must all be related to the same construct. This test was designed to measure perception of risk, and all items were written to reach the target. Thus, the instrument is theoretically unidimensional. Determining dimensionality requires examining the principal component analysis (PCA) of Rasch residual estimates. The PCA of Rasch residuals returned to a first contrast with an eigenvalue of 1.5. This eigenvalue level of less than 2.0 means the tool can be considered unidimensional (Linacre, 1998).

The data exhibit acceptable fit to the model. The Rasch model works under the premise that a person has a certain perception, experience or ability level related to a construct, and that the construct has a difficulty or difficulty-to-endorse continuum. In this case, perceived likelihood of criminal victimization is the construct of interest. That means more perceived likelihood of criminal victimization is on the bottom of a difficulty continuum, while less perceived likelihood of criminal victimization is on the top of the continuum. An easy item is low on the hypothetical ruler; a difficult item is high on the ruler. In this case, an easy-to-endorse item indicates the type of crime is viewed as being potentially more likely to occur during the next 12 months, whereas a difficult item represents the type of crime is viewed as being potentially less likely to happen during the next 12 months. Fit statistics are computed for each item. This fit statistic quantifies the sum of the squared difference of the observed item performance from the expected performance for all persons. The expectation is 1. Because this is mainly a rating scale survey, mnsq fit statistics between .6 - 1.4 are considered acceptable (see

<https://www.rasch.org/rmt/rmt83b.htm>). All items exhibit acceptable fit, as displayed in Table 5 in the Appendix.

The items exhibit internal consistency. The item-total correlation (PtBis or Corr.) provides a measure of internal consistency of the responses. It assesses how well each item measures the trait defined by the set of items as a whole. The item-total correlation between the item and the total scale score will be high and positive, indicating that the item is a good discriminator between more-perception of risk and less-perception of risk along the construct. An item-total correlation value above 0.30 is usually considered acceptable. An item-total correlation value below 0.30 indicates that an item may not be measuring what it was intended to measure, and should be reviewed. As seen in Table 5, item-total correlations for all items fall between .72 and .88, which indicate all items measuring the perception of risk exhibit high internal consistency.

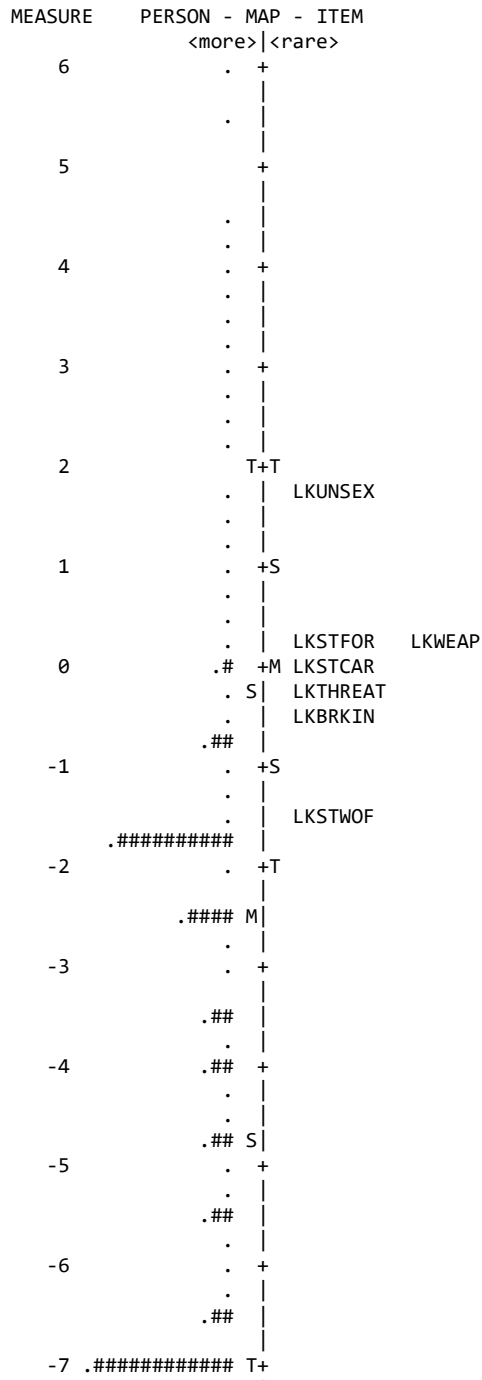
Item separation reliability is extremely high.

The Victimization scale includes 7 items with 4-point Likert-type response options. The item separation is 31.58, meaning these items are well spread along the difficulty-to-endorse continuum and appropriately represent levels of victimization. The item reliability estimate of 1.00 is extremely high, which indicates items with high difficulty-to-endorse levels actually do represent the types of crimes that less perceived likelihood to occur during the next 12 months.

Person separation reliability is good. Reliability refers to the reproducibility of relative measure location. This is not a measure of item quality. High reliability means there is a high probability that respondents with high measures actually do have higher measures than respondents with low measures. For high reliability, a large-size sample and low measurement error are needed. Conventionally only the person separation reliability measures are reported. Person separation reliability indicates how well all the items on the instrument work to gauge respondent experience along the construct. High person separation (> 2, person reliability > 0.8) with a relevant person sample implies that the instrument may be sensitive enough to distinguish between respondents with high level of risk perception and with low level of risk perception. With a “best case” person separation of 2.3, and person reliability of .84 (See Table 7), the scores are reliable enough for making useful inferences about respondents’ level of risk perception.

Items represent levels of difficulty along the continuum. The item measures fall between -1.56 and 1.83 logits (See Table 5). Item LKUNSEX “Force you into unwanted sexual intercourse?” is the most difficult, meaning the type of crime was perceived least likely to happen during the next 12 months; item LKSTWOF “Steal something from you without using physical force?” is easiest, meaning the type of crime is perceived most likely to occur during the next 12 months. Figure 1 displays the item map, which is the hypothetical ruler. The # symbol to the left of the ruler represents respondents; those at the top are the ones who reported to perceive high likelihood of all these crimes happening in the next 12 months. The numbers to the right indicate the items. The hardest items are at the top and the easiest are at the bottom. Item LKUNSEX is the most difficult; item LKSTWOF is the easiest. Ideally, many items are spread along the continuum. Each “#” represents 176 respondents, each “.” displays 1 respondent to 175 respondents.

Figure 1: Item map



<less>|<freq>
 EACH "#" IS 176: EACH "." IS 1 TO 175
 LKUNSEX = likelihood that someone will force into unwanted sexual intercourse
 LKSTFOR = likelihood that someone will steal something by force
 LKWEAP = likelihood that someone will attack you with a weapon
 LKSTCAR = likelihood that someone will steal vehicle
 LKTHREAT = likelihood that someone will threaten respondent
 LKBRKIN = likelihood that someone will break in
 LKSTWOF = likelihood that someone will steal something without force

Functioning of the items works well.

Determining the functioning of the items was examining the category functioning. The category functioning visualization is demonstrated in Figure 2. The item threshold estimates between the category 1/category2 threshold and the category 2/category 3 threshold were below 1.4 (See Table 5), indicating there was an issue with the category functioning (Linacre, 1998). These results indicate that category 2 (“Likely”) is underutilized by respondents, meaning respondents who feel likely to be victimized during the next 12 months tend to indicate the highest level of risk perception.

LAW ENFORCEMENT PERFORMANCE

Several questions are included in the KSVS that identify attitudes regarding community law enforcement. Other items describe any contact that the participant may have had over the past year. The survey also captures information regarding the respondent's demographic information and other characteristics. Thus the relationship between these factors can be explored.

This report aims to address the law enforcement performance. It contains two main items and two branched items with two different formats: dichotomous (yes/no) and 4-point Likert-type (See Figure 1). Because these items focus on different perspectives of law enforcement performance, it does not theoretically work as a scale, so Rasch is not an appropriate application here. Instead, descriptive statistics were utilized to report qualities of these items. The entire sample set, including 8,520 respondents, was involved in the current analysis.

LAW ENFORCEMENT PERFORMANCE ITEMS

2. In my community, crime is _____

<input type="checkbox"/> very uncommon	<input type="checkbox"/> uncommon	<input type="checkbox"/> common	<input type="checkbox"/> very common
--	-----------------------------------	---------------------------------	--------------------------------------
3. Law enforcement is _____ at protecting those in my community.

<input type="checkbox"/> very unsuccessful	<input type="checkbox"/> unsuccessful	<input type="checkbox"/> successful	<input type="checkbox"/> very successful
--	---------------------------------------	-------------------------------------	--
4. Have you had any contact with law enforcement in your community?

<input type="checkbox"/> No (<i>please skip to question 7</i>)	<input type="checkbox"/> Yes
--	------------------------------
5. During my contacts with law enforcement in my community I have been treated with respect.

<input type="checkbox"/> No	<input type="checkbox"/> Yes
-----------------------------	------------------------------
6. How would you describe the contacts that you have had with law enforcement in your community?

<input type="checkbox"/> very negative	<input type="checkbox"/> negative	<input type="checkbox"/> positive	<input type="checkbox"/> very positive
--	-----------------------------------	-----------------------------------	--

KEY FINDINGS OF LAW ENFORCEMENT PERFORMANCE

- Around 66% of respondents who answered this question thought crime is very uncommon or uncommon in their communities. The most-selected response is *uncommon* (50.2%). 27.4% reported that crime is common in their community.
- Around 80 percent of respondents who answered this question agreed that law enforcement is successful or very successful at protecting those in their communities, with the most-selected response being *successful* (68.8%).
- 42 percent of respondents who answered this question have had contact with law enforcement.
- Among the 4,063 respondents who have had contact with law enforcement, around 91% of them felt that they have been treated with respect during their contacts with law enforcement.

- Among 4,116 respondents who have had contact with law enforcement, around 89% of them reported that they felt positive or very positive during their contacts with law enforcement.

Descriptive Statistics for items of law enforcement performance (N=8520)

Item description (code)	n (percent)	Minimum	Maximum	Mean	Std. Deviation
In my community, crime is?	8402 (98.6%)	0	3	1.23	.776
Very uncommon (0)	1339 (15.7%)				
Uncommon (1)	4273 (50.2%)				
Common (2)	2338 (27.4%)				
Very common (3)	452 (5.3%)				
Choose not to answer	118 (1.4%)				
Law enforcement is__at protecting those in my community.	8260 (96.9%)	0	3	1.87	.684
Very unsuccessful (0)	535 (6.3%)				
Unsuccessful (1)	924 (10.8%)				
Successful (2)	5865 (68.8%)				
Very successful (3)	936 (11.0%)				
Choose not to answer	260 (3.1%)				
Have you had any contact with law enforcement in your community?	8015 (94.1%)	0	1	.45	.497
No (0)	4417 (51.8%)				
Yes (1)	3598 (42.2%)				
Choose not to answer	505 (5.9%)				
During my contacts with law enforcement in my community I have been treated with respect.	4063 (47.7%)	0	1	.91	.281
No (0)	352 (8.7%)				
Yes (1)	3711 (91.3%)				
System missing\CNTA	4457 (52.3%)				
How would you describe the contacts that you have had with law enforcement in your community?	4116 (48.3%)	0	3	2.18	.690
Very negative (0)	115 (2.8%)				
Negative (1)	335 (8.1%)				
Positive (2)	2369 (57.6%)				
Very positive (3)	1297 (31.5%)				
System missing\CNTA	4404 (51.7%)				

SOURCES OF VIOLENT CRIME SUBSCALE

As part of the interpersonal threat characteristics section of the survey, the response matrix allows respondents to concurrently describe perpetrators. These responses will enable researchers to determine if any offender characteristics relate to the prevalence or the likelihood of reporting crime. Similarly, the survey also asks respondents to provide demographic information, such as gender and income, to assess the relationship between crime victimization and victim characteristics.

This section addresses the sources of violent crime sub-scale to examine its psychometric qualities. It contains 19 items that are related to the sources of interpersonal crimes during the past 12 months. There are four categories for each item: Family member, Significant other, Friend/acquaintance, and A Stranger. The codes for these four categories are 1, 2, 3, 4, indicating levels of proximity to the person. Respondents can check all that apply to their situations, meaning each item and respondent can select more than one category. For this analysis, one index was created for each item to indicate the level of proximity to the person in terms of the minimum number of the categories that were checked. For instance, if a respondent chose both Family member and Friend/acquaintance, the "1" (Family member) was used for the code, which indicates the closest relationship to the person.

Rasch analysis was utilized to examine psychometric qualities of the sources of violent crime scale. Before running the analysis, the dataset required minimal cleaning to replace coded missing data with an empty cell: the code "9" that indicates a valid missing in the raw data was removed, and the codes "2", "11", and "14" that indicate invalid missing were also removed. The initial analysis was conducted using all 8,520 respondents. Of these respondents, almost 4/5 answered "no" to every item, and that skewed distribution inhibited the evaluation of the scale. In order to run meaningful psychometric analyses, we removed the all "no" respondents for this evaluation, and used the 1,793 (21%) who experienced at least one type of interpersonal victimization during the past 12 months.

PSYCHOMETRIC QUALITIES OF THE VIOLENT CRIME SUBSCALE

The instrument is theoretically unidimensional, but the data indicate that it is a less psychometrically unidimensional instrument. In order to apply the Rasch model to measure an attribute, the items must all be related to the same construct. This test was designed to measure victimization, and all items were written to reach the target. Thus, the instrument is theoretically unidimensional. However, the data indicate that it may be a less unidimensional instrument. Determining dimensionality requires examining the principal component analysis (PCA) of Rasch residual estimates. The PCA of Rasch residuals returned to a first contrast with an eigenvalue of 2.3. The eigenvalue level of less than 2.0 indicates that the tool can be considered unidimensional (Linacre, 1998). 2.3 is greater than the criteria. 63% of raw variance is explained by measures, but items only explained 1.6 % of it, meaning the instrument is less psychometrically unidimensional.

The data exhibit acceptable fit to the model. The Rasch model works under the premise that a person has a certain perception level related to a construct, and that the construct has a difficulty continuum. In this case, levels of proximity to the person for interpersonal victimization is the construct of interest. That means closest relationship with perpetrators is on the bottom of a difficulty continuum, while least close relationship with perpetrators is on the top of the continuum. Fit statistics are computed for each item. This fit statistic quantifies the sum of the squared difference of the observed item performance from the expected performance for all persons. The expectation is 1. Because this is mainly a rating scale survey, mnsq fit statistics between .6 - 1.4 are considered acceptable (see <https://www.rasch.org/rmt/rmt83b.htm>). Most of items exhibit acceptable fit, as displayed in Table 10 in the Appendix. However, item STWEAP “stolen something from you using a weapon?” and item SEXWE “forced you into sexual intercourse using a weapon?” have outfit mnsq measures of 4.32 and 1.83, which are exceed the criteria.

The items exhibit internal consistency. The item-total correlation (PtBis or Corr.) provides a measure of internal consistency of the responses. It assesses how well each item measures the trait defined by the set of items as a whole. The item-total correlation between the item and the total scale score will be high and positive, indicating that the item is a good discriminator of levels of proximity to the person for interpersonal victimization. An item-total correlation value above 0.30 is usually considered acceptable. An item-total correlation value below 0.30 indicates that an item may not be measuring what it was intended to measure, and should be reviewed. As seen in Table 10, item-total correlations for all items fall between .67 and .96, which indicate all items measuring proximity to the person for interpersonal victimization exhibit high internal consistency.

Item separation reliability should be increased.

The Victimization scale includes 19 items with 4-category response options. The item separation is 1.66, meaning these items are not well spread along the difficulty-to-endorse continuum and do not appropriately represent levels of proximity to the person for interpersonal victimization. The item reliability estimate of .73 is lower than .8, which indicates items separation reliability should be increased.

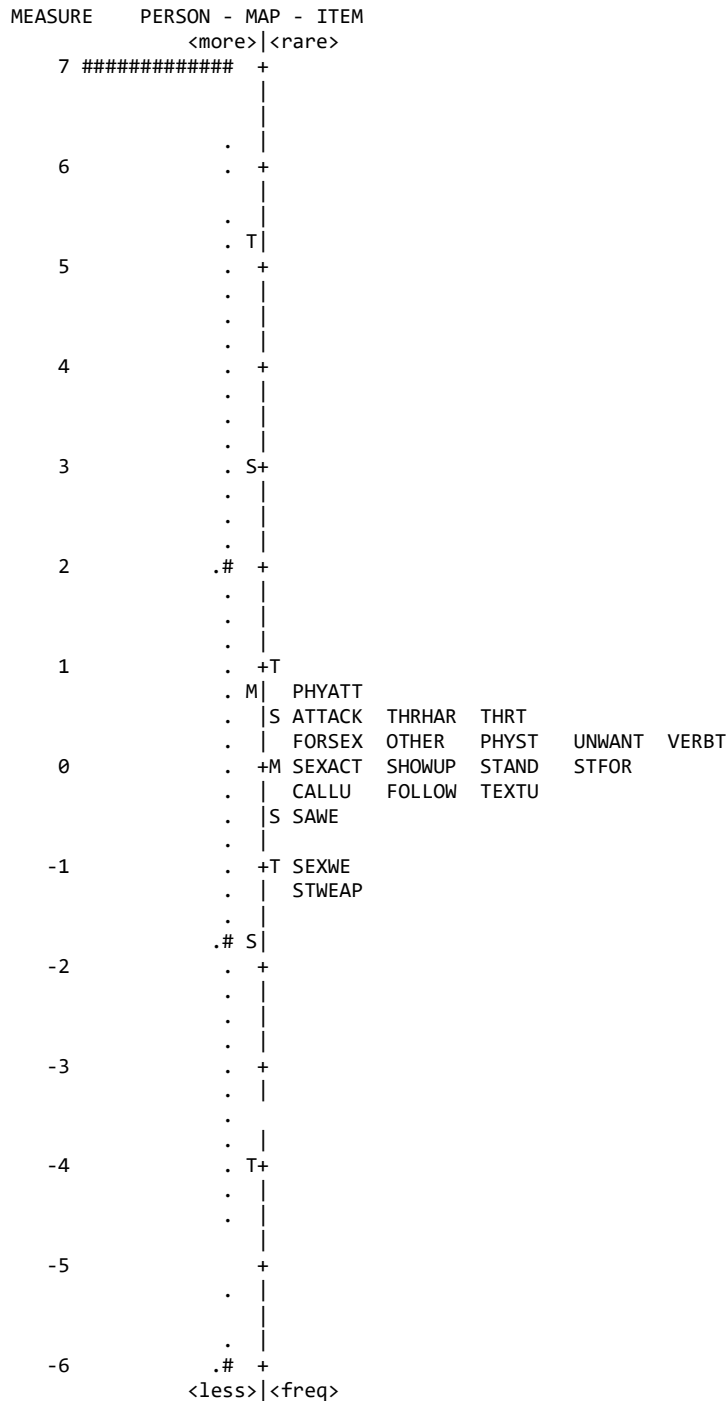
Person separation reliability should be increased.

Low person separation (< 2 , person reliability $< .80$) with a relevant person sample implies that the instrument may not be sensitive enough to distinguish between respondents with different levels of proximity to the person for interpersonal victimization. With a “best case” person separation of 1.53, and person reliability of .70 (See Table 12), the scores are not reliable enough for making useful inferences about respondents’ level of proximity to the person for interpersonal victimization.

Items represent levels of difficulty along the continuum. The item measures fall between -1.21 and .67 logits (See Table 10). Item PHYATT “physically attacked you?” is the most difficult, meaning the type of crime was most likely to be conducted by family members or significant other; item STWEAP “stolen something from you using a weapon?” is easiest, meaning the type of crime is most likely to be conducted by strangers. Figure 1 displays the item map, which is the hypothetical ruler. The # symbol to the left of

the ruler represents respondents; 949 respondents at the top are the ones who reported the perpetrators were only strangers, while 79 respondents at the bottom are the ones who reported the perpetrators were only family members. The numbers to the right indicate the items. The crimes that were more often committed by those in closest proximity to the victim (a family member) are at the bottom; those in furthest proximity are at the top. Item PHYATT is the crime most likely to be committed by an unknown perpetrator; item STWEAP is most likely to be committed by family. Each "#" represents 73 respondents, each "." displays 1 respondent to 72 respondents.

Figure 1: Item map



EACH "#" IS 73: EACH "." IS 1 TO 72
 PHYATT = physically attacked you?
 ATTACK = Physically attacked you with a weapon?
 THRHAR = threatened to physically harm you using a weapon?
 THRT = threatened to physically harm you?
 FORSEX = forced you into sexual intercourse?
 OTHER = did someone make you feel threatened in another way not mentioned?
 PHYST = did someone make you feel threatened by physically threatening you?
 UNWANT = did someone make you feel threatened by leaving you unwanted items?
 VERBT = did someone make you feel threatened by making verbal threats?
 SEXACT = forced you into sexual activity?
 SHOWUP = did someone make you feel threatened by showing up at the same places you were?

STAND = did someone make you feel threatened by standing outside your home, school, workplace, etc?
 STFOR = stolen something from you using force
 CALLU = did someone make you feel threatened by calling you on the telephone without your permission?
 FOLLOW = did someone make you feel threatened by following or spying on you?
 TEXTU = did someone make you feel threatened by sending you messages without your permission?
 SAWE = forced you into sexual activity using a weapon?
 SEXWE = forced you into sexual intercourse using a weapon?
 STWEAP = stolen something from you using a weapon?

Functioning of the items works well.

Determining the functioning of the items was examining the category functioning. The category functioning visualization is demonstrated in Figure 2. The item threshold estimates between the category 2/category3 threshold and the category 3/category 4 threshold were below 1.4 (See Table 14), indicating there was an issue with the category functioning (Linacre, 1998).

DESCRIPTIVE STATISTICS OF VIOLENT CRIME SUBSCALE

In terms of the sources of violent crime related to demographic information, among 3,231 respondents who reported to experience at least one type of victimization, 104 (3.2%) persons agreed that gender or gender identity could be the reason, which is the highest frequency. Less than 1% of respondents thought nation region could be the reason for victimization (See Table 15).

COMMUNITY RESOURCE UTILIZATION SUBSCALE

The survey measures community resource utilization as well. Several items are used to determine if respondents accessed medical, mental health, or police services following victimization. The survey is administered to two groups: a random sample of adults that are registered voters in the Commonwealth of Kentucky, and those unstably housed individuals receiving services from providers of overnight shelter affiliated with the Kentucky Interagency Council on Homelessness (KICH). The responses from these two groups can provide valuable information, inform the allotment of public safety resources, and guide criminal justice policy efforts.

This report aims to address the community resource utilization scale to examine its psychometric qualities. It contains 22 dichotomous (yes/no) items that are related to police service (“report to the police” and 4 dichotomous (yes/no) items that are related to other community resources, such as medical and mental health service.

Two steps of Rasch modeling analysis were adopted to examine psychometric qualities of the community resource utilization scale. The first step of Rasch analysis was to address 22 items related to police service to examine the levels of frequency (how often) of police resource utilization across 22 different types of crimes during the past 12 months. The second step of Rasch analysis was to compare how often different five types of community resources were used: police service, medical treatment,

mental health professional service, community support (“talk to someone close to you”), and victim service providers.

Before running the analysis, the dataset required minimal cleaning to replace coded missing data with an empty cell: the code “9” that indicates a valid missing in the raw data was removed, and except “0”, “1”, and “9”, the other codes representing invalid missing were also removed. The initial analysis was conducted using all 8,520 respondents. Of these respondents, almost 2/3 answered “no” to every item, and that skewed distribution inhibited the evaluation of the scale. In order to run meaningful psychometric analyses, we removed the all “no” respondents for this evaluation, and used the 3,231 (38%) who experienced at least one type of victimization during the past 12 months.

PSYCHOMETRIC QUALITIES OF COMMUNITY RESOURCE UTILIZATION: USE OF POLICE SERVICE

The instrument is theoretically unidimensional, but the data indicate that it is a less psychometrically unidimensional scale. In order to apply the Rasch model to measure an attribute, the items must all be related to the same construct. This test was designed to measure victimization, and all items were written to reach the target. Thus, the instrument is theoretically unidimensional. However, the data indicate that it may be a less unidimensional instrument. Determining dimensionality requires examining the principal component analysis (PCA) of Rasch residual estimates. The PCA of Rasch residuals returned to a first contrast with an eigenvalue of 2.4. The eigenvalue level of less than 2.0 indicates that the tool can be considered unidimensional (Linacre, 1998). 2.4 is greater than the criteria and only 33% of raw variance is explained by measures, meaning the instrument is less psychometrically unidimensional.

The data exhibit acceptable fit to the model. The Rasch model works under the premise that a person has a certain experience level related to a construct, and that the construct has a difficulty continuum. In this case, police service utilization is the construct of interest. That means the most police service utilization is on the bottom of a difficulty continuum, while is the least police service utilization on the top of the continuum. An easy item is low on the hypothetical ruler; a difficult item is high on the ruler. In this case, an easy-to-endorse item indicates the type of crime that caused to police service utilization more often, whereas a difficult item represents the type of crime that caused to police service utilization less often. Fit statistics are computed for each item. This fit statistic quantifies the sum of the squared difference of the observed item performance from the expected performance for all persons. The expectation is 1. Because this is mainly a rating scale survey, mnsq fit statistics between .6 - 1.4 are considered acceptable (see <https://www.rasch.org/rmt/rmt83b.htm>). Most items exhibit acceptable fit, as displayed in Table 17 in the Appendix. However, the outfit mnsq fit statistics of item BKINREP “has anyone broken into a place that you are staying? IF yes, did you report it to the police”, item BKINCRP “has anyone broken into your vehicle? IF yes, did you report it to the police”, item IDTHREP “has anyone used your financial information without your permission? IF yes, did you report it to the police?” and item PHYATTP “physically attacked you? IF yes, did you report it to the police?” beyond the criteria.

The items exhibit internal consistency. The item-total correlation (PtBis or Corr.) provides a measure of internal consistency of the responses. It assesses how well each item measures the trait defined by the set of items as a whole. An item-total correlation value above 0.30 is usually considered acceptable. An item-total correlation value below 0.30 indicates that an item may not be measuring what it was intended to measure, and should be reviewed. As seen in Table 17, item-total correlations for all items exceeded the 0.30 criterion, which fall between .58 and .84.

Item separation reliability is good.

The police service utilization scale includes 22 items with dichotomous response options. The item separation is 2.04 (See Table 19), meaning these items are well spread along the difficulty-to-endorse continuum and appropriately represent levels of victimization. The item reliability estimate of .81 is good, which indicates items with high difficulty-to-endorse levels actually do represent the types of crimes that rarely caused police service utilization during the past 12 months.

Person separation reliability is extremely low. Reliability refers to the reproducibility of relative measure location. This is not a measure of item quality. High reliability means there is a high probability that respondents with high measures actually do have higher measures than respondents with low measures. Low person separation (< 2, person reliability < .8) with a relevant person sample implies that the instrument may not be sensitive enough to distinguish between more-experience in police service utilization and less-experience in police service utilization respondents. With a “best case” person separation of .00, and person reliability of .00 (See Table 19), the scores are not reliable enough for making useful inferences about respondents’ level of victimization. The mean of person measures is -.41 (with a high standard error of 1.97).

Items represent levels of difficulty along the continuum. The item measures fall between -1.89 and 1.43 logits (See Table 17). Item CALLUP “did someone make you feel threatened by calling you on the telephone without your permission? If yes, did you report to the police?” is the most difficult, meaning the type of crime was less likely to be reported to the police; item PHYATTP “physically attacked you? If yes, did you report to the police?” is easiest, meaning the type of crime is most likely to be likely to be reported to the police.

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EACH "#" IS 130: EACH "." IS 1 TO 129

CALLUP = did someone make you feel threatened by calling you on the telephone without your permission?

TEXTUP = did someone make you feel threatened by sending you messages without your permission?

SEXACTP = forced you into sexual activity?

SHOWUPP = did someone make you feel threatened by showing up at the same places you were?

UNWANTP = did someone make you feel threatened by leaving you unwanted items?

FORSEXP = forced you into sexual intercourse?

FOLLOWP = did someone make you feel threatened by following or spying on you?

STANDP = did someone make you feel threatened by standing outside your home, school, workplace, etc?

OTHERTP = did someone make you feel threatened in another way not mentioned?

VERBTP = did someone make you feel threatened by making verbal threats?

IDTHREP = has anyone used your financial information without your permission?

PHYSTP = did someone make you feel threatened by physically threatening you?

SAWEP = forced you into sexual activity using a weapon?

SEXWEP = forced you into sexual intercourse using a weapon?

STFORP = stolen something from you using force

THRHARP = threatened to physically harm you using a weapon?

TH RTP = threatened to physically harm you?

ATTACKP = Physically attacked you with a weapon?

BKINCRP = has anyone broken into your vehicle?

STWEAPP = stolen something from you using a weapon?

BKINREP = has anyone broken into a place that you are staying?

PHYATTP = physically attacked you?

PSYCHOMETRIC QUALITIES OF COMMUNITY RESOURCE UTILIZATION

The data indicate that it is a psychometrically unidimensional instrument. The PCA of Rasch residuals returned to a first contrast with an eigenvalue of 1.5. The eigenvalue level of less than 2.0 indicates that the tool can be considered unidimensional (Linacre, 1998).

The data exhibit acceptable fit to the model. Most items exhibit acceptable fit, as displayed in Table 20 in the Appendix. However, the outfit mnsq fit measure of item POLICE “IF yes, did you report it to the police?” is 3.6 which is beyond the criteria.

The items exhibit internal consistency. An item-total correlation value above 0.30 is usually considered acceptable. An item-total correlation value below 0.30 indicates that an item may not be measuring what it was intended to measure, and should be reviewed. As seen in Table 17, item-total correlations for all items exceeded the 0.30 criterion, which fall between .58 and .76.

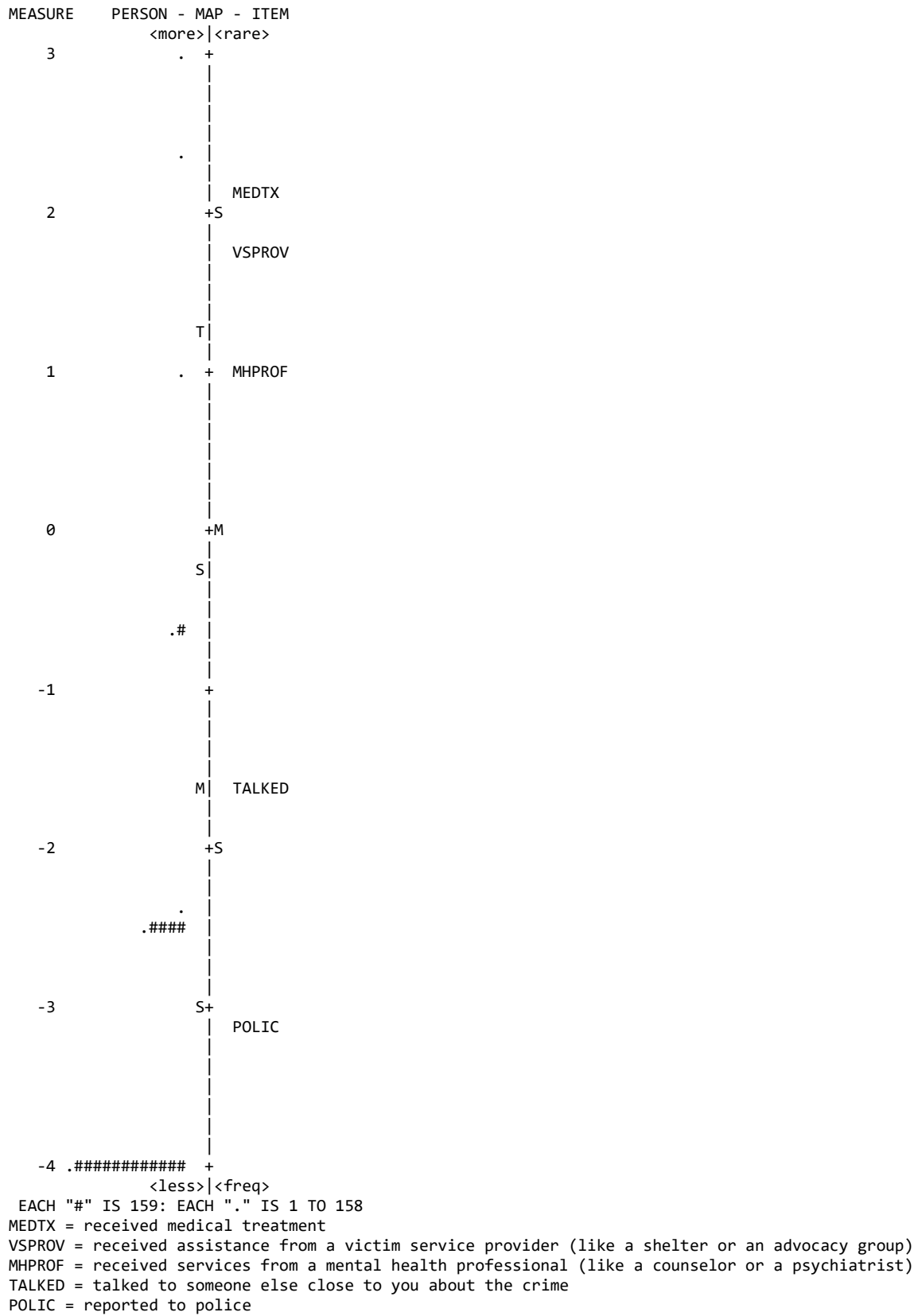
Item separation reliability is extremely high.

The community resource utilization scale includes 5 items with dichotomous response options. The item separation is 19.00 (See Table 23), meaning these items are well spread along the difficulty-to-endorse continuum and appropriately represent levels of community resource utilization.

Person separation reliability is particularly low. Low person separation (< 2 , person reliability $< .8$) with a relevant person sample implies that the instrument may not be sensitive enough to distinguish respondents who were different between more-experience in community resource utilization and less-experience in community resource utilization. With a “best case” person separation of .21, and person reliability of .04 (See Table 22), the scores are not reliable enough for making useful inferences about respondents’ level of community resource utilization. The mean of person measures is -1.63 (with a high standard error of 1.39).

Items represent levels of difficulty along the continuum. The item measures fall between -3.14 and +2.09 logits (See Table 20). Item MEDTX “Received medical treatment” is the most difficult, meaning the type of community resources was less likely to be accessed; item POLIC “Report to the police” is easiest, meaning the type of community resources is most likely to be accessed during the past 12 months, among those respondents who reported to experience at least one type of victimization (See Figure 2).

Figure 2: Community Resource Utilization Map



APPENDICES

WINSTEPS OUTPUT: OVERALL SCALE

Table 1: ITEM STATISTICS: MEASURE ORDER

ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL	INFIT		OUTFIT		PTMEASUR-AL		EXACT OBS%	MATCH EXP%	ITEM
				S.E.	MNSQ	ZSTD	MNSQ	ZSTD	CORR.	EXP.			
22	28	3229	2.56	.21	.89	-.6	.35	-4.0	.32	.26	99.3	99.3	SEXWE
24	37	3229	2.21	.18	.89	-.7	.50	-2.6	.33	.27	99.0	99.0	SAWE
16	46	3227	1.94	.16	.85	-1.0	.35	-3.8	.38	.28	98.8	98.7	STWEAP
21	82	3229	1.23	.12	.85	-1.5	.25	-5.7	.45	.32	97.8	97.7	FORSEX
18	83	3229	1.22	.12	.83	-1.7	.29	-5.2	.45	.32	97.8	97.6	ATTACK
15	93	3229	1.07	.12	.86	-1.5	.52	-3.2	.43	.33	97.5	97.3	STFOR
30	96	3228	1.04	.11	.87	-1.4	.52	-3.3	.42	.33	97.3	97.3	UNWANT
11	98	3229	1.01	.11	1.06	.7	1.21	1.2	.29	.33	97.1	97.2	VEHICLE
23	99	3229	1.00	.11	.87	-1.4	.45	-4.0	.44	.33	97.2	97.2	SEXACT
10	136	3229	.60	.10	1.06	.8	1.04	.4	.33	.36	95.8	96.1	CHILD
33	164	3227	.35	.09	1.00	.0	.89	-.9	.38	.37	95.4	95.3	OTHERT
6	172	3229	.30	.09	1.17	2.4	1.25	1.9	.27	.37	94.5	95.1	SPORTEQ
20	179	3228	.25	.09	.86	-2.3	.39	-6.8	.51	.38	95.2	94.9	THRHRAR
9	204	3229	.08	.08	.98	-.3	.78	-2.2	.42	.39	94.3	94.2	INSIDE
29	207	3229	.06	.08	.82	-3.2	.44	-6.7	.54	.39	94.9	94.1	SHOWUP
4	212	3229	.03	.08	.95	-.8	.80	-2.0	.44	.39	94.4	94.0	CARRY
14	216	3230	.00	.08	1.21	3.3	1.36	3.2	.25	.39	92.9	93.9	SOMELSE
13	235	3229	-.11	.08	.95	-.9	.95	-.5	.43	.40	93.7	93.4	MEDIC
17	238	3229	-.13	.07	.83	-3.3	.52	-6.1	.54	.40	93.9	93.3	PHYATT
5	255	3229	-.22	.07	.90	-1.9	.75	-3.0	.48	.40	93.1	92.8	ELECT
28	256	3228	-.23	.07	.94	-1.1	.87	-1.4	.45	.40	92.7	92.8	STAND
1	260	3212	-.26	.07	1.01	.2	.90	-1.2	.41	.40	92.6	92.6	BKIN
7	306	3229	-.47	.07	.95	-1.1	.83	-2.2	.46	.42	91.8	91.5	WEAR
32	319	3227	-.53	.07	.76	-5.5	.43	-9.4	.61	.42	92.4	91.1	PHYST
12	358	3230	-.69	.06	1.15	3.3	.91	-1.3	.36	.43	88.2	90.1	INCAR
25	412	3228	-.89	.06	.90	-2.6	.73	-4.7	.53	.43	89.3	88.8	FOLLOW
8	485	3230	-1.13	.06	1.27	6.8	1.40	6.3	.25	.44	83.1	87.0	OUTSIDE
2	480	3199	-1.14	.06	1.22	5.8	1.20	3.4	.29	.44	83.7	86.9	BKINCAR
31	501	3229	-1.18	.05	.79	-6.3	.58	-9.0	.62	.44	88.2	86.6	VERBT
19	518	3229	-1.23	.05	.78	-6.9	.60	-8.9	.62	.44	88.1	86.2	THRT
27	723	3227	-1.75	.05	1.08	2.8	.99	-.3	.41	.45	79.2	81.5	TEXTU
26	1084	3227	-2.46	.04	1.21	9.7	1.27	9.1	.27	.44	65.3	74.2	CALLU
3	1122	3209	-2.54	.04	1.52	9.9	1.74	9.9	-.01	.44	57.5	73.5	IDTHFT
MEAN	294.1	3226.6	.00	.09	.98	.0	.79	-1.9			91.3	92.2	
P.SD	259.9	6.6	1.18	.04	.17	3.8	.37	4.6			9.0	6.2	

Table 2: SUMMARY OF 3228 MEASURED (NON-EXTREME) PERSON

	TOTAL		MEASURE	MODEL	INFIT		OUTFIT	
	SCORE	COUNT		S.E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	3.0	33.0	-3.22	.82	.99	.3	.79	.1
P.SD	3.5	.6	1.08	.23	.21	.5	.83	.7
S.SD	3.5	.6	1.08	.23	.21	.5	.83	.7
MAX.	32.0	33.0	4.09	1.11	1.87	4.4	9.90	4.9
MIN.	1.0	11.0	-4.09	.39	.53	-2.2	.15	-1.7
REAL RMSE	.87	TRUE SD	.63	SEPARATION	.72	PERSON RELIABILITY	.34	
MODEL RMSE	.85	TRUE SD	.66	SEPARATION	.78	PERSON RELIABILITY	.38	
S.E. OF PERSON MEAN	= .02							

MAXIMUM EXTREME SCORE: 3 PERSON .1%

Table 3: SUMMARY OF 3231 MEASURED (EXTREME AND NON-EXTREME) PERSON

	TOTAL SCORE	COUNT	MEASURE	MODEL S. E.	INFIT		OUTFIT	
					MNSQ	ZSTD	MNSQ	ZSTD
MEAN	3.0	33.0	-3.21	.82				
P.SD	3.6	.6	1.11	.23				
S.SD	3.6	.6	1.11	.23				
MAX.	33.0	33.0	5.35	1.85				
MIN.	1.0	11.0	-4.09	.39				
REAL RMSE	.87	TRUE SD	.68	SEPARATION	.78	PERSON RELIABILITY	.38	
MODEL RMSE	.85	TRUE SD	.71	SEPARATION	.84	PERSON RELIABILITY	.41	
S.E. OF PERSON MEAN = .02								

PERSON RAW SCORE-TO-MEASURE CORRELATION = .95
 CRONBACH ALPHA (KR-20) PERSON RAW SCORE "TEST" RELIABILITY = .83 SEM = 1.48

Table 4: SUMMARY OF 33 MEASURED (NON-EXTREME) ITEM

	TOTAL SCORE	COUNT	MEASURE	MODEL S. E.	INFIT		OUTFIT	
					MNSQ	ZSTD	MNSQ	ZSTD
MEAN	294.1	3226.6	.00	.09	.98	.0	.79	-1.9
P.SD	259.9	6.6	1.18	.04	.17	3.8	.37	4.6
S.SD	264.0	6.7	1.20	.04	.17	3.9	.37	4.6
MAX.	1122.0	3230.0	2.56	.21	1.52	9.9	1.74	9.9
MIN.	28.0	3199.0	-2.54	.04	.76	-6.9	.25	-9.4
REAL RMSE	.10	TRUE SD	1.18	SEPARATION	12.10	ITEM	RELIABILITY	.99
MODEL RMSE	.10	TRUE SD	1.18	SEPARATION	12.25	ITEM	RELIABILITY	.99
S.E. OF ITEM MEAN = .21								

WINSTEPS OUTPUT FOR PERCEPTION OF RISK SCALE

Table 5: ITEM STATISTICS: MEASURE ORDER

ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL S. E.	INFIT		OUTFIT		PTMEASUR-AL		EXACT MATCH		ITEM
					MNSQ	ZSTD	MNSQ	ZSTD	CORR.	EXP.	OBS%	EXP%	
7	3528	8384	1.83	.03	1.24	9.9	1.28	7.5	.72	.75	80.5	76.0	LKUNSEX
4	5170	8346	.23	.03	.66	-9.9	.56	-9.9	.88	.83	85.8	77.9	LKSTFOR
6	5205	8354	.20	.03	.67	-9.9	.58	-9.9	.88	.84	85.5	77.9	LKWEAP
3	5311	8383	.11	.03	.83	-8.1	.73	-9.9	.85	.84	82.6	77.9	LKSTCAR
1	5717	8405	-.22	.03	1.46	9.9	1.34	9.9	.81	.85	73.8	77.3	LKTHREAT
2	6036	8304	-.59	.03	.87	-6.3	.80	-8.3	.86	.85	80.1	76.3	LKBRKIN
5	7336	8397	-1.56	.03	1.15	7.4	1.25	9.9	.83	.86	71.1	72.1	LKSTWOF
MEAN	5471.9	8367.6	.00	.03	.98	-1.0	.94	-1.5			79.9	76.5	
P.SD	1057.0	32.7	.95	.00	.28	8.8	.32	9.3			5.2	2.0	

Table 6: SUMMARY OF 6086 MEASURED (NON-EXTREME) PERSON

	TOTAL SCORE	COUNT	MEASURE	MODEL S. E.	INFIT		OUTFIT	
					MNSQ	ZSTD	MNSQ	ZSTD
MEAN	6.1	6.9	-2.47	.91	.93	-.2	.94	-.2
P.SD	3.1	.4	2.21	.13	1.08	1.4	1.24	1.4
S.SD	3.1	.4	2.21	.13	1.08	1.4	1.24	1.4
MAX.	20.0	7.0	5.52	2.88	9.90	8.5	9.90	9.3
MIN.	1.0	1.0	-6.44	.63	.00	-2.7	.00	-2.5
REAL RMSE	1.04	TRUE SD	1.95	SEPARATION	1.86	PERSON RELIABILITY	.78	
MODEL RMSE	.92	TRUE SD	2.01	SEPARATION	2.19	PERSON RELIABILITY	.83	
S.E. OF PERSON MEAN = .03								

Table 7: SUMMARY OF 8440 MEASURED (EXTREME AND NON-EXTREME) PERSON

	TOTAL	COUNT	MEASURE	MODEL	INFIT		OUTFIT	
	SCORE			S. E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	4.5	6.9	-3.85	1.18				
P.SD	4.0	.4	3.18	.46				
S.SD	4.0	.4	3.18	.46				
MAX.	21.0	7.0	6.91	2.88				
MIN.	.0	1.0	-7.84	.63				
REAL RMSE	1.34	TRUE SD	2.89	SEPARATION	2.16	PERSON	RELIABILITY	.82
MODEL RMSE	1.27	TRUE SD	2.92	SEPARATION	2.30	PERSON	RELIABILITY	.84
S.E. OF PERSON MEAN = .03								

PERSON RAW SCORE-TO-MEASURE CORRELATION = .98

CRONBACH ALPHA (KR-20) PERSON RAW SCORE "TEST" RELIABILITY = .93 SEM = 1.10

Table 8: SUMMARY OF 7 MEASURED (NON-EXTREME) ITEM

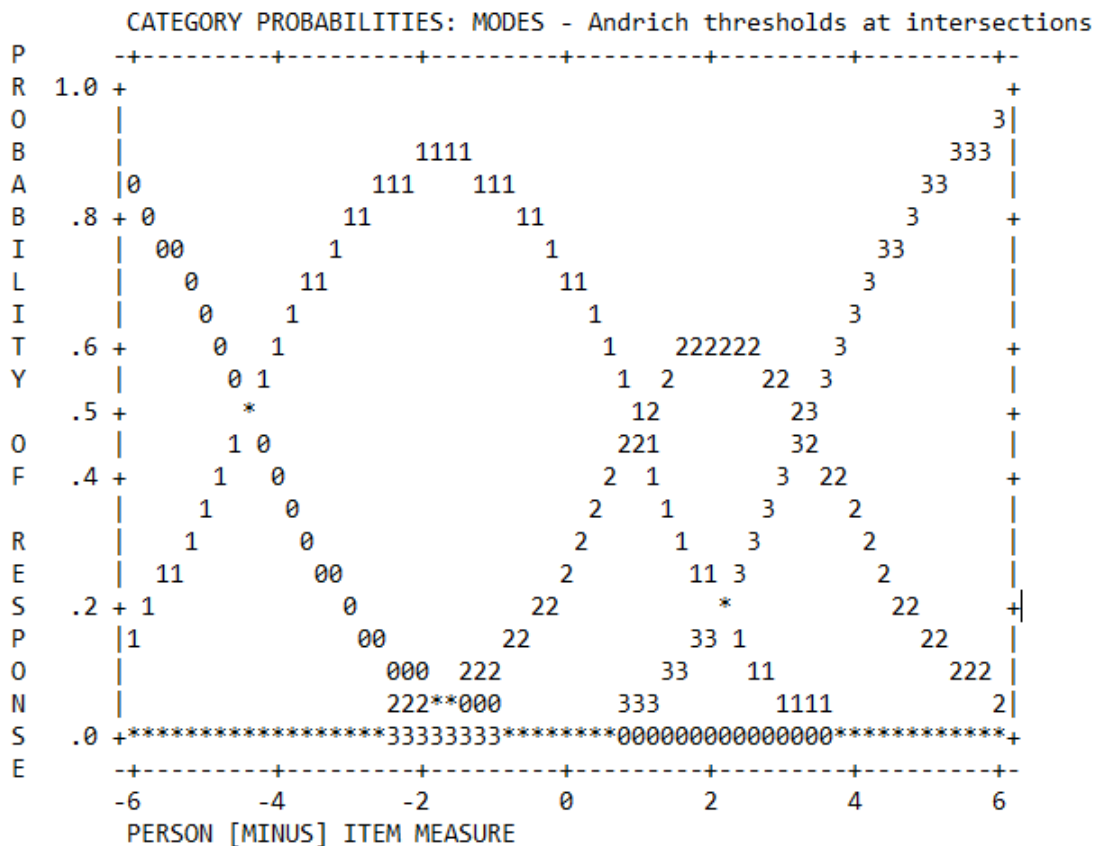
	TOTAL	COUNT	MEASURE	MODEL	INFIT		OUTFIT	
	SCORE			S. E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	5471.9	8367.6	.00	.03	.98	-1.0	.94	-1.5
P.SD	1057.0	32.7	.95	.00	.28	8.8	.32	9.3
S.SD	1141.6	35.3	1.03	.00	.30	9.5	.35	10.0
MAX.	7336.0	8405.0	1.83	.03	1.46	9.9	1.34	9.9
MIN.	3528.0	8304.0	-1.56	.03	.66	-9.9	.56	-9.9
REAL RMSE	.03	TRUE SD	.95	SEPARATION	29.86	ITEM	RELIABILITY	1.00
MODEL RMSE	.03	TRUE SD	.95	SEPARATION	31.58	ITEM	RELIABILITY	1.00
S.E. OF ITEM MEAN = .39								

Table 9:

Perception of risk item category thresholds

Category	Threshold
0	None
1	-4.37
2	1.02
3	3.35

Figure 1



WINSTEPS OUTPUT FOR SOURCES OF VIOLENT CRIME

Table 10: ITEM STATISTICS: MEASURE ORDER

ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL S.E.	INFIIT MNSQ	ZSTD	OUTFIT MNSQ	ZSTD	PTMEASUR-CORR.	AL-EXP.	EXACT OBS%	MATCH EXP%	ITEM
3	469	199	.67	.17	1.41	2.9	1.33	2.3	.86	.90	74.0	72.5	PHYATT
5	1236	447	.57	.12	1.49	4.6	1.46	4.3	.89	.92	72.0	71.4	THRT
4	147	63	.53	.29	1.26	1.2	1.14	.7	.86	.88	82.4	71.5	ATTACK
6	378	142	.51	.21	1.15	.9	1.04	.3	.91	.92	82.3	73.5	THRHR
16	220	83	.35	.27	.67	-1.7	.57	-2.2	.94	.91	88.1	73.4	UNWANT
7	161	70	.25	.26	.61	-2.2	.55	-2.4	.89	.84	81.3	73.0	FORSEX
19	395	137	.18	.22	1.12	.8	1.12	.7	.91	.92	75.0	71.0	OTHER
18	740	282	.17	.14	.43	-6.3	.40	-6.5	.96	.91	89.1	72.7	PHYST
17	1252	453	.16	.12	.65	-4.2	.63	-4.3	.95	.92	83.8	72.4	VERBT
9	202	84	.08	.24	1.67	3.1	1.53	2.4	.75	.85	75.0	72.6	SEXACT
15	460	177	.04	.17	.69	-2.6	.67	-2.7	.91	.87	85.3	72.3	SHOWUP
14	659	219	.00	.18	.68	-2.6	.64	-2.8	.93	.91	81.2	71.5	STAND
1	210	81	-.04	.27	.95	-.2	.86	-.6	.92	.90	72.9	72.2	STFOR
13	2079	613	-.14	.13	.84	-1.6	.77	-2.3	.94	.93	83.2	72.1	TEXTU
12	3320	924	-.19	.13	1.06	.6	.95	-.5	.93	.93	77.0	71.3	CALLU
11	1091	374	-.22	.13	.90	-.9	.86	-1.4	.91	.91	85.0	72.5	FOLLOW
10	65	26	-.60	.45	1.11	.4	.93	.0	.88	.89	61.9	70.7	SAWE
8	56	21	-1.09	.52	2.08	2.4	1.83	1.3	.82	.90	68.8	70.9	SEXWE
2	105	36	-1.21	.38	3.29	5.7	4.32	5.3	.67	.87	55.2	70.3	STWEAP
MEAN	697.1	233.2	.00	.23	1.16	.0	1.14	-.5			77.5	72.0	
P.SD	804.9	230.6	.50	.11	.64	2.9	.83	2.8			8.6	.9	

Table 11: SUMMARY OF 532 MEASURED (NON-EXTREME) PERSON

	TOTAL	COUNT	MEASURE	MODEL	INFIT		OUTFIT	
	SCORE			S.E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	11.7	4.7	.64	1.18	.81	-1.0	.82	-1.0
P.SD	8.7	3.7	2.32	.47	1.64	2.2	1.65	2.2
S.SD	8.7	3.7	2.32	.47	1.64	2.2	1.65	2.2
MAX.	48.0	19.0	6.15	2.18	8.90	7.4	8.90	7.5
MIN.	2.0	1.0	-5.95	.44	.00	-4.4	.00	-4.4
REAL RMSE	1.48	TRUE SD	1.79	SEPARATION	1.21	PERSON RELIABILITY	.60	
MODEL RMSE	1.27	TRUE SD	1.95	SEPARATION	1.53	PERSON RELIABILITY	.70	
S.E. OF PERSON MEAN = .10								

Table 12: SUMMARY OF 1560 MEASURED (EXTREME AND NON-EXTREME) PERSON

	TOTAL	COUNT	MEASURE	MODEL	INFIT		OUTFIT	
	SCORE			S.E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	8.5	2.8	3.00	1.75				
P.SD	7.2	2.8	3.20	.50				
S.SD	7.2	2.8	3.20	.50				
MAX.	76.0	19.0	7.95	2.18				
MIN.	1.0	1.0	-7.62	.44				
REAL RMSE	1.87	TRUE SD	2.60	SEPARATION	1.39	PERSON RELIABILITY	.66	
MODEL RMSE	1.82	TRUE SD	2.64	SEPARATION	1.45	PERSON RELIABILITY	.68	
S.E. OF PERSON MEAN = .08								

Table 13: SUMMARY OF 19 MEASURED (NON-EXTREME) ITEM

	TOTAL	COUNT	MEASURE	MODEL	INFIT		OUTFIT	
	SCORE			S.E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	697.1	233.2	.00	.23	1.16	.0	1.14	-.5
P.SD	804.9	230.6	.50	.11	.64	2.9	.83	2.8
S.SD	826.9	236.9	.51	.11	.66	3.0	.86	2.9
MAX.	3320.0	924.0	.67	.52	3.29	5.7	4.32	5.3
MIN.	56.0	21.0	-1.21	.12	.43	-6.3	.40	-6.5
REAL RMSE	.32	TRUE SD	.38	SEPARATION	1.17	ITEM RELIABILITY	.58	
MODEL RMSE	.26	TRUE SD	.43	SEPARATION	1.66	ITEM RELIABILITY	.73	
S.E. OF ITEM MEAN = .12								

Table 14:

Source of violent crime item category thresholds

Category	Threshold
1	None
2	-3.89
3	.17
4	3.72

Figure 2

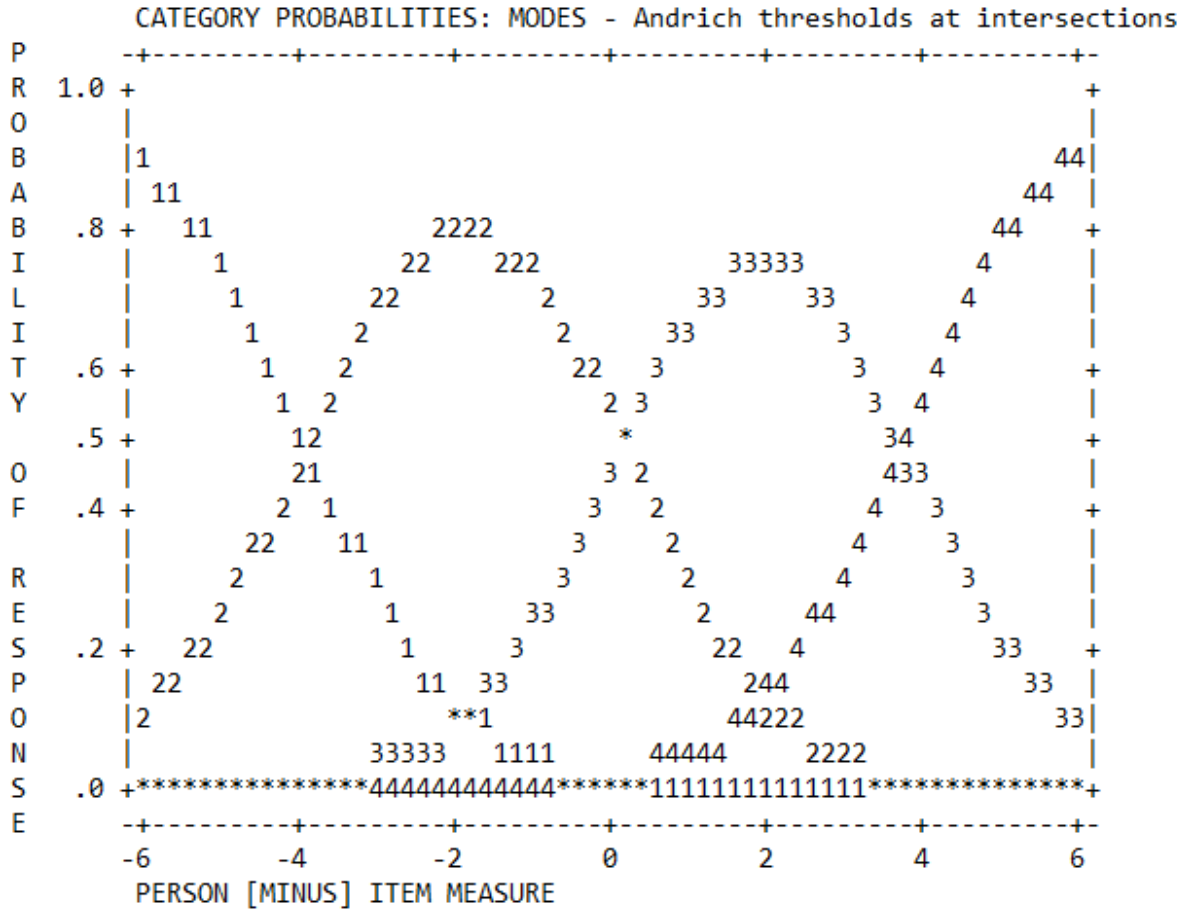


Table 15: Descriptive statistics

Source of Crime	Frequency	Percent
Race/Ethnicity	85	2.6
Religion	33	1.0
National Origin	15	0.5
Gender/Gender Identity	104	3.2
Disability Status	79	2.4

Sexual Orientation	41	1.3
Other	78	2.4
Total amount	3231*	

* Respondents who reported to experience at least one type of crimes.

WINSTEPS OUTPUT FOR POLICE SERVICE

Table 16: ITEM STATISTICS: MEASURE ORDER

ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL		INFIT		OUTFIT		PTMEASUR-AL		EXACT MATCH		ITEM
				S.E.	MNSQ	ZSTD	MNSQ	ZSTD	CORR.	EXP.	OBS%	EXP%		
15	106	861	1.43	.17	.86	-1.7	.78	-1.4	.58	.56	79.6	76.2	CALLUP	
16	78	563	1.36	.21	.82	-1.7	.76	-1.1	.68	.65	82.7	79.2	TEXTUP	
12	20	78	1.01	.38	1.07	.4	.88	-.2	.68	.68	75.6	77.2	SEXACTP	
19	26	80	.94	.40	.71	-1.7	.53	-1.3	.79	.74	87.5	76.1	UNWANTP	
18	59	177	.93	.25	.81	-1.7	.66	-1.6	.77	.73	80.2	75.6	SHOWUPP	
10	23	67	.76	.40	1.15	.9	.92	-.1	.72	.73	68.4	75.7	FORSEXP	
14	106	370	.65	.19	1.03	.3	1.18	1.2	.71	.72	74.4	73.6	FOLLOWP	
17	81	215	.28	.24	.86	-1.4	.75	-1.5	.76	.74	77.8	72.3	STANDP	
22	48	133	.21	.32	.84	-1.1	.69	-1.4	.79	.76	75.4	74.2	OTHERTP	
20	156	427	.21	.18	.80	-2.5	.73	-2.3	.81	.78	81.3	74.4	VERBTP	
3	281	1092	-.02	.17	1.30	4.5	1.64	5.5	.70	.76	61.3	68.3	IDTHREP	
21	120	272	-.18	.21	.64	-4.2	.56	-3.4	.84	.78	90.2	74.5	PHYSTP	
11	9	20	-.20	.86	.96	.1	.99	.2	.82	.82	77.8	80.2	SEXWEP	
13	11	24	-.22	.75	1.37	.9	1.21	.6	.77	.80	63.6	79.2	SAWEP	
8	160	400	-.48	.19	1.03	.4	1.25	1.7	.77	.78	73.8	73.9	THRTP	
4	47	81	-.48	.36	1.01	.1	1.02	.2	.72	.72	68.2	73.4	STFORP	
9	62	134	-.53	.30	.87	-.8	.97	.0	.80	.78	81.2	76.8	THRHRP	
7	40	63	-.75	.39	.73	-1.5	.58	-1.3	.76	.70	82.9	76.8	ATTACKP	
2	235	475	-.78	.21	1.27	3.3	2.03	5.1	.70	.76	63.1	70.1	BKINCRP	
5	23	36	-.89	.56	1.08	.4	.89	-.1	.74	.75	73.7	75.9	STWEAPP	
1	160	244	-1.35	.24	1.29	2.5	2.24	4.0	.60	.68	71.6	74.8	BKINREP	
6	116	194	-1.89	.28	1.22	1.5	1.60	1.6	.74	.77	77.1	80.4	PHYATTP	
MEAN	89.4	273.0	.00	.33	.99	-.1	1.04	.2			75.8	75.4		
P.SD	71.5	272.2	.85	.18	.21	1.9	.45	2.2			7.4	2.9		

Table 17: SUMMARY OF 370 MEASURED (NON-EXTREME) PERSON

	TOTAL		MEASURE	MODEL	INFIT		OUTFIT	
	SCORE	COUNT		S.E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	2.6	5.5	-.02	1.15	.93	-.1	.99	.0
P.SD	2.6	4.0	1.14	.28	.45	1.0	.72	1.1
S.SD	2.6	4.0	1.14	.28	.45	1.0	.72	1.1
MAX.	15.0	22.0	2.94	1.77	4.02	3.5	5.72	3.4
MIN.	1.0	2.0	-2.92	.51	.25	-2.7	.23	-2.1
REAL RMSE	1.28	TRUE SD	.00	SEPARATION	.00	PERSON RELIABILITY	.00	
MODEL RMSE	1.19	TRUE SD	.00	SEPARATION	.00	PERSON RELIABILITY	.00	
S.E. OF PERSON MEAN	= .06							

MAXIMUM EXTREME SCORE: 517 PERSON 20.1%
 MINIMUM EXTREME SCORE: 1687 PERSON 65.5%
 LACKING RESPONSES: 657 PERSON

Table 18: SUMMARY OF 2574 MEASURED (EXTREME AND NON-EXTREME) PERSON

	TOTAL		MEASURE	MODEL	INFIT		OUTFIT	
	SCORE	COUNT		S. E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	.8	2.3	-.41	1.97				
P. SD	1.8	2.7	1.31	.36				
S. SD	1.8	2.7	1.31	.36				
MAX.	22.0	22.0	4.61	2.18				
MIN.	.0	1.0	-4.64	.51				
REAL RMSE	2.01	TRUE SD	.00	SEPARATION	.00	PERSON	RELIABILITY	.00
MODEL RMSE	2.00	TRUE SD	.00	SEPARATION	.00	PERSON	RELIABILITY	.00
S. E. OF PERSON MEAN = .03								

PERSON RAW SCORE-TO-MEASURE CORRELATION = .56
 CRONBACH ALPHA (KR-20) PERSON RAW SCORE "TEST" RELIABILITY = .00 SEM = 1.81

Table 19: SUMMARY OF 22 MEASURED (NON-EXTREME) ITEM

	TOTAL		MEASURE	MODEL	INFIT		OUTFIT	
	SCORE	COUNT		S. E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	89.4	273.0	.00	.33	.99	-.1	1.04	.2
P. SD	71.5	272.2	.85	.18	.21	1.9	.45	2.2
S. SD	73.2	278.6	.87	.18	.21	2.0	.46	2.3
MAX.	281.0	1092.0	1.43	.86	1.37	4.5	2.24	5.5
MIN.	9.0	20.0	-1.89	.17	.64	-4.2	.53	-3.4
REAL RMSE	.40	TRUE SD	.76	SEPARATION	1.92	ITEM	RELIABILITY	.79
MODEL RMSE	.38	TRUE SD	.77	SEPARATION	2.04	ITEM	RELIABILITY	.81
S. E. OF ITEM MEAN = .19								

WINSTEPS OUTPUT FOR COMMUNITY RESOURCE UTILIZATION

Table 20: ITEM STATISTICS: MEASURE ORDER

ENTRY NUMBER	TOTAL SCORE	TOTAL COUNT	MEASURE	MODEL	INFIT		OUTFIT		PTMEASUR-AL		EXACT MATCH		ITEM
				S. E.	MNSQ	ZSTD	MNSQ	ZSTD	CORR.	EXP.	OBS%	EXP%	
2	111	3227	2.09	.14	.98	-.2	.54	-2.2	.58	.56	93.6	94.1	MEDTX
5	131	3226	1.73	.13	.87	-1.6	.71	-1.5	.61	.59	93.6	93.1	VSPROV
3	186	3226	.98	.11	.80	-3.1	.58	-3.5	.67	.63	92.6	89.6	MHPROF
4	572	3228	-1.66	.07	.86	-4.9	.87	-2.3	.76	.73	80.5	74.2	TALKED
1	887	3231	-3.14	.07	1.18	6.2	3.60	9.9	.70	.76	74.9	74.9	POLIC
MEAN	377.4	3227.6	.00	.10	.94	-.7	1.26	.1			87.0	85.2	
P. SD	305.2	1.9	2.05	.03	.14	3.8	1.18	5.0			7.8	8.8	

Table 21: SUMMARY OF 1132 MEASURED (NON-EXTREME) PERSON

	TOTAL		MEASURE	MODEL	INFIT		OUTFIT	
	SCORE	COUNT		S. E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	1.5	5.0	-1.63	1.39	.94	-.2	.96	.0
P. SD	.8	.1	1.42	.08	.90	1.1	2.02	1.0
S. SD	.8	.1	1.42	.08	.90	1.1	2.03	1.0
MAX.	4.0	5.0	2.36	1.49	5.82	3.9	9.90	6.1
MIN.	1.0	3.0	-2.52	1.17	.21	-1.0	.16	-.7
REAL RMSE	1.61	TRUE SD	.00	SEPARATION	.00	PERSON	RELIABILITY	.00
MODEL RMSE	1.39	TRUE SD	.29	SEPARATION	.21	PERSON	RELIABILITY	.04
S. E. OF PERSON MEAN = .04								

MAXIMUM EXTREME SCORE: 39 PERSON 1.2%
 MINIMUM EXTREME SCORE: 2060 PERSON 63.8%

Table 22: SUMMARY OF 3231 MEASURED (EXTREME AND NON-EXTREME) PERSON

	TOTAL	COUNT	MEASURE	MODEL	INFIT		OUTFIT	
	SCORE			S. E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	.6	5.0	-3.30	1.80				
P.SD	1.0	.1	1.73	.31				
S.SD	1.0	.1	1.73	.31				
MAX.	5.0	5.0	3.90	2.18				
MIN.	.0	1.0	-4.36	1.17				
REAL RMSE	1.89 TRUE SD		.00 SEPARATION	.00 PERSON RELIABILITY				.00
MODEL RMSE	1.82 TRUE SD		.00 SEPARATION	.00 PERSON RELIABILITY				.00
S. E. OF PERSON MEAN = .03								

PERSON RAW SCORE-TO-MEASURE CORRELATION = 1.00
 CRONBACH ALPHA (KR-20) PERSON RAW SCORE "TEST" RELIABILITY = .65 SEM = .59

Table 23: SUMMARY OF 5 MEASURED (NON-EXTREME) ITEM

	TOTAL	COUNT	MEASURE	MODEL	INFIT		OUTFIT	
	SCORE			S. E.	MNSQ	ZSTD	MNSQ	ZSTD
MEAN	377.4	3227.6	.00	.10	.94	-.7	1.26	.1
P.SD	305.2	1.9	2.05	.03	.14	3.8	1.18	5.0
S.SD	341.3	2.1	2.29	.03	.15	4.2	1.31	5.5
MAX.	887.0	3231.0	2.09	.14	1.18	6.2	3.60	9.9
MIN.	111.0	3226.0	-3.14	.07	.80	-4.9	.54	-3.5
REAL RMSE	.11 TRUE SD	2.05 SEPARATION	18.84 ITEM RELIABILITY	1.00				
MODEL RMSE	.11 TRUE SD	2.05 SEPARATION	19.00 ITEM RELIABILITY	1.00				
S. E. OF ITEM MEAN = 1.02								

REFERENCES

Linacre, J. M. (1998). Structure in Rasch residuals: Why principal components analysis (PCA)? *Rasch Measurement Transactions*, 12, 636.

Linacre, J. M. (2016). WINSTEPS Rasch measurement (Version 3.92.1). [Computer program]. Beaverton, OR: Winsteps.com.

Rasch, G. (1960). Probabilistic models for some intelligence and attainment tests. Copenhagen, Denmark: Danish Institute for Educational Research (Expanded edition, 1980. Chicago: University of Chicago Press).

Warr, M., & Stafford, M. (1983). Fear of victimization: A look at the proximate causes. *Social forces*, 61, 1033-1043.

Wenzel, S., Koegel, P., & Gelberg, L. (2000). Antecedents of physical and sexual victimization among homeless women: A comparison to homeless men. *American Journal of Community Psychology, 28*(3), 367-390.