BEHAVIOR DATA SYSTEMS, LTD.

SUMMARY REPORT 2016

TREATMENT INTERVENTION INVENTORY-JUVENILE ASSESSMENT

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SUMMARY

This report summarizes <u>Behavior Data Systems</u> test data for **1526** clients who completed the Treatment Intervention Inventory-Juvenile Assessment. All data received from February 12th, 2007 to March 13th, 2017 was analyzed for this report.

The Treatment Intervention Inventory-Juvenile Assessment has 9 scales(domains) that measure risk, in order to accurately identify problems among the clients in this study; the scales include: Truthfulness, Anxiety, Depression, Alcohol, Drugs, Stress Management, Self Esteem, Distress and Family Issues.

The term missing data refers to responses of *"0", "N",* or *"N/A"* when more descriptive or accurate values were available. Missing data can also mean that data was available but not provided.

Reliability coefficients for each TII-J test scale are as follows:

- **Truthfulness Scale, .80; Anxiety Scale, .85; Depression Scale, .87; Alcohol Scale, .87; Drugs Scale, .84; Stress Management Scale, .90; Self Esteem Scale, .90; Distress Scale, .86 and Family Issues Scale, .81**; Reliability findings meet professionally accepted standards.

Applying this Report to Everyday Client Interactions
The information in this report may be useful in terms of future planning and specifying resources and treatment options. Results being analyzed are particularly helpful when the risk/needs principle is being utilized—individuals who score with higher risk receive more intensive treatment and intervention services.

This principle can also apply to supervision decision-making by ensuring that clients who demonstrate the greatest risk receive more supervision and oversight, whereas, those clients who demonstrate less risk receive less supervision. Adopting the risk/need strategy facilitates appropriate distribution of resources and staff allocations.

The above results, along with validity findings, demonstrate that the tests distributed by <u>Behavior Data Systems</u> effectively differentiates between clients who are known to have more severe problems. Matching treatment and intervention intensity or legal action to problem severity reduces recidivism and time to relapse as well as, aids in supervision and release decision making.

Rick Amos
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TREATMENT INTERVENTION INVENTORY-JUVENILE ASSESSMENT
DEMOGRAPHICS

This section summarizes the demographic characteristics of **1526** clients who completed the **TII-J**, e.g. gender, race/ethnicity, marital status, education, and age.
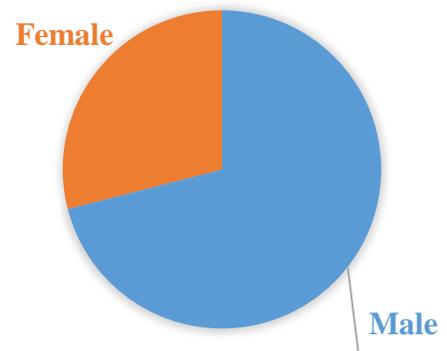
CLIENT CHARACTERISTICS

The average age was:

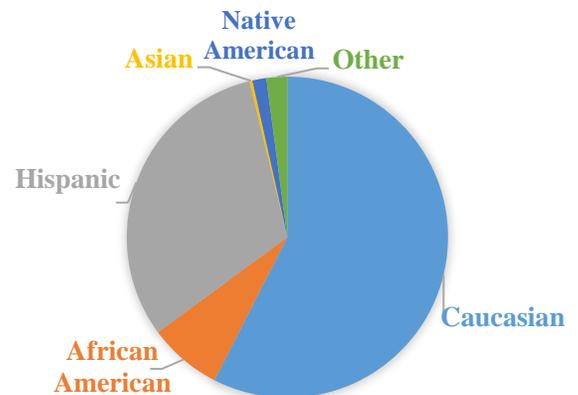- 15.3 years for all clients; 15.4 for males; 15.0 for females

Gender is summarized below:

- 71.0% (1083) were male
- 29.0% (443) were female

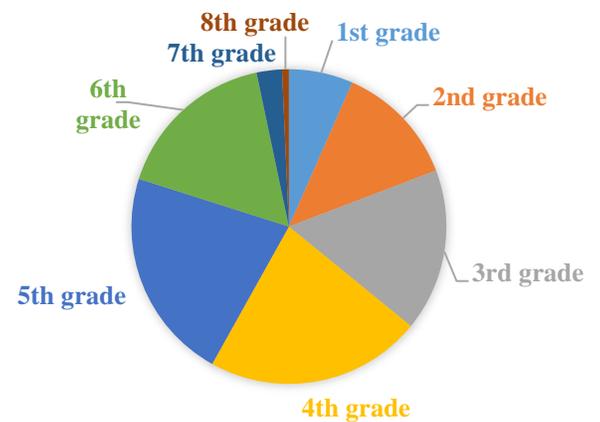Race and ethnicity is presented below:

- 57.5% (861) were Caucasian
- 7.4% (111) were African-American
- 31.3% (469) were Hispanic
- <1% (4) were Asian
- 1.4% (21) were Native American
- 2.1% (32) reported Other, but did not provide any additional information

Information was missing for 28 clients.

Education Achieved is displayed below:

- 6.6% (98) completed 1st grade
- 12.6% (188) completed 2nd grade
- 16.7% (249) completed 3rd grade
- 22.2% (331) completed 4th grade
- 21.8% (324) completed 5th grade
- 16.8% (250) completed 6th grade
- 2.6% (39) completed 7th grade
- <1% (10) completed 8th grade

Information was missing for 37 clients
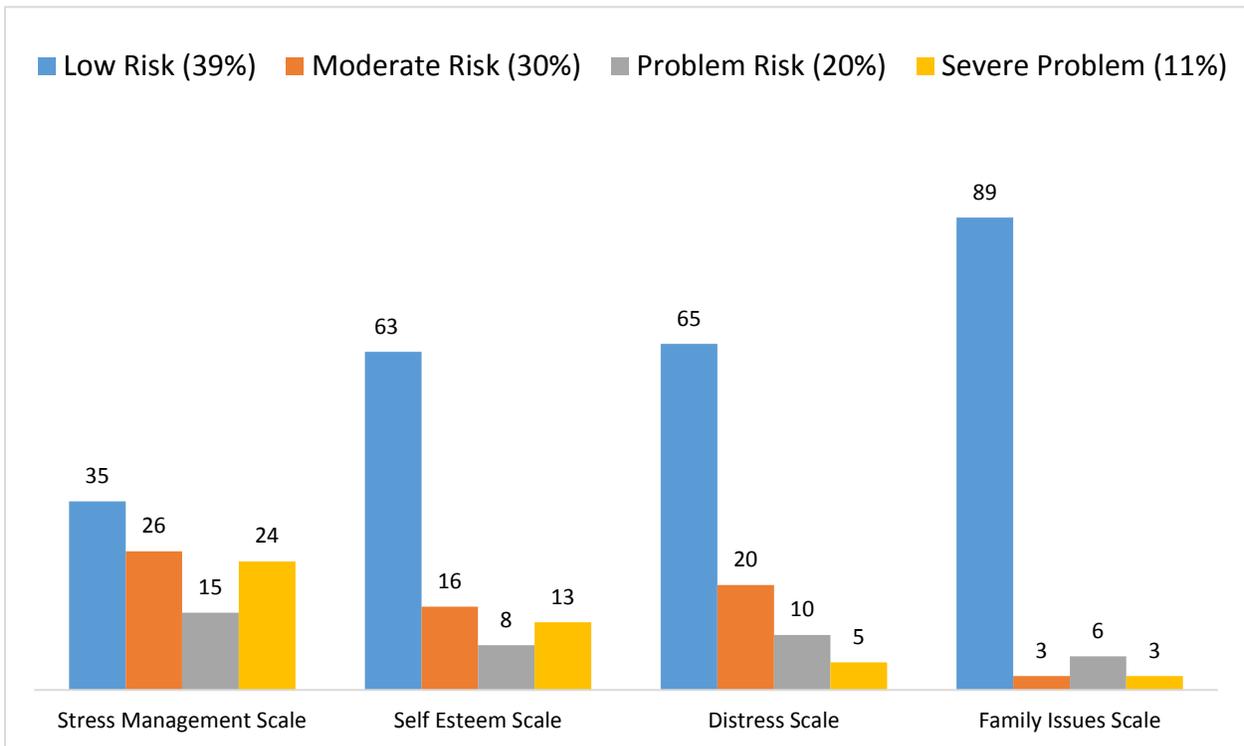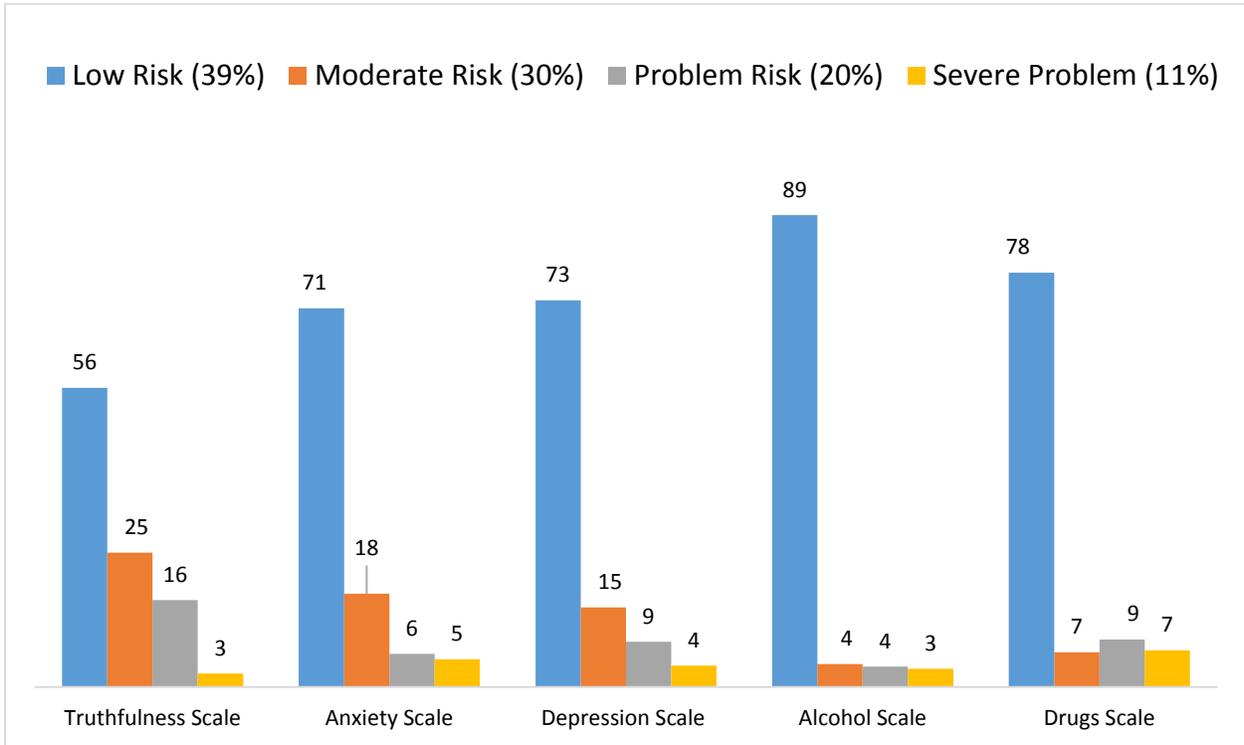
RISK RANGE ANALYSIS

Risk ranges represent degree of severity and were established by converting raw scores to percentile scores by using cumulative percentage distributions.

For each TII-J scale, respondents were classified into four risk ranges: low risk (zero to 39th percentile), moderate risk (40th to 69th percentile), problem risk (70th to 89th percentile), and severe problem risk (90th to 100th percentile). The expected percentage of the general population within the Low Risk range is 39%, Moderate Risk is 30%, Problem Risk is 20%, and the Severe Problem classification is 11%. The expected percentages are displayed in bold on the first row of the **Risk Range Summary Table,** underneath their corresponding risk range titles.

TII-J Client Risk Range Summary Table (N= 1526)

Scale*	Low Risk (39%)	Moderate Risk (30%)	Problem Risk (20%)	Severe Problem (11%)
Truthfulness Scale	**56.1**	25.2	16.3	2.5
Anxiety Scale	**71.0**	17.5	6.2	5.2
Depression Scale	**72.5**	14.9	8.5	4.0
Alcohol Scale	**88.5**	4.3	3.8	3.4
Drugs Scale	**77.7**	6.5	8.9	6.9
Stress Management Scale	35.4	26.0	14.5	**24.1**
Self Esteem Scale	**63.4**	15.6	8.4	12.7
Distress Scale	**64.9**	19.7	10.3	5.2
Family Issues Scale	**88.6**	2.6	6.3	2.6

TII-J Client Risk Range Summary Charts (N= 1526)

Legend: Low Risk (39%), Moderate Risk (30%), Problem Risk (20%), Severe Problem (11%)

Chart 1 (Truthfulness Scale, Anxiety Scale, Depression Scale, Alcohol Scale, Drugs Scale):
- Truthfulness Scale: 56, 25, 16, 3
- Anxiety Scale: 71, 18, 6, 5
- Depression Scale: 73, 15, 9, 4
- Alcohol Scale: 89, 4, 4, 3
- Drugs Scale: 78, 7, 9, 7

Chart 2 (Stress Management Scale, Self Esteem Scale, Distress Scale, Family Issues Scale):
- Stress Management Scale: 35, 26, 15, 24
- Self Esteem Scale: 63, 16, 8, 13
- Distress Scale: 65, 20, 10, 5
- Family Issues Scale: 89, 3, 6, 3

As displayed in the **Risk Range Summary Table** and **Charts**, all of <u>Behavior Data Systems</u> clients' scores on most scales in the Moderate, Problem and Severe Risk category were consistent with or lower than expected percentages. Scores above the expected percentages were as follows:

- Scores on the Truthfulness Scale in the Low Risk category were 17% higher than expected

- Scores on the Anxiety Scale in the Low Risk category were 32% higher than expected

- Scores on the Depression Scale in the Low Risk category were 34% higher than expected

- Scores on the Alcohol Scale in the Low Risk category were 50% higher than expected

- Scores on the Drugs Scale in the Low Risk category were 39% higher than expected

- Scores on the Self Esteem Scale in the Low Risk category were 24% higher than expected

- Scores on the Distress Scale in the Low Risk category were 26% higher than expected

- Scores on the Family Issues Scale in the Low Risk category were 50% higher than expected

- Scores on the Stress Management Scale in the High Risk category were 13% higher than expected

It is important to keep in mind that those percentages are the predicted make-up that's expected from the general population as a whole, while this is a smaller dataset, which may account for inconsistencies such as the Low Risk ranges being high.

As for analyses, within the Low Risk range, all of the scales with the exception of the Stress Management Scale were much greater than the expected 39%. These scales reached up to 50% more than the expected percentage. Having a higher amount of Low Risk scores across the scales indicates that there is a smaller spread across the higher risk ranges.

APPENDIX I
TEST STATISTICS

The Treatment Intervention Inventory-Juvenile Assessment (TII-J) is specifically designed for Treatment Intervention for Juvenile subjects. The TII-J provides quantitative information using empirically based measures (scales) which independently generate risk (percentile) scores. Scale development was based upon 20 years of research.

The TII-J is a self-reported test that has 143 test items that are comprised of 9 scales, including the Truthfulness Scale, Anxiety Scale, Depression Scale, Alcohol Scale, Drugs Scale, Stress Management Scale, Self Esteem Scale, Distress Scale and Family Issues Scale. This test takes an average of 25 minutes to complete.

Truthfulness Scale
Each test contains a Truthfulness Scale, which has been influenced by Minnesota Multiphasic Personality Inventory Truthfulness Scale methodology. The impact of truthfulness on test scores is largely contingent upon the severity of client denial or untruthfulness. A truthfulness-related problem is identified when a Truthfulness Scale score is at or above the Problem Risk range. Problem (70 to 89th percentile) scorers are typically cautious, guarded and defensive respondents. Problem scorers' test answers should be dealt with carefully in a prudent manner. Severe Problem risk scorers (90 to 100th percentile) invalidate their TII-J test and all scales contained therein.

Reliability
Test reliability refers to a scales' consistency of measurement. Cronbach's Alpha, a measure of reliability, measured the internal consistency of the items in each scale of the TII-J. Perfect reliability is 1.00. The professionally accepted reliability coefficient for any assessment is .70 - .80 (Murphy & Davidshofer, 2001). The TII-J test scale reliability coefficients exceed these standards.

Validity
In testing, the term *validity* refers to the extent that a test measures what it was designed to measure. A test cannot be accurate without being valid. When individuals known to have more severe problems attain higher (more severe) scale scores than individuals known to have fewer or no problems, test validity is supported. Validity statistics are supported by the TII-J research results, which can be found at http://www.bds-research.com/all.html.