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Evidence-Based Offender Assessment: A Comparative Analysis of West Virginia and U.S. Risk Scores

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The accurate assessment of offender risk and needs is crucial for the implementation of evidence-based practices (EBP) and the effective delivery of treatment services. All correctional agencies in the state are required to assess offenders using an actuarial risk and needs assessment tool called the Level of Service/Case Management Inventory (LS/CMI). The results of this assessment are used by correctional staff for a variety of case management purposes, including the initial classification of offenders, the targeting of treatment interventions to address clients' individual needs, and the tracking of client progress through continual reassessment. In addition, risk assessment results provide a potentially useful tool for state planners and policymakers because they can be used to describe the composition of particular offender populations and assess the extent to which staff are taking assessment results into account when delivering services.

The LS/CMI is one of the most commonly-used offender assessment tools in the United States and Canada, and it has been shown to be a highly effective predictor of recidivism for offenders in both countries (Olver, Stockdale, & Wormith, 2013; Vose, Cullen, & Smith, 2008; Yang, Wong, & Coid, 2010). Recent research by the Office of Research and Strategic Planning (ORSP) in the West Virginia Division of Justice and Community Services (DJCS) has also demonstrated the predictive validity of LS/CMI risk scores for offender populations in West Virginia, including day report clients (Spence & Haas, 2014; Spence & Haas, 2015) and state prison inmates (Orsini, Haas, & Spence, 2015). These studies indicate that the LS/CMI is being implemented effectively in WV and that assessment results provide an accurate representation of the risk and

Report Highlights...

This study describes the results of more than 8,000 LS/CMI risk assessments provided to West Virginia offenders in 2013 and 2014.

West Virginia normative data is compared to U.S. offender population norms derived from assessment data gathered from nine states across the country.

Results indicate West Virginia has a lower risk offender population compared to other states—this is true regardless of correctional setting (i.e., community or institutional confinement).

Approximately 74-76% of West Virginia offenders under correctional supervision have risk scores that are below the U.S. average.

The low risk population under supervision, in part, explains the comparatively low recidivism rates observed in West Virginia.

Compared to other states, West Virginia offenders have lower levels of need in most areas, especially the Procriminal Attitude/Orientation and Antisocial Pattern domains.

The study results suggest there may be substantive differences in the risk and needs of male and female offenders in West Virginia.

Consideration of LS/CMI risk scores may enhance the state's efforts to manage its correctional population, protect the public, and save resources.

needs of the offender population. For both day report clients and DOC inmates, LS/CMI risk scores were significantly correlated with the likelihood of new arrests, jail bookings, and incarcerations post-release. Risk scores were also the strongest predictors of recidivism in multivariate analyses that controlled for other factors such as offender age, gender and ethnicity.

This report describes the results of LS/CMI assessments for more than 8,000 West Virginia offenders housed in both community and institutional settings in 2013 and 2014. It compares these results to a normative population of U.S. offenders. This comparative analysis of normative data can provide useful information for enhancing our understanding of West Virginia's correctional population. National norms can serve as a basis for assessing the similarities and differences in West Virginia's population compared to other states. Likewise, state-specific normative data can help correctional staff to better understand how the assessment results for *individual offenders* compare to other similarly situated offenders in the state (and the U.S.). Finally, such data can also be useful for comparing the characteristics of different subgroups of offender populations within the state (e.g., male and female offenders, or offenders housed in institutional or community settings). This can be utilized to better inform gender-responsive interventions and the types of services necessary for reducing recidivism across correctional contexts.

This report begins with a detailed description of the data sources and analyses utilized for this study. This is followed by a presentation of the results. This study concludes with a discussion of implications and a series of recommendations for improving adherence to evidence-based practices in the state.

DATA AND METHODS

Sample Selection

This study examines LS/CMI risk assessment data from four different populations of offenders. First, it examines all 4,896 institutional offenders in West Virginia that received an LS/CMI assessment between January 1, 2013, and December 31, 2014. These offenders are supervised by the West Virginia Division of Corrections (DOC) and housed in the state correctional facilities.

Second, the study examines assessments data from 3,876 community-based offenders supervised in day report centers (DRCs). This population represents all DRC clients that received an LS/CMI assessment during the study period noted above. These community offenders consist of probationers, parolees, and other offenders sentenced to receive supervision and services from a DRC. It should be noted that this sample does not include probationers and other community offenders that were not sentenced to a DRC.

The third population consists of all 18,341 institutional offenders included in the U.S. normative dataset (see Andrews, Bonta, & Wormith, 2004). This population serves as the national norm and is comprised of risk assessment data from 9 states and jurisdictions across the country. This normative population provides the best available source of information about national norms in regard to LS/CMI assessment data in the U.S. It consists of all offenders assessed while incarcerated, primarily within a state prison system.

The fourth population consists of all 39,536 community offenders in the U.S. normative data. Community offenders include individuals under some form of community-based supervision (usually probation) at the time of their

Report Highlights...

LS/CMI assessment data drawn from four different offender samples—West Virginia institutional offenders, West Virginia community offenders, U.S. institutional offenders, and U.S. community offenders are analyzed for this study.

Both West Virginia populations under correctional supervision are comprised largely of white males between the ages of 20 and 39.

The West Virginia population of community offenders contains a larger proportion of female offenders, with about 32% being female compared to only 13% of institutional offenders. This population also includes a larger proportion of offenders under the age of 30, and a smaller proportion of minorities.

assessment.

Analysis Plan

The analysis plan centers on comparing total risk scores as well as the scores obtained from the eight domains that comprise the total risk score for the LS/CMI. The total risk score produced by the LS/CMI ranges from 0 to 43, with higher scores indicating a greater risk of recidivism after release. In addition, the LS/CMI classifies offenders into five different risk levels depending on where their total scores fall in the range. These risk levels consist of very low (a score between 0 and 4), low (5-10), medium (11-19),

high (20-29) and very high (30-43).

LS/CMI total risk scores are calculated by adding the scores on each of eight domains which represent the individual risk factors. Sometimes referred to as the “Central 8,” each subdomain captures a criminogenic factor which has been shown to influence the likelihood of recidivism. These include Criminal History, Education/Employment, Family/Marital, Leisure/Recreation, Companions, Alcohol/Drug Problem, Procriminal Attitude/Orientation, and Antisocial Pattern. These domain scores are used to examine the criminogenic needs of West Virginia’s offender populations in relation to the U.S. normative population.

Lastly, the following analysis describes the results of

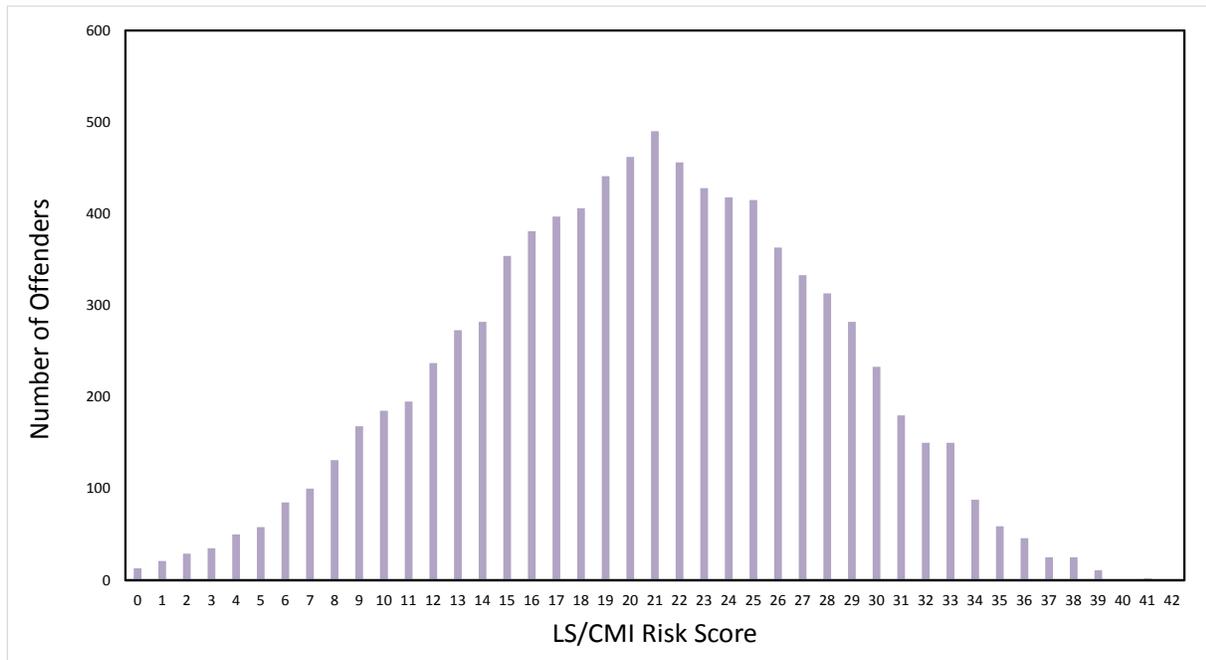
Table 1
Descriptive Statistics for West Virginia Institutional and Community Offender Populations

	<u>Institutional Offenders</u>		<u>Community Offenders</u>	
	N	%	N	%
Age				
Under 20	51	1.0	156	4.0
20-29	1,821	37.2	1,739	44.9
30-39	1,689	34.5	1,228	31.7
40-49	800	16.3	474	12.2
50 and Over	<u>535</u>	<u>10.9</u>	<u>279</u>	<u>7.2</u>
Total	4,896	100.0	3,876	100.0
Gender				
Male	4,246	86.7	2,612	67.4
Female	<u>650</u>	<u>13.3</u>	<u>1,264</u>	<u>32.6</u>
Total	4,896	100.0	3,876	100.0
Race				
White	3,750	76.6	3,165	81.7
Black	526	10.7	192	5.0
Hispanic or Latino	37	0.8	31	0.8
Multiracial or Other	58	1.2	47	1.4
Unknown	<u>525</u>	<u>10.7</u>	<u>441</u>	<u>11.4</u>
Total	4,896	100.0	3,876	100.0

Note: N = 4,896 for institutional offenders; N = 3,876 for community offenders.

Figure 1

Frequency Distribution of Risk Scores for Institutional and Community Offenders in West Virginia (N = 8,772)



Note: Mean = 20.44, S.D. = 7.34

the normative comparison by gender. This allows for an examination of the differences in risk and needs among males and females in West Virginia and the U.S. Such an analysis can provide useful information for understanding the unique needs of the two populations.

RESULTS

Table 1 describes the demographic characteristics of the institutional and community offender populations in West Virginia. Both populations are comprised largely of white males between the ages of 20 and 39. However, the population of community offenders contains a larger proportion of female offenders, with about 32% being female compared to only 13% of institutional offenders. The community offender population also includes a larger proportion of offenders under the age of 30, and a smaller proportion of minority offenders. Roughly 49% of community offenders are under the age of 30 compared to only 38% of institutional offenders, while about 7% of community offenders represent an ethnic or racial minority

compared to about 13% of institutional offenders.

The distribution of the LS/CMI total risk score for both populations *combined* is presented in Figure 1. It shows that the average risk score for offenders in West Virginia is 20.4. This score falls near the midpoint of the scale for LS/CMI total risk scores (which ranges from 0 to 43). As shown in Figure 1, the distribution approximates a normal curve with

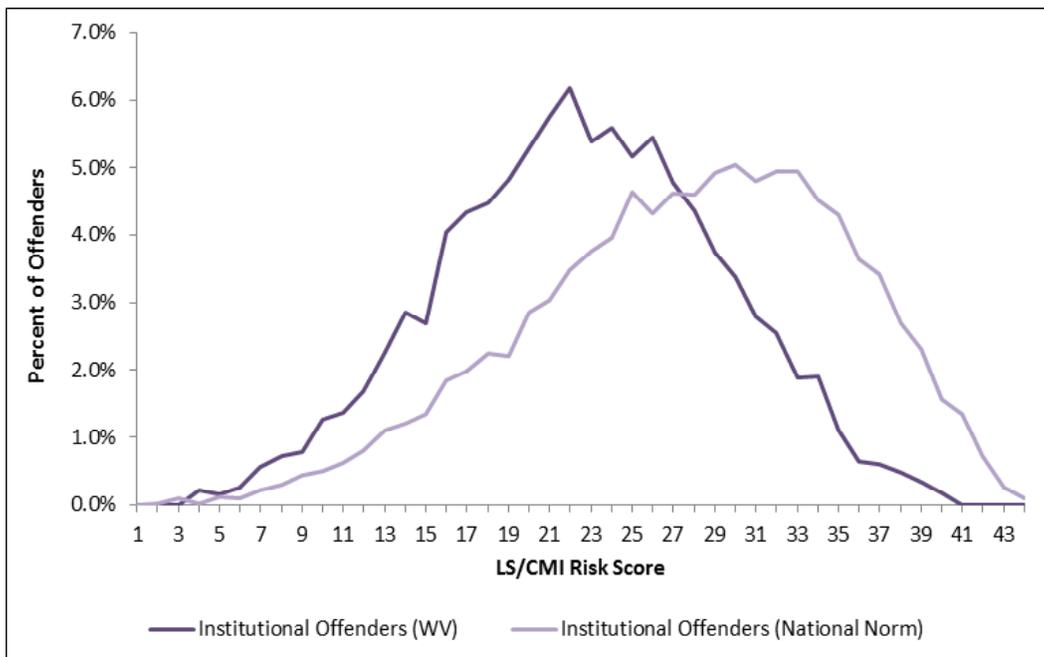
Report Highlights...

The mean total risk score for West Virginia offenders is 20.4, which places the average offender at the bottom of the “high risk” category.

The combined distribution of West Virginia offenders under correctional supervision approximates a normal curve with most offenders clustering around the mean while few fall into the “tails” of the distribution.

Figure 2

Distribution of Risk Scores for Institutional Offenders in West Virginia Compared to U.S. Norms



Note: Mean = 21.57, S.D. = 6.70 (WV Institutional Offenders); Mean = 26.21, S.D. = 7.52 (U.S. Institutional Offenders).

most offenders clustering around the mean while relatively few offenders fall in the “tails” of the distribution (i.e., very high or very low risk). While slightly skewed toward the lower risk scores, this distribution is somewhat consistent with what might be expected in a combined population of community and institutional offenders.

To better illustrate how West Virginia’s risk distribution compares to the U.S., Figures 2 and 3 display the total risk scores for the state compared to the national normative population. Figure 2 presents the distribution of West Virginia institutional offenders compared to the U.S. population. Figure 2 shows that the mean risk score for institutional offenders in West Virginia (21.5) is considerably lower than the national norm (26.2). It also indicates that a much greater proportion of the state’s confined offender population has risk scores that fall near the middle or lower ends of the scale compared to the national population. In fact, roughly 76% of institutional offenders in West Virginia have risk scores that fall below the national average. Clearly, this illustrates that West Virginia has a lower risk population of offenders confined in its prisons compared to other states.

The results of a similar analysis on community offenders is presented in Figure 3. As shown in Figure 3, the

Report Highlights...

The average risk score for institutional offenders in West Virginia (21.5) is about 5 points lower than the national norm for institutional offenders (26.2).

Similarly, the average risk score for West Virginia community offenders (19.1) is also about 5 points lower than the average score for community offenders in the U.S. normative sample (24.6).

Roughly 74-76% of WV offenders have risk scores that are below the national average.

The U.S. norm is for skewness toward higher risk scores on the LS/CMI scale. This reflects both the higher-risk composition of offender populations in other states, and the tendency for states to prioritize the use of institutional and community-based correctional supervision for those offenders with the greatest risk of recidivism. West Virginia’s distribution is skewed toward lower risk scores.

Report Highlights...

Only one-quarter as many West Virginia offenders are classified as very high risk compared to national norms.

Twice as many offenders are classified as very low to medium risk in West Virginia compared to other states.

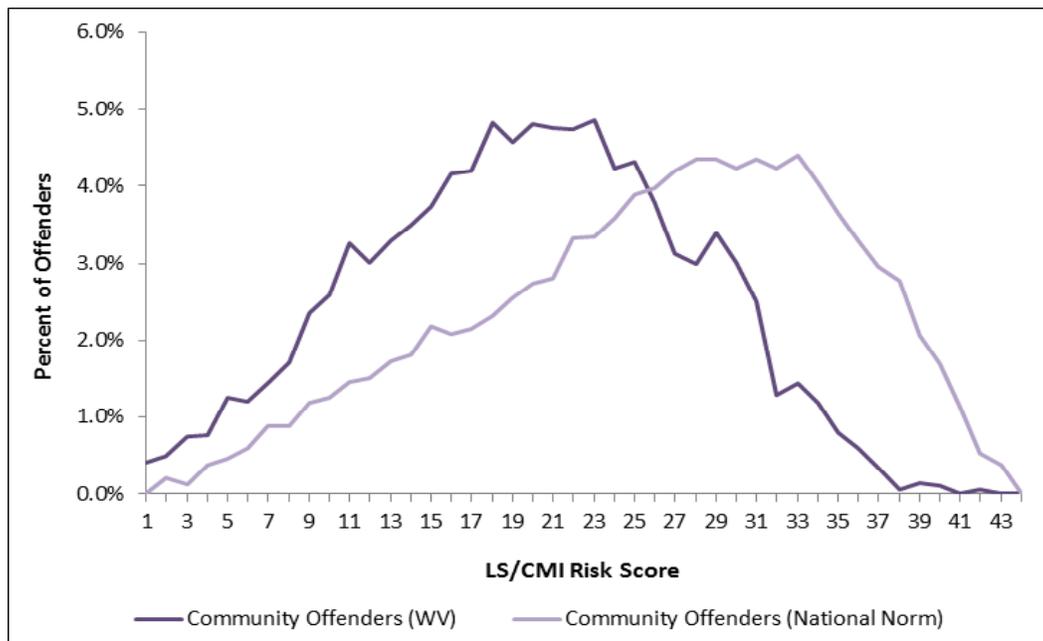
Far fewer offenders in West Virginia’s correctional population have a very high recidivism risk compared to the U.S. adult norm.

West Virginia has a relatively large proportion of offenders that have a low or very low risk of recidivism.

average risk score for West Virginia offenders supervised in community corrections (i.e., DRCs) is 19.1. This is more than 5 risk points lower than the U.S. normative average of 24.6, which also includes a historically “less risky” population of probationers. Recall that the West Virginia normative sample excludes offenders on probation who are not receiving services in the more intensive alternative sanction of day report centers. Nonetheless, these results illustrate that West Virginia’s community supervision population contains a substantially larger proportion of low risk offenders compared to other states. About 74% of community offenders in West Virginia have risk scores below the national average. Taken together, Figures 2 and 3 indicate that about 3 out of every 4 offenders in West Virginia have a lower risk of recidivism than the average offender in other states.

A closer examination of the shapes of the risk score distributions yields additional information on the nature

Figure 3
Distribution of Risk Scores for Community Offenders in West Virginia Compared to U.S. Norms



Note: Mean = 19.01, S.D. = 7.86 (WV Community Offenders); Mean = 24.6, S.D. = 8.85 (National Norm)

of risk and needs among the West Virginia populations of offenders. For both the institutional and community offender populations in West Virginia, the distribution of risk scores is concentrated around the mean and approximates a normal distribution or bell curve. However, the U.S. norm is for skewness toward higher risk scores with a smaller proportion of offenders falling near or below the midpoint of the LS/CMI scale. This reflects both the higher-risk composition of offender populations in other states, and the tendency for states to prioritize the use of institutional and community-based correctional supervision for those offenders with the greatest risk of recidivism.

Table 2 collapses the distribution of offenders across the five distinct risk levels identified by the LS/CMI (i.e., Very High, High, Medium, Low, and Very Low). In regard to institutional offenders in West Virginia, Table 2 shows that roughly 12% the population is very high risk, with 50% high risk, 33% medium risk, and 5% low or very low risk. In contrast, the U.S. normative sample of institutionalized offenders contains about 40% very high risk, while about 42% are high risk, 16% are medium risk, and roughly 2% are low or very low risk. Thus, the results in Table 2 illustrate that only about one-quarter as many offenders are classified as very high risk compared to national norms.

Report Highlights...

West Virginia institutional offenders generally have higher scores on each LS/CMI domain than community offenders, but lower scores than their counterparts in other states.

The average scores for West Virginia offenders on the Procriminal Attitude/Orientation and Antisocial Pattern domains are about half the national average.

The Companion domain is the only area where West Virginia offenders consistently scored higher than the U.S. population.

In West Virginia, females generally scored lower than males on the LS/CMI, with the exception of the Family/Marital domain.

Female institutional offenders in West Virginia had higher average scores compared to males on the Alcohol/Drug Problem domain.

Table 2

Distribution of Offenders by Risk Level in West Virginia Compared to U.S. Norms

Risk Level	<u>WV Institutional</u>		<u>U.S. Institutional</u>		<u>WV Community</u>		<u>U.S. Community</u>	
	N	%	N	%	N	%	N	%
Very Low (0-4)	19	0.4	45	0.2	129	3.3	495	1.2
Low (5-10)	239	4.9	472	2.1	488	12.6	2,711	6.2
Medium (11-19)	1,590	32.5	3,013	15.6	1,376	35.5	8,018	19.1
High (20-29)	2,440	49.8	7,716	42.4	1,520	39.2	14,722	38.1
Very High (30-43)	<u>608</u>	<u>12.4</u>	<u>6,685</u>	<u>39.6</u>	<u>363</u>	<u>9.4</u>	<u>12,713</u>	<u>35.5</u>
Total	4,896	100.0	15,721	100.0	3,876	100.0	33,023	100.0

Table 3**LS/CMI Domain Scores for Institutional and Community Offenders in West Virginia Compared to U.S. Norms**

	<u>Institutional Offenders (WV)</u>		<u>Institutional Offenders (U.S.)</u>	
	Mean	S.D.	Mean	S.D.
Criminogenic Need				
Criminal History (0-8)	4.55	1.80	5.19	1.86
Education/Employment (0-9)	4.81	2.51	5.39	2.32
Family/Marital (0-4)	1.39	1.18	2.33	1.28
Leisure Recreation (0-2)	1.62	0.68	1.72	0.60
Companions (0-4)	2.93	1.15	2.57	1.26
Alcohol/Drug Problem (0-8)	3.57	2.27	3.92	2.65
Procriminal Attitude (0-4)	1.34	1.47	2.69	1.47
Antisocial Pattern (0-4)	1.37	1.06	2.45	1.56
	<u>Community Offenders (WV)</u>		<u>Community Offenders (U.S.)</u>	
	Mean	S.D.	Mean	S.D.
Criminogenic Need				
Criminal History (0-8)	2.97	2.05	4.36	2.05
Education/Employment (0-9)	4.25	2.69	5.30	2.43
Family/Marital (0-4)	1.66	1.25	2.18	1.31
Leisure Recreation (0-2)	1.51	0.75	1.55	0.72
Companions (0-4)	2.37	1.50	2.25	1.33
Alcohol/Drug Problem (0-8)	4.20	2.11	4.30	2.65
Procriminal Attitude (0-4)	0.93	1.23	2.33	1.59
Antisocial Pattern (0-4)	1.12	1.02	2.09	1.21

Note: WV Institutional Offenders, N = 4,896; WV Community Offenders, N = 3,876; U.S. Institutional Offenders, N = 15,721; U.S. Community Offenders, N = 33,023

Likewise, twice as many offenders are classified as very low to medium risk in West Virginia compared to other states.

A similar pattern is shown for community offenders in Table 2. Roughly 10% of community offenders in West Virginia are very high risk, 39% are high risk, 36% are medium risk, and 16% are either low or very low risk. Conversely, in the U.S normative sample, about 36% of community offenders are very high risk, while 38% are high risk, 19% are medium risk, and 7% are low or very low risk. These results further illustrate a lower risk population of offenders for West Virginia compared to other states.

The individual risk factors for both institutional and community offenders in the West Virginia and the U.S. normative populations are examined in Table 3. It shows that, on average, scores on the eight LS/CMI domains are lower for the West Virginia institutional offenders compared to the U.S. With the exception of criminal companions, all of the domain scores are lower for the West Virginia population. Given the results presented in Table 2, this finding is expected. In particular, the mean scores for the Procriminal Attitude/Orientation and Antisocial Pattern domains are substantially lower than the national average.

Table 4**LS/CMI Domain Scores for Male and Female Institutional Offenders in West Virginia Compared to U.S. Norms**

	<u>Male Institutional (WV)</u>		<u>Male Institutional (U.S.)</u>	
	Mean	S.D.	Mean	S.D.
Criminogenic Need				
Criminal History (0-8)	4.57	1.81	5.22	1.85
Education/Employment (0-9)	4.84	2.50	5.38	2.33
Family/Marital (0-4)	1.31	1.15	2.33	1.28
Leisure Recreation (0-2)	1.66	0.65	1.73	0.59
Companions (0-4)	2.99	1.14	2.56	1.26
Alcohol/Drug Problem (0-8)	3.51	2.26	3.84	2.64
Procriminal Attitude (0-4)	1.34	1.49	2.73	1.45
Antisocial Pattern (0-4)	1.38	1.06	2.47	1.15
	<u>Female Institutional (WV)</u>		<u>Female Institutional (U.S.)</u>	
	Mean	S.D.	Mean	S.D.
Criminogenic Need				
Criminal History (0-8)	4.42	1.72	4.83	1.88
Education/Employment (0-9)	4.55	2.55	5.54	2.25
Family/Marital (0-4)	1.87	1.28	2.33	1.27
Leisure Recreation (0-2)	1.39	0.81	1.62	0.68
Companions (0-4)	2.52	1.14	2.74	1.28
Alcohol/Drug Problem (0-8)	3.96	2.32	4.68	2.71
Procriminal Attitude (0-4)	1.36	1.31	2.24	1.55
Antisocial Pattern (0-4)	1.33	1.06	2.05	1.17

Note: WV Male Institutional Offenders, N = 4,246; U.S. Male Institutional Offenders, N = 13,985; WV Female Institutional Offenders, N = 650; U.S. Female Institutional Offenders, N = 1,376

Table 3 also shows a similar pattern in regard to community offenders. Lower mean scores are observed for all eight domains, except for Companions. Likewise, the Procriminal Attitude/Orientation and Antisocial Pattern domains are about half the national average.

The risk factors for male and female offenders are described in Tables 4 and 5. Consistent with the results presented in Table 3, they show that male and female offenders have lower mean scores on all eight domains of the LS/CMI than their counterparts in the U.S. normative sample, with the exception of the Companions domain. This

pattern holds for both institutional and community offender populations, and indicates that West Virginia offenders generally have criminogenic needs that are less serious than the national norms, even when controlling for gender.

It is worth noting, however, that there are some substantive differences between male and female offenders in West Virginia. Males generally have slightly higher mean scores for all of the domains, with the exception of Family/Marital. In addition, female institutional offenders have a greater mean score than males on the Alcohol/Drug Problem domain. This suggests that the average female

Table 5

LS/CMI Domain Scores for Male and Female Community Offenders in West Virginia Compared to U.S. Norms

	<u>Male Community (WV)</u>		<u>Male Community (U.S.)</u>	
	Mean	S.D.	Mean	S.D.
Criminogenic Need				
Criminal History (0-8)	3.30	2.03	4.56	1.98
Education/Employment (0-9)	4.18	2.76	5.29	2.45
Family/Marital (0-4)	1.58	1.24	2.14	1.31
Leisure Recreation (0-2)	1.49	0.76	1.57	0.71
Companions (0-4)	2.35	1.51	2.25	1.33
Alcohol/Drug Problem (0-8)	4.28	2.09	4.35	2.63
Procriminal Attitude (0-4)	1.02	1.28	2.46	1.56
Antisocial Pattern (0-4)	1.17	1.05	2.15	1.21
	<u>Female Community (WV)</u>		<u>Female Community (U.S.)</u>	
	Mean	S.D.	Mean	S.D.
Criminogenic Need				
Criminal History (0-8)	2.28	1.90	3.72	2.12
Education/Employment (0-9)	4.40	2.56	5.43	2.33
Family/Marital (0-4)	1.83	1.25	2.35	1.28
Leisure Recreation (0-2)	1.55	0.74	1.48	0.76
Companions (0-4)	2.40	1.48	2.28	1.32
Alcohol/Drug Problem (0-8)	4.03	2.13	4.21	2.70
Procriminal Attitude (0-4)	0.76	1.12	1.99	1.59
Antisocial Pattern (0-4)	1.03	0.95	1.93	1.17

Note: WV Male Community Offenders N = 2,602; U.S. Male Community Offenders N = 26,113; WV Female Community Offenders N = 1,264; U.S. Female Community Offenders N = 6,910.

institutional offender has a higher level of need in this area. Among community offenders, females do not have higher mean scores on the Alcohol/Drug Problem domain, but do have higher scores on the Education/Employment domain. These results suggest that correctional policymakers and program staff should take into account unique differences between males and females when allocating resources and developing programs to reduce recidivism.

DISCUSSION AND CONCLUSION

This report provided a descriptive analysis of risk scores in West Virginia compared to a U.S. normative population. The findings revealed several differences between West Virginia’s correctional populations and those of other states. First, results clearly show that West Virginia’s correctional population is lower in risk for recidivism on average when compared to other jurisdictions in the U.S. This is true regardless of the correctional setting (i.e., community or institutional confinement). The average total risk scores for both institutional and community offenders are substantially

lower than the respective national norms. As a result, approximately 74-76% of West Virginia offenders under supervision have risk scores that are below the U.S. average. Furthermore, the proportion of very high risk offenders in the U.S. institutional and community offender populations is about four times greater than what is observed in the West Virginia correctional population. This is likely to partially explain the comparatively low recidivism rates observed in West Virginia over the years. The fact that a vast majority of offenders in the community and in confinement have a low likelihood of recidivism means that West Virginia should have a lower recidivism rate compared to other states. This represents an opportunity for West Virginia to make great strides in reducing its correctional populations by working to prioritize higher risk offenders when determining levels of supervision and treatment.

A second set of findings concerns the criminogenic needs of West Virginia offenders. When compared with their counterparts in other states, West Virginia offenders generally had lower levels of need in most areas, especially the Procriminal Attitude/Orientation and Antisocial Pattern domains. While this is consistent with the findings that West Virginia has a relatively low risk offender population, this also represents an opportunity to account for these differences through more targeted service delivery. However, it is also important to note that these results may also reflect potential issues in scoring (Orsini, Haas, & Spence, 2015). It is critical that West Virginia continues to work on its efforts to maintain the accuracy of LS/CMI results through measures such as the Quality Assurance for Treatment Intervention Programs and Supervision (QA-TIPS) initiative.

A third finding of interest includes the differences in risk and needs observed across gender. The results suggests there may be substantive differences in the risk and needs of male and female offenders in West Virginia. Generally, females had lower risk scores than males and tended to have slightly fewer criminogenic needs. At the same time, however, female offenders tended to score higher than males on the Family/Marital domain. This finding is consistent with prior empirical research on the LSI series and suggests that correctional staff should continue to develop gender-specific interventions.

Although the results of the comparative analyses provide important insights into the differences between the West Virginia and U.S. offender populations, it is important

Report Highlights...

West Virginia has a low risk offender population compared to other states.

The impact of correctional services can be enhanced by prioritizing higher risk offenders when allocating supervision and treatment resources.

Female offenders have a lower overall risk of recidivism than males, but greater needs in the Family/Marital domain.

Correctional policymakers and program staff should take into account unique differences between males and females when allocating resources and developing programs to reduce recidivism.

to point out that the data sources utilized for this report do have some limitations that should be considered when interpreting the results. One potential issue is that the U.S. normative dataset is not comprised of a random sample of offenders, but is instead an amalgamation of nine different offender samples drawn from states across the country. It is therefore possible that the normative data may over-represent certain types of offenders or include disproportionately more offenders from some states than others. However, it should be noted the U.S. normative dataset is the largest and most comprehensive compilation of offender risk assessments that is currently available for analysis.

Another issue is that the normative dataset was created roughly 10 years ago. While it is unlikely that the risk and needs of the U.S. offender population would have changed significantly during this time, efforts are underway to gather additional assessment data. Thus, it is possible that the national norms for various offender populations may change slightly as new data are released.

Finally, it is also important to note that due to the phased implementation of the LS/CMI tool in West Virginia, the institutional and community samples do not contain assessment results for particular subpopulations of offenders. While the institutional population sample contains all assessment results for inmates housed in state prisons, it

does not include assessments for offenders housed in the state's regional jail system (nor does the U.S. normative population). To obtain an assessment of all DOC inmates, it will be necessary in the future to assess offenders who are committed to DOC custody but remain housed in the regional jail system. Likewise, the West Virginia community offender population examined in this report did not include community offenders that were not under the supervision of day report centers. As a result, the risk scores of probation offenders and parolees are not represented in this report. It is likely that the inclusion of these populations in the future may change some of the results.

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The Division of Justice and Community Services is the designated state criminal justice planning agency. The Division is responsible for fostering public safety in West Virginia by providing planning, system coordination, grant administration, training & technical assistance, monitoring, research, statistical services, and law enforcement training.

The Office of Research and Strategic Planning's mission is to generate statistical and analytical products concerning crime and the criminal justice system for the public and justice system professionals and policy-makers, establishing a basis for sound policy and practical decisions for the criminal justice system in West Virginia.

Appendix A
 Profile for Male Offenders
Level of Service/Case Management Inventory West Virginia and U.S. Adult Norms

Score	Community Offenders		Institutional Offenders	
	West Virginia Cumulative %	United States Cumulative%	West Virginia Cumulative %	United States Cumulative %
43	100.0	100.0	100.0	100.0
42	100.0	100.0	100.0	99.9
41	100.0	99.6	100.0	99.6
40	99.9	99.0	100.0	98.9
39	99.9	97.7	100.0	97.6
38	99.7	95.8	99.8	96.1
37	99.4	93.6	99.5	93.8
36	99.3	90.7	99.0	91.2
35	98.8	87.6	98.4	87.9
34	98.0	84.3	97.8	84.3
33	96.9	80.6	96.6	80.1
32	95.1	76.4	94.7	75.6
31	93.4	71.8	92.9	70.6
30	91.7	67.6	90.3	65.6
29	89.1	63.2	87.5	60.7
28	86.2	59.0	84.3	55.6
27	82.8	54.6	80.6	50.7
26	79.7	50.2	76.2	46.1
25	75.9	46.0	71.5	41.4
24	71.9	42.0	66.1	37.1
23	67.8	38.0	60.9	32.4
22	64.2	34.5	55.3	28.3
21	59.3	31.2	49.6	24.5
20	54.3	28.1	43.4	21.0
19	49.8	25.4	37.5	17.9
18	45.3	22.8	32.2	14.9
17	41.2	20.4	27.3	12.6
16	36.9	18.1	22.9	10.3
15	32.5	16.0	18.4	8.4
14	28.6	14.0	14.4	6.6
13	24.7	11.9	11.7	5.3
12	21.4	10.2	9.0	4.1
11	18.1	8.5	6.8	3.1
10	15.4	7.0	5.1	2.3
9	12.5	5.6	3.7	1.7
8	9.6	4.4	2.6	1.2
7	7.1	3.3	1.8	0.8
6	5.6	2.5	1.1	0.5
5	3.9	1.7	0.6	0.3
4	2.8	1.1	0.3	0.2
3	1.9	0.7	0.2	0.1
2	1.4	0.3	0.0	0.1
1	0.8	0.2	0.0	0.0
0	0.3	0.0	0.0	0.0
N	2,612	26,113	4,246	13,985
Mean	19.37	25.34	21.60	26.71
Median	20.00	26.00	22.00	27.00
S.D.	7.98	8.85	6.67	7.52

Appendix B
Profile for Female Offenders
Level of Service/Case Management Inventory West Virginia and U.S. Adult Norms

Score	Community Offenders		Institutional Offenders	
	West Virginia Cumulative %	United States Cumulative%	West Virginia Cumulative %	United States Cumulative %
43	100.0	100.0	100.0	100.0
42	100.0	100.0	100.0	99.9
41	100.0	99.7	100.0	99.9
40	100.0	99.4	100.0	99.1
39	100.0	98.7	100.0	97.4
38	100.0	97.6	100.0	95.3
37	100.0	95.9	99.5	92.9
36	100.0	93.5	99.2	89.5
35	99.8	90.9	98.6	85.3
34	99.4	87.6	97.8	81.4
33	98.9	84.1	97.2	76.3
32	98.3	80.5	95.2	71.6
31	97.1	76.7	92.8	67.1
30	96.2	72.4	90.5	62.6
29	93.8	68.2	87.8	58.4
28	90.7	63.9	83.4	53.7
27	87.3	59.7	79.5	48.5
26	84.4	55.5	75.4	43.8
25	81.9	51.3	70.2	39.7
24	78.3	47.4	64.5	35.2
23	73.8	43.8	59.5	31.0
22	69.0	40.0	54.0	28.0
21	64.2	36.5	50.3	24.6
20	59.7	32.5	44.3	21.3
19	54.7	29.4	39.4	18.8
18	49.6	26.3	34.2	16.9
17	44.6	23.3	29.8	15.3
16	39.3	20.9	24.9	13.4
15	35.3	18.6	21.4	10.8
14	30.9	16.3	17.1	8.6
13	27.3	13.9	14.5	7.0
12	23.6	11.8	10.8	5.7
11	20.3	10.0	8.2	3.9
10	17.0	8.5	6.6	3.1
9	13.4	6.9	5.4	2.4
8	11.1	5.5	3.2	1.9
7	8.9	4.1	2.5	1.2
6	7.0	3.0	1.7	1.0
5	5.8	1.9	0.8	0.7
4	4.5	1.3	0.8	0.6
3	2.9	0.7	0.3	0.3
2	1.9	0.4	0.0	0.1
1	1.0	0.2	0.0	0.1
0	0.5	0.0	0.0	0.0
N	1,264	6,910	650	1,376
Mean	18.28	24.21	21.39	26.86
Median	19.00	25.00	21.00	28.00
S.D.	7.56	8.83	6.96	8.08