

RESEARCH REPORT

PRETRIAL RELEASE MECHANISMS IN DALLAS COUNTY, TEXAS:

DIFFERENCES IN FAILURE TO APPEAR (FTA) AND ASSOCIATED
COSTS OF FTA^{*}

2012 DATA UPDATE

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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. This study is a follow-up to a previous undertaking that explored the effect of specific pretrial release mechanisms on likelihood of a bond forfeiture (i.e., failure to appear or FTA) among defendants, and associated costs. The findings from the previous study, which analyzed data from those jailed during 2008, will be compared with new data from 2012 defendants.

The purpose of this study was to further 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 at any time during 2012 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 = 12,071). 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) What are the additional court costs (observed and estimated) associated with FTA rates across release types? (3) How do the estimates for 2012 defendants differ from those of 2008?

Methods and Findings. Regarding FTA, this study approximated an experimental research design to provide for an objective “apples-to-apples” empirical analysis (propensity score matching) in a manner equivalent to the 2008 undertaking. This analysis suggested that net of other effects (e.g., criminal history, age, indigence, etc.—see technical appendix), similarly situated defendants released via commercial bonds in 2012 remained the least likely to fail to appear in court compared to any other specific mechanism, as was the case in 2008. 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 0 and 41 percent more likely to fail to appear in court, with the largest difference being between cash and commercial, followed by pretrial. No differences in FTA rates were found between attorney and commercial bonds among felony or misdemeanor defendants when analyzed separately. For misdemeanors, differences were similar, ranging between 19 and 37 percent with pretrial services bonds being the most different from commercial, followed by cash bonds. Overall, analyses based on the data explored here suggest that commercial bonds were the most successful in terms of FTA.

However, it is interesting to note that the magnitude of differences in FTA rates between commercial bonds and other bond types was reduced for the 2012 analysis as compared to the 2008 study. This was particularly the case when comparing FTA among misdemeanor defendants released via commercial to those via pretrial services. This reduced difference was primarily driven by a major decrease in the conditional FTA rate by pretrial services for misdemeanor defendants (from 40 to 26 percent), though FTAs for commercial bonds for this category were also improved (from 27 to 21 percent).

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

For felonies, the differences in FTA rates between release type were generally reduced, however, each mechanism tended to have a higher rate of FTA for 2012 compared to 2008.

By request of Dallas County, the 2012 study was extended to present supplemental detail to the findings specific to pretrial services releases. Using pretrial services as a reference category, significant differences in FTA tended to be in comparison to commercial bonds, with the sole exception of attorney bonds for felonies. In short, commercial bonds were less likely result in FTA compared to pretrial services for any charge type, and attorney bonds tend to FTA less than pretrial services for felony defendants. There appears to be no difference in FTA rates between pretrial services bonds and cash bonds when comparing like defendants.

Regarding the costs associated with FTA across each release type, model estimates suggest that commercial bond releases were again the most cost-effective in Dallas County, based on the group of defendants captured by the study for 2012. This finding was corroborated by the observed data, which suggested that for the 12,000+ defendants captured by this study, assuming a public cost of \$1,775 per FTA², 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. For misdemeanors and felonies, the largest differences in costs were found between commercial bonds and cash bonds suggesting that between these two forms of release, commercial bonds are more cost effective when it comes to losses resulting from FTA.

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

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STUDY HIGHLIGHTS

- This study explored failure to appear (FTA) based on longitudinal data for 12,071 defendants released from the county jail during 2012 for the first new offense occurring during that year and compares such statistics to findings from 2008 data.
- The analyses isolated the effect of particular bond types by statistically controlling for many correlates (i.e., predictors of) of FTA by 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.
- Differences in FTA between release mechanisms were reduced for 2012.
- FTA for felonies increased for among each mechanism for 2012 while FTA for misdemeanors decreased among each mechanism for 2012.
- For pretrial services misdemeanor defendants, FTA were substantively reduced from 08' to 12' by 33%, however, for felony defendants, the rate of FTA was substantively increased by 44%. Pretrial services accounts for roughly 11% of releases for new crimes.
- 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 tend to be a more cost effective method in terms of reducing the likelihood of FTA in Dallas County. Based on the observed data for every 1,000 comparable felony defendants, assuming a public cost (i.e., justice administration) of \$1,775 per FTA³, the use of commercial bonds cost the county approximately \$392k compared to \$536k, \$591k, and \$682k for attorney, cash, and pretrial services bonds, respectively. This finding is further substantiated by the fact that commercial bonds accounted for 66% (or 2/3rd) of all releases for new crimes.
- Overall, the estimated costs due to FTA in 2012 were less than that from 2008 however this was driven by reductions in misdemeanor FTAs, despite the fact that felony FTAs increased for 2012. This was particularly the case for pretrial services defendants.
- The strongest predictor variables of FTA across release mechanisms were also explored and did not change from the 2008 study. Readers interested in predictor variable influence should visit the 2008 report.
- The number of eligible defendants in the 2012 data was less than half of that from 2008. The reasoning behind this change is unclear at this time, but may have to do with changes in arrest policies.

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

STUDY FINDINGS

Descriptive Statistics for Bond Forfeiture/FTA among Defendants Jailed on New Charges

All Charge Types	2008			2012			Change Statistics	
Release Mechanism	# of Defendants	%	Raw FTA Rate	# of Defendants	%	Raw FTA Rate	Actual Δ	Relative Δ
Attorney	684	3.1	34.1	521	4.3	30.3	-3.8	-11%
Cash	4,219	19.2	29.2	1,742	14.4	32.9	3.7	13%
Commercial	14,705	66.8	23.0	8,604	71.3	23.5	0.5	2%
Pretrial	2,411	10.9	37.0	1,204	10.0	30	-7.0	-19%
Total / Overall	22,019	100.0	26.1	12,071	100	25.8	-0.3	-1%

Felony FTA	2008			2012			Change Statistics	
Release Mechanism	# of Defendants	%	Raw FTA Rate	# of Defendants	%	Raw FTA Rate	Actual Δ	Relative Δ
Attorney	326	5.1	28.2	301	6.7	30.2	2.0	7%
Cash	339	5.3	30.7	261	5.8	33.3	2.6	8%
Commercial	5,048	78.9	16.6	3,615	80.2	22.1	5.5	33%
Pretrial	682	10.7	26.1	331	7.3	38.4	12.3	47%
Total / Overall	6,395	100.0	19.0	4,508	100	24.5	5.5	29%

Misd. FTA	2008			2012			Change Statistics	
Release Mechanism	# of Defendants	%	Raw FTA Rate	# of Defendants	%	Raw FTA Rate	Actual Δ	Relative Δ
Attorney	342	2.4	37.4	220	2.9	30.5	-6.9	-18%
Cash	3,529	25.2	30.2	1,462	19.4	33.2	3.0	10%
Commercial	8,548	61.0	26.7	4,988	66.1	24.5	-2.2	-8%
Pretrial	1,589	11.3	39.6	873	11.6	26.6	-13.0	-33%
Total / Overall	14,008	100.0	29.3	7,543	100	26.6	-2.7	-9%

NOTE: Unconditioned (Raw) FTA Rates are not appropriate for direct comparison to an alternative release mechanism. Use as a reference only within a single release type. The reason behind non-comparability with these raw rates is that some defendants may not be eligible for one or more release types (e.g., pretrial services bonds are reserved for less serious offenses). Comparable conditioned FTA rates are presented in the analyses below.

- Actual Δ: The actual (i.e., percentage point) change in FTA rate from 08' to 12'.

- Relative Δ: The relative change in the FTA rate from 08' to 12' (i.e., [2008 – 2012] / 2008)

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. 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, comparing the findings from the 2012 data with those from the 2008 report. This approach was taken because significant differences were found only for comparisons that included similarly situated (matched) defendants released on a commercial bond defendants. Also presented are findings from the 2012 data using pretrial services as the reference category.

Overall, the findings from the 2012 data generally resemble those from the 2008 analyses, favoring commercial bonds in terms of lower FTA rates. However, several notable differences emerged and are outlined below. Of note, the gaps in rates of FTA between commercial bonds and other bonds were often found to be closed by a sizable margin. Other differences were reduced to a degree of which was no longer found to be statistically significant.

Multi-treatment Propensity Score Matching Results on Failure to Appear: VERSUS COMMERCIAL

Treated vs. Matched Controls released on Commercial Bonds	2008				2012				Relative Δ from 08' to 12'	
	Raw (Unmatched) FTA Rate	Mean FTA Rate 08 (Treated)	Mean FTA Rate 08 (Controls)	Relative Difference in FTA vs. Commercial	Raw (Unmatched) FTA Rate	Mean FTA Rate 12 (Treated)	Mean FTA Rate 12 (Controls)	Relative Difference in FTA vs. Commercial	Matched Δ	Raw Δ
All Defendants										
Commercial	0.23	-	-	-	0.24	-	-	-	-	+4.3%
Attorney	0.34	0.34	0.27	21%	0.30	0.30	0.23	23%	+9.5%	-11.8%
Cash	0.29	0.29	0.20	31%	0.33	0.32	0.24	25%	-19.4%	+13.8%
Pretrial	0.37	0.37	0.23	39%	0.30	0.30	0.22	27%	-30.8%	-18.9%
Felony										
Commercial	0.17	-	-	-	0.22	-	-	-	-	+29.4%
Attorney	0.28	0.28	0.17	39%	0.30	No Significant Difference			-	+7.1%
Cash	0.31	0.32	0.14	56%	0.33	0.33	0.22	33%	-41.1%	+6.5%
Pretrial	0.26	0.26	0.15	42%	0.38	0.39	0.23	41%	-2.4%	+46.2%
Misdemeanor										
Commercial	0.27	-	-	-	0.25	-	-	-	-	-7.4%
Attorney	0.37	0.38	0.27	29%	0.31	No Significant Difference			-	-16.2%
Cash	0.30	0.31	0.23	26%	0.33	0.33	0.24	27%	+3.8%	+10.0%
Pretrial	0.40	0.40	0.27	32%	0.27	0.26	0.21	19%	-40.6%	-32.5%

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 ($p < .05$).

Relative Δ : The relative change in the FTA rate from 08' to 12' (i.e., $[2008 - 2012] / 2008$)

Notable Findings:

- For 2012, the gap between conditioned FTA rates for commercial bonds versus other types was narrowed in most comparisons, however commercial bonds tended to have lower rates compared to most other types. The gap in relative difference increased between commercial and attorney bonds when analyzing all defendants simultaneously, yet this finding was confounded when stratifying between felonies and misdemeanors (i.e., any difference in FTA between commercial and attorney bonds disappeared).
- The relative difference in felony FTA between cash bonds and commercial bonds was dramatically reduced for 2012; commercial outperformed cash by 33% in 2012 compared to 56% in 2008. This is an improvement by cash bonds of 23 percentage points (or a relative change of 41%— [*How was this calculated? $(56-33)/56=.41$]).*
- The difference in misdemeanor FTA between commercial and pretrial services was dramatically reduced for 2012; commercial bonds outperformed pretrial services by 19% compared to 32% in 2008, a 41 percent change. FTA rates for pretrial services misdemeanor defendants was improved dramatically for 2012.
- Raw FTA rates increased across all release types among felonies, with the biggest increases from pretrial and commercial bonds. Raw FTA rates for misdemeanors increased for cash bonds, but were reduced considerably among pretrial services bonds and for attorney bonds.
- When comparing all defendants, the difference in FTA between commercial and pretrial services bonds was dramatically reduced for 2012; commercial bonds outperformed pretrial services by 27% compared to 39%. This is an improvement by pretrial services of 12 percentage points (or a relative change of 31%).
- Cash bonds performed worst among misdemeanor defendants, and in comparison to commercial bonds for equivalent defendants, they pose a much increased risk for FTA (27-33 percent).

Multi-treatment Propensity Score Matching Results on Failure to Appear: VERSUS PRETRIAL SERVICES 2012

Treated vs. Matched Controls released via Pretrial Services	Mean FTA Rate (Treated)	Mean FTA Rate (Controls)	FTA Rate Difference	% Difference in FTA vs. Pretrial
All Defendants				
Commercial	0.24	0.30	-0.06	25% Lower
Felony				
Commercial	0.24	0.38	-0.14	58% Lower
Attorney	0.24	0.40	-0.16	67% Lower
Misdemeanor				
Commercial	0.21	0.26	-0.05	24% Lower

Treated vs. Matched Controls released on Pretrial Service Bonds (the reference category). Only statistically significant comparisons shown (p< 0.05).

Notable Findings:

- At a high level (i.e., among all defendants), and among misdemeanor defendants, FTA rates were significantly different only between pretrial services and commercial bonds.
- No statistically significant differences were found in rates of FTA between cash bonds and pretrial services bonds.

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 (for 2008), 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 percentage points higher than for Commercial bonds; this is the conditioned actual difference. Further, we find no significant difference between attorney bond FTA rates and pretrial services bonds.

2012 All Defendants: Average Treatment Effects: Failure to Appear (Unconditioned rates on the diagonal)				
	Attorney Bond	Cash Bond	Commercial Bond	Pretrial Services
Attorney Bond	.30	NS	.07 Higher	NS
Cash Bond		.33	.09 to .10 Higher	NS
Commercial Bond			.23	-.06 to .08 Lower
Pretrial Services				.30
2008 Findings				
	<i>Attorney Bonds</i>	<i>Cash Bonds</i>	<i>Commercial Bonds</i>	<i>Pretrial Services</i>
<i>Attorney Bond</i>	.34	NS	.07-.13 higher	NS
<i>Cash Bond</i>		.29	.09-.10 higher	NS
<i>Commercial Bond</i>			.23	.14-.15 lower
<i>Pretrial Services</i>				.37
<i>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.</i>				

2012 Felony Defendants: Average Treatment Effects: Failure to Appear (Unconditioned rates on the diagonal)				
Bail Type	Attorney Bond	Cash Bond	Commercial Bond	Pretrial Services
Attorney Bond	0.30	NS	0.08 Higher*	0.16 to 0.17 Lower
Cash Bond		0.33	0.11 Higher	NS
Commercial Bond			0.22	0.14 to 0.16 Lower
Pretrial Services				0.38
* Indicates partial support				
2008				
<i>Bail Type</i>	<i>Attorney Bond</i>	<i>Cash Bond</i>	<i>Commercial Bond</i>	<i>Pretrial Services</i>
<i>Attorney Bond</i>	0.29	NS	.11-.12 higher	NS
<i>Cash Bond</i>		0.3	.15-.18 higher	NS
<i>Commercial Bond</i>			0.17	.10-.11 lower
<i>Pretrial Services</i>				0.26
* Indicates partial support				

NS: No statistically significant difference.

2012 Misdemeanor Defendants: Average Treatment Effects: Failure to Appear (Unconditioned rates on the diagonal)				
Bail Type	Attorney Bond	Cash Bond	Commercial Bond	Pretrial Services
Attorney Bond	0.30	NS	NS	NS
Cash Bond		0.33	0.09 Higher	NS
Commercial Bond			0.24	0.05 Lower
Pretrial Services				0.27
<i>2008</i>				
<i>Bail Type</i>	<i>Attorney Bond</i>	<i>Cash Bond</i>	<i>Commercial Bond</i>	<i>Pretrial Services</i>
<i>Attorney Bond</i>	0.37	NS	.10-.11 higher	NS
<i>Cash Bond</i>		0.3	.08 higher	NS
<i>Commercial Bond</i>			0.27	.12-.13 lower
<i>Pretrial Services</i>				0.4
<i>NS: No statistically significant difference.</i>				

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.

The table immediately below presents the results from the 2012 analysis. Further below are the 2008 results for reference.

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 further table below for 2008, we expect that for every 1,000 defendants released by way of an attorney bond an extra 7 to 13 percent of defendants will FTA, compared to similar defendants released via a commercial bond. The mid-point (half the distance between the range) of that estimate being 10% or (10 = [6/2] + 7). This equates to an additional cost of \$60,350 for FTA processing (\$603,500 x .10 = \$60,350) for those 1,000 defendants released via an attorney bond who were equally likely to have been released on a commercial 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 -\$60,350. Because there was no difference in the effect of release type on FTA between attorney bonds and cash bonds, the cost difference was assumed to be \$0.

2012 COSTS of Failure to appear for 1,000 similar defendants released from jail.

All Charge Types

	Attorney	Cash	Commercial	Pretrial
Attorney	\$537,825	\$0	\$37,648	\$0
Cash	\$0	\$583,975	\$55,478	\$0
Commercial	-\$37,648	-\$55,478	\$417,125	-\$29,199
Pretrial	\$0	\$0	\$29,199	\$532,500

Felonies

	Attorney	Cash	Commercial	Pretrial
Attorney	\$536,050	\$0	\$42,884	\$0
Cash	\$0	\$591,075	\$65,018	\$0
Commercial	-\$42,884	-\$65,018	\$392,275	-\$58,841
Pretrial	\$0	\$0	\$58,841	\$681,600

Misdemeanors

	Attorney	Cash	Commercial	Pretrial
Attorney	\$541,375	\$0	\$0	\$0
Cash	\$0	\$589,300	\$53,037	\$0
Commercial	\$0	-\$53,037	\$434,875	-\$21,744
Pretrial	\$0	\$0	\$21,744	\$472,150

2008 COSTS of Failure to appear for 1,000 similar defendants released from jail.

All Charge Types

	Attorney	Cash	Commercial	Pretrial
Attorney	\$603,500	\$0	\$60,350	\$0
Cash	\$0	\$514,750	\$48,901	\$0
Commercial	-\$60,350	-\$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

From this analysis, which was based on model estimated differences that compared similarly situated defendants (i.e., apples-to-apples) for 2012, 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. Where the differences were \$0, there was no statistically significant difference between the two types of release.

Highlights from the Above Analysis:

- Commercial bonds tend to be the most cost effective for the 2012 data, in terms of FTA as defined here.
- For misdemeanors, pretrial services ranks 2nd in cost effectiveness based on the 2012 data, followed by cash, then attorney bonds. This was a major improvement in comparison to the 2008 study.
- For felony defendants, commercial bonds are considerably more cost effective, though FTAs for this group of defendants increased across the board for 2012.
- The rank order of cost effectiveness for felonies changed in 2012 to: 1) Commercial, 2) Attorney, 3) Cash, and 4) Pretrial Services bonds.

RECOMMENDATIONS FOR POLICY

- FTA is a complex issue. The measurement of FTA available in Dallas County at present could be improved considerably. FTA is driven by non-appearances to scheduled court data, then ultimately (and in the most serious cases) to a formal change in bond status (i.e., bond forfeiture). Dallas County would be wise to mandate standardized data collection on court appearance via a range of measures to better understand the true costs associated with FTA. A State mandate required courts to record and maintain this information would be ideal.
- Formal change in bond status is highly discretionary. Courts do not have a standard to follow other than what they deem most appropriate, and this is contextualized on an *ad hoc* basis. This level of discretion, while important, should be captured by data collection and made available for “best practices” assessments.
- These findings, in tandem with those from 2008, are highly suggestive that FTA is much more likely among felony released via pretrial services bonds. Conversely, these 2012 results indicate a sizeable improvement in performance by pretrial services for misdemeanor defendants. With further validation, it may be worth considering limiting pretrial services releases to lower risk misdemeanants only, focusing all efforts therein, should the pretrial services department not undergo major operational modifications in the near future. Through this approach, pretrial services may be able to both reduce the jail population and be successful in ensuring that their defendants are present in court and their bonds are not forfeited.
- Commercial bonds continue to be successful in terms of reducing the likelihood of FTA/bond forfeiture. Based on these results, like defendants released via cash bonds are between 27 and 33 percent more likely to FTA in comparison to commercial bonds. Further, the gap in performance between cash and commercial bonds increased by 10 percent from 2008 to 2012. It may be worth discussing a scenario where courts recommend/required that the highest risk misdemeanor defendants are released via commercial bond since commercial bonds at least deliver some form of supervision and the responsibility of appearance falls to the bonding company.
- Dallas County IT is strongly encourage to maintain the data explore queries and establish consistency in field/column names to ease future studies and validation, along with a standard export file type; we recommend explore in comma delimited (.csv) files only or pipe delimited only “|”.
- Pretrial Services has mentioned the possibility of moving to increased levels of supervision among defendants (e.g., telephone reminders, risk assessment tools, etc.). These tactics are well advised and the effects of such interventions should be appropriately evaluated to ensure success.
- It is recommended that the county focus efforts on ensuring that individuals are available for justice (i.e., appear in court). The focus should be on maximizing appearance and not on collecting fees from forfeitures due to potentially unseen costs associated with FTA.

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 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% (caliper = .001) 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.

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 services 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 services 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).

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
Age²	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.

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.

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 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 inmate's 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)

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