



Hennepin County

Department of Community Corrections and Rehabilitation

Office of Policy, Planning and Evaluation

YLS/CMI Norming Report
May 2011

Overview

The Youth Level of Service/Case Management Inventory (YLS) is the primary assessment tool used to assess risk and needs of juveniles supervised by Hennepin County Juvenile Probation. An initial YLS is required for all pre-plea and pre-sentence investigations and for referrals to individual supervision where an YLS is not completed by an investigating probation officer. National research has demonstrated the validity of the YLS as an assessment tool for male and female juveniles between 12 and 18 years of age (Hoge & Andrews, 2010).

Evidence-Based Practices requires that assessment tools be normed and validated for the specific population for which they are used. This report provides normative data for the Hennepin County Juvenile Probation population. Norms provide a frame of reference for interpretation of the scores of particular persons. In so far as significant differences exist between the characteristics of the Hennepin Juvenile Probation population and those for the Canadian (Hoge & Andrews, 2006) and the overall U.S. (Hoge & Andrews, 2010) normative populations, interpretation of YLS scores is impacted.

This report provides normative data for the Hennepin County juvenile probation population. Key findings include:

- The Juvenile Probation population's racial composition varied from national community samples used to norm the YLS.
- The mean YLS score for Juvenile probation was higher than national community samples but lower than custodial samples used to norm the YLS.
- As a whole, the Juvenile Probation population scored higher on Education/Employment than did national samples used to norm the YLS. Within the population, juveniles of color and girls scored higher on the YLS than their corresponding counterparts.
- Internal consistency measures for the Juvenile Probation assessments are consistent with internal consistency found at a national level.

A 3-year validation study of the YLS for use by Juvenile Probation in Hennepin County will be based on the same normative sample used for this report. The validation report will be completed in June 2013.

Hennepin Normative Sample Characteristics

The normative sample used in this report includes Hennepin County YLS assessments completed from January 1, 2009 through December 31, 2010 and labeled as 'Initial Assessment' were pulled from the Minnesota Statewide Supervision System (SSS). Only YLS data with no missing item responses were included. The final normative sample included 1,146 YLS assessments, representing 878 males (77%) and 268 females (23%). In comparison, 26% of the U.S. normative community sample was female (Hoge & Andrews, 2010).

60% of those included in the Hennepin normative sample were black and 26% were white (see Figure 1). 8% of the sample was Hispanic and 81% were non-Hispanic ethnicity. The U.S. normative community sample (Hoge & Andrews, 2010) was predominantly white (75%).

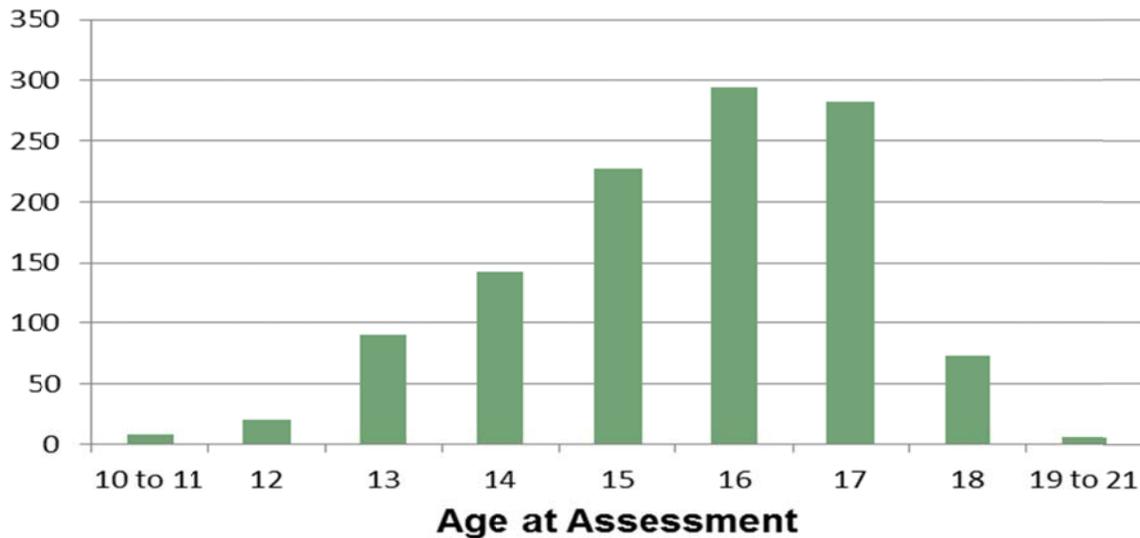
Figure 1. Racial Status within the Hennepin Normative Sample.

Racial Status	Count	Percentage
White	303	27%
Black	689	60%
Other /Multiracial	68	6%
American Indian	57	5%
Asian	24	2%

Hennepin juvenile probation clients ranged in age from 10 to 21 years. The mean age at assessment was 15.6. Figure 2 presents the distribution of age in the Hennepin normative sample. There were no statistical differences in mean age between male and female offenders within the Hennepin normative sample. Also, the mean age of Hennepin offenders was similar to the mean age (15.6) to that of the published U.S. normative sample (Hoge & Andrews, 2010). The mean age of females (15.6) in the Hennepin normative sample was lower than that of females (15.8) in the community group of the U.S. normative sample.

Appendix A provides a table of the demographic characteristics of the Hennepin normative sample by offender gender.

Figure 2. Distribution of Offenders within the Hennepin Normative Sample by Age at Assessment.

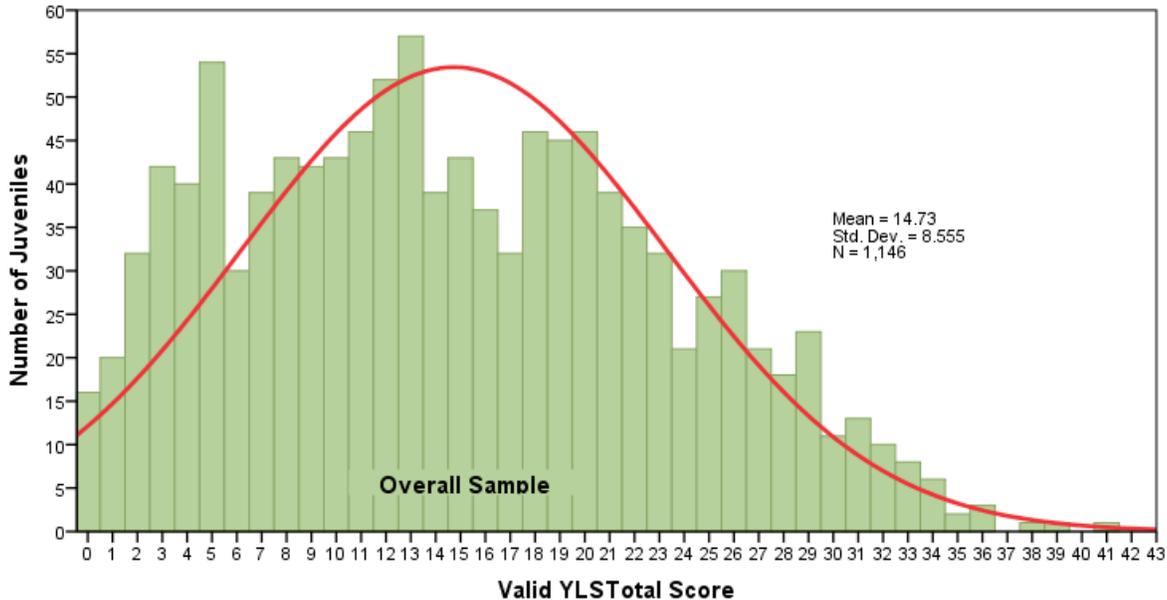


YLS Total Scores

This section describes the distribution of YLS total scores and domain scores within the Hennepin normative sample. Figure 3 shows the distribution of YLS total scores for the overall Hennepin normative sample with the standard normal or bell curve displayed in red as a reference. YLS scores for the Hennepin normative sample

deviate from the normal curve and are skewed to the right, indicating the disproportionate presence of offenders with higher risk scores. The curve for the Hennepin normative sample is similar to that for the U.S. normative custodial sample (Hoge & Andrews, 2010), which is also positively skewed. The curve for the U.S. normative community sample is approximately normal in shape.

Figure 3. Distribution of YLS Total Scores within the Hennepin Normative Sample.



The mean total score for the Hennepin normative sample was 14.7. The mean YLS total score for the Hennepin normative sample was higher than that observed (10.7) in the U.S. normative community sample (Hoge & Andrews, 2010) and lower than that of the U.S. normative custodial sample (19.3). This suggests that juveniles in the Hennepin normative sample are higher risk than those represented in the U.S. normative community sample, but may reflect Minnesota’s preference for maintaining juveniles in the community rather than placing them in facilities.

The mean total score for females in the Hennepin normative sample was 15.2 and that for males was 14.6. This did not represent a statistical difference in mean YLS total scores by gender. However, this trend is in contrast to the U.S. normative community sample where the mean for males (10.9) was higher than the mean for females (10.2). The mean total scores observed for females in the U.S. normative custodial sample were higher than those for males. Again, this provides additional support for similarity between the Hennepin and U.S. custodial normative samples.

Juveniles of color have higher YLS total scores than do white juveniles. The mean YLS total score for white offenders within the Hennepin normative sample was 12.1 and that for juveniles of color was 15.7. This represents a statistically significant difference based on race. Mean scores by race were unavailable for the U.S. normative samples.

YLS Risk/Need Domain Scores

The 42 YLS items are divided into eight categories or domains:

- 1) Prior and Current Offenses/Dispositions,
- 2) Family Circumstances/Parenting,
- 3) Education/Employment,

- 4) Peer Relations,
- 5) Substance Abuse,
- 6) Leisure/Recreation,
- 7) Personality/Behavior, and
- 8) Attitudes/Orientation.

Table 1 presents the mean YLS domain scores by gender and for the overall Hennepin normative sample. The standard deviation (s.d.) provides a measure of the dispersion of the scores around the mean score: the larger the value of the standard deviation relative to the number of items included in the scale or domain, the more variable the scores are around the mean. Based on this interpretation, there is more variability in scores for the Peer Relations and Leisure/Recreation domains than in the scores for other domains of the YLS.

Table 1. Mean YLS Domain and Total Scores by Gender within the Hennepin Normative Sample.

YLS Domain	Maximum Score	Males (n=878)		Females (n=268)		Overall (n=1,146)	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Prior & Current Offenses/Dispositions	5	.8	1.06	.8	1.03	.8	1.05
Family Circumstances/Parenting	6	2.1	1.77	2.4	1.83	2.2	1.78
Education/Employment	7	3.0	2.04	3.0	1.97	3.0	2.02
Peer Relations	4	2.0	1.57	2.0	1.48	2.0	1.55
Substance Abuse	5	1.3	1.47	1.2	1.39	1.3	1.45
Leisure/Recreation	3	1.6	1.05	1.6	1.03	1.6	1.04
Personality/Behavior	7	2.4	1.94	2.9	1.91	2.5	1.94
Attitudes/Orientation	5	1.4	1.44	1.4	1.41	1.4	1.46
YLS Total Score	42	14.6	8.74	15.2	7.92	14.73	8.56

Note: S.D.=standard deviation.

Generally, females scored on average similarly to males across the domains. Females scored higher than males on the Personality/Behavior domain, mean=2.9 vs. mean=2.4, respectively. This domain measures the juvenile's self-esteem, physical and verbal aggressiveness, attention span, frustration tolerance, guilt feelings, and tantrums. Females scored higher than males on physical aggression, tantrums, frustration intolerance, and verbal aggression (see Appendix B). Females in the Hennepin normative sample scored similarly on the Personality/Behavior domain to females in the U.S. normative custodial sample (mean=2.9).

Females also scored higher (mean=2.4) on the Family Circumstances/Parenting domain than did males (mean=2.1). This domain evaluates inadequate parental supervision, inadequate behavior control, inappropriate discipline, inconsistent parenting, and the juvenile-parental relationships. Females scored higher than males on all 6 items in this domain. Overall Hennepin juvenile offenders scored higher on average than juvenile offenders in the U.S. normative community sample and lower than those in the U.S. normative custodial sample.

Mean scores on the Education/Employment domain for males (3.0) and females (3.0) in the Hennepin normative sample were higher than those reported for both the respective U.S. normative community and the custodial samples. This domain assesses juvenile disruptive behavior at school, low achievement, problems with peers and teachers, truancy, and employment status. This suggests that juveniles in the Hennepin normative sample had more problematic behaviors associated with school and employment that did offenders in the U.S. normative custodial and community samples.

YLS Cutoff Scores for Risk

Hennepin YLS scores are classified for risk using the following cutoffs published in the YLS/CMI User's Manual (Hoge & Andrews, 2006):

- 1) 0-8 Low Risk,
- 2) 9-22 Moderate Risk,
- 3) 23-34 High Risk, and
- 4) 35 or greater Very High Risk.

Figure 4 shows the distribution of risk levels in the Hennepin normative sample based on the current cutoffs. 20% of juveniles in the Hennepin normative sample are classified as high or very high risk based on the current method for assigning risk using YLS total score. This compares to 13% in the original Canadian normative sample (Hoge & Andrews, 2006). Only 28% of the Hennepin normative sample was classified as low risk, whereas 44% of the Canadian normative sample was classified as low risk. Approximately 49% of the U.S. normative community sample was classified as low risk. This most likely is attributable to Juvenile Probation policies which exclude assessment of low level juvenile offenders.

Domain risk level was computed according to guidelines provided in the YLS User's Manual (Hoge & Andrews, 2006). Table 2 presents the percentage of assessments in 'Low', 'Moderate', and 'High' risk categories by domain. The percent of assessments where a specific domain was marked as a juvenile strength is also displayed. Highest risk levels were associated with the Leisure/Recreation domain (60%). Domains with the lowest levels of risk included Prior and Current Offenses/Dispositions (56%), and Family Circumstances/Parenting (60%). Family Circumstances/Parenting (35%) and Leisure/Recreation (36%) were most likely to be marked as a strength.

Appendix C presents the percentiles for the overall YLS and Appendix D those for the domains. Comparisons of the Hennepin and U.S. community normative samples are provided.

Table 2. Percent of Risk and Strength by YLS Domain

YLS Domain	Domain Risk Level			Percent Indicating Strength
	Low Risk	Moderate Risk	High Risk	
Prior & Current Offenses/Dispositions	56%	36%	8%	Not Applicable
Family Circumstances/Parenting	60%	27%	13%	35%
Education/Employment	13%	47%	40%	39%
Peer Relations	36%	33%	30%	25%
Substance Abuse	45%	32%	23%	32%
Leisure/Recreation	23%	17%	60%	36%
Personality/Behavior	19%	61%	20%	22%
Attitudes/Orientation	36%	51%	13%	24%

Summary of Case Management Considerations

This section of the report provides summary statistics needs and special considerations related to the juvenile's family circumstances and to the juvenile him or herself. Many of these needs and considerations represent responsivity factors and are useful in case planning, but do not contribute to the overall YLS risk score. Table 3 presents the percent of YLS assessments where a given need or special consideration related to the juvenile's family circumstances was marked as present. 22% of juveniles assessed had one or both parents with a current or recent history of drug/alcohol abuse. Approximately one fifth of juveniles assessed had parents who were experiencing marital conflict (20.6%), financial or housing difficulties (20.0%), or some significant trauma (21.7%).

Figure 4. YLS Risk Levels based on Current YLS Cutoff Scores in the Hennepin Normative Sample.

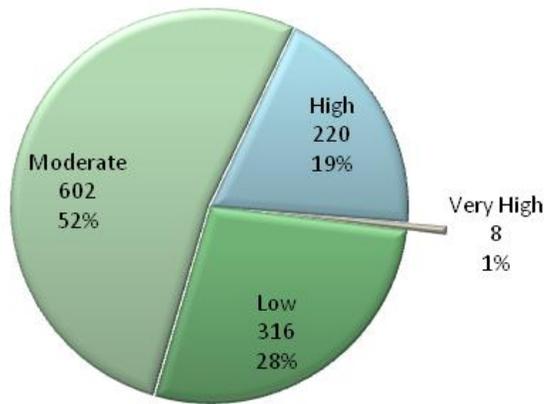


Table 4 shows the percent of assessed juveniles where a specific characteristic was identified as a potential responsivity factor. The majority (51%) of juveniles assessed were identified as performing below their capacity in school. 30% of juveniles had difficulty related to problem solving personal and social situations. Almost a quarter (23%) of juveniles were either currently experiencing or had experienced physical or sexual abuse.

Table 3. Percent of Juveniles Assessed with a Specific Family Circumstance.

Need or Special Consideration	Percent Indicated
Chronic History of Offenses	15%
Emotional Distress/Psychiatric	17%
Drug/Alcohol Abuse	22%
Marital Conflict	21%
Financial/Accommodation Problems	20%
Uncooperative Parent(s)	10%
Cultural/Ethnic Issues	7%
Abusive Father	8%
Abusive Mother	6%
Significant Family Trauma	22%

Table 4. Percent of Juveniles Assessed with a Specific Responsivity Characteristic.

Need or Special Consideration	Percent Indicated
Health Problems	3%
Physical Disability	1%
Low Intelligence/Developmental Delay	6%
Learning Disability	18%
Underachievement	51%
Poor Problem-Solving Skills	30%
Victim of Physical/Sexual Abuse	10%
Victim of Neglect	14%
Shy/Withdrawn	7%
Peers Outside Age Range	1%

Need or Special Consideration	Percent Indicated
Depressed	17%
Low Self Esteem	12%
Inappropriate Sexual Activity	11%
Racist/Sexist Attitudes	1%
Poor Social Skills	16%
Engages in Denial	17%
Suicide Attempts	3%
Diagnosis of Psychosis	2%
Third Party Threat	1%
History of Sexual/Physical Assault	23%
History of Assault on Authority Figures	10%
History of Weapons Use	11%
History of Fire Starting	1%
History of Escapes	2%
Protection Issues	10%
Adverse Living Conditions	5%

Internal Consistency Analysis

There are several different approaches to assessing the reliability of an assessment tool. No one measure of reliability should be used as the sole measure. Internal consistency reliability provides an estimate of the degree to which items are associated and measure the same construct. The YLS measures offender risk so the higher the internal consistency of items comprising a given domain or the full YLS, the higher the reliability or internal consistency. Internal consistency values range from 0 to 1.0, such that 0 represents no consistency to 1 represents perfect consistency among items.

Table 2 presents the internal consistency estimates for the full YLS and the eight domains. The internal consistency estimates derived from the U.S. community normative sample are also provided for comparison. The internal consistency of the total YLS is .91 and compares favorably with that of the U.S. community normative sample suggesting that the YLS provides a cohesive measure of juvenile risk. The internal consistency estimates for the eight domains based on the overall Hennepin normative sample range from .57 to .83.

Table 5. Internal Consistency of the YLS and Domains.

Source	N	YLS Domains								Total	
		OD	FP	EE	PR	SA	LR	PB	AO		
Hennepin Normative Sample	Males	878	.58	.70	.70	.83	.77	.66	.73	.72	.91
	Females	268	.57	.69	.68	.81	.73	.66	.72	.71	.89
	Overall	1,146	.57	.70	.70	.83	.76	.66	.72	.72	.91
U.S. Community Normative Sample	Males	7,064	.72	.67	.65	.71	.75	.63	.67	.67	.89
	Females	3,311	.68	.67	.63	.71	.69	.67	.69	.56	.88
Number of Items			5	6	7	4	5	3	7	5	42

Note: OD = Prior & Current Offenses/Dispositions, FP = Family Circumstances/Parenting, EE = Education/Employment, PR = Peer Relations, SA = Substance Abuse, LR = Leisure/Recreation, PB = Personality/Behavior, AO = Attitudes/Orientation.

Conclusions and Recommendations

The Hennepin normative sample differs from the original Canadian and the more recent U.S. normative samples in terms of race. The Hennepin normative sample includes a larger proportion of juveniles of color. Given that juveniles of color also scored higher on average on the YLS for the Hennepin normative sample, it is important to determine whether these differences in YLS scores are associated with higher levels of actual risk as measured by subsequent recidivistic behavior. This will be a focus in the YLS validation study. If higher YLS risk scores among juveniles of color is associated with higher recidivism rates than white juveniles, the YLS is performing as it should. If there is no corresponding difference in recidivism rates between white and juveniles of color, it might indicate some racial bias in how the YLS is being applied. The authors of the YLS have not published racial norms or validity by race for the YLS.

Overall juveniles included in the Hennepin normative sample scored higher on the YLS than did juveniles in the Canadian and U.S. normative samples. This may in part be accounted for by Juvenile Probation policy for excluding low level offenders from assessment with the YLS. Another factor is Minnesota correctional policy of maintaining some high risk juveniles in the community rather than using placing them in correctional facilities.

There were significant patterns observed for domain and item scores across juveniles in the Hennepin normative sample. This information can be used to inform programming and treatment options for working with juveniles under supervision. One example might be specific programming for females to address issues associated with the Personality/Behavior and the Family Circumstances/Parenting domains. Juveniles could also benefit from programming to address coping mechanisms for dealing with those circumstances related to family (e.g., marital conflict, parental drug/alcohol abuse, and other family trauma). Focus on lowering juvenile risk associated with the Education/Employment domain could also help to lower overall risk among juveniles supervised.

Currently Hennepin Juvenile Probation is assigning risk levels based on the original Canadian normative sample. When recidivism data becomes available based on the YLS validation study, it is recommended that these guidelines for assigning risk level should be reviewed. The most recent YLS User's Manual (Hoge & Andrews, 2010) proposed modification of the guidelines for assigning risk based on the U.S. normative samples.

References

Hoge, R. D., & Andrews, D. A. (2006). *The Youth Level of Service/Case Management Inventory (YLS/CMI) User's Manual*. Toronto, Canada: Multi-Health Systems.

Hoge, R. D., & Andrews, D. A. (2010). *The Youth Level of Service/Case Management Inventory 2.0 (YLS/CMI) User's Manual*. Toronto, Canada: Multi-Health Systems.

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Appendix A. Demographic Characteristics of the Hennepin YLS Normative Sample.

Demographic Characteristic	Males		Females		Overall	
	N	Percent	N	Percent	N	Percent
Race						
White	244	27.8	59	22.0	303	26.4
Black	519	59.1	170	63.4	689	60.1
Asian	19	2.2	5	1.9	24	2.1
American Indian	37	4.2	20	7.5	57	5.0
Other/Multiracial	54	6.2	14	5.2	68	5.9
Unknown	5	0.6	0	0.0	5	0.4
Ethnicity						
Hispanic	77	8.8	20	7.5	97	8.5
Non-Hispanic	719	81.9	205	76.5	924	80.6
Unknown	82	9.3	43	16.0	125	10.9
Age						
10 – 11	8	0.9	0	0.0	8	0.7
12	16	1.8	5	1.9	21	1.8
13	69	7.9	21	7.8	90	7.9
14	101	11.5	42	15.7	143	12.5
15	175	19.9	52	19.4	227	19.8
16	232	26.4	63	23.5	295	25.7
17	215	24.5	68	25.4	283	24.7
18	56	6.4	17	6.3	73	6.4
19 - 21	6	0.7	0	0.0	6	0.5

Appendix B. Percent of Male and Female Juveniles with Positive YLS Item Response.

Domain/Item	Female	Male	Overall
1. Prior and Current Offenses/Dispositions			
a. Three or more prior convictions	7.8	8.9	8.6
b. Two or more failures to comply	19.4	18.8	18.9
c. Prior probation	31.7	30.3	30.6
d. Prior custody	15.3	18.0	17.4
e. Three or more current convictions	0.4	1.2	1.0
2. Family Circumstances/Parenting			
a. Inadequate supervision	38.8	36.0	36.6
b. Difficulty controlling behavior	58.2	52.2	53.6
c. Inappropriate discipline	26.9	24.0	24.7
d. Inconsistent parenting	38.4	31.9	33.4
e. Poor relations (father – youth)	46.6	41.0	42.3
f. Poor relations (mother – youth)	34.0	26.0	27.8
3. Education/Employment			
a. Disruptive classroom behavior	43.3	48.0	47.0
b. Disruptive behavior on school property	41.4	41.3	41.4
c. Low achievement	59.0	61.7	61.1
d. Problems with peers	45.9	35.2	37.7
e. Problems with teachers	31.7	32.0	31.9
f. Truancy	56.7	50.8	52.2
g. Unemployed/not seeking employment	25.0	32.9	31.1
4. Peer Relations			
a. Some delinquent acquaintances	72.4	71.2	71.5
b. Some delinquent friends	61.9	57.3	58.4
c. No/few positive acquaintances	30.6	37.9	36.2
d. No/few positive friends	30.6	37.5	35.9
5. Substance Abuse			
a. Occasional drug use	48.9	54.2	53.0
b. Chronic drug use	19.4	24.7	23.5
c. Chronic alcohol use	9.3	5.7	6.5
d. Substance abuse interferes with life	25.0	27.9	27.2
e. Substance use linked to offense(s)	13.8	17.0	16.2
6. Leisure/Recreation			
a. Limited organized activities	69.0	68.6	68.7
b. Could make better use of time	68.3	64.6	65.4
c. No personal interests	20.9	21.8	21.6
7. Personality/Behavior			
a. Inflated self-esteem	5.2	7.9	7.2
b. Physically aggressive	69.4	54.1	57.7
c. Tantrums	30.6	20.7	23.0
d. Short attention span	34.3	36.3	35.9
e. Poor frustration tolerance	59.3	49.1	51.5
f. Inadequate guilt feelings	32.5	29.4	30.1
g. Verbally aggressive, impudent	61.9	40.9	45.8
8. Attitudes/Orientation			
a. Antisocial/procriminal attitudes	25.4	30.1	29.0
b. Not seeking help	26.9	29.8	29.1
c. Actively rejecting help	19.4	21.5	21.0
d. Defies authority	57.5	51.8	53.1
e. Callous, little concern for others	9.0	8.3	8.5

Appendix C. Total YLS Risk/Need Percentiles for Hennepin and U.S. Community Samples.

Raw Score	Males		Females		Hennepin Overall Normative Sample	Hennepin Risk Level
	Hennepin	U.S. Community	Hennepin	U.S. Community		
42	99.9	99.9	99.8	99.9	100.0	Very High
41	99.9	99.9	99.8	99.9	100.0	
40	99.8	99.9	99.8	99.9	99.9	
39	99.8	99.9	99.8	99.9	99.9	
38	99.8	99.9	99.3	99.9	99.8	
37	99.6	99.9	99.3	99.9	99.6	
36	99.6	99.9	99.3	99.9	99.6	
35	99.1	99.9	99.3	99.9	99.4	
34	99.1	99.8	98.5	99.8	99.1	
33	98.4	99.5	98.5	99.7	98.4	
32	97.5	99.2	97.9	99.6	97.6	
31	96.2	98.9	97.9	99.4	96.6	
30	95.0	98.4	97.4	99.2	95.6	
29	93.6	97.8	95.7	99.0	94.1	
28	92.0	97.1	93.3	98.6	92.3	
27	90.4	96.2	91.4	98.4	90.6	
26	88.0	95.2	89.6	97.8	88.4	
25	85.4	94.1	87.5	96.8	85.9	
24	78.1	93.0	85.3	95.9	83.8	
23	74.9	91.5	82.8	94.6	81.5	
22	71.4	89.7	80.2	93.0	78.6	
21	67.8	87.9	76.9	91.5	75.3	
20	64.3	85.9	72.4	89.5	71.6	
19	61.1	83.5	67.2	87.2	67.7	
18	58.3	81.0	61.8	84.5	63.7	
17	54.9	78.4	57.6	81.7	60.3	
16	51.4	75.4	54.1	78.8	57.3	
15	54.9	72.2	50.2	75.2	53.8	
14	51.4	69.0	46.5	71.1	50.2	
13	47.3	65.1	41.8	67.1	46.0	
12	42.4	60.9	37.5	63.1	41.3	
11	38.0	56.5	33.8	58.9	37.0	
10	34.2	51.8	29.5	54.4	33.1	
9	30.5	46.9	25.7	49.3	29.4	
8	26.9	41.8	21.8	44.0	25.7	
7	23.5	36.4	17.7	38.5	22.0	
6	20.5	31.1	14.6	32.8	19.1	
5	17.0	25.9	10.4	27.5	15.2	
4	12.9	20.4	6.3	21.8	11.3	
3	8.9	14.6	4.1	16.2	7.8	
2	5.2	9.3	2.4	10.7	4.5	
1	2.7	5.0	0.9	5.7	2.3	
0	0.9	1.6	0.2	1.8	0.7	

Appendix D. YLS Domain Percentiles for Hennepin and U.S. Community Samples.

Table D-1. Prior & Current Offenses/Dispositions Percentiles for Hennepin and U.S. Community Samples.

Raw Score	Males		Females		Hennepin Overall Normative Sample
	Hennepin	U.S. Community	Hennepin	U.S. Community	
5	98.6	99.4	99.8	99.8	100.0
4	98.6	97.2	99.1	98.7	98.7
3	94.3	93.0	95.5	96.4	94.6
2	84.9	86.7	84.9	92.5	84.9
1	67.1	75.1	67.4	83.7	67.1
0	27.9	33.6	28.7	38.6	28.1

Table D-2. Family Circumstances/Parenting Percentiles for Hennepin and U.S. Community Samples.

Raw Score	Males		Females		Hennepin Overall Normative Sample
	Hennepin	U.S. Community	Hennepin	U.S. Community	
6	97.6	98.9	97.0	98.5	97.5
5	91.5	95.2	88.4	94.0	90.8
4	82.4	88.0	77.1	86.3	81.2
3	69.4	77.0	62.7	74.8	67.8
2	53.1	62.2	46.5	58.9	51.6
1	33.6	42.4	27.4	38.4	32.2
0	11.3	15.4	8.0	13.5	10.6

Table D-3. Education/Employment Percentiles for Hennepin and U.S. Community Samples.

Raw Score	Males		Females		Hennepin Overall Normative Sample
	Hennepin	U.S. Community	Hennepin	U.S. Community	
7	97.6	99.7	98.1	99.8	97.7
6	90.7	97.8	92.4	98.7	91.1
5	79.6	93.2	81.2	95.2	79.9
4	66.3	85.0	66.8	88.7	66.4
3	51.9	73.3	50.0	78.8	51.4
2	35.4	57.4	32.3	63.3	34.7
1	20.0	37.6	19.2	42.9	19.8
0	6.5	13.5	7.1	16.0	6.6

Table D-4. Peer Relations Percentiles for Hennepin and U.S. Community Samples.

Raw Score	Males		Females		Hennepin Overall Normative Sample
	Hennepin	U.S. Community	Hennepin	U.S. Community	
4	84.3	91.4	86.9	92.5	84.9
3	66.5	80.6	72.2	82.7	67.8
2	50.7	59.7	52.4	61.8	51.1
1	31.6	32.4	30.0	34.3	31.2
0	13.1	11.8	12.9	12.7	13.0

Table D-5. Substance Abuse Percentiles for Hennepin and U.S. Community Samples.

Raw Score	Males		Females		Hennepin Overall Normative Sample
	Hennepin	U.S. Community	Hennepin	U.S. Community	
5	95.6	98.6	99.1	99.0	98.6
4	93.2	94.0	95.1	95.2	93.6
3	82.9	86.4	85.4	87.7	83.5
2	70.2	75.8	73.1	75.9	70.9
1	53.8	60.0	57.3	57.8	54.6
0	21.9	25.2	23.5	23.4	22.3

Table D-6. Leisure/Recreation Percentiles for Hennepin and U.S. Community Samples.

Raw Score	Males		Females		Hennepin Overall Normative Sample
	Hennepin	U.S. Community	Hennepin	U.S. Community	
3	90.5	94.9	90.5	93.4	90.5
2	60.9	75.5	59.9	74.0	60.6
1	32.1	49.2	30.4	50.0	31.7
0	11.7	18.7	11.0	19.3	11.5

Table D-7. Personality/Behavior Percentiles for Hennepin and U.S. Community Samples.

Raw Score	Males		Females		Hennepin Overall Normative Sample
	Hennepin	U.S. Community	Hennepin	U.S. Community	
7	99.0	99.7	99.4	99.8	99.1
6	95.6	98.2	95.1	98.5	95.5
5	87.7	94.2	82.8	94.9	86.6
4	76.6	87.3	66.6	88.3	74.2
3	63.5	76.9	50.2	77.8	60.4
2	48.3	62.0	46.1	64.0	45.2
1	30.6	43.0	20.9	46.5	28.4
0	4.7	16.3	6.7	18.3	9.6

Table D-8. Attitudes/Orientation Percentiles for Hennepin and U.S. Community Samples.

Raw Score	Males		Females		Hennepin Overall Normative Sample
	Hennepin	U.S. Community	Hennepin	U.S. Community	
5	98.3	99.2	98.9	99.6	98.5
4	91.7	96.7	93.1	98.0	92.0
3	81.7	91.5	82.5	94.5	81.9
2	69.3	81.6	70.7	86.5	69.6
1	49.1	61.5	49.6	67.0	49.3
0	18.2	23.9	17.2	26.6	18.0