RESEARCH REPORT

PRETRIAL RELEASE MECHANISMS IN DALLAS COUNTY, TEXAS:

DIFFERENCES IN FAILURE TO APPEAR (FTA), RECIDIVISM/PRETRIAL MISCONDUCT, AND ASSOCIATED COSTS OF FTA*

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DISCLAIMER
No attempt by the research investigator, Professor Robert Morris, or the University of Texas at Dallas, will be made to explain the reasons behind the findings presented within this report. Nor will recommendations be made as to how the county should, or should not, respond to these findings. The information presented is driven solely by the data provided by Dallas County and caution should be used in any attempt to generalize these findings to other counties. The computer programming written to extract the data for analysis, as well as those used to established model estimates, will be made publically available upon request to ensure research transparency and objectivity. Any audit of this programming by a qualified professional/s is welcomed. Contact Robert G. Morris, Ph.D. with questions: morris@utdallas.edu

EXECUTIVE SUMMARY

Relative to other elements of the criminal justice system, pretrial release and the mechanisms by which it operates, has received little attention from scholars and empirical research is lacking. To date, no study has been carried out that has focused on pretrial release mechanisms at the county level and their isolated effects on failure to appear (FTA) and recidivism/pretrial misconduct. Further, it remains unclear whether the costs associated with one particular form of release outweigh the costs of another. While a handful of studies have explored failure to appear and recidivism across release types, they have been limited by data problems or problematic research designs.

The purpose of this study was to address a number of very important issues that underlie pretrial release from jail, specific to varying mechanisms of release including: attorney bonds, cash bonds, commercial bonds, and pretrial services bonds.[1] Archival data was culled from official records collected by the Dallas County criminal justice system as well as from the Texas Department of Public Safety (DPS). The analyses presented here were based on all defendants booked into the Dallas County jail during 2008 for a crime/s in which the defendant was not previously arrested/jailed, and who were released via one of the above noted release mechanisms (n = 22,019). Specifically, this study addresses the following questions: (1) Do failure to appear (FTA) rates vary across release mechanisms and if so, by how much? (2) Does recidivism/pretrial misconduct vary across release mechanisms and if so, by how much? (3) What are the additional court costs (observed and estimated) associated with FTA rates across release types? and (4) What are the strongest predictors of FTA across each release mechanism?

Methods and Findings. Regarding FTA and recidivism/pretrial misconduct, this study approximated an experimental research design to provide for an objective "apples-to-apples" empirical analysis (propensity score matching). This analysis suggested that net of other effects (e.g., criminal history, age, indigence, etc.—see technical appendix), defendants released via commercial bonds were least likely to fail to appear in court compared to any other specific mechanism. This finding was consistent when assessed for all charge categories combined and when the data were stratified by felony and misdemeanor offenses, respectively. For felony defendants (among the matched pairs), those *not* released on commercial bond were between 39 and 56 percent more likely to fail to appear in court, with the largest difference being between cash and commercial, followed by pretrial and then attorney bonds. For misdemeanors, differences were similar, ranging between 26 and 32 percent with pretrial bonds being the most different from commercial, followed by attorney bonds, then cash bonds. Overall, analyses based on the data explored here suggest that commercial bonds were the most successful in terms of defendant appearance rates, followed by attorney bonds, cash bonds, and pretrial services releases.

Findings for the remaining bond type comparisons were mixed. For felonies and misdemeanors, limited/inconsistent support was found favoring FTA rates for pretrial services over cash bonds; other differences were not statistically significant.

[1] Personal recognizance was not analyzed here due to its very limited use in release for new crimes (less than 1%).

Regarding recidivism (or pretrial misconduct), analyses were carried out for new crimes occurring within 9 and 12 months of release for the book-in of record. It is important to note that such crimes may or may not have occurred during the pretrial phase for the book-in of record as this data was not readily available. The findings for recidivism were mixed and more commonly null (i.e., no difference was found between release types). Note: Extreme caution should be used in interpreting the recidivism/pretrial misconduct analysis due to the situational factors associated with recidivism that are completely external to the associated release mechanism.

As to the costs associated with FTA across each release type, model estimates suggest that commercial bond releases were the most cost-effective in Dallas County, based on the group of defendants captured by the study. This finding was corroborated by the observed data, which suggested that for the 22,000+ defendants captured by this study, assuming a public cost of $1,775 per FTA[2], the use of commercial bonds saved over $7.6 million (or ~$350k per 1,000 defendants) among felony defendants and over $3.5 million (or $160k per 1,000 defendants) among misdemeanor defendants, as compared to attorney bonds, cash bonds, and pretrial services bonds. The largest differences in costs were seen between commercial bonds and pretrial services bonds.

[2] Estimate adjusted for inflation from 1997 dollars. Base estimate taken from Block and Twist (1997), who conduced a complete cost-benefit analysis of failure to appear in Los Angeles, CA.

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STUDY HIGHLIGHTS

- The study explored failure to appear (FTA) and recidivism (at 9 and 12 months) based on longitudinal data for 22,019 defendants released from the county jail during 2008 for the first new offense occurring during that year.

- The analyses isolated the effect of particular bond types by statistically controlling for many correlates (i.e., predictors of) of FTA and recidivism/pretrial misconduct and approximating an experimental research design (see appendix for a complete listing and definitions).

- When comparing similarly situated defendants' probability of FTA for all case types, defendants released via a commercial bond (i.e., a bail bond company) were significantly and substantively less likely to fail to appear in court compared to attorney bonds, cash bonds, and pretrial services bonds, respectively. This finding held when analyzing all defendants simultaneously and when assessing felony and misdemeanor defendants separately.

- Regarding recidivism/pretrial misconduct (at 9 and 12 months) among misdemeanor defendants, no statistically/practically significant differences were found between any combination of the release mechanisms.

- Regarding recidivism/pretrial misconduct (9 and 12 months) for felony defendants, the findings supported cash and attorney bonds, however, there may be qualitative differences in how the recidivism relationship operates for these particular release mechanisms, as they are the most expensive form of financial bail.

- Differences for 12 month recidivism/pretrial misconduct were found between commercial bonds and pretrial services bonds for the model including running data for all charge categories combined, favoring pretrial services, however, the differences were nullified when assessing felonies and misdemeanors separately.

- Release on their own recognizance (OR) was rarely used for an initial release (less than 1% of defendants). For this reason, OR was excluded from the analysis.

- A basic cost-benefit analysis suggested that commercial bonds are the most cost effective release type in Dallas County, in terms of the court costs associated with FTA. Based on the observed data for the 22,000+ defendants captured by this study (all initial releases for a new crime in 2008), assuming a public cost (i.e., justice administration) of $1,775 per FTA[3], the use of commercial bonds saved over $7.6 million (or ~$350k per 1,000 defendants) among felony defendants and over $3.5 million (or $160k per 1,000 defendants) among misdemeanor defendants, as compared to attorney bonds, cash bonds, and pretrial services bonds. The largest differences in costs were seen between commercial bonds and pretrial services bonds.

- The strongest predictor variables of FTA across release mechanisms were also explored. Such variables were limited to those made available by Dallas County. The factors predicting FTA varied considerably across release mechanisms and are outlined within.

[3] Estimate adjusted for inflation from 1997 dollars. Base estimated taken from Block and Twist (1997), who conduced a complete cost-benefit analysis of failure to appear in Los Angeles, CA.

STUDY FINDINGS

Descriptive Statistics for Study Defendants

Release Mechanisms Studied (All Charge Types)

Release Mechanism	Freq.	%
Attorney Bond	684	3.1
Cash Bond	4,219	19.2
Commercial Bond	14,705	66.8
Pretrial Bond	2,411	10.9
Total	22,019	100.0

Release Mechanisms Studied (Felony Defendants)

Release Mechanism	Freq.	%
Attorney Bond	326	5.1
Cash Bond	339	5.3
Commercial Bond	5,048	78.9
Pretrial Bond	682	10.7
Total	6,395	100.0

Release Mechanisms Studied (Misdemeanor Defendants)

Release Mechanism	Freq.	%
Attorney Bond	342	2.5
Cash Bond	3,529	25.2
Commercial Bond	8,548	61.0
Pretrial Bond	1,589	11.3
Total	14,008	100.0

Descriptive Statistics for **Failure to Appear (FTA)** in Court

All Charge Types

	# of Defendants	% FTA
Attorney Bond	684	34.1
Cash Bond	4,219	29.2
Commercial Bond	14,705	23.0
Pretrial Services Bond	2,411	37.0

TOTAL 16,274 Overall FTA Rate = 26.1%

Felonies

	# of Defendants	% FTA
Attorney Bond	326	28.2
Cash Bond	339	30.7
Commercial Bond	5,048	16.6
Pretrial Services Bond	682	26.1

TOTAL 6,359 Overall FTA Rate = 19.0%

Misdemeanors

	# of Defendants	% FTA
Attorney Bond	342	37.4
Cash Bond	3,529	30.2
Commercial Bond	8,548	26.7
Pretrial Services Bond	1,589	39.6

TOTAL 14,008 Overall FTA Rate = 29.3%

Descriptive Statistics for **Recidivism/Pretrial Misconduct** (9 months / 12 Months)

All Charge Types

	# of Defendants	% Recidivating (9 Months/12 Months)
Attorney Bond	684	19.0 / 22.4
Cash Bond	4,219	11.7 / 13.8
Commercial Bond	14,705	23.5 / 27.3
Pretrial Services Bond	2,411	24.4 / 28.5

TOTAL 16,274 Overall Recidivism/Pretrial Misconduct Rate = 21.2% / 24.7%

Felonies

	# of Defendants	% Recidivating (9 Months/12 Months)
Attorney Bond	326	17.5 / 20.3
Cash Bond	339	9.7 / 12.1
Commercial Bond	5,048	26.2 / 29.7
Pretrial Services Bond	682	25.2 / 28.9

TOTAL 6,359 Overall Recidivism/Pretrial Misconduct Rate = 24.7% / 28.2%

Misdemeanors

	# of Defendants	% Recidivating (9 Months/12 Months)
Attorney Bond	342	20.2 / 24.0
Cash Bond	3,529	11.5 / 13.7
Commercial Bond	8,548	22.1 / 26.0
Pretrial Services Bond	1,589	24.6 / 29.1

TOTAL 14,008 Overall Recidivism/Pretrial Misconduct Rate = 19.7% / 23.2%

ANALYTICAL FINDINGS

PROPENSITY SCORE MATCHING ANALYSIS: FAILURE TO APPEAR

The below findings represent an "apples-to-apples" approach to exploring differences in FTA rates among similarly situated defendants, across the release mechanisms. These estimates have been conditioned (i.e., statistically adjusted on other influence factors) based on the defendant/crime characteristics outlined in the technical appendix, by means of a counterfactual statistical modeling strategy known as propensity score matching (PSM).

PSM was used to assess the effect sizes of different combinations of release mechanisms on 1) whether a defendant fails to appear (FTA) in court and on 2) whether the defendant recidivated within a specified time period post-release (9 or 12 months). This counterfactual model approximates an experimental design by allowing for comparisons to be made between defendants that had an equivalent probability of receiving some treatment (here the treatment being a release mechanism) over an alternative treatment. Similar analytical designs where the focus has been on multiple treatment effects are not uncommon in the social sciences (see Lechner, 1999; 2001)

***NOTE: Prior to presenting the results, readers unfamiliar with PSM are encouraged to read the information provided in the technical appendix to get a basic idea of what the technique does and how to interpret the findings presented in the below tables.

The below table presents the statistically significant findings on FTA stemming from the propensity score matching analysis and using commercial bonds as a reference category (comparison) group. This approach was taken because significant differences were found only for comparisons that included similarly situated (matched) defendants released on a commercial bond defendants.

In short, the findings clearly demonstrate that when comparing similarly situated defendants against one another (apples-to-apples), commercial bonds were much less likely to fail to appear in court after release for the first time for a new offense. The differences are fairly consistent when analyzing all defendants and also when assessing felony and misdemeanor cases separately. Differences in FTA rates between defendants released via other release types (e.g., attorney bonds vs. pretrial bonds) were not statistically or substantively different from one another (i.e., FTA rates were equivalent for those comparison groups).

For felony defendants (among the matched pairs), those ***not*** released on commercial bond were between 39 and 56 percent more likely to fail to appear in court, with the largest difference between cash and commercial, followed by pretrial and then attorney bonds. For misdemeanors, difference were similar, ranging between 26 and 32 percent, with pretrial bonds being the most different from commercial, followed by attorney bonds, then cash bonds.

Multi-treatment Propensity Score Matching Results on Failure to Appear: Attorney, Cash, and Pretrial Bonds as compared to Commercial Bonds.

Treated vs. Matched Controls released on Commercial Bond	Mean FTA Rate (Treated)	Mean FTA Rate (Controls)	FTA Rate Difference	% Difference in FTA vs. Commercial
All Defendants				
Attorney	0.34	0.27	0.07	21% higher
Cash	0.29	0.20	0.09	31% higher
Pretrial	0.37	0.23	0.14	39% higher
Felony				
Attorney	0.28	0.17	0.11	39% higher
Cash	0.32	0.14	0.18	56% higher
Pretrial	0.26	0.15	0.11	42% higher
Misdemeanor				
Attorney	0.38	0.27	0.11	29% higher
Cash	0.31	0.23	0.08	26% higher
Pretrial	0.40	0.27	0.13	32% higher

Note: All findings are compared to Commercial Bonds (the reference category). Only statistically significant comparisons shown where equivalent findings were demonstrated between alternated reference categories ($p < .05$).

Failure to Appear Analysis – Propensity Score Matching Results

How are the below tables interpreted?

The below tables represent all differences between release types (unlike the above table which illustrates the same findings, but for statistically significant findings only). The PSM findings are presented to illustrate the differences in FTA rates between those treated and their matched controls for all releases, felonies, misdemeanors, and state jail felonies, respectively. On the diagonal of these tables are the unadjusted FTA rates for each release type. These statistics are presented for reference only. The off-diagonal statistics are the mean (average) difference in FTA rates (i.e., the treatment effect) between those released via a particular treatment (i.e., release mechanism)--which is identified by the left-hand column--compared to a particular alternative, identified by the top row of the table. Note that the percent range displayed (if statistically significant) reflects the estimated difference for matching based on an inverted treatment outcome (e.g., commercial vs. attorney compared to attorney vs. commercial)(Non-significant findings are indicated as such in the table).

As an example, looking at the top category, "Attorney Bond" on the far left column of the first table below, we can see that the unadjusted FTA rate for this release type is 34 percent. Following this row to the right, we see that there is no statistically significant difference in FTA rates between comparable (i.e., similarly situated) defendants released by an attorney bond compared to cash bonds. However, the conditioned difference in FTA rate for attorney bonds is 7-13% higher than for Commercial bonds. Further, we find no significant difference between attorney bond FTA rates and pretrial services bonds.

ALL DEFENDANTS - Average Treatment Effects: Failure to Appear (Unconditioned rates on the diagonal)

	Attorney Bonds	Cash Bonds	Commercial Bonds	Pretrial Services
Attorney Bond	***.34***	No Significant Difference	.07-.13 higher	No Significant Difference
Cash Bond		***.29***	.09-.10 higher	No Significant Difference
Commercial Bond			***.23***	.14-.15 lower
Pretrial Services				***.37***

Note: Unadjusted failure to appear (FTA) rate for first 2008 release on diagonal. Off diagonal statistics are between-release-type ESTIMATED TREATMENT EFFECT differences (row compared to column). All treatment effect differences shown are statistically significant.

FELONY DEFENDANTS - Average Treatment Effects: Failure to Appear (Unconditioned rates on the diagonal)

	Attorney Bonds	Cash Bonds	Commercial Bonds	Pretrial Services
Attorney Bond	***.29***	No Significant Difference	.11-.12 higher	No Significant Difference
Cash Bond		***.30***	.15-.18 higher	Partial support favoring Pretrial
Commercial Bond			***.17***	.10-.11 lower
Pretrial Services				***.26***

Note: Unadjusted failure to appear (FTA) rate for first 2008 release on diagonal. Off diagonal statistics are between-release-type ESTIMATED TREATMENT EFFECT differences (row compared to column). All treatment effect differences shown are statistically significant.

MISDEMEANOR DEFENDANTS - Average Treatment Effects: Failure to Appear (Unconditioned rates on the diagonal)

	Attorney Bonds	Cash Bonds	Commercial Bonds	Pretrial Services
Attorney Bond	***.37***	No Significant Difference	.10-.11 higher	No Significant Difference
Cash Bond		***.30***	.08 higher	Partial support favoring Pretrial
Commercial Bond			***.27***	.12-.13 lower
Pretrial Services				***.40***

Note: Unadjusted failure to appear (FTA) rate for first 2008 release on diagonal. Off diagonal statistics are between-release-type ESTIMATED TREATMENT EFFECT differences (row compared to column). All treatment effect differences shown are statistically significant.

Recidivism/Pretrial Misconduct Analysis – Propensity Score Matching Results

12 Months

Note: Unadjusted Failure to appear (FTA) rate for first 2008 release on diagonal. Off diagonal statistics are between-release-type ESTIMATED TREATMENT EFFECT differences (row compared to column). All treatment effect differences shown are statistically significant.

ALL DEFENDANTS - Average Treatment Effects: Recidivism/Pretrial Misconduct w/in12 months (Unconditioned rates on the diagonal)

	Attorney Bond	Cash Bond	Commercial Bond	Pretrial Services
Attorney Bond	***.22***	No Significant Difference	No Significant Difference	No Significant Difference
Cash Bond		***.14***	.02-.03 lower	No Significant Difference
Commercial Bond			***.27***	.14-.15 lower
Pretrial Services				***.29***

Note: Unadjusted recidivism rate for first 2008 release on diagonal. Off diagonal statistics are between-release-type ESTIMATED TREATMENT EFFECT differences (row compared to column). All treatment effect differences shown are statistically significant.

FELONY DEFENDANTS - Average Treatment Effects: Recidivism/Pretrial Misconduct w/in 12 months (Unconditioned rates on the diagonal)

	Attorney Bond	Cash Bond	Commercial Bond	Pretrial Services
Attorney Bond	***.21***	No Significant Difference	.09-.13 lower	Partial support favoring Attorney
Cash Bond		***.12***	.06-.07 lower	.16-.19 lower
Commercial Bond			***.30***	No Significant Difference
Pretrial Services				***.29***

Note: Unadjusted recidivism rate for first 2008 release on diagonal. Off diagonal statistics are between-release-type ESTIMATED TREATMENT EFFECT differences (row compared to column). All treatment effect differences shown are statistically significant.

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MISDEMEANOR DEFENDANTS - Average Treatment Effects: Recidivism/Pretrial Misconduct w/in 12 months (Unconditioned rates on the diagonal)

	Attorney Bond	Cash Bond	Commercial Bond	Pretrial Services
Attorney Bond	***.24***	Partial support favoring Cash	Partial support favoring Commercial	No Significant Difference
Cash Bond		***.14***	.01-.02 lower	No Significant Difference
Commercial Bond			***.26***	No Significant Difference
Pretrial Services				***.29***

Note: Unadjusted recidivism rate for first 2008 release on diagonal. Off diagonal statistics are between-release-type ESTIMATED TREATMENT EFFECT differences (row compared to column). All treatment effect differences shown are statistically significant.

Recidivism Analysis – Propensity Score Matching Results

9 Months

ALL DEFENDANTS - Average Treatment Effects: Recidivism/Pretrial Misconduct w/in 9 months (Unconditioned rates on the diagonal)

	Attorney Bond	Cash Bond	Commercial Bond	Pretrial Services
Attorney Bond	***.19***	No Significant Difference	No Significant Difference	No Significant Difference
Cash Bond		***.12***	.03 lower	No Significant Difference
Commercial Bond			***.24***	No Significant Difference
Pretrial Services				***.24***

Note: Unadjusted recidivism rate for first 2008 release on diagonal. Off diagonal statistics are between-release-type ESTIMATED TREATMENT EFFECT differences (row compared to column). All treatment effect differences shown are statistically significant.

FELONY DEFENDANTS - Average Treatment Effects: Recidivism/Pretrial Misconduct w/in 9 months (Unconditioned rates on the diagonal)

	Attorney Bond	Cash Bond	Commercial Bond	Pretrial Services
Attorney Bond	***.19***	No Significant Difference	.08-.12 lower	Partial support favoring Attorney
Cash Bond		***.12***	.05-.08 lower	.16-.19 lower
Commercial Bond			***.24***	No Significant Difference
Pretrial Services				***.24***

Note: Unadjusted recidivism rate for first 2008 release on diagonal. Off diagonal statistics are between-release-type ESTIMATED TREATMENT EFFECT differences (row compared to column). All treatment effect differences shown are statistically significant.

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MISDEMEANOR DEFENDANTS - Average Treatment Effects: Recidivism/Pretrial Misconduct w/in 9months (Unconditioned rates on the diagonal)

	Attorney Bond	Cash Bond	Commercial Bond	Pretrial Services
Attorney Bond	***.20***	No Significant Difference	No Significant Difference	No Significant Difference
Cash Bond		***.12***	Weak support favoring cash	No Significant Difference
Commercial Bond			***.22***	No Significant Difference
Pretrial Services				***.25***

Note: Unadjusted recidivism rate for first 2008 release on diagonal. Off diagonal statistics are between-release-type ESTIMATED TREATMENT EFFECT differences (row compared to column). All treatment effect differences shown are statistically significant.

COSTS OF FAILURE TO APPEAR

The below matrices represent a basic cost-benefit analysis based on the treatment effect of each release mechanism for treated versus matched controls. Since no exact figures were available on the cost of a single FTA, it was conservatively assumed that the public cost for an FTA is $1,775 per FTA (see Block and Twist (1997).

For this example, the below figures represent the costs associated with the processing of FTAs per 1,000 defendants. These numbers do not reflect the subsequent social costs that may stem from FTA. These differences (i.e., between release types) are based on the mean (average) treatment effect size differences presented in the propensity score matching analysis outlined above.

INTERPRETATION OF TABLES: The on-diagonal numbers are the costs for dollars spent on FTA processing for a particular release type, based on the FTA rates from the matched pairs of defendants resulting from the PSM analysis. The off-diagonals represent the *differences* in cost between release types (row versus column). Note that positive (+) numbers reflect extra costs and negative (-) numbers represent savings. For example, in the first row of the table immediately below, for every 1,000 defendants released by way of either an attorney bond or a commercial bond, we expect that an extra $117,683 will be spent on FTA processing for those released via an attorney bond. An alternative interpretation would be that if these same individuals were released via a commercial bond, the savings in FTA processing costs would have been -$117,683. Because there was no difference in the effect of release type on FTA between attorney bonds and cash bonds, the cost difference was $0.

COSTS of Failure to appear for 1,000 similar defendants released from jail.

All Charge Types

	Attorney	Cash	Commercial	Pretrial
Attorney	***$603,500***	$0	$117,683	$0
Cash	$0	***$514,750***	$48,901	$0
Commercial	-$117,683	-$48,901	***$408,250***	-$59,196
Pretrial	$0	$0	$59,196	***$656,750***

Felonies

	Attorney	Cash	Commercial	Pretrial
Attorney	***$514,750***	$0	$59,196	$0
Cash	$0	***$532,500***	$87,863	$0
Commercial	-$59,196	-$87,863	***$301,750***	-$31,684
Pretrial	$0	$0	$31,684	***$461,500***

Misdemeanors

	Attorney	Cash	Commercial	Pretrial
Attorney	***$656,750***	$0	$68,959	$0
Cash	$0	***$532,500***	$42,600	$0
Commercial	-$68,959	-$42,600	***$479,250***	-$59,906
Pretrial	$0	$0	$59,906	***$710,000***

(Continued from above)

From this analysis, which was based on model estimated differences, commercial bonds represent the most cost-effective mechanism in terms of preventing FTA, as compared to other release types. These differences hold for similar defendants charged with either a misdemeanor or a felony charge. No differences in cost are predicted between attorney bonds and cash bonds, attorney bonds and pretrial services bonds, or cash bonds and pretrial services bonds.

Cost Estimates Based on Actual FTA Records

Other costs, based on the actual (historical) numbers may also be of interest. The below tables reflect the costs of FTA (assuming $1,775 per FTA) across each release mechanism observed for the inmates represented in the study (i.e., those entering jail for a new offense in 2008). Commercial bonds are used as a reference category (i.e., as compared to) for percent differences due to it being the most common release mechanism. NOTE: These numbers reflect only NEW CRIMES for 2008 and NOT ALL releases from jail or FTAs occurring during 2008.

All Charge Types

	# of Defendants	% FTA	Cost per 1000 Defendants	Rate Difference	$ Difference
Attorney Bonds	684	34.1	$605,275	+11	$197,025
Cash Bonds	4,219	29.2	$518,300	+6	$110,050
Commercial Bonds	14,705	23.0	$408,250	Ref. Category	Ref. Category
Pretrial Services	2,411	37.04	$656,750	+14	$248,500

Felonies

	# of Defendants	% FTA	Cost per 1000 Defendants	Rate Difference	$ Difference
Attorney Bonds	236	28.2	$500,550	+12	$205,900
Cash Bonds	339	30.7	$544,925	+14	$461,925
Commercial Bonds	5,048	16.6	$294,650	Ref. Category	Ref. Category
Pretrial Services	682	26.1	$463,275	+10	$380,275

Misdemeanors

	# of Defendants	% FTA	Cost per 1000 Defendants	Rate Difference	$ Difference
Attorney Bonds	342	37.4	$663,850	+11	$189,925
Cash Bonds	3,529	30.2	$536,050	+4	$62,125
Commercial Bonds	8,548	26.7	$473,925	Ref. Category	Ref. Category
Pretrial Services	1,589	39.6	$702,900	+13	$228,975

Estimating the "strongest" predictors of FTA and Recidivism/Pretrial Misconduct among Absconders across release types.

This analysis was based on a logistic regression modeling approach assessing two outcomes (FTA and FTA plus recidivism at 12 months). These estimates are conditioned on the type of offense charged with the 2008 book-in. Variables with (+) next to them are positive findings, (-) are negative. Here, the meaning of positive is that for an increase in the variable, there is an increased chance (odds) of failure to appear. Negative refers to a reduction in the chance of failure to appear.

Attorney Bonds:

Failure to Appear:

Celerity (+)
Felony (-)
Indigence (+)
Time Criminally Active (-)
Days in Jail (+)

Recidivism/Pretrial Misconduct *among Absconders:*

Felony (-)
Celerity (-)
Jail history (-)

Cash Bonds:

Failure to Appear:

Felony (-)
Age (-)
Indigence (+)
Celerity (+)
Days in Jail (+)
Jail History (+)
FTA History (+)
US Born (-)

Recidivism/Pretrial Misconduct *among Absconders:*

Age (-)
Celerity (-)
Jail history (-)
US Born (-)
Criminal History (+)

Commercial Bonds:

Felony (-)
Male (+)
Indigence (+)
Celerity (+)
Days in Jail (+)
Mental Illness (+)
Jail History (+)
Hispanic vs. all other (+)
Year of First Arrest (+)
Criminal History (+)
FTA History (+)

Recidivism/Pretrial Misconduct *among Absconders:*

Age (-)
Celerity (-)
Hispanic vs. White (-)
Criminal History (+)

Pretrial Services Bonds:

Felony (-)
Male (+)
Indigence (+)
Jail History (+)
Married (-)
Hispanic vs. all other (+)

Recidivism/Pretrial Misconduct *among Absconders:*

Felony (+)
Mental Illness (+)
US Born (-)
Criminal History (+)

(+) Positive association with FTA (i.e., increased odds of occurrence)
(-) Negative association with FTA (i.e., reduced odds of occurrence)

STUDY LIMITATIONS

- The findings presented herein are limited to one county (Dallas County, Texas) and are not necessarily generalizable to counties other than those of similar demographic make-ups and those with similar pretrial release practices/proportions. Readers should use caution in any attempt to make inferences about other counties based on these findings.

- Release on recognizance is an important mechanism of release but was rarely used by Dallas County for new crimes (less than 1% defendants). For this reason, own recognizance releases are not analyzed.

- Pretrial services bonds may involve a diversionary program for some defendants. The data provided no indication of whether this was the case, thus no information is provided in terms of FTA for any particular diversion program.

- While the statistics presented here from the propensity score matching analysis are relatively robust, there are indicators of release type and FTA that were not collected by, or made available from, Dallas County. These include employment status, residential status, as well as pre-release and risk assessment measures. However, the Dallas County data are unique in the fact that they do include many measures that other data sources do not include, such as drug offense history, mental illness, and indigence.

- Analyses were not carried out specific to any particular criminal offense (e.g., DWI). The findings may change when exploring particular offenses.

- The measure of recidivism/pretrial misconduct does not exclusively account for rearrests for a new crime during the pretrial phase for the book-in of interest. Crimes that occurred after the pretrial phase, but within the window of opportunity (here 9 or 12 months) are also counted as recidivism. Additional data will be required to develop a recidivism measure that is exclusively representative of pretrial misconduct.

- The indicator of FTA for pretrial services releases was limited to bonds that were held “insufficient” rather than an official indicator of non-appearance in court. This was due to limits on the data collection procedures currently in practice by the County. It is possible that some bonds held insufficient do not reflect a failure to appear, however, in discussion with Dallas County Pretrial Services, it was determined that this possibility was minimal.

TECHNICAL APPENDIX

What is propensity score matching (PSM)?

PSM is a well-known statistical matching procedure that approximates an experimental design by matching cases, (i.e., defendants), based on a near equivalent probability of having been released from jail by way of one mechanism versus a possible alternative. (For this study, within a maximum difference of 0.1% probability, which is considered very conservative). Here, the varying release types can be considered treatments, just like in an experiment. Since there are multiple treatments under study (i.e., the four release types), comparisons are made from one release-type to another, for every possible combination of treatments, respectively. The goal is to end up with an estimate of the "treatment effect." This is the difference in average probability for defendants failing to appear, or recidivating, between two specific release mechanisms. Again, these comparisons are based on statistically matched (i.e., similarly situated) defendants equally likely to have received the treatment.

Restated, a series of predictor variables (outlined in the technical appendix) are used to estimate a defendant's probability of receiving one treatment over another particular treatment. This estimate is the conditioned probability of receiving the treatment–also known as the propensity score. Upon establishing the quality and robustness of the propensity score, mean (average) levels of a final outcome (e.g., failure to appear in court) can be compared between the treated (i.e., those receiving the treatment) and the matched controls (i.e., those who did not receive the treatment, but who had an equal probability of having received it). *In the end, comparisons are made not between all defendants released by way of a particular method, but only between statistically matched pairs.*

How robust are these findings and how was this determined?

The quality of the matching procedure was assessed in multiple ways, using contemporary statistical methods. These include 1) an assessment of balance on covariates between matched and unmatched samples, 2) a sensitivity analysis to determine how strong an unmeasured covariate (i.e., something not available in the data such as employment history) would need to be to change the results (Rosenbaum Bounds), and 3) a complementary weighted regression analysis that involved both matched and unmatched defendants (Inverse Probability of Treatment Weighting, IPTW).

These procedures resulted in a strong level of confidence that these PSM analysis findings are robust to the influence of unmeasured covariates and that the matching procedure was very good at finding suitable matches to those actually treated. The specific details on these diagnostics are available via the Center for Crime and Justice Studies webpage (www.utdallas.edu/epps/ccjs) and/or can be requested via email (morris@udallas.edu).

ANALYSIS OVERVIEW

There are four major types of release (bonds) used in Dallas County that are explored here. Such bonds include: (1) cash bonds, (2) attorney bonds, (3) commercial bonds, and (4) pretrial

services bonds. Note that release on recognizance and "other" release types (e.g., release to TDCJ for incarceration) are not assessed. The PSM approach will assess the effect of each bond compared to an alternative bond, respectively, across all combinations of bond types. This is illustrated in Figure 1 below.

Figure 1: Counterfactual Comparison Groups

(1) Attorney	vs.	(2) Cash
(1) Attorney	vs.	(3) Commercial
(1) Attorney	vs.	(4) Pretrial
(2) Cash	vs.	(3) Commercial
(2) Cash	vs.	(4) Pretrial
(3) Commercial	vs.	(4) Pretrial

As noted, PSM matches individuals who received a treatment, here a type of bond, to others who did not receive the treatment, but who had a statistically identical probability of having received such. In other words, these are similarly situated defendants (e.g., similar offense, criminal history, demographics, etc.) This approach allows for the isolation of a particular bond effect as compared to every alternative. For example, this approach allows us to determine whether cash bonds do better at reducing the probability of FTA compared to an attorney bond, net of other predictive variables on FTA.

Measurement/Definition of Variables

This section outlines and defines all data variables used in this study. The section is broken down by outcome variables, treatment variables (i.e., bond types) and control variables.

Statistical Model Output will be made available via Professor Morris's webpage, and/or can be requested via email (morris@utdallas.edu)

Outcome Variables

Failure to Appear (FTA) is defined differently depending on the type of bond. For attorney, cash, and commercial bonds, FTA is defined by whether the Court passes a judgment *NISI* against the defendant. A *NISI* is a judicial declaration that a bond is forfeited unless s/he can provide a suitable reason why there was no court appearance. While it is not uncommon for a judgment *NISI* to be overturned, this is an indication of FTA in Court and was easily identified in the `bond_forfeiture` data file provided by Dallas County.

FTA for personal recognizance and pretrial diversion rarely results in a judgment *NISI* being entered by the Court. Unfortunately, there was not a specific data indicator provided by Dallas County indicative of FTA for these two bond types. In order to gather this information, data on FTA were extracted from court comments through a character extraction algorithm constructed by Dr. Morris, and approved by Mr. Ron Stretcher (the Director of Criminal Justice for Dallas Co.). The comment information was provided in the `dc_bonds` data file. For personal recognizance and pretrial diversion bonds, FTA was indicated by the issuance of a bond forfeiture, however, most personal bonds are not formally identified as being forfeited. Rather a

bond is held "insufficient" when a defendant out on a personal bond does not appear in court. The specific terms used in the character extraction algorithm are available upon request (email morris@utdallas.edu).

Recidivism/Pretrial Misconduct is defined by a new arrest occurring after the offense of record for the study (i.e., an individual's first arrest occurring in 2008). The recidivism measures here specifically exclude re-arrest for failure to appear (absconding) only; only "new" crimes are counted as part of the measure. This issue is important because we should expect higher return to jail rates for absconders since either the system or a surety actively attempts to capture absconders. It is important to note that the measure of recidivism/Pretrial Misconduct here does not exclusively reflect pretrial misconduct as such data (i.e., court hearing dates) were not readily available. Recidivism researchers agree that differing lengths of time be used to assess any effect on recidivism, generally at no more than 36 months. However, since these release mechanisms should impact recidivism sooner rather than later (if ever), recidivism was assessed at 9 and 12 months, respectively, to help account for new crimes during the pretrial phase. The reason for this approach is that the context of a release mechanism stays with a defendant only to the disposition of a criminal case. After that point, the relationship is terminated.

Data for the recidivism/Pretrial Misconduct measure stem from supplementary data provided by the Texas Department of Public Safety (DPS), as well as those from Dallas County. DPS arrest data were required as Dallas County does not have in its possession arrest data for arrests occurring in other jurisdictions and are not tied to a Dallas County arrest. Using both of these data sources for the same set of defendants, recidivism represents any "new crime" arrest occurring in Dallas County or elsewhere, provided it is on file with DPS, which took place after the first 2008 book in and occurred prior to January 1st, 2012.

Control Measures

In addition to FTA, a series of variables serve as control variables for the present study. The variables outlined below are limited to what was available within the data provided by Dallas County. Definitions are provided as needed.

SOCIODEMOGRAPHIC VARIABLES

Age	(in years) at Time of Arrest
Age^2	Age squared (i.e., age as a non-linear effect)
Gender	(Female=1, Male=0)
Race	(Black, White, Hispanic) – Those indicated as "other" on race were less than 3% of all defendants.
Marital Status	(Married=1, otherwise=0)
Mental Illness History	(1=yes, 0=no)

Medical Problems (1=yes, 0=no)

Indigence (1=yes, 0=no)

Born in the United States (1=US born; 0=foreign born)

CRIMINAL HISTORY VARIABLES

Number of Prior Arrests – refers to the number of arrests that a defendant has on file with either Dallas County or Texas Department of Public Safety (DPS). Reporting error exists between the arrests reported to DPS from Dallas County. In order to minimize such error, the number of prior arrests was based on the total number of unique arrests occurring prior to the book-in of record stemming from Dallas Co., DPS, or both (whichever was highest).

Type of Offense for Book-in of Record – refers to the offense/s for which a defendant was charged underlying the primary 2008 book-in (i.e., the book-in of record). This was codified in part by UCR Index Crime definitions. Each of these 16 crime types was indicated by a binary variable to allow for multiple charge types to be included in the analysis simultaneously. For example, someone arrested for burglary may also have a charge of aggravated assault for the same arrest (or book-in). The offense categories include: drug related crimes, family violence, homicide (not present in data), robbery, aggravated assault, burglary, larceny, auto theft, fraud, obstruction of justice, weapons related offenses, and driving while intoxicated (DWI or DUI).

Offense of Record Category (OOR; misdemeanor vs. felony) – The category of offense was used at times to produce results stratified between misdemeanors and felonies (and sometimes state jail felonies).

Failure to Appear History (1=at least one previous FTA; 0=no previous FTAs)

Year of First Arrest on File – This variable serves as a proxy for the amount of time that an individual has been criminally active, as far as it is indicated in official police records.

Days in Jail for the OOR – The number of days spent in jail for the offense of record. This variable was not included in analyses of release for time served.

Celerity – Celerity refers to the amount of time between the date of the offense and the date of arrest (in days). This variable was log-transformed prior to analyses to correct for skewness.

Dallas County Jail History – An indicator of whether a defendant had been booked into the County jail at any time prior to the book-in of record

Treatment Variables

There are four main categories of bonds (release mechanisms) explored here. These include attorney bonds, cash bonds, commercial bonds, and pretrial services bonds.

The 2012 Texas Association of Counties (TAC) Bail Bond Handbook (p. 9) provides a detailed explanation of the bond process in Texas, which may vary between counties and defines a bail bond as:

> *A "bail bond" is a written undertaking entered into by the defendant and the defendant's sureties for the appearance of the principal therein before a court or magistrate to answer a criminal accusation; provided, however, that the defendant on execution of the bail bond may deposit with the custodian of funds of the court in which the prosecution is pending current money of the United States in the amount of the bond in lieu of having sureties signing the same. Any cash funds deposited under this article shall be receipted for by the officer receiving the funds and, on order of the court, be refunded, after the defendant complies with the conditions of the defendant's bond, to:*
>
> *(1) any person in the name of whom a receipt was issued, in the amount reflected on the face of the receipt, including the defendant if a receipt was issued to the defendant; or*
>
> *(2) the defendant, if no other person is able to produce a receipt for the funds.*

Attorney Bond

In Texas Bail Bond Board Counties, a state licensed attorney may post bonds as a surety for official clients in a criminal case, without the need to be licensed as a bail bond agent. The Sheriff of a County may inquire as to the security of the attorney in his/her ability to write a bond in accordance with TEXAS Code of Crim. Proc. Ch 17.

Cash Bond

'A "cash bond" occurs when the criminal defendant executes the bond himself as principal and posts the entire amount of the bond in cash with the "custodian of funds of the court" in lieu of having sureties sign the bond.' A cash bond is "unsecured" and if the defendant fails to appear for trial, s/he is liable for the full bond amount.

Commercial Bond

A commercial bond is one type of surety bond wherein the bond is made by a corporate surety (an insurance company), via a bonding company. In Texas, only a specially licensed insurance company can write such bonds. This form of bond occurs when a jailed defendant contacts a bail bond company and applies for bail. If approved, the defendant is released to the bonding company for a fee (generally 10-20% of the bail amount set by the court).

Personal Bonds

Personal Recognizance (not analyzed here), or release on recognizance, is one form of personal bond wherein the court releases an individual from jail without sureties or other security (i.e., financial penalty), but with the promise of the defendant that s/he will reappear for trial.

Pretrial Services bonds involve the release of a defendant under an unpaid, or $20 fee, bond held accountable to the Pretrial Services Division. These bonds are intended for low-risk defendants who are unable to secure release solely to the fact that they cannot access funding needed for a financial bond. A pretrial services bond is technically a type of personal recognizance bond.

In Dallas County, pretrial services eligibility is determined by reviewing a list of inmates booked in the jail the previous business day (or over the weekend), who have yet to be released, and who reside in Dallas and the surrounding counties. Among these inmates, the current offense is checked for eligibility (see below list of exclusions), along with the set bond amount (Dallas County Pretrial Services, 2012). If an inmate is eligible, his/her criminal background is checked via TCIC and NCIC. If still eligible and incarcerated, the inmate is interviewed by Pretrial Services that day. The inmate is then required to provide reference information, which must be confirmed by two personal references. The inmate also has to agree to abide by the program rules. The references are given the information of the amount of the pretrial fee (20 dollars or 3% of the bond, whichever is greater). Information is entered into the computer that the pretrial bond has been approved and once the fee is paid, the inmate is released. If the fee is not paid, a determination is made whether or not the fee should be waived in order to keep the jail population down. The financial status (i.e., indigence) of an inmate is not considered in Dallas Co. pretrial services releases. Inmates released via pretrial services tend to be those who cannot access funding to secure a financial bond.*

Specific eligibility requirements for pretrial services in Dallas Co. were determined via a Court Order in 1999 (Dallas County Court Order No. 99-1951), and were revised in 2007. Serious and violent offenses preclude an inmates eligibility for pretrial services release as are inmates with a history of felony/assaultive offenses. In some cases, exceptions can be made with approval from a supervisor and/or the District Attorney's office. Pretrial services tend to include individuals charged with minor non-violent (e.g., thefts and fraud) and/or lesser drug possession offenses.

Formal risk assessment tools are not used by Dallas County Pretrial Services in making release decisions.

During the period of observation for this study, Dallas County's Pretrial unit was staffed by four pretrial services officers who operate during normal business hours only. Therefore, potential defendants are screened the next business day after book-in to the jail. The monitoring of defendants other than the required regular check-ins took place solely by telephone.

The offenses that are excluded by Pretrial Services are outlined in the following page:

*Above paragraph paraphrased from in-person and email correspondence with Dallas County Pretrial Services (December, 2012).

Offenses Excluded by Pretrial Services Releases

1. Aggravated kidnapping
2. Aggravated Manufacture, Delivery or possessions of Controlled Substances
3. Aggravated Promotion of Prostitution
4. Aggravated Sexual Assault
5. Aggravated Robbery
6. Capital Murder
7. Criminal Solicitation
8. Aggravated Assault
9. Enticing a child
10. Prohibited Sexual Conduct
11. Indecency with a child
12. Injury to a child, elderly or disabled individual
13. Murder
14. Sexual assault
15. Parole violation
16. Sale, distribution or display of harmful materials to a minor
17. Sale or purchase of a child
18. Sexual performance by a child
19. Criminal solicitation of a minor
20. Any charge involving a firearm
21. Any charge involving assault with bodily injury
22. Stalking
23. Family violence
24. Violation of protective order or Magistrate's order; and
25. Harassment (includes telephone harassment)

References

Block, M. K. & Twist, S. J. (May, 1997). *Report Card on Crime-Runaway Losses: Estimating the Costs of Failure to Appear in the Los Angeles County Criminal Justice System*. American Legislative Exchange Council.

Dallas County Pretrial Services (personal communication, December 10, 2012).

Lechner, M. (1999a). Earnings and Employment Effects of Continuous Off-the-job Training in East Germany after Unification. *Journal of Business and Economic Statistics, 17,* 74-90.

Lechner, M (2001) Identification and Estimation of Causal Effects of Multiple Treatments under the Conditional Independence Assumption. In: Lechner M, Pfeiffer P (eds.) Econometric Evaluation of Labour Market Policies. Heidelberg and New York, Physica.

Texas Association of Counties. (2012). Bail Bond Handbook: Basic Information for County Officers, 2012 Update. Available at https://www.county.org/member-services/legal-resources/publications/Documents/Bail-Bond-Handbook.pdf

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