Colorado Pretrial Assessment Tool Validation
Phase One Executive Summary

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Summary of Key Findings

The purpose of this study is to evaluate the effectiveness of the Colorado Pretrial Risk Assessment Tool's (CPAT) ability to assign risk of failure to appear and committing a new offense to those released on bond. This executive summary includes preliminary results from the first phase of this study. Phase one includes a retroactive validation of the CPAT covering 3,386 cases from 2015 and 2016. Data from this study was provided by each of the seven participating counties (Boulder, Denver, Garfield, Larimer, Mesa, Pueblo, and Weld), Colorado Courts, Denver Municipal Court Records system, and the Colorado Bureau of Investigation. In addition, an online survey was administrated to criminal justice stakeholders across the state. A total of 382 respondents, representing 27 counties, completed the survey. These stakeholders consisted of representatives from pretrial services, judges, public defenders, and district attorneys. The following are key findings that will be discussed in greater detail throughout this document.

- The CPAT predicts new arrest and failure to appear better than chance.
- Further examination of risk level designation and a modified tool could improve the predictive performance of the CPAT.
- The weighting and scoring approach of the CPAT is valid and does not interfere with the predictive performance of the CPAT.
- Survey analysis identified issues with the current CPAT that include: lack of account of prior failure to appears, lack of a substance abuse question, reliability of self-report items, overload of Category 2, lack of account of crime severity, and buy-in among different stakeholders.

Project Background

The CPAT was created in 2012 as part of the Colorado Improving Supervised Pretrial Released (CISPR) Project[1]. The development of the CPAT entailed a sample of 2,000 defendants from 10 Colorado counties (Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, and Weld). Through the analysis of 177 collected variables, the 12-item CPAT was created and has since been adopted by more counties across the state (see Table 1 for items). As of October 2017, this empirically-derived tool was being utilized in 25 of Colorado's 64 counties[2]. CPAT scores range from 0 – 82, with four categories indicating risk to fail to appear (FTA) and re-offend (see Table 2). The four risk categories are ranked from lowest to highest: Category 1 (scores 0-17), Category 2 (scores 18-37), Category 3 (scores 38-50), and Category 4 (scores 51-82).

[1] Pretrial Justice Institute. (2012). *Colorado Pretrial Assessment Tool (CPAT)*.

[2] Cain, M. A. (2012, October). Summary sheet regarding Pretrial Services in Colorado. *Colorado Criminal Defense Institute.*

Table1

Current CPAT items and scoring[3]

CPAT Item	Scoring	Points
1. Having a Home or Cell Phone	Yes	0
	No or Unknown	5
2. Owning or Renting One's Residence	Yes	0
	No or Unknown	4
3. Contributing to Residential Payments	Yes	0
	No, or Unknown	9
4. Past or Current Problems with Alcohol	No	0
	Yes, or Unknown	4
5. Past or Current Mental Health Treatment	No	0
	Yes, or Unknown	4
6. Age at First Arrest	This is my first arrest	0
	35 years or older, or Unknown	0
	25-34 years	10
	20-24 years	12
	19 years or younger	15
7. Past Jail Sentence	No, or Unknown	0
	Yes	4
8. Past Prison Sentence	No, or Unknown	0
	Yes	10
9. Having Active Warrants	No	0
	Yes, or Unknown	5
10. Having Pending Cases	No	0
	Yes, or Unknown	13
11. Currently on Supervision	No	0
	Yes, or Unknown	5
12. History of Revoked Bond or Supervision	No	0
	Yes, or Unknown	4

Table 2

Current CPAT category breakdown by scores from original dataset

Risk Category	Risk Score	Public Safety Rate	Court Appearance Rate
1	0 - 17	91%	95%
2	18 – 37	80%	85%
3	38 – 50	69%	77%
4	51 - 82	58%	51%

[3] Tables 1 and 2 were adapted from Colorado Association of Pretrial Services (2015, June). *The Colorado Pretrial Assessment Tool (CPAT): Administration, scoring, and reporting manual (Version 2.1).*

In partnership with University of Northern Colorado's Department of Criminology and Criminal Justice and the Pretrial Executive Networks (PEN), a comprehensive research plan was developed with the participation of seven counties (Boulder, Denver, Garfield, Larimer, Mesa, Pueblo, and Weld). Funding for the project was provided from the State of Colorado's Office of Planning and Budgeting. This executive summary includes preliminary analysis of the first phase of this project: the validation of the CPAT in its current form and survey results from criminal justice stakeholders across Colorado.

Study Phases

Phase One: Validation (January 2018 – June 2018)

- Retroactive Validation of cases from 2015 and 2016.
- Online survey of pretrial officers, administrators, judges, prosecutors and public defenders.

Phase Two: Analysis of Implementation (May 2018 – July 2018)

- Focus Groups of pretrial officers, administrators, judges, prosecutors and public defenders.
- Onsite observation of participating pretrial agencies.

Phase Three: Pilot Test (September 2018 – May 2020)

- Construct alternative tool based on retroactive validation and feedback from stakeholders.
- Pilot test - random assignment of CPAT and alternative tool.

Full Project Objectives

1. Evaluate the relationship between the CPAT risk levels and pretrial outcomes.
2. Evaluate the predictive ability of the CPAT risk classification levels.
3. Evaluate the assignment of bond conditions in accordance with the CPAT risk classification levels.
4. Identify evidence-based strategies for effective implementation of the CPAT.

Full Project Research Questions

1. How often is the CPAT's risk level assignment consistent with certain pretrial outcomes?
2. Are the CPAT's risk levels designated, weighted, and scored for the instrument's best predictive ability?
3. Are the risk factors in the CPAT the best predictors of certain pretrial outcomes?
4. Does the CPAT inform effective assignment of supervision bond conditions?
5. Is the CPAT implemented consistently and effectively?

Retroactive Validation

Data Sources

Records for the retroactive validation were collected from four different sources: participating pretrial service agencies, Colorado court records, Denver Municipal Court Records system, and the Colorado Bureau of Investigation criminal history records. Data were collected on CPAT interviews that were conducted in 2015 and 2016. The unit of analysis was the CPAT interview. Data contained information pertaining to this and the corresponding pretrial defendant. A stratified sample was collected and framed according to the number of bookings per county, per year.

Data Collection

The participating counties were initially surveyed on the records they maintained to determine the variables that would be collected for the retroactive validation. In sum, variables that represent a CPAT interview, and corresponding pretrial defendant's demographic, bonding, pretrial supervision, and charge information were collected for the study. Court records were collected from the Colorado Judicial Branch, as well as the Denver Municipal Court Records system. These records represent a CPAT interview's corresponding case information, events, active warrants, and bond information. Finally, criminal history records were collected from the Colorado Bureau of Investigation. These records represent the pretrial defendant which corresponds to the CPAT interview's criminal history from first arrest to when records were collected[4].

Current Data

Overall, records for 4,600 CPAT interviews were collected from the participating pretrial services agencies. These were matched to the corresponding court and criminal history records. The estimates for the retroactive validation are produced from this matched total sample of 3,386 CPAT interviews and corresponding defendants for both 2015 and 2016. A reduced sample of 3,124 was used to assess new arrest. This reduced sample is a result of failed matched records and is employed for estimates involving a new arrest. Table 3 reports the number and proportion of CPAT interview contribution per county.

Table 3
Breakdown of participating county defendants and percent of total sample

County	**Number of Interviews in Total Sample**	**Percent of Total Sample**
Boulder	226	6.67%
Denver	1527	45.10%
Garfield	85	2.51%
Larimer	489	14.44%
Mesa	283	8.36%
Pueblo	445	13.14%
Weld	331	9.78%
Total	3,386	100.00%

[4] CBI CCIC records represent criminal histories from first arrest to date collected, May 21, 2018.

Measures

The key variables utilized in the retroactive validation were CPAT predictor variables (see Table 1), and variables representing pretrial outcomes including, failure to appear (FTA) to a scheduled court event and new arrest.

To capture differences amongst FTAs, this pretrial outcome variable was measured four different ways. Measurement of these FTA variables was defined by the judicial response to the FTA noted in the Colorado Judicial Branch court records and Denver Municipal Court Records system. FTA is defined as:

- FTA at all: This represents any FTA noted in court records regardless of reaction by the court,
- FTA – no consequence: This represents any FTA that is followed by no response by the courts (i.e., no enhancement of bond conditions, no warrant issued)
- FTA – low consequence: This represents any FTA that is followed by a moderate sanction by the courts (i.e., bond increase, bond condition enhancement), and
- FTA – high consequence: This represents any FTA that is followed by a formal sanction by the courts (i.e., issuing a warrant).

New arrest was identified as any new offense noted in a defendant's criminal history record, which occurred after the defendant was released on bond and prior to sentence disposition. Records from pretrial services, the Colorado courts, Denver Municipal Court Records system, and the Colorado Bureau of Investigation were used to construct this timeline. New arrest was also measured a variety of ways, to accurately capture the differences in the type of new arrest event after bond release. New arrest was defined as:

- New arrest at all: This represents any new arrest noted in CBI records regardless of offense type,
- New arrest – violent: This represents any new arrest that is a victim involved, violent act (i.e., assault, domestic violence),
- New arrest – DV or order violation: This represents any new arrest that involves domestic violence as defined by Colorado statute, or the violation of a protective or restraining order,
- New arrest – serious: This represents any new arrest that involves an aggravated, felony, or violent offense, and
- New arrest – other: This represents any new arrest that is not categorized by Colorado statute to be a victim involved, violent act, or involve domestic violence.

Analysis

A variety of analytic techniques were utilized to assess the CPAT's predictive performance. To understand how well the CPAT predicts new arrest and FTA, the receiver operating characteristic (ROC) was employed. This approach estimates the probability of the pretrial outcome being consistent with the assigned CPAT risk level, such as, successful case disposition, new arrest, or FTA. To understand how the weighting and risk levels of the CPAT perform, the CPAT was compared to alternative weighted and risk level designations to estimate whether the CPAT, in its current state, performed the same or better than a possible alternative.

Results

The retroactive validation sought to answer three of the five full project research questions:

1) How often is the CPAT's risk level assignment consistent with certain pretrial outcomes?
2) Are the CPAT's risk levels designated, weighted and scored for the instrument's best predictive ability?
3) Are the risk factors in the CPAT the best predictors of certain pretrial outcomes?

1) How often is the CPAT's risk level assignment consistent with certain pretrial outcomes?

The CPAT designates four distinct risk categories ranging from 1 (lowest risk) to 4 (highest risk). Of the total sample, 11.06% were designated as Category 1, 36.91% as Category 2, 29.26% as Category 3, and 22.78% as Category 4. Table 4 reports descriptive estimates of the proportion of pretrial outcomes per type.

Table 4
Number of pretrial outcomes the current sample

Pretrial Outcome	**N (%)**
New Arrest or FTA – at all[a]	1354 (43.33)
FTA – at all	1015 (29.98%)
FTA – no consequence	202 (5.97%)
FTA – low consequence	128 (3.78%)
FTA – high consequence	685 (20.23%)
New Arrest – at all[a]	903 (28.90%)
New Arrest – violent[a]	51 (1.63%)
New Arrest – DV or order violation[a]	107 (3.43%)
New Arrest – serious[a]	293 (9.38%)
New Arrest – other[a]	841 (26.91%)

a) Estimates based on reduced sample, n = 3,124

The ROC estimates the probability of a true and false, positive and negative risk assignment. For example, a low scoring Category 1 CPAT designation that is expected to have a successful pretrial outcome, but instead has a new arrest outcome would be a false

negative. In contrast, a low scoring Category 1 CPAT designation that does have a successful pretrial outcome would be defined as a true negative. The area under the curve (AUC), which is estimated using the ROC is used to infer the probability that the risk assignment will assign a score consistent with the pretrial outcome. An AUC score of .50 or lower means that the risk assessment score predicts pretrial outcomes no better than chance[5]. An AUC score of 1 indicates perfect predictive performance. Table 5 reports the AUC score for each pretrial outcome of interest.

Table 5
AUC scores and confidence intervals for each pretrial outcome

Pretrial Outcome	**AUC (Confidence Interval)**
New Arrest or FTA – at all[a]	.58* (.56 - .60)
FTA – at all	.54* (.52 - .56)
FTA – no consequence	.53 (.49 - .57)
FTA – low consequence	.53 (.49 - .56)
FTA – high consequence	.54* (.51 - .56)
New Arrest – at all[a]	.54* (.52 - .57)
New Arrest – violent[a]	.54 (.45 - .63)
New Arrest –DV or order violation[a]	.51 (.45 - .57)
New Arrest – serious[a]	.58* (.54 - .61)
New Arrest – other[a]	.54* (.52 - .57)

* = Estimate is likely beyond chance
a) Estimates based on reduced sample, n = 3,124

Overall, the CPAT validates for all pretrial outcomes. This means that the CPAT was more likely to predict the correct pretrial outcome than chance alone. However, the low AUC scores across pretrial outcomes do provide support for further exploration of improvements to the CPAT to increase the predictive performance.

2) Are the CPAT's risk levels designated, weighted and scored for the instrument's best predictive ability?

Risk Level Designation

The four category risk level designation is assessed two ways. First, a visual assessment of the predictive curve was conducted to identify any meaningful breaks in the likely pretrial outcome. Although breaks were visualized, further examination of the possible addition of a 5th risk category was made within risk category 2. The optimal cut-point within Category 2 was identified by maximizing the sensitivity and specificity of Category 2 scores. The optimal point within Category 2, which ranges from 18 – 37 points, was identified at scores 28 and 29. The predictive performance and likelihood of a new arrest or FTA outcome of the current CPAT Category 2 and alternative two-part Category 2 (Cat2A range: 18 – 28 & Cat2B range: 29 – 37) were compared. The likelihood of a new arrest or FTA outcome was also estimated across this two-part risk category. Table 6 reports these estimates.

[5] Hanley, J.A. & McNeil, B.J. (1983). A method of comparing the areas under receiver operating characteristic curves derived from the same cases. *Radiology*. 148: 839-843.

Table 6
Validation outcomes for Category 2 of CPAT comparing original Category 2 to alternative, two-part Category 2

Category 2	Odds Ratio (SE)	Confidence Interval	AUC
Current CPAT 18 -37	1.05* (.01)	1.03 – 1.07	.54*
CPAT 2A 18 -28	.63 (.08)	.49 - .81	.56
CPAT 2B 29 - 37	1.58* (.21)	1.23 – 2.04	.56*

* = Estimate is likely beyond chance
a) Estimates based off sample of category 2 CPAT interviews, n = 914

The AUC score for the alternative two-part Category 2 is slightly higher, indicating a better predictive performance. Furthermore, when comparing the two-part Category 2, those who score at the lower half of Category 2 are less likely to have a new arrest or FTA outcome compared to those who score higher. This estimate indicates that there is meaningful variation in the likely pretrial outcome amongst those defined in the original Category 2. This finding supports the need for further exploration of risk level designation.

Weighting and Scoring

The weighting and scoring of the CPAT is assessed two ways. First, the weighting and scoring estimation used in the construction of the CPAT is replicated on the retroactive sample to infer stability of the weighting measures. To do this, the marginal effects of each CPAT item on the likelihood of a new arrest or FTA occurring are estimated. In other words, the amount of influence each individual item has on the overall risk of new arrest or FTA. These effects are translated into percentage points. Table 7 reports the re-estimated and current CPAT points.

Table 7
Weighted effects of each CPAT item on the instrument's outcome score

CPAT Item	Margins (weight)	CPAT weight (in points)
1. Have a home or cell phone	.06 (6%)	Yes = 5
2. Owning or renting one's residence	.05 (5%)	Yes = 9
3. Contributing to residential payments	.09 (9%)	Yes = 9
4. Past or current problems with alcohol	.06 (6%)	Yes = 4
5. Past or current problems with mental health	.03 (3%)	Yes = 4
6. Age at first arrest	.08 (8%)	<19 = 15 20-24 = 12 25-34 = 10
7. Past jail sentence	.04 (4%)	Yes = 4
8. Past prison sentence	.01 (1%)	Yes = 10
9. Having active warrants	.09 (9%)	Yes = 5
10. Having other pending cases	.02 (2%)	Yes = 13
11. Currently on supervision	.02 (2%)	Yes = 4
12. History of revoked bond or supervision	.07 (7%)	Yes = 4
Score Range	0 - 62	0 - 82

These weights were used to calculate an alternative CPAT. The ROC was compared across this alternative CPAT and the current CPAT indicating that the current CPAT's predictive performance was comparable (CPAT current: AUC = .59 (CI = .57 - .61), Reweighted CPAT: AUC = .59 (CI = .56 - .61)).

The second approach employed the Burgess method of re-weighting the CPAT items. This approach assigns a value of 1 to each "yes" response for every risk item. This approach reduces any variation introduced in the risk score by value weighting. The ROC was also compared across this alternative CPAT and the current CPAT and produced estimates that were also comparable (CPAT current: AUC = .59 (CI = .57 - .61), Reweighted CPAT: AUC = .59 (CI = .56 - .61)). Findings support that the item weighting and scoring of the CPAT in its current state does not interfere with the tool's predictive performance when compared to alternative approaches.

3) Are the risk factors in the CPAT the best predictors of certain pretrial outcomes?

To assess whether the risk factors currently used in the CPAT are the best predictors of certain outcomes, the CPAT in its current state is also tested against an alternative tool with modified risk items. To select meaningful risk items for the alternative tool, propensity score matching was used[6]. This approach involved matching across CPAT items to isolate the meaningful differences in the unmatched, omitted variables. Said another way, this approach tests the relationship of each omitted risk indicator to new arrest or FTA when all other risk indicators were the same. Iterations of this matching scheme were conducted for each CPAT item. Items identified as meaningful in this matching process include: having a home or cell phone, contributing to residential payments, and reporting a past or current alcohol problem.

A subsequent analysis was then conducted using multivariate regression to identify any other meaningful variables to include in the alternative tool: having an active warrant at the time of arrest, having a pending case at the time of arrest, and the age of first arrest. Using these variables, an alternative CPAT risk assessment was constructed that ranged from 0 – 55. To maintain consistency and allow for appropriate comparison, the original weights of each item were used for the alternative tool. Table 8 reports the risk indicators included in the current CPAT and alternative tool.

[6] Features of the propensity score matching approach were: 1:1, greedy matching, non-replacement, with a caliper of .25.

Table 8
Current CPAT and Alternative Tool Risk Items

CPAT Item	Current CPAT	Alternative Tool
Having a Home or Cell Phone	X	X
Owning or Renting One's Residence	X	
Contributing to Residential Payments	X	X
Past or Current Problems with Alcohol	X	X
Past or Current Mental Health Treatment	X	
Age at First Arrest	X	X
Past Jail Sentence	X	
Past Prison Sentence	X	
Having Active Warrants	X	X
Having Pending Cases	X	X
Currently on Supervision	X	
History of Revoked Bond or Supervision	X	

Table 9 reports the predictive performance of the CPAT in its current state and this alternative tool. This assessment tool made up of risk items from the original CPAT is slightly better at predicting all 3 primary outcome variables: new arrest and/or FTA, FTA, and new arrest. This estimate provides support for further exploration of an alternative assessment tool.

Table 9
Comparison of AUC scores from original CPAT to the alternative tool.

	New Arrest/FTA (SE, CI)[a]	FTA (SE, CI)	New Arrest (SE, CI)[a]
Current CPAT - AUC	.59* (.01, CI .53-.61)	.59* (.01, CI .51 - .59)	.55* (.01, CI .52 - .61)
Alternative CPAT - AUC	.60* (.01,CI .54 - .61)	.62* (.01, CI .56 - .64)	.56* (.01, CI .50 - .59)

* = Estimate is likely beyond chance
a) Estimates based on reduced sample, n = 3,124

Process Evaluation Survey

Methodology

In an attempt to gain insight on the perceptions that multiple stakeholders in Colorado's criminal justice system have toward the CPAT, a survey was constructed and disseminated to pretrial services employees, judges, prosecutors, and defense attorneys. The survey served as an information-gathering tool to further inform focus group discussion as part of phase two of this project. The survey was constructed by the researchers after numerous meetings with pretrial services supervisors, at both PEN meetings and one-on-one meetings with multiple counties. Once a draft of the survey was complete, feedback was solicited from pretrial service supervisors, with some questions modified or added.

The survey was created and distributed using the online survey tool Qualtrics. Chain-referral sampling[7] was utilized as a technique to gain access to stakeholders throughout the state of Colorado through a top-down distribution strategy. To distribute the survey, a number of email lists were compiled: court administrators through each of the judicial districts in Colorado, District Attorney's offices in each judicial district, office heads of the public defenders in each jurisdiction, and pretrial offices throughout the PEN group, and the Colorado Association of Pretrial Services (CAPS) listserv. Surveys were distributed to these email addresses with a message requesting that it be shared with all representatives in their jurisdiction. In addition, pretrial supervisors were encouraged to share the survey link to stakeholders within their jurisdiction in an attempt to maximize the number of responses. The survey was first distributed on March 13, 2018, with reminder emails distributed April 2nd and April 12th. The survey closed on April 27th.

Results

Descriptive Statistics

The survey yielded a sample size of 382 respondents. The breakdown of these respondents included 122 from pretrial services (31.9%), 123 defense attorneys (32.2%), 69 prosecutors (18.1%), and 68 judges (17.8%) (see Table 10 for full descriptive statistics). There were a total of 27 out of a possible 64, Colorado counties were represented in this study, with seven respondents indicating that they represented multiple counties. Denver County had the most representation with 39 respondents, followed by Mesa (n = 29), El Paso (n = 27), Boulder (n = 28), Larimer (n = 22), Weld (n = 19), Jefferson (n = 18), Pueblo (n = 17), and Adams (n = 12). The remaining counties had fewer than 10 respondents, with 117 respondents failing to identify their county.

[7] Biernacki, P., & Waldorf, D. (1981). Snowball sampling: Problems and techniques of chain referral sampling. *Sociological methods & research*, *10*(2), 141-163.

Table 10

Respondents' identified stakeholder role by participating counties

County	Pretrial Services	Judges	Defense	Prosecution	Total
Boulder	11 (4.2%)	4 (1.5%)	5 (1.9%)	8 (3.0%)	28 (10.6%)
Denver	12 (4.5%)	8 (3.0%)	6 (2.3%)	13 (4.9%)	39 (14.7%)
Garfield	3 (1.1%)	3 (1.1%)	0 (0%)	2 (0.8%)	8 (3.0%)
Larimer	12 (4.5%)	5 (1.9%)	2 (0.8%)	3 (1.1%)	22 (8.3%)
Mesa	6 (2.3%)	3 (1.1%)	4 (1.5%)	16 (6.0%)	29 (10.9%)
Pueblo	8 (3.0%)	7 (2.6%)	1 (0.4%)	1 (0.4%)	17 (6.4%)
Weld	11 (4.2%)	6 (2.3%)	2 (0.8%)	0 (0%)	19 (7.2%)
Other	59 (15.4%)	32 (8.4%)	103 (27%)	26 (6.8%)	220 (57.8%)
Total	122 (31.9%)	68 (17.8%)	123 (32.2%)	69 (18.1%)	382 (100%)

Note. The "Other" category includes those from any county not participating in this study as well as any participants (N = 117) who did not identify their county.

Familiarity with CPAT Tool

Among the first items of the survey, respondents were asked about their familiarity with the CPAT. A score ranged from one to ten. A score of one indicated the respondent being not familiar with the tool at all. A score of five indicated an understanding of the instrument conceptually, with a ten being extremely familiar. In comparing the four criminal justice roles among their familiarity scores, a One-Way ANOVA was run. Table 11 displays the average familiarity scores among the four groups. The One-Way ANOVA found statistically significant differences among two of the groups, $F(3,368) = 4.27$, $p = .006$, as pretrial officers rated higher levels of familiarity with the tool when compared to judges ($p = .03$) and prosecutors ($p = .01$).

Table 11

Familiarity with the CPAT: Mean scores by criminal justice role

Role	N	Familiarity Mean Score (Standard Deviation)
Pretrial Services	119	8.71 (1.64)
Defense Attorneys	118	8.21 (1.70)
Judges	67	7.97 (2.00)
Prosecution	68	7.88 (1.77)
Total	372	8.26 (1.78)

Note: Ten respondents failed to answer this question.

Each respondent was asked questions relating to how they felt about the CPAT in its current state, with follow-up questions drilling down further into what they liked about the CPAT and what they felt could be improved. Pretrial officers generally had favorable comments regarding the CPAT in its current state, with a few respondents reporting distaste for the tool as it is currently being used. One respondent exemplified this point in stating:

> *I find it concerning that [the CPAT] has been used for years, and there are still many questions and debates about how to score certain questions. It seems that a validated, simplified tool would be best to use as a statewide tool to increase implementation consistency…* (Participant 110. Pretrial).

Identified Issues with Current CPAT Tool.

Thematic analysis was employed through all survey respondents' qualitative, written responses. Results showed seven key themes emerge relating to the issues with the CPAT in its current form.

Prior Failure to Appear. All four groups expressed concerns with the lack of prior FTAs being considered in the score for the CPAT. As the tool is a risk assessment measure predicting future FTAs, the lack of previous FTAs within the 12 items hurt the face validity of the tool.

Substance Abuse item. Another common concern among the four groups involved the lack of substance abuse questions. While there is a self-report item addressing problematic alcohol use, narcotics are not included in the CPAT score.

Reliability of Self-Report Measures. The self-report reliant measures on the CPAT have raised concerns from all four groups of stakeholders. While some jurisdictions work to verify information provided as part of the CPAT interview, others do not have the resources. The perceived overreliance on self-reporting among some respondents resulted in the belief that defendants are rewarded for providing false information. As one judicial respondent noted:

> *I fear that defendants and defense counsel can 'game the system' by not being truthful in the assessment. Since many of the questions asked to determine the score depend on the defendant's truthfulness, a defendant need only fib a little to skew his/her score. I've seen a few examples of this. In my view, the more we can rely upon objective reporting of the information underlying the defendant's score, the better* (Participant 123, Judge).

Category 2 overload. Among pretrial officers, a commonly identified issue relates to the second classification category. Defendant's CPAT scores classify them into four discrete categories, based on their risk to FTA and reoffend. Many pretrial respondents identified that the second category is too broad, causing most individuals to score in the second category. This sentiment was also found in the judge's responses, with multiple judges emphasizing that most defendants fall into either Category 2 or 3.

Definitions. Some items were unclear to the respondents, such as what constitutes as "mental health problems" and "contributing to residential payments." Many defense attorneys felt that the tool unfairly penalizes indigent defendants. As a number of items penalize defendants for not having a phone, renting instead of owning, and not contributing to residential payments, those with lower or no income are scored higher than those or have more economic advantages.

Crime Type, Severity, and Risk. Respondents from the judicial, defense, and prosecution groups recommended that the severity of the crime be considered in a risk assessment tool. In addition, a number of pretrial respondents identified that the CPAT should differentiate the risk to reoffend from the risk of failing to appear in court. In its current form, the CPAT combines these two risk indicators into an overall risk score.

Buy-in. When asked how support of the tool could be improved among judges, prosecutors, and defense attorneys, respondents overwhelmingly stated that more education would help each group adhere to the recommendation of the CPAT. A clear explanation of the purpose and goals of risk assessment tools could help each group understand what the CPAT is meant to and not meant to do. One pretrial respondent succinctly summarized the narratives surrounding the buy-in of the CPAT in the following quote:

> *In short, it is a good tool. Much of the criticism around the tool comes from a fundamental misunderstanding of the purpose, use, value, and limitations of assessment by our system* (Participant 73. Pretrial).

CPAT Implementation

There were a total of 95 respondents (28.9%) who conduct CPAT interviews as part of their job. This group included 73 pretrial services staff, 19 defense attorneys, and three judges throughout the state. Eighteen of the 27 counties who participated in the survey had individuals who reported conducting CPAT interviews as part of their job. Within those counties, 50% of the respondents reported that their CPAT reports are reviewed by a second individual before being submitted to the court. When broken down by county, eight of the eighteen counties reported that they do not have another individual review their reports.

CPAT Tasks and Importance.

Those who identified administering the CPAT as part of their job duties were asked to rank the importance of the five CPAT tasks from most important (rank = 1) to least important (rank = 5). Table 12 displays the mean ranks of these tasks. The interview was ranked as the most important (M = 1.91, SD = 1.04), followed by criminal history checks (M = 2.04, SD = 1.10), confirming information (M = 3.01, SD = 1.01), the CPAT assessment score (M = 3.33, SD = 1.15), and victim interviews (M = 4.71, SD = 0.56), respectively. The importance of these ranks were defined as most valuable in achieving a reliable CPAT score, reliable information, etc.

Table 12
Ranked important of CPAT tasks by those who administer the CPAT (N = 76)

Rank	Task	Mean Rank (SD)
1	Interview	1.91 (1.04)
2	Criminal History Checks	2.04 (1.10)
3	Confirming Information	3.01 (1.01)
4	CPAT Assessment	3.33 (1.15)
5	Victim Interviews	4.71 (0.56)

Note: Of the 95 respondents who conduct CPAT interviews, only 76 answered this question

The majority of respondents from all four stakeholder groups reported the interview as a vital part of the CPAT process. Two-thirds of respondents (66.9%) reported that they would not support a risk assessment tool if it did not contain an interview. Respondents from all four groups claimed that the interview component was important to gather information that would not be able to be obtained from official records. The drawback is that many defendants have the opportunity to lie during interviews. As one pretrial officer responded:

> *The interview is important… as civilian personnel we can get more information than Law Enforcement Officers are able to. The pitfall of the interview is that the defendants can say whatever they want, which can lead some people to not tell a single true fact about themselves (rendering the interview somewhat useless). The verification portion is thus important (though the same thing applies to verifiers: they can say whatever they want, even if it is not the truth).* (Participant 93. Pretrial)

Those who believed that the interview was not necessary for a pretrial risk assessment tool noted the bias that could be derived from an interview. As one defense attorney noted:

> *In my experience, the interview tends to be highly subjective and falls prey to the biases of the interviewer, who is often unsympathetic to indigent defendants. Where I practice, the interviewer is also who the defendants must check in with for pre-trial tracking services. That interviewer often carries biases from the interviews into his supervisory role and tends to "play favorites" with clients, leading to reduced credibility with the court and unequal treatment of defendants.* (Participant 222. Defense)

To combat the bias of the interview, all respondents overwhelmingly agreed that confirming information with outside sources is important. The most common response to why confirming information is important in the CPAT process lies in the integrity of the defendant. As noted above, many respondents reported that defendants can benefit from lying in order to reduce their CPAT score. A lower CPAT score results in a lower cash or personal recognizance bond.

Moving Forward

Summary

The retroactive validation of the CPAT indicates that the tool in its current state predicts pretrial outcomes (i.e., successful case disposition, new arrest, and FTA) better than chance. Assessment of the risk categories indicates that further examination of an alternative risk designation could improve the CPAT's predictive performance. Qualitative analysis of survey responses supports this notion, with respondents raising concerns with the CPAT in its current form. Tests of the weight and scoring of the CPAT items find this approach to be valid and that it does not interfere with the CPAT's predictive performance when compared to other methods of weighting and scoring. Finally, when testing the CPAT against an alternative tool, findings support that an alternative or modified CPAT could improve predictive performance.

To supplement the retroactive validation of the CPAT, a process evaluation survey was constructed to gain insight from stakeholders regarding the perceptions of the tool in its current state. Survey results highlighted the usefulness of a validated risk assessment tool, such as the CPAT, but many shared concerns with the current tool. These criticisms included the face validity regarding the lack of accounting of prior failure to appear and substance abuse items, the reliability of self-report items, Category 2, lack of account of crime severity, and buy-in among different stakeholders. These concerns will be explored in more depth during phase two of this study.

This executive summary briefly describes analysis and findings in completing phase one of the CPAT validation project. These findings, along with those from phase two, will be used to employ phase three, a pilot test of a modified CPAT in comparison to the CPAT in its current state.

Next Phases of Project

Phase Two. Phase two explores the implementation of the CPAT across the seven participating counties. The researchers are in the process of visiting each jurisdiction to shadow pretrial officers during the administration of the CPAT, from interview to the submission of the bond report. While visiting each jurisdiction, at least two sets of focus groups are being held, one with pretrial officers and one with county stakeholders (i.e., judges, prosecutors, public defenders, and pretrial administrators). The aim of these focus groups is to further address and understand the concerns expressed in the survey responses identified above. The results from phase two of this study will inform the construction of an alternative tool in the final phase of this project.

Phase Three. Phase three involves the construction of a modified CPAT and testing this against the CPAT in its current state. The pilot test will be implemented utilizing an experimental design in the participating counties. The construction of the new tool will include items from the existing CPAT and additional risk items. Preliminary analysis was conducted regarding the influence that additional risk items (i.e., age at current arrest, employment, and prior FTA's) may have on predictive performance. Findings indicate that being employed and the number of prior FTA's varied with the

predictive performance of the CPAT[8]. This provides support that both additional risk items may be meaningful to improving the predictive performance of the CPAT.

[8] Confounding influence on the CPAT predictive performance was identified for Employment (*b* = -.37 (CI -.001 - .01) and prior FTA's (*b* = -.10 (CI .08 - .12). Estimate is likely beyond chance.