

Norming and Validating the LSI-R: Idaho
Probation Sample

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The purpose of this report is to provide a profile of offenders that have been assessed using the LSI-R in the state of Idaho and to determine if the LSI-R is able to predict recidivism while under probation supervision. These assessments were completed between the dates of January 2, 2000 and January 21, 2001. The sample includes a total of 484 offenders that were assessed with the LSI-R and subsequently placed on probation. Of these offenders, 114 (24%) are female offenders and 370 (76%) are male offenders.

PROFILE OF OFFENDERS

Since the LSI-R measures ten need areas that comprise risk, the utility of the information gathered from the instrument goes beyond and risk prediction. The compartmentalizing of risk allows agencies to determine the most common need areas for the offenders that they serve. In order to capitalize on the quality and wealth of information provided by the LSI-R, it is important to disaggregate and analyze the information provided by the LSI-R. The sample used for these analyses contained both male and female offenders. As such, analyses were conducted for the total sample and then for males and females separately.

Criminal History

The criminal history scale of the LSI-R contains 10 items. As indicated in Table 1, 76% of the sample has had at least one prior conviction. Smaller percentages (65% and 52%) were assessed as having two or more prior convictions and three or more prior convictions. Six percent of the sample was under supervision for three or more current charges. Twenty-six percent of the sample had an arrest under the age of 16.

Eighty-one percent of the sample had been incarcerated at some point in time with 6% having a record of escape from a correctional facility and 17% being punished for institutional misconduct. Almost half of the offenders assessed (47%) violated an earlier term of community supervision. Finally, 44% were assessed as having a prior record of assault/violence.

Turning to Table 2, which compares the data across gender, some differences in criminal history are noted. With the exceptions of items 4, 6, and 7, males are significantly more likely to score on each item in the criminal history section. This leads to a significantly higher average score in the criminal history section for males when compared to females (4.45 versus 3.36).

Education/Employment

The average education/employment subscale score is 3.00. As noted in Table 1, almost all offenders (73%) are employed. The majority of offenders have demonstrated the ability to hold employment in the past as evidenced by low percentages scoring on frequently unemployed (25%) and never employed for a full year (20%), however, 49% reported being fired. Finally, roughly 80% of the offenders were assessed as having good participation, peer interactions, and authority interactions at work.

Most offenders (73%) completed a 10th grade education and half have completed a 12th grade education (50%). Roughly one-half (43%) of the offenders were scored for being suspended or expelled from school.

The information provided in this section indicates that most of the risk points scored in this section relate to the static factors of ever being fired, failure to complete 12th grade, and being suspended during school.

The alpha reliability score for this subscale is .74, which is average when compared to reliability scores previously reported.

Turning to Table 2, note that males and females significantly differ on items 12, 13, 14, and 17. More specifically, women were more likely to be assessed as frequently unemployed and never employed for a full year. Men

were significantly more likely to score yes for ever being fired and being suspended or expelled from school. The differences in these four items, however, did not lead to significant differences in the total score for the education and employment section.

Financial

Most offenders (51%) were assessed as having financial problems. Reliance upon social assistance was assessed as a problem for 24% of the offenders. The average score in the financial section was less than one (.76). According to item-by-item analysis, it appears that of the offenders that picked up a point in the financial section, they were most likely to be scored for financial problems. The alpha reliability for this subsection, .49, is low compared to reliability scores reported in previous research.

When considering differences between males and females, it can be seen (Table 2) that females scores significantly higher in this section than their male counterparts. This significant difference in the total score for this section is also seen in each individual item for the financial section. Females were assessed as having financial problems 64% of the time and as being on social assistance 48% of the time whereas males were assessed as having financial problems in 47% of the assessments

and as being reliant upon social assistance only 17% of the time. These differences led to females having an average score twice that of males (1.21 versus .65).

Family/Marital

The average score in the family/marital subscale is 1.35. More than half (51%) of the offenders reported having a criminal family or spouse. Between one-quarter and one-third reported dissatisfaction with marital or equivalent situation or non-rewarding relationships with parents or other relatives. The alpha reliability for this subscale, .43, is low but within the range of reliability scores reported in previous research.

Interestingly, when considering scores by sex (Table 2), females, on average, score significantly higher in this section with an average score of 1.62. Females were significantly more likely to score higher on dissatisfaction with marital or equivalent situation (33% versus 24%), non-rewarding parental (36% versus 26%), and criminal family or spouse (59% versus 49%).

Accommodation

From Table 1, it can be seen that the overwhelming majority of offenders do not have problems in the accommodations area. Only 22% were assessed as having unsatisfactory living

conditions. Only 16% were assessed as having 3 or more address changes or living in a high crime neighborhood. The average score in this section was .53 with an alpha reliability of .40, which is low, but again within the range of reliabilities reported in previous research.

As indicated in Table 2, the overall scores in the accommodation section and the percentages scoring on each item did not differ significantly for males and females.

Leisure And Recreation

The average score in the leisure and recreation section is 1.10. Sixty-seven percent of the sample was assessed as lacking participation in an organized activity while 43% of the sample was assessed a risk point for item 31 (Could make better use of time). The alpha reliability in this section (.51) is at the lower end of the range of alpha reliabilities reported in previous research for this subscale. Turning to Table 2, there are no significant differences observed between men and women in this subsection.

Companions

The average score for the companions subscale is 1.30 with a reliability score of .70. Most of the points in this section are attributable to the presence of pro-criminal acquaintances

(57%). One third of the sample was assessed as having pro-criminal friends with only 10% being assessed as lacking pro-social acquaintances and friends. Curiously, 20% of the sample was scored as social isolate, which according to the scoring of item 36 (absence of pro-social friends marked as no indicating the offender has pro-social friends) is not possible.

The only significant difference between the men and women in this section is item 36. Twelve percent of the males were assessed as lacking prosocial friends whereas 5% of the females were assessed. This difference did not lead to a significant difference in the total score for the companions section.

Alcohol/Drug Problem

Table 1 indicates that the majority of offenders have had either an alcohol (59%) or drug (69%) problem in the past. A much smaller percentage is scored as having an alcohol (18%) or drug (27%) problem currently. While collectively the maximum percentage of offenders that have a current substance abuse problem can only reach 45%, 70% of the offenders were assessed as having law violations related to substance use problems. A similar situation is seen with marital/family problems due to substance use problems (48%). This information indicates that assessors are using historical information to score items 41 through 45, which should relate to *current use only*.

Table 2 indicates that men and women have the same average score for the alcohol/drug problems section. They do, however, differ significantly on five items. Men are assessed as having an alcohol problem both ever (64% versus 42%) and currently (20% versus 11%) more frequently than women. A higher percentage of men are assessed for law violations related to substance use (73% versus 62%), and as having other indicators of substance use (18% versus 10%) when compared to women. Women are assessed as having medical problems due to substance use at a higher rate than men (20% versus 12%).

The average score in this section is 3.56 with an alpha reliability coefficient of .78.

Emotional/Personal

The average score in the emotional personal section is 1.09 with an alpha reliability of .65, which is similar to reliability scores reported in previous research. Forty percent of the offenders were assessed as having moderate interference. Only 4% were assessed as having severe interference. Thirty percent of the sample was assessed as having mental health treatment in the past with 14% currently engaged in mental health treatment. Finally, 22% of the sample was assessed as having had a psychological assessment in the past year or in need of a psychological assessment.

The only significant difference between men and women in this sub-scale is for item 46 (moderate interference). Women were significantly more likely to be assessed as having moderate interference when compared to men (51% versus 37%). This did not lead to a significant difference in the total sub-scale score.

Attitudes/Orientation

This last section has an average subscale score of .62 indicating that most offenders picked up less than one point in this section. Those offenders that did score in this section were most likely to be scored for attitudes supportive of crime (16%) or for poor attitudes towards their sentence (16%). Ten percent scored for poor attitudes toward supervision while 14% scored for attitudes unfavorable towards convention. The alpha reliability for this section (.63) was within the ranges reported elsewhere.

Men had a significantly higher average score in this section than did women (.62 versus .40). Men were more likely to score on three of the four items in this section (see Table 2).

Total LSI-R Score

The average LSI-R score for this sample of offenders is 17.45. The median score of this distribution is 16. The alpha reliability for all 54 items of the LSI-R is .86. This is very similar to alpha reliabilities noted in previous research, however, the average score is somewhat lower than averages found in other populations.

Overall, this data indicates that the average offender is a lower risk offender with substantial problems in the education/employment, family/marital, leisure/recreation, and alcohol/drug sections.

The offenders in this sample were most likely to pick up points in the education/employment section because of being frequently unemployed and having failed to complete 12th grade. Offenders typically picked up points in the family/marital section due to a criminal family/spouse and dissatisfaction with their current marital situation. In the leisure and recreation section, many offenders (43%) scored on item 31, could make better use of time, however, a greater proportion (67%) scored on absence of recent participation in an organized activity. In the companions subscale, most offenders picked up points for pro-criminal associates (57%). In terms of alcohol and drug problems, most offenders had a history of drug problems (69%), however, most do not currently have a drug problem (27% have a current drug problem). Smaller percentages report a history of

alcohol abuse (59%) and current alcohol abuse problems (18%). Approximately 40% of the sample was assessed as having moderate interference.

Turing to the sex specific analyses, some substantive differences should be noted. First, men have a higher average score on the criminal history section (4.45 versus 3.36). Second, while the total scores for education and employment are not significantly different, women were more likely to be assessed for being frequently unemployed and never being employed for a full year. Men were more likely to be assessed as ever being fired and suspended or expelled from school. Third, women have an average total financial score twice that of males (1.21 for females compared to .65 for males). Fourth, women score significantly higher on the family/marital section due to higher percentages of females reporting a criminal family or spouse, dissatisfaction with marital or equivalent situation, and non-rewarding relationships with parents. Fifth, women were more likely to be identified as having moderate interference (51% versus 37%). Finally, men had, on average, higher scores for the attitudes/orientation section (.62 versus .40).

VALIDATION

This section of the report focuses on determining how well the LSI-R predicts subsequent involvement in criminal activity. To make this determination, follow-up data was collected on offenders from probation records. This follow-up data includes data on criminal behavior while under probation supervision. Both arrest and incarceration data were collected and coded for analyses.

Of the 484 offenders included in this sample, 143 had successfully completed probation, 116 had unsuccessfully completed probation, and 225 were still active. Roughly 76% were male offenders and 24% were female offenders. Analyses conducted involved predicting subsequent criminal activity with the total LSI-R score for all offenders and separately by sex.

Results

Calculating the correlation (Pearson's r) between the LSI-R composite score and re-arrest using all of the probation cases (484) yields a moderate relationship of 0.36 (see Table 3). This value is consistent with values reported in other research on the LSI-R and subsequent criminal behavior. Calculating the correlation between incarceration and the LSI-R yields a value of 0.33. A similar trend is noted when analyzing the correlations for males. That is, the correlation between the

LSI-R and arrest is higher than that observed for the relationship between the LSI-R and incarceration, however, both are right around average correlations reported in meta-analyses on the LSI-R. When considering the correlations between the LSI-R and outcome for females, a correlation of 0.339 is noted between the LSI-R and arrest and a relationship of 0.337 for incarceration. All of these values, for the entire sample and by sex, are consistent with research reported elsewhere and would indicate that the LSI-R is able to adequately predict recidivism as measured by arrest or incarceration.

While these data support the validity of the LSI-R, the real utility of this instrument comes in giving the correctional practitioner some guidance as to the probability that an offender will re-offend. To do this, risk categories with associated probabilities of recidivism have been developed based on Idaho's data.

First, we used the cutoff scores published by MHS to determine the associated probabilities of recidivism. These results are presented in Figure 1. As can be seen, while increases in the probability of recidivism increase from low-risk through moderate-risk, the probability then begins to decrease with moderate/high and high-risk offenders. This is most likely due to the small numbers of offenders in these two categories (15 and 1 respectively).

Given the small numbers in the last two categories of risk, we changed the risk category cutoff scores. The results of these analyses are reported in Table 4 and Figures 2-4. The cutoff scores used (0 to 15 for low-risk, 16-30 for moderate-risk, and 31+ for high-risk) provided a better fit to the data at hand. As Table 4 indicates, using the new cutoff scores, 231 offenders were categorized as low-risk, 236 were categorized as moderate-risk, and 33 were categorized as high-risk.

Second, the data in Table 3 indicates that when moving across the categories of risk from low to high the percentage of each group arrested or incarceration increases. Moderate-risk offenders are about twice as likely to be arrested as low-risk offenders. High-risk offenders are about 1.6 times as likely to be arrested when compared to moderate-risk offenders and over five times as likely to be arrested when compared to low-risk offenders. A similar trend is noted when reviewing the incarceration rates associated with each risk category. Figure 2 also demonstrates the relationship between LSI-R risk category and outcome.

Our next analyses was to ensure that the new LSI-R cutoff scores remained useful when splitting the sample by sex. Figures 3 and 4 illustrate the relationships between risk category and outcome (arrest and incarceration) by sex. As is

demonstrated in Figure 3, the LSI-R categories perform equally well for both males and females.

Both the correlations calculated and the analyses of arrest and incarceration rates by risk category indicate the LSI-R is satisfactorily predicting subsequent criminal involvement for this sample of probationers.

CONCLUSIONS AND RECOMMENDATIONS

This report has provided a norming and validation study of the LSI-R with a sample of probationers from the State of Idaho. This section summarizes those findings, lists areas, of concerns, and recommendations for future research and utilization of the LSI-R.

Overall, the offenders reviewed in this study are low to low/moderate risk. A majority of this risk (63%) is coming from the criminal history, education and employment, and substance abuse sections (see Figure 5). While men and women have fairly close overall scores, differences in average scores on the subsections do exist. For example, males score higher on the criminal history and substance abuse section while females score higher on the family/marital, education/employment, and emotional/personal subsections. This information should be taken into consideration when developing gender-specific programming to address offenders' needs.

In conducting the norming and profiling of offenders, data in four of the areas caused concern. The first is the percentage of offenders classified as social isolates. While 20% percent of the offenders were classified as social isolates, only 10% were classified as lacking pro-social friends. The definition of a social isolate is a person who lacks relationships with non-relatives. If a person is classified as

a such, they would, in all likelihood, lack friends which would cause one to mark item 36 (lacks pro-social friends) as a risk factor. This is not the case in this data and calls into question the raters understanding of this item.

The second area of concern is the low average in the attitudes and orientations subcomponent and the small percentages that score on each of these items. Data from samples in Ohio indicate average scores over 1.5. Given the correlations between the subscales in this instrument, the low scores in this section, coupled with typical means and average for the criminal history section brings into question the scoring of this subcomponent.

The third area of concern is the education and employment subsection. In this section, item 11 (currently unemployed) effects the scoring of subsequent items. If an offender is scored as unemployed, items 18, 19, and 20 are automatically marked as a risk factor. While 21% of the entire sample was classified as unemployed, only 19% was classified as having problems with peer interactions. This problem is more pronounced with females where 25% was assessed as currently unemployed and only 20% were assessed a point for poor peer interactions at work.

The final area of concern is the alcohol and drug section. While only 18% and 27% were assessed as currently having an

alcohol and drug problem currently, 70% were assessed as having law violations due to substance use. Similarly, 48% were assessed as having marital/family problems due to substance use. Even if there was no overlap in the two groups (those with a current alcohol problem and those with a current drug problem), the total percent assessed with a substance or alcohol abuse problem is at a maximum 45%. If there is overlap between these two groups, and there is reason to assume there is, the percentage of offenders with a current substance abuse problem is less than 45%. As noted, more than 45% of the offenders assessed are being assessed risk points for items 41 and 42 which are supposed to relate to current alcohol or other drug use only.

Turning to the validation section of this study, all of the analyses conducted indicates that the LSI-R is significantly related to predicting future criminal behavior measured by arrest or incarceration. Furthermore, analyses revealed that by adjusting the cutoff scores, the instrument maintains practical utility for supervision staff. Nonetheless, it is recommended that the Idaho Department of Corrections continue to collect LSI-R data on offenders under probation supervision and continue to validate the instrument on a biennial basis. Utilizing a standardized and longer follow-up period with the current sample is also desirable. Finally, it is recommended that the IDOC

begin collecting this data on other populations under correctional supervision such as parolees and inmates. Studies to norm and validate the instrument with these new populations should be planned and conducted.

The one major concern to arise from this research is the number of default items incorrectly scores. Given this information, the IDOC should implement some quality assurance processes to reduce the number of errors uncovered by the norming/profiling section of this report. Such measures might include follow-up trainings for those administering the LSI-R, taped video reviews of assessments, and random audits of assessments. These processes will increase the reliability of the assessments conducted and thereby increase the utility of the information.

Table 1. Frequency of response for 54 LSI-R items (N = 500)

CRIMINAL HISTORY	YES	NO
1. Any Prior Adult Convictions?	76%	24%
2. Two or more prior convictions?	65%	35%
3. Three or more prior convictions?	52%	48%
4. Three or more present offenses?	94%	06%
5. Arrested under the age of 16?	26%	74%
6. Ever incarcerated upon conviction?	81%	19%
7. Escape history from a correctional facility?	6%	94%
8. Ever punished for institutional misconduct?	17%	83%
9. Charge laid or prob/parole suspended during prior cs?	47%	53%
10. Official record of assault/violence?	44%	56%
Criminal History Mean Score	4.19	
Criminal History Alpha Reliability	.65	
EDUCATION/EMPLOYMENT	YES/0/1	NO/2/3
11. Currently unemployed?	21%	80%
12. Frequently unemployed?	25%	75%
13. Never employed for a full year?	20%	80%
14. Ever fired?	49%	51%
15. Less than regular grade 10?	27%	73%
16. Less than regular grade 12?	50%	50%
17. Suspended or expelled at least once?	43%	57%
18. Participation/performance	21%	79%
19. Peer interactions	19%	81%
20. Authority interactions	22%	77%
Education/Employment Average Score	3.00	
Education/Employment Alpha Reliability	.74	
FINANCIAL	YES/0/1	NO/2/3
21. Problems	51%	49%
22. Reliance upon social assistance	24%	76%
Financial Average Score	.76	
Financial Alpha Reliability	.49	
FAMILY/MARITAL	YES/0/1	NO/2/3
23. Dissatisfaction with marital or equivalent situation	26%	74%
24. Non-rewarding, parental	29%	71%
25. Non-rewarding, other relatives	29%	71%
26. Criminal-Family/Spouse	51%	49%
Family/Marital Average Score	1.35	
Family/Marital Alpha Reliability	.43	

ACCOMODATION	YES/0/1	NO/2/3
27. Unsatisfactory	22%	78%
28. 3 or more address changes last year	16%	84%
29. High crime neighborhood	16%	84%
Accommodation Average Score		.53
Accommodation Alpha Reliability		.40

LEISURE/RECREATION	YES/0/1	NO/2/3
30. Absence of recent participation in an organized activity	67%	33%
31. Could make better use of time	43%	57%
Leisure/Recreation Average Score		1.10
Leisure/Recreation Alpha Reliability		.51

COMPANIONS	YES	NO
32. A social isolate	20%	80%
33. Some criminal acquaintances	57%	43%
34. Some criminal friends	33%	67%
35. Absence of anti-criminal acquaintances	10%	90%
36. Absence of anti-criminal friends	10%	90%
Companions Average Score		1.30
Companions Alpha Reliability		.70

ALCOHOL/DRUG PROBLEM	YES/0/1	NO/2/3
37. Alcohol problem, ever	59%	41%
38. Drug problem, ever	69%	31%
39. Alcohol problem, currently	18%	82%
40. Drug problem, currently	27%	73%
41. Law violations	70%	30%
42. Marital/Family	48%	52%
43. School/Work	35%	65%
44. Medical	14%	86%
45. Other	16%	84%
Alcohol/Drug Problem Average Score		3.56
Alcohol/Drug Problem Alpha Reliability		.78

EMOTIONAL/PERSONAL	YES/0/1	NO/2/3
46. Moderate interference	40%	60%
47. Severe interference	4%	96%
48. Mental health treatment, past	30%	70%
49. Mental health treatment, present	14%	86%
50. Psychological assessment indicated	22%	78%
Emotional/Personal Average Score		1.09
Emotional/Personal Alpha Reliability		.65

ATTITUDES/ORIENTATION	YES/0/1	NO/2/3
51. Supportive of crime	16%	84%
52. Unfavorable towards convention	14%	86%
53. Poor, toward sentence	16%	84%
54. Poor, toward supervision	10%	90%
Attitudes/Orientation Average Score		.60
Attitudes/Orientation Alpha Reliability		.63
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TOTAL LSI-R		
Average Score		17.45
Alpha Reliability		.86

Table 2. Frequency of response for 54 LSI-R items by gender

	Males (N = 382)		Females (N = 118)	
	YES	NO	YES	NO
CRIMINAL HISTORY				
1. Any Prior Adult Convictions?*	81%	19%	60%	40%
2. Two or more prior convictions?*	62%	38%	53%	47%
3. Three or more prior convictions?*	56%	44%	38%	38%
4. Three or more present offenses?	7%	93%	5%	95%
5. Arrested under the age of 16?*	29%	71%	17%	83%
6. Ever incarcerated upon conviction?	81%	19%	80%	20%
7. Escape history from a correctional facility?	6%	94%	6%	94%
8. Ever punished for institutional misconduct?*	20%	80%	9%	91%
9. Charge laid or prob/parole suspended during prior cs?*	49%	51%	60%	40%
10. Official record of assault/violence?*	49%	51%	29%	71%
Criminal History Mean Score*	4.45		3.36	
Criminal History Alpha Reliability	.63		.63	
EDUCATION/EMPLOYMENT				
11. Currently unemployed?	20%	80%	25%	75%
12. Frequently unemployed?*	23%	77%	34%	66%
13. Never employed for a full year?*	17%	83%	29%	71%
14. Ever fired?*	47%	53%	27%	43%
15. Less than regular grade 10?	29%	71%	22%	78%
16. Less than regular grade 12?	52%	48%	46%	54%
17. Suspended or expelled at least once?*	46%	54%	33%	67%
18. Participation/performance	20%	80%	25%	75%
19. Peer interactions	19%	81%	20%	80%
20. Authority interactions	22%	78%	25%	75%
Education/Employment Average Score	2.94		3.15	
Education/Employment Alpha Reliability	.75		.75	

	Males		Females	
	YES	NO	YES	NO
FINANCIAL				
21. Problems*	47%	53%	64%	36%
22. Reliance upon social assistance*	17%	83%	48%	52%
Financial Average Score*	.65		1.21	
Financial Alpha Reliability	.43		.52	
FAMILY/MARITAL				
23. Dissatisfaction with marital or equivalent situation*	24%	76%	33%	67%
24. Non-rewarding, parental*	26%	74%	36%	64%
25. Non-rewarding, other relatives	28%	72%	34%	66%
26. Criminal-Family/Spouse*	49%	51%	59%	41%
Family/Marital Average Score*	1.27		1.62	
Family/Marital Alpha Reliability	.43		.40	
ACCOMODATION				
27. Unsatisfactory	21%	79%	25%	75%
28. 3 or more address changes last year	15%	85%	19%	81%
29. High crime neighborhood	15%	85%	17%	83%
Accommodation Average Score	.51		.60	
Accommodation Alpha Reliability	.43		.30	
LEISURE/RECREATION				
30. Absence of recent participation in an organized activity	67%	33%	69%	31%
31. Could make better use of time	45%	55%	40%	60%
Leisure/Recreation Average Score	1.11		1.08	
Leisure/Recreation Alpha Reliability	.54		.40	

COMPANIONS	Males		Females	
	YES	NO	YES	NO
32. A social isolate	21%	79%	16%	84%
33. Some criminal acquaintances	57%	43%	59%	41%
34. Some criminal friends	33%	67%	31%	69%
35. Absence of anti-criminal acquaintances	11%	89%	9%	91%
36. Absence of anti-criminal friends*	12%	88%	5%	95%
Companions Average Score	1.33		1.18	
Companions Alpha Reliability	.65		.54	
ALCOHOL/DRUG PROBLEM	YES	NO	YES	NO
37. Alcohol problem, ever*	64%	36%	42%	58%
38. Drug problem, ever	68%	32%	73%	27%
39. Alcohol problem, currently*	20%	80%	11%	89%
40. Drug problem, currently	27%	73%	26%	74%
41. Law violations*	73%	27%	62%	38%
42. Marital/Family	47%	53%	52%	48%
43. School/Work	35%	65%	37%	63%
44. Medical*	12%	88%	20%	80%
45. Other*	18%	82%	10%	90%
Alcohol/Drug Problem Average Score	3.62		3.34	
Alcohol/Drug Problem Alpha Reliability	.77		.83	
EMOTIONAL/PERSONAL	YES	NO	YES	NO
46. Moderate interference*	37%	63%	51%	49%
47. Severe interference	5%	95%	3%	97%
48. Mental health treatment, past	28%	72%	34%	66%
49. Mental health treatment, present	13%	87%	16%	84%
50. Psychological assessment indicated	22%	78%	20%	80%
Emotional/Personal Average Score	1.05		1.23	
Emotional/Personal Alpha Reliability	.67		.61	

ATTITUDES/ORIENTATION	Males		Females	
	YES	NO	YES	NO
51. Supportive of crime*	18%	82%	10%	90%
52. Unfavorable towards convention	14%	86%	13%	87%
53. Poor, toward sentence*	18%	82%	11%	89%
54. Poor, toward supervision*	12%	88%	5%	95%
Attitudes/Orientation Average Score*	.62		.40	
Attitudes/Orientation Alpha Reliability	.66		.42	
TOTAL LSI-R				
Average Score	17.55		17.09	
Alpha Reliability	.86		.87	

Table 3. Correlations Between LSI-R Composite Score and Outcome for all Offenders and by Sex

	Arrest	Incarceration
All	0.358	0.327
Males	0.368	0.325
Females	0.339	0.337

Table 4. Recidivism Rates By Risk Level

Risk Level	Arrest Rate	Incarceration Rate
Low (0-15) (N = 231)	10%	7%
Moderate (16-30) (N= 236)	34%	29%
High (31+) (N = 33)	55%	46%

Figure 1. Arrest and Incarceration by MHS Risk Category (N = 484)

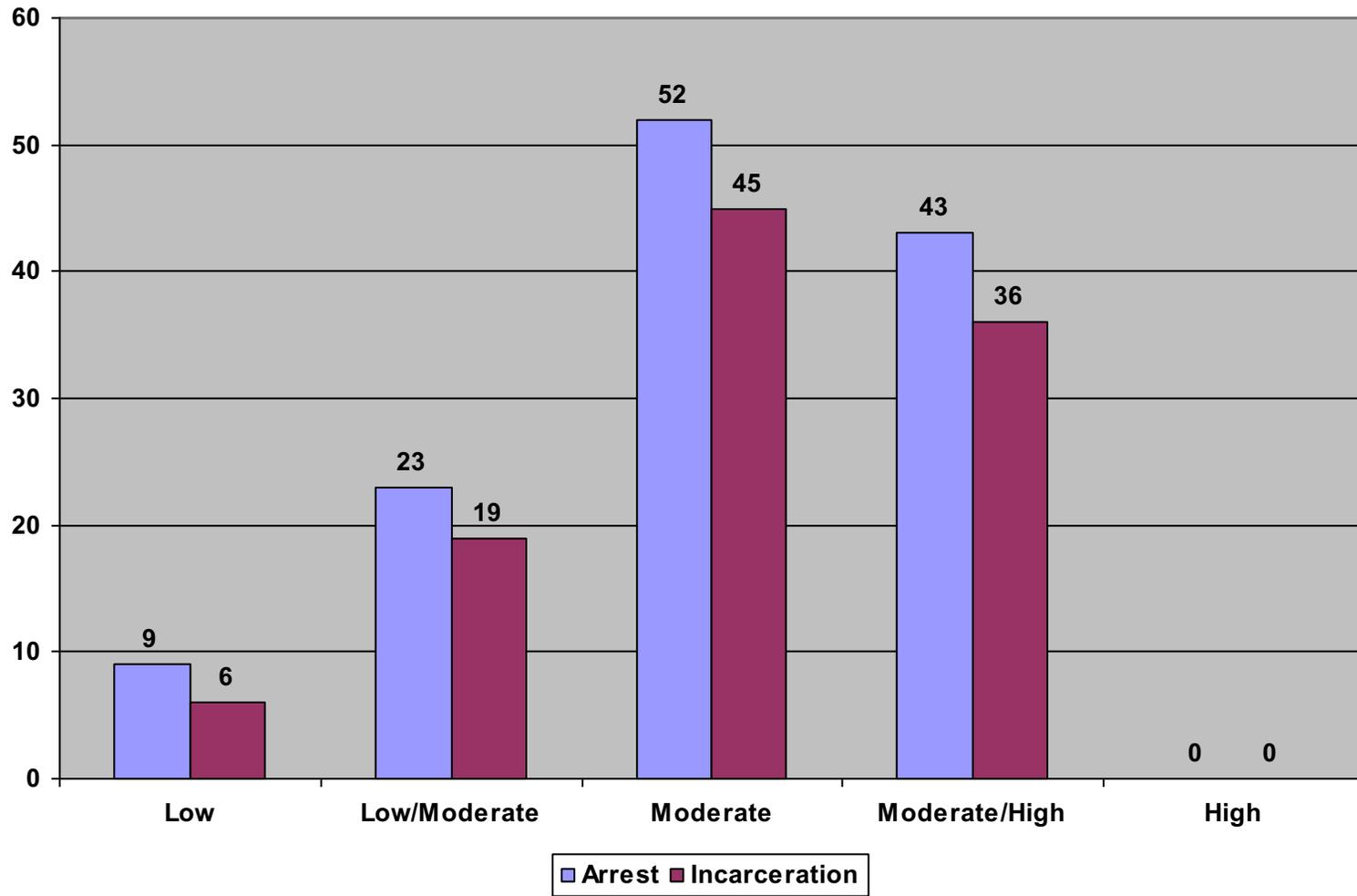


Figure 2. Arrest and Incarceration by Newly Developed Risk Category (N = 484)

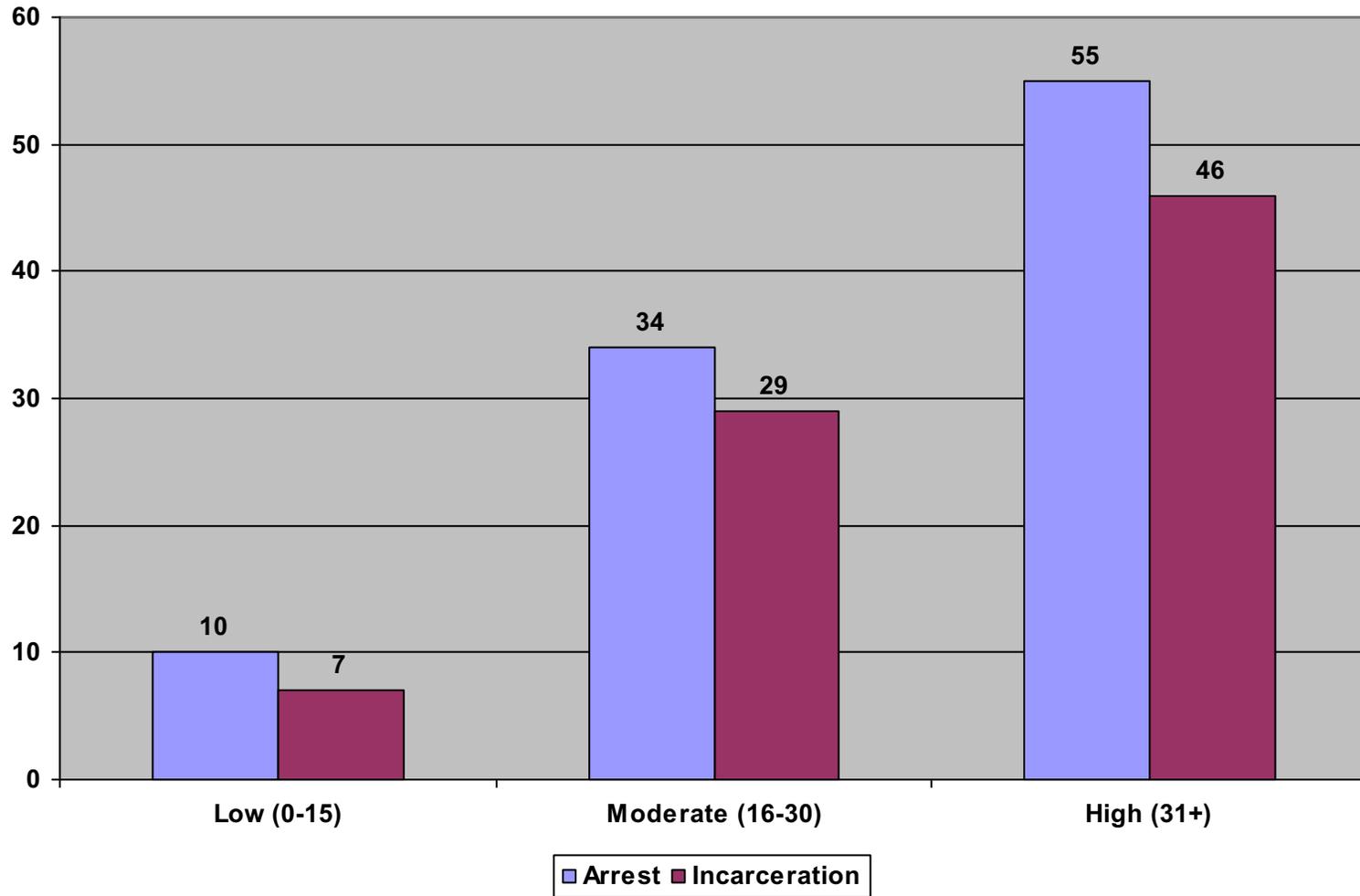


Figure 3. Arrest by Risk Category and Sex (N = 484)

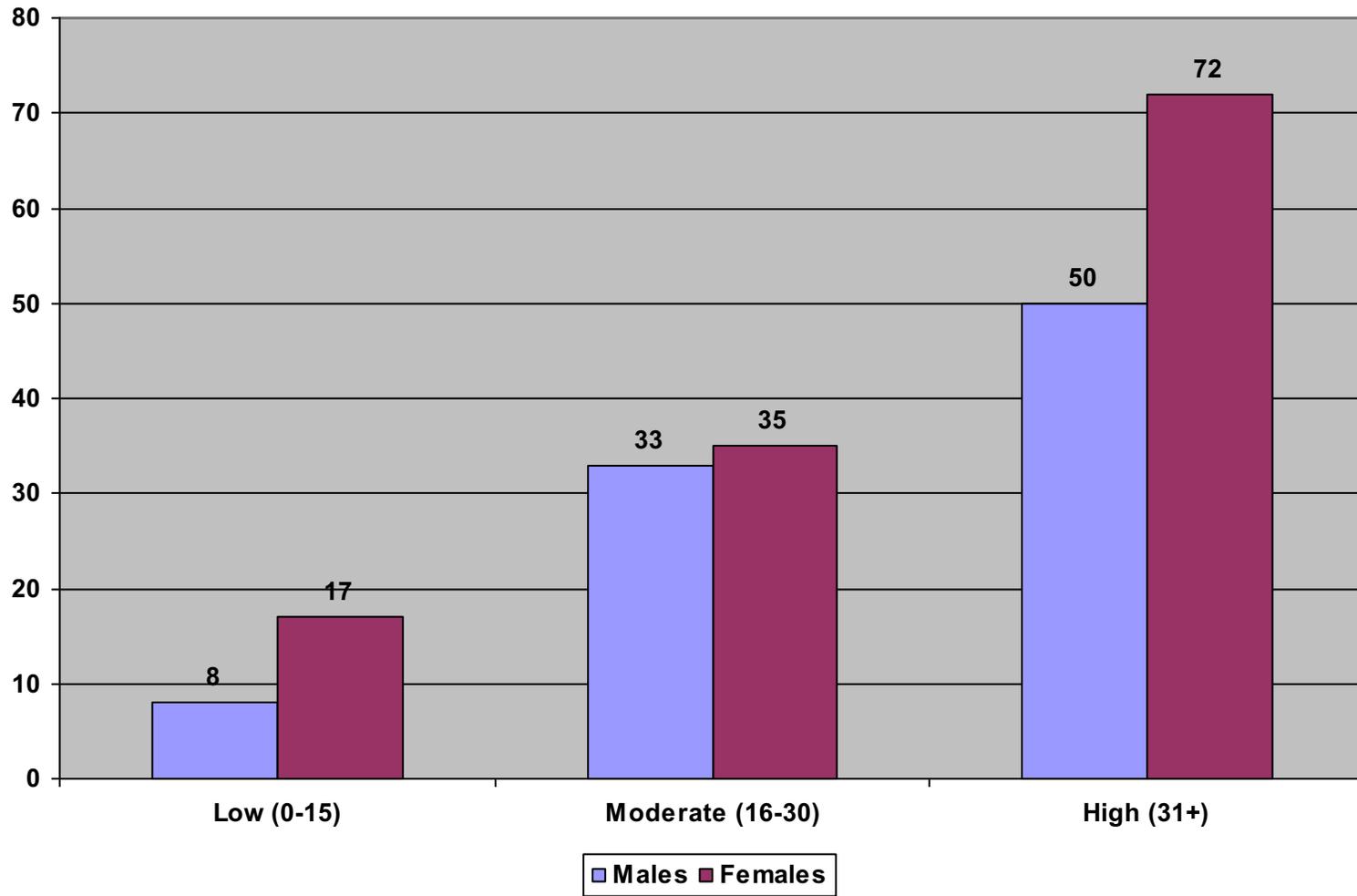


Figure 4. Incarceration by Risk Category and Sex (N = 484)

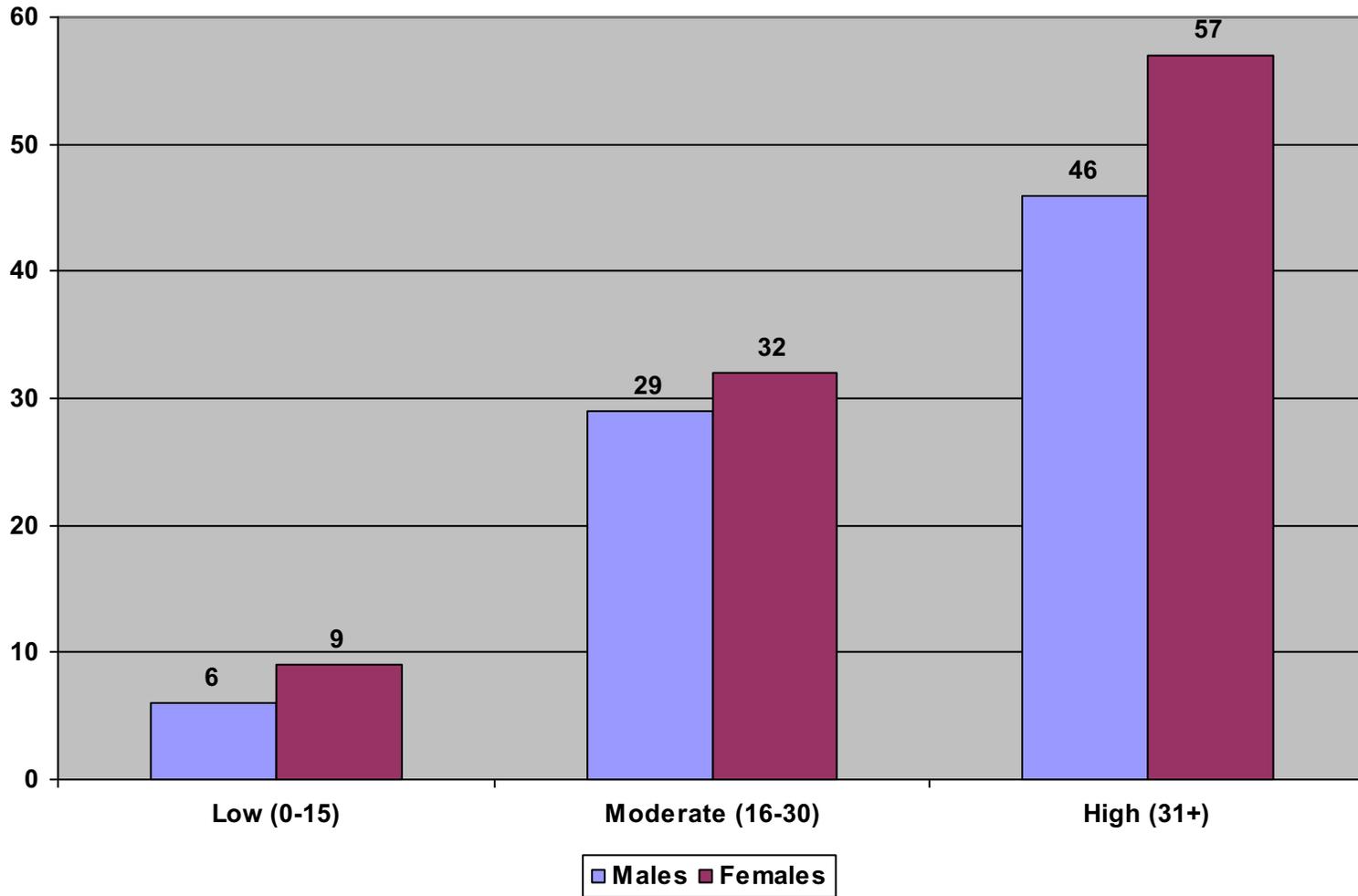


Figure 5. Percentage of Risk Attributable to Each Section

