The Ohio Risk Assessment System Misdemeanor Assessment Tool (ORAS-MAT) and Misdemeanor Screening Tool (ORAS-MST)

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INTRODUCTION

In 2006, the University of Cincinnati (UC) Center for Criminal Justice Research (CCJR), in partnership with the Ohio Department of Rehabilitation and Correction (ODRC), developed the Ohio Risk Assessment System (ORAS), a system designed to assess risk, need, and responsivity factors of offenders at each stage in the criminal justice system (see Latessa, Smith, Lemke, Makarios, & Lowenkamp, 2009).   The ORAS is comprised of five validated risk assessment instruments: 1) Pretrial Tool (PAT), 2) Community Supervision Tool (CST), 3) Prison Intake Tool (PIT), 4) Reentry Tool (RT), and 5) Supplemental Reentry Tool (SRT)[1], as well as two screening tools: 1) Community Supervision Screening Tool (CSST) and 2) Prison Intake Screening Tool (PST). Since its' inception, the ORAS has been implemented across the state and is used in municipal and common pleas courts, community based correctional facilities (CBCFs), and ODRC institutions.

In 2012, staff from CCJR were contacted by Director Gary Mohr of ODRC and Judge James A. Shriver, formerly of the Clermont County Municipal Court, to examine the CST instrument for municipal courts.[2]   Specifically, there was concern that the ORAS-CST instrument was not a valid predictor of recidivism for misdemeanor offenders and requested that CCJR staff examine the instrument further for this type of population. In this way, the purpose of this report is fourfold. First, a description of the problem will be provided, followed by a brief discussion of the steps taken to solve the problem. Next, two new instruments developed by CCJR for use in Ohio's municipal courts will be presented—the ORAS-Misdemeanor Assessment Tool (ORAS-MAT) and the ORAS-Misdemeanor Screening Tool (ORAS-MST).

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[1] Note, the RT is to be used with offenders who have been incarcerated more than 4 years, while the SRT is to be used with offenders who have been incarcerated <4 years.
[2] See Appendix A for Director Mohr and Judge Shriver's contact information.

Within this discussion, a description of how CCJR went about creating the instruments will be provided. Finally, conclusions and recommendations for long-term use will be provided.

STATEMENT OF THE PROBLEM

For the last several years, both municipal and common pleas courts across the state were using the ORAS-CST instrument to determine offenders' likelihood of recidivating and to identify criminogenic needs to guide and prioritize supervision and programming. Due to the differences between municipal and common pleas courts (e.g., types of offenses committed, caseload sizes), municipal courts were concerned with the amount of time it took to administer the full CST instrument, as well as the validity of the tool to accurately predict misdemeanants' likelihood to reoffend.

WHAT WAS DONE TO SOLVE THE PROBLEM
AND HOW THE INSTRUMENTS WERE CREATED

After several meetings with DRC administrators and representatives from various municipal courts across Ohio, CCJR agreed to examine the data for misdemeanor offenders who were assessed with the full ORAS-CST. More specifically, several steps were taken to solve the problem described above—each of which led to the creation of the new misdemeanor instruments.

First, CCJR staff identified offenders in the ODRC Gateway Portal who were assessed through the municipal court system and received a full ORAS-CST assessment between January and June 2012. From here, each municipal court was contacted and asked to provide a list of staff who were completing ORAS assessments during the study time period. This helped to ensure that the sample of offenders pulled from the Gateway Portal were in fact misdemeanor

offenders, as each offender in the sample could be matched with an identified municipal court assessor. In total, 1,722 misdemeanor offenders were included in the study, yielding at least an 11-month follow-up period following initial assessment (time at risk ranged between 11 and 33 months).[3,4]

Courts were also asked the following additional questions:

- What was the offender charged with (i.e., what brought the offender to your court)?

- Was the offender's charge related to any of the following offenses:
    - DUI
    - Domestic violence
    - Violence
    - Substance abuse / drugs

- If offender's charge was related to substance use / drugs, identify type of drug:
    - Cocaine
    - Marijuana
    - Heroin
    - Prescription
    - Other (specify)

Table 1 presents descriptive statistics for the municipal court sample. Briefly, Table 1 shows that the majority of offenders assessed during the timeframe were white males who were on average, 33 years of age.

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[3] The sample of 1,277 misdemeanants excluded cases where the offender also had a felony case pending simultaneously.
[4] See Appendix B for a list of counties that participated in the ORAS-CST validation process.

Table 1
Descriptive Statistics (N = 1,722)*

	N	Percent (%)
Sex		
Male	1,284	74.6
Female	438	25.4
Race		
White	1,477	85.8
Black	223	13.0
Other	21	1.2
Age		
17 – 25	516	30.1
26 – 34	591	34.4
35-44	318	18.5
45 & Older	292	17.0
	Mean = 33.1	Range: 17 – 81

* Due to missing data, some analyses do not total 1,722

Second, recidivism data were examined for the offenders in the sample using the Ohio Law Enforcement Gateway Portal (OhLEG).[5, 6] Table 2 presents the re-arrest results for the offenders included in the sample. As can be seen, a little less than half (approximately 47%) of the offenders included in the sample were re-arrested. Arrests were chosen as the recidivism measure because later measures (e.g., convictions) need a follow-up time longer then 11 months. In addition, arrests in the community allowed the ORAS-CST to identify criminogenic needs that were likely to result in danger to the community.

Third, the full ORAS-CST instrument was examined to determine whether it was a valid predictor of recidivism for misdemeanor offenders. Briefly, the full CST instrument is comprised of 35 items across 7 domains (criminal history; education, employment, and financial situation; family and social support; neighborhood problems; substance use; peer associations; and criminal attitudes and behavioral problems) and typically takes about 45 minutes to

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[5] The OhLEG system is a statewide database used by law enforcement officials to track arrests, adjudications, and other adult offender outcomes.
[6] Minor traffic violations were excluded (e.g., speeding).

administer. Once the assessment is completed, it provides staff with an overall risk level for the offender, as well as a level of risk by domain area. Finally, it should be noted that the original CST instrument was developed on a range of offenders, including both misdemeanor and felony offenders.

Table 2
Recidivism Results (N = 1,722)*

	N	Percent (%)
Re-arrest		
Yes	721	42.2
No	988	57.8

* Due to missing data, some analyses do not total 1,722

Figure 1 presents the recidivism results for misdemeanor offenders who were assessed on the full ORAS-CST instrument. As can be seen, the overall instrument accurately predicts recidivism for offenders involved in the municipal court system in that offenders who scored low on the tool recidivated at the lowest rate (23%), while offenders who scored very high on the tool, recidivated at the highest rate (52%).[7]

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[7] Note: cut-off scores were modified to fit the population.

Figure 1
Overall Recidivism Rates for Misdemeanor Offenders by Risk Level (ORAS-CST)
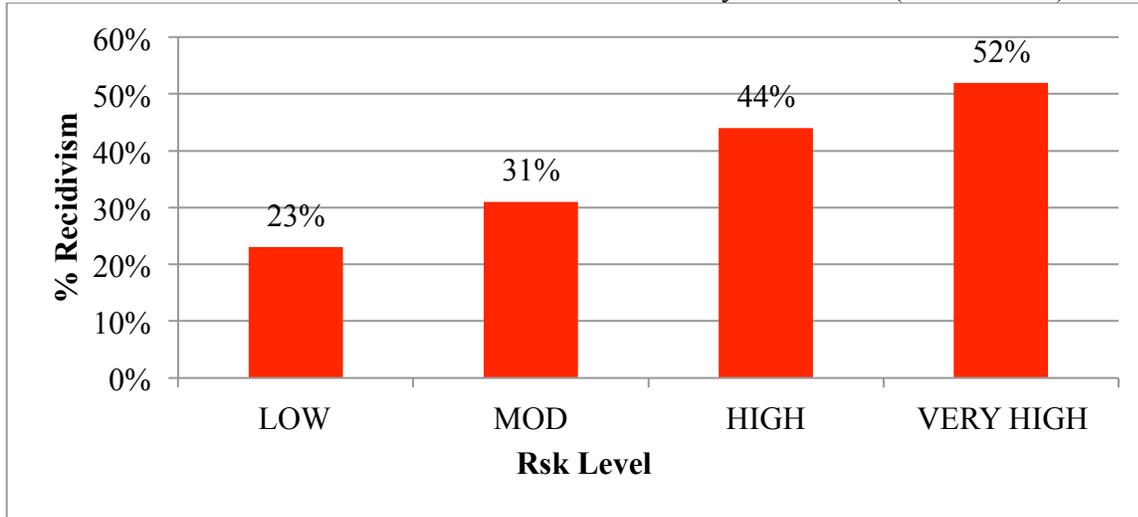
AUC = .613; r^2 = .194

Fourth, to address concerns regarding the amount of time it takes to administer the ORAS-CST instrument, two new instruments—the ORAS-MAT and the ORAS-MST were developed. [8] Items included on these tools were based on the items found in the full CST instrument to be the most significant predictors of recidivism for misdemeanor offenders.

ORAS-Misdemeanor Assessment Tool (ORAS-MAT)

The new ORAS-MAT instrument consists of 11 items and examines the following primary factors:[9]

- Criminal History,
- Education and Employment,
- Drug Use,
- Criminal Peers, and
- Criminal Attitudes.

Considerably shorter than the full CST instrument, the MAT will take approximately 15 minutes to administer. Figure 2 presents the recidivism rates for misdemeanor offenders based on just the

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[8] See Appendix C for a list of counties that participated in the ORAS-MAT / ORAS-MST validation process.
[9] See Appendix D for a review of the items included on the ORAS-MAT Instrument.

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11 items included on the new tool. Based on the MAT instrument, low risk misdemeanants

reoffended at the lowest rate (22%), compared to high risk misdemeanants who reoffended at the

highest rate (53%). Moderate risk offenders fell somewhere in the middle, with a recidivism rate

of 39 percent.

Figure 2
Overall Recidivism Rates for Misdemeanor Offenders by Risk Level (ORAS-MAT)
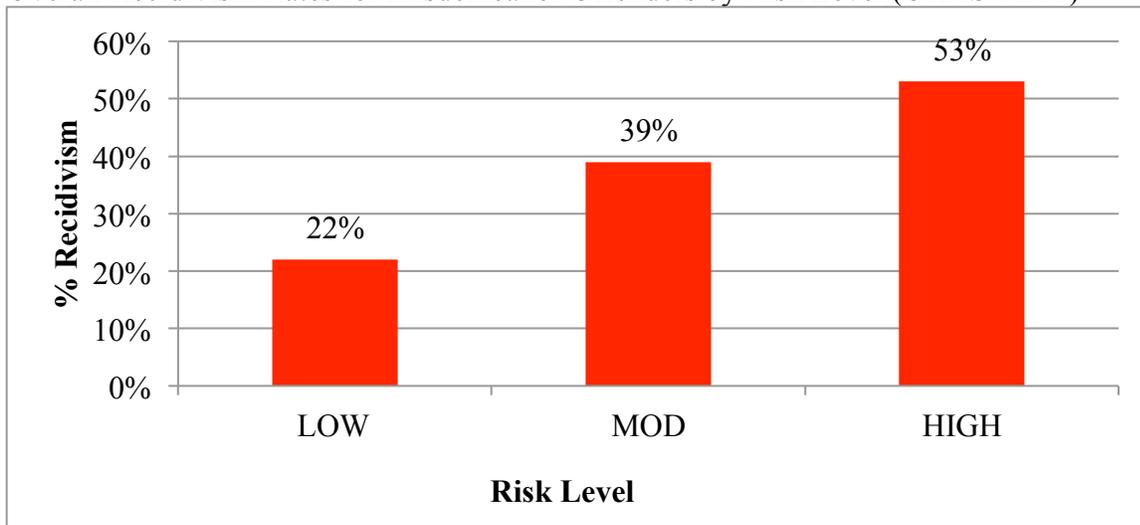

AUC = .620; r^2 = .208

The ORAS-MAT analyses were taken one step further to examine recidivism results by

gender. Figures 3 and 4 present the reoffense rates for males and females, respectively. Both

figures show that the new MAT instrument is accurately predicting recidivism for males and

females. Specifically, low risk males recidivated at a rate of 19 percent, while high risk males

reoffended at a higher rate of 53 percent. Recidivism rates for moderate risk males fell

somewhere in the middle at 39 percent. Similarly, low risk females reoffended at the lowest

rates (31%), compared to their high risk counterparts (53%).

Figure 3
Overall Recidivism Rates for Males by Risk Level (ORAS-MAT)
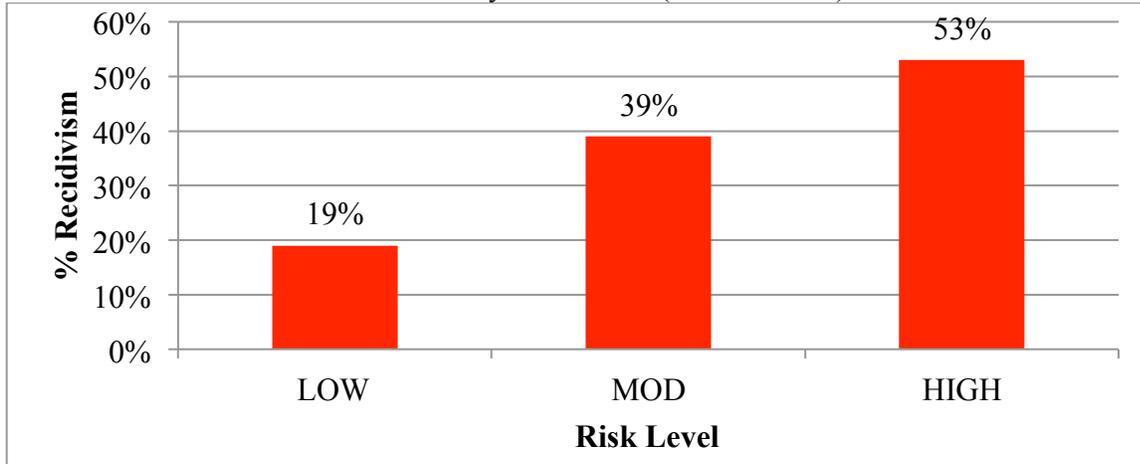
AUC = .628; r^2 = .226

Figure 4
Overall Recidivism Rates for Females by Risk Level (ORAS-MAT)
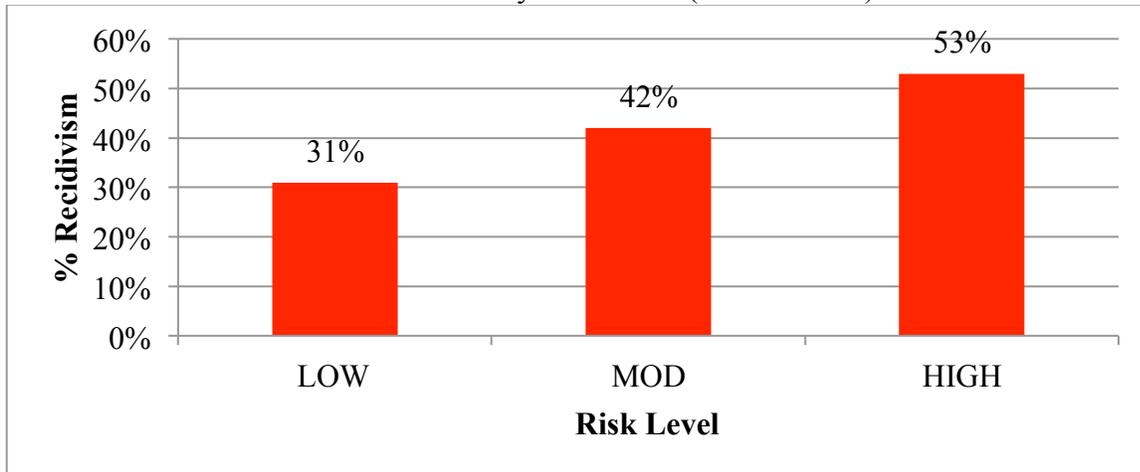

AUC = .600; r^2 = .181

Analyses were also conducted to examine the validity of the ORAS-MAT in predicting recidivism for two specific groups: DUI offenders and domestic violence perpetrators.[10] Figures 5 and 6 present the recidivism results for each group. Consistent with the previous results, it appears the new municipal court instrument is valid for these two groups of offenders in that DUI and domestic violence offenders who scored low on the instrument, recidivated at the

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[10] Recidivism = re-arrest for any reason (i.e., not just DUIs or new domestic violence charges).
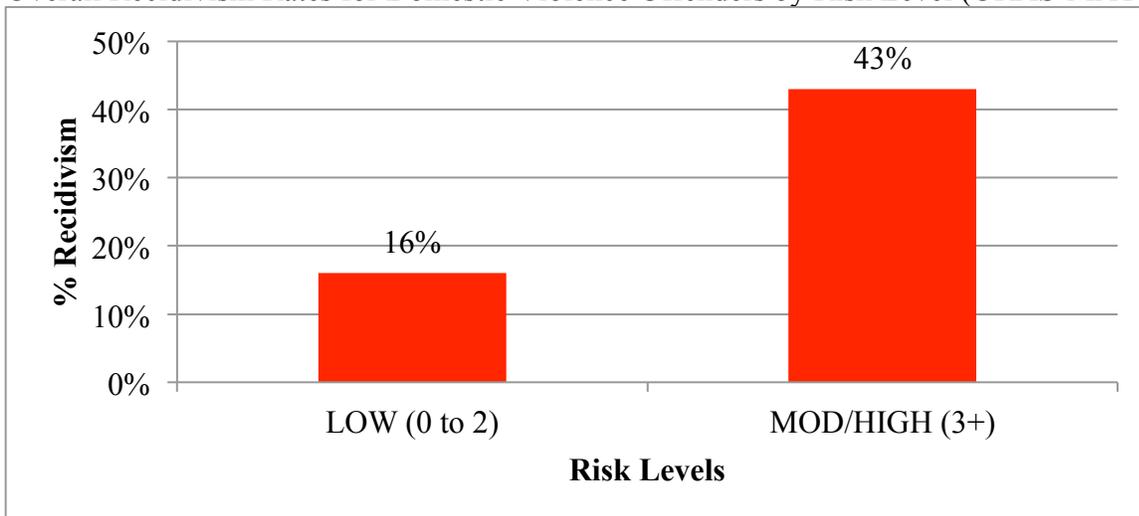
lowest rates (20% and 16%, respectively). Conversely, DUI and domestic violence offenders who scored high on the ORAS-MAT instrument reoffended at the highest rates (43% for both groups).

Figure 5
Overall Recidivism Rates for DUI Offenders by Risk Level (ORAS-MAT)
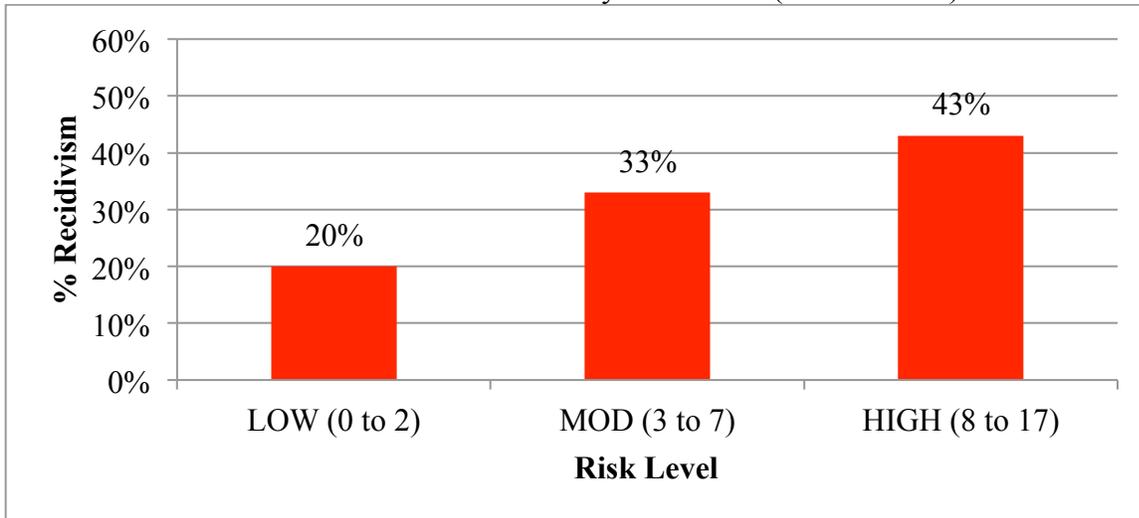
AUC = .597

Figure 6
Overall Recidivism Rates for Domestic Violence Offenders by Risk Level (ORAS-MAT)

AUC = .598

ORAS-Misdemeanor Screening Tool (ORAS-MST)

The new ORAS-MST instrument consists of 5 items and examines the following primary factors[11]:

- Criminal History (2 items),
- Education,
- Drug Use, and
- Criminal Attitudes.

The screener will take approximately 5 minutes to administer and provides low and moderate/high classification categories. Figure 7 presents the recidivism rates for misdemeanor offenders based on just the 5 items included on the new screening tool. Based on the results below, 25 percent of low risk offenders reoffended, while 46 percent of those who were classified as moderate/high risk recidivated.

Figure 7
Overall Recidivism Rates by Risk Level (ORAS-MST)
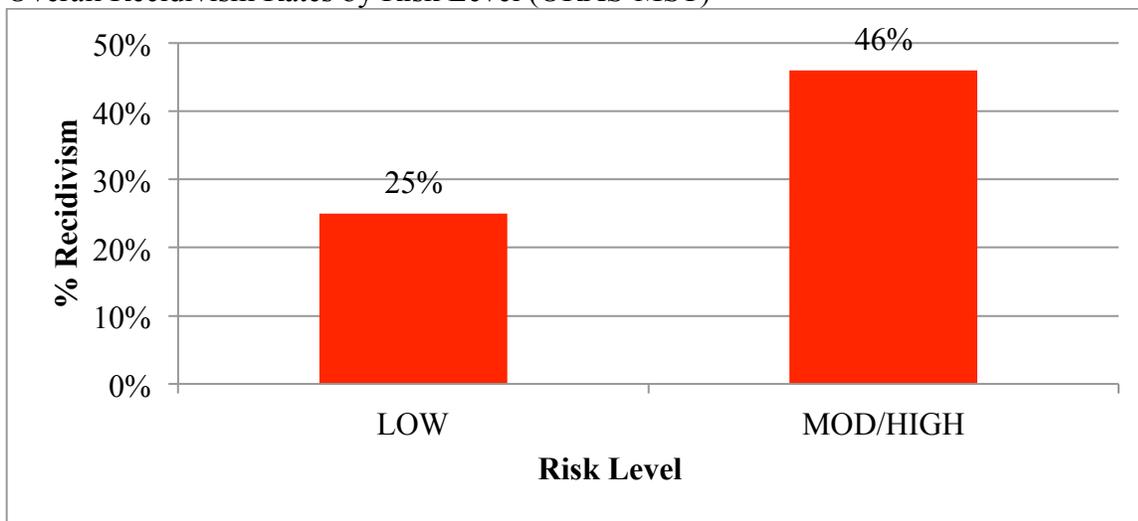
AUC = .631; r^2 = .210*

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[11] See Appendix E for a review of the items included on the ORAS-MST Instrument.

Finally, when examining the accuracy of the screener in predicting recidivism compared to the full misdemeanor tool, the false positive rate was approximately 7 percent. That is, 7 percent of those offenders who were predicted not to recidivate (i.e., were screened as low risk) did actually recidivate.

**Examining the Impact of Heroin and Other Drugs**

Municipal courts were also concerned with the increased number of drug possession and drug trafficking cases coming through their courts in recent years; especially heroin-related offenses. As such, courts' responses to the additional questions asked at the outset of the study were used to examine drug characteristics further. More specifically, supplemental data for 568 offenders were collected. Table 3 presents the percentage of offenders by drug type.

Table 3
Percentage of Offenders by Drug Type

Drug Type	Percent
Cocaine	7
Heroin / Prescription Pills	33
Marijuana	5
Alcohol / Other	25
None	31

Overall recidivism rates were examined based on the ORAS-MAT risk categories and each drug category presented in Table 3. Results indicated that the predictive validity of the ORAS-MAT could be slightly improved by knowing whether the offender's current offense was heroin related. This relationship held true for both males and females, as presented in Figures 8 and 9, respectively.
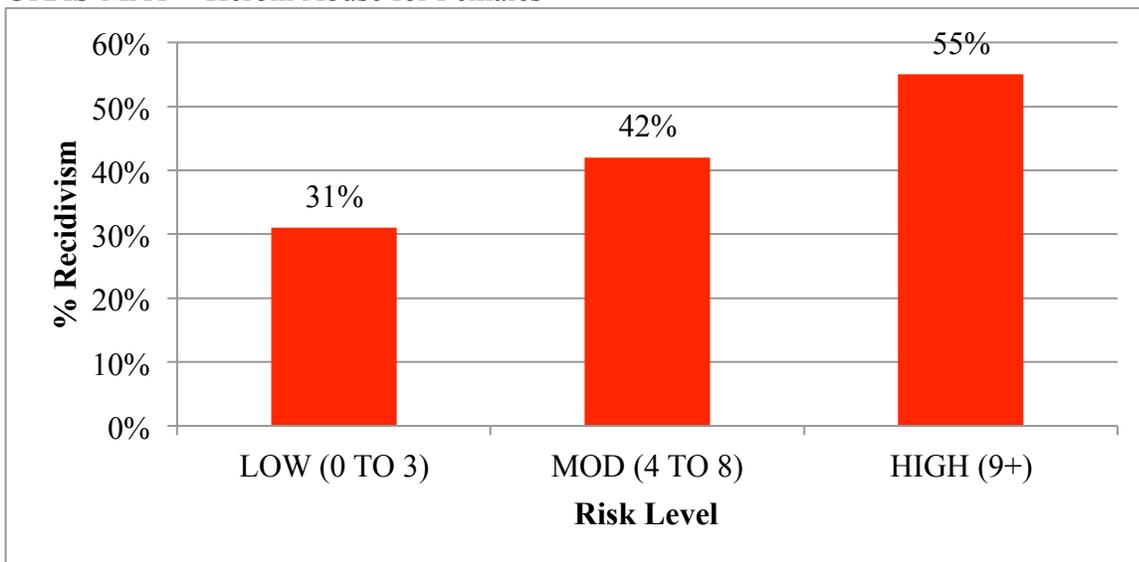
With this improved validity, a new questions "current offense heroin related" was added to both the ORAS-MAT and ORAS-MST. Thus, the ORAS-MAT consists of 12 items and the ORAS-MST consists of 6 items in total.

Figure 8
ORAS-MAT + Heroin Abuse for Males
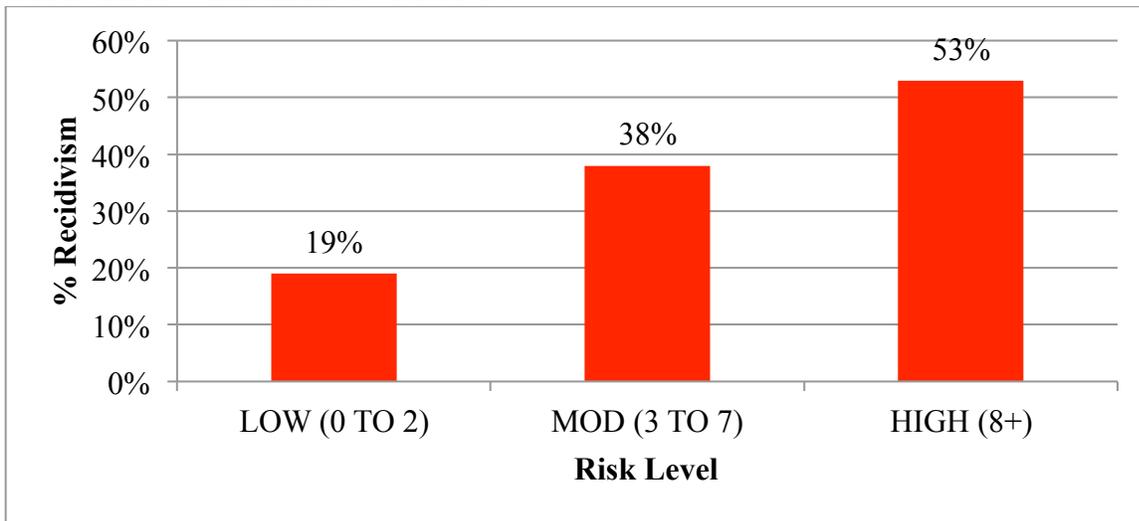
AUC = .620; r^2 = .230

Figure 9
ORAS-MAT + Heroin Abuse for Females

AUC = .600; r^2 = .185

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this research project was to determine if the ORAS-CST instrument was a valid predictor of recidivism for misdemeanor offenders in the state of Ohio. Using a sample of 1,722 misdemeanants, results indicate that the full ORAS-CST instrument is a valid predictor for this population. More specifically, offenders recidivated at increasingly higher rates at each level of risk. While these results are promising, the CST instrument takes approximately 45 minutes to administer—an amount of time that can be challenging for municipal court staff with large caseloads and demanding schedules.

To address the problem of time, CCJR staff created two new misdemeanor assessment instruments—the MST and MAT—both of which were shown to accurately predict recidivism for municipal court offenders. Because these instruments only take between 5 and 15 minutes to administer, municipal courts will be able to obtain a risk profile for each offender involved in their court to help make decisions about supervision levels and treatment services.

Based on these conclusions four recommendations can be made to help municipal courts across the state implement the misdemeanor assessment instruments with fidelity.

1. *Develop a process for when/who completes the assessment:* Courts should determine who will be responsible for completing the risk assessment instrument upon intake and if/when reassessment will occur. From here, policies and procedures should be written regarding the risk assessment process for their respective courts. This dissemination process should target judges, prosecutors, defense attorneys, and municipal court administrators to keep them informed of the process and to emphasize the importance of evidence-based decision-making and the use of risk assessment instruments (Lovins & Latessa, 2013).

2. *Train Staff:* Staff who will be conducting the ORAS assessment should be formally trained and certified to use the tools based upon the protocol developed by CCJR. Supervisors and administrative staff should also be trained in the use of the instruments to keep them informed of the process. Proper training is important because the efficacy of every assessment is dependent upon the person who conducts the interview and subsequently scores out the tool (Latessa et al., 2009).

3. *Implement continuum of services based on assessment results:* Using ORAS results, courts should build a case plan to match each offender, based on their unique pattern of risk, need, and protective factors (i.e., the offender's strengths). From here, appropriate treatments should be identified, and decisions should be made regarding the intensity and duration of supervision and treatment for the offender. Offender outcomes can only be positively impacted, however, when courts have access to a comprehensive continuum of services based on proven evidence-based strategies. Although this is difficult, courts should begin to design a treatment process which allows offenders to receive appropriate referrals based on their criminogenic risk, needs, and protective factors.

4. *Monitor/Quality Improvement:* Fidelity is as important as initial implementation (. To ensure fidelity to the model, courts should continue to work with CCJR to conduct ongoing research, examine inter-rater reliability amongst staff, maintain training efforts for new staff and on-going training for experienced staff, and use data from the automated system to support quality improvement and ongoing measurement of fidelity to the instruments (Lovins & Latessa, 2013).

REFERENCES

Latessa, E. J., Smith, P., Lemke, R., Makarios, M., & Lowenkamp, C. (2009). *Creation and Validation of the Ohio Risk Assessment System Final Report.* Center for Criminal Justice Research, University of Cincinnati, Cincinnati, OH.

Lovins, B., & Latessa, E. (2013). Creation and validation of the Ohio Youth Assessment System (OYAS) and strategies for successful implementation. *Justice Research and Policy, 15*(1), 1-27.

APPENDIX A – CONTACT INFORMATION

Director Gary C. Mohr
Ohio Department of Rehabilitation and Correction
770 West Broad Street
Columbus, Ohio 43222

Judge James A. Shriver
Clermont County Probate/Juvenile Court
2340 Clermont Center Dr.
Batavia, OH 45103

Court	N (%)	Court	N (%)
Ashtabula Municipal Court	15 (.78)	Marietta Municipal Court	53 (2.8)
Athens Co Municipal Court	7 (.37)	Marion Municipal Court	145 (7.6)
Bellefontaine Municipal Court	22 (1.1)	Medina Municipal Court	16 (.84)
Bryan Municipal Court	7 (.37)	Mentor Municipal Court	1 (.05)
Canton Municipal Court	303 (15.8)	Monroe Municipal Court	16 (.84)
Champaign Co Municipal Court	40 (2.1)	Morgan Co Municipal Court	64 (3.3)
Circleville Municipal Court	127 (6.6)	Muskingum Co Municipal Court	2 (.01)
Clark Co Municipal Court	36 (1.9)	Newton Falls Municipal Court	9 (.47)
Clermont Co Municipal Court	42 (2.2)	Norwalk Municipal Court	51 (2.7)
Clinton Co Municipal Court	95 (5.0)	Painesville Municipal Court	5 (2.6)
Fairfield Municipal Court	74 (3.9)	Sidney Municipal Court	2 (.01)
Franklin Co Municipal Court	57 (3.0)	Steubenville Municipal Court	6 (.31)
Fremont Municipal Court	92 (4.8)	Toledo Municipal Court	34 (1.8)
Gallipolis Municipal Court	135 (7.1)	Washington CH Municipal Court	213 (11.1)
Greene Co Municipal Court	40 (2.1)	Willoughby Municipal Court	70 (3.7)
Licking Co Municipal Court	105 (5.5)	Zanesville Municipal Court	10 (.52)
Mansfield Municipal Court	20 (1.0)		

APPENDIX C – COUNTIES INCLUDED IN THE
ORAS-MAT / ORAS-MST VALIDATION

County	N (%)
Ashtabula	27 (1.6)
Champaign	30 (1.7)
Clark	33 (1.9)
Clermont	32 (1.9)
Clinton	76 (4.4)
Fairfield	57 (3.3)
Fayette	157 (9.1)
Franklin	78 (4.5)
Gallia	106 (6.2)
Greene	29 (1.7)
Huron	40 (2.3)
Lake	55 (3.2)
Licking	67 (3.9)
Logan	23 (1.3)
Lucas	31 (1.8)
Marion	118 (6.9)
Morgan	56 (3.3)
Out of State	23 (1.3)
Pickaway	123 (7.1)
Sandusky	81 (4.7)

APPENDIX D – ORAS-MAT

OHIO RISK ASSESSMENT SYSTEM:
MISDEMEANOR ASSESSMENT TOOL (ORAS-MAT)

Name: _____   Date of Assessment: _____

Case#: _____   Name of Assessor: _____

1. Most Serious Arrest Under Age 18   [ ]
       0 = None
       1 = Yes, Misdemeanor
       2 = Yes, Felony

2. Number of Prior Adult Felony Convictions   [ ]
       0 = None
       1 = One or Two
       2 = Three or More

3. Highest Education   [ ]
       0 = High School Graduate or Higher
       1 = Less than High School or GED

4. Ever Suspended or Expelled from School   [ ]
       0 = No
       1 = Yes

5. Currently Employed/School   [ ]
       0 = Yes, Full-time, Disabled, or Retired
       1 = Not Employed or Employed Part-time

6. Better Use of Time   [ ]
       0 = No, Most Time Structured
       1 = Yes, Lots of Free Time

7. Drug Use Caused Problems   [ ]
       0 = None
       1 = Past
       2 = Current

8. Drug Use Caused Problems with Employment   [ ]
       0 = No
       1 = Yes

9. Current Offense Heroin Related

      0 = No

      4 = Yes

10. Criminal Friends

      0 = None

      1 = Some

      2 = Majority

11. Contact with Past Criminal Peers

      0 = No contact with Criminal Peers

      1 = At Risk of Contacting Criminal Peers

      2 = Contact or Actively Seeks out Criminal Peers

12. Criminal Attitudes

      0 = No/Limited Criminal Attitudes

      1 = Some Criminal Attitudes

      2 = Significant Criminal Attitudes

TOTAL SCORE: ☐

Risk Categories for MALES			Risk Categories for FEMALES		
Rating	Rating	Re-arrest Rate	Rating	Score	Re-arrest Rate
Low	0 – 2	19%	Low	0 – 3	31%
Moderate	3 – 7	38%	Moderate	4 – 8	42%
Low	8 – 21	53%	High	9 – 21	55%

Professional Override: YES   NO

Reason for Override (note: overrides should not be based solely on offense):

Final Level: LOW   MODERATE   HIGH

Recommendations:

LOW   Minimum supervision or non-reporting supervision

MODERATE   Regular supervision; programming should be provided for moderate and
                      high need areas

HIGH   Enhanced supervision; programming should be provided for moderate and
                      high need areas

Other Areas of Concern. Check all that Apply:

_____Low Intelligence*
_____Physical Handicap
_____Reading and Writing Limitations*
_____Mental Health Issues*
_____No Desire to Change/Participate in Programs*
_____Transportation
_____Child Care
_____Language
_____Ethnicity
_____Cultural Barriers
_____History of Abuse/Neglect
_____Interpersonal Anxiety
_____Other _____

*If these items are checked it is strongly recommended that further assessment be conducted to
determine level or severity.

APPENDIX E – ORAS-MST

OHIO RISK ASSESSMENT SYSTEM:
MISDEMEANOR SCREENING TOOL (ORAS-MST)

Name: _____   Date of Assessment: _____

Case#: _____   Name of Assessor: _____

1. Most Serious Arrest Under Age 18   ☐
     0 = None
     1 = Yes, Misdemeanor
     2 = Yes, Felony

2. Number of Prior Adult Felony Convictions   ☐
     0 = None
     1 = One or Two
     2 = Three or More

3. Currently Employed/School   ☐
     0 = Yes, Full-time, Disabled, or Retired
     1 = Not Employed or Employed Part-time

4. Drug Use Caused Problems   ☐
     0 = None
     1 = Past
     2 = Current

5. Current Offense Heroin Related   ☐
     0 = No
     4 = Yes

6. Criminal Attitudes   ☐
     0 = No/Limited Criminal Attitudes
     1 = Some Criminal Attitudes
     2 = Significant Criminal Attitudes

TOTAL SCORE: ☐

Risk Categories for MALES			Risk Categories for FEMALES		
Rating	Rating	Re-arrest Rate	Rating	Score	Re-arrest Rate
Low	0 – 1	25%	Low	0 – 3	31%
Moderate / High	2 – 13	48%	Moderate / High	4 – 13	42%