

## Data Dictionary for Miami-Dade:

### ***Background:***

For reference, Miami-Dade bookings data was downloaded from the following source: <https://opendata.miamidade.gov/Corrections/Jail-Bookings-May-29-2015-to-current/7nhc-4yqn> on January 19, 2018. As of that date, there were 205,843 bookings since 2015. Since we are only interested in driving with license suspended and related charges, I created a category of relevant charges, which include the following charges:

- *DWLS (No Prior Felony)*
- *DWLS/2ND OFFENSE*
- *DWLS/3RD & SUBS OFFN*
- *DWLS/FIN RESP/REFUSE*
- *DWLS/FIN SUSP/SUB V (subsequent violation)*
- *DWLS/FINANCIAL SUSP*
- *DWLS/HABITUAL*
- *DWLS/KNOWINGLY*

I then proceeded to filter on the bookings data to return defendants that had at least one of those charges! After performing this filter, we are left with 15,023 defendants that had at least on of these charges.

### ***Naïve Analysis, All 15,023 defendants:***

If we were to perform a “Naïve Analysis” on these 15,023 individuals, this would be the result:

year <dbl>	n <int>	FTP.Ratio <dbl>	one.day.cost <dbl>	two.day.cost <dbl>	average.stay <dbl>
2015	2833	142	32660	65320	1045120
2016	4050	203	46690	93380	1494080
2017	3919	196	45080	90160	1442560
2018	4057	203	46690	93380	1494080
2019	164	9	2070	4140	66240

The above numbers were calculated using the following methodology:

- Average length of stay (ALOS) over the past 180 days as reported by Miami-Dade Corrections and Rehabilitation: 33.20 (as of January 22, 2019).
- Ratio of total DWLS charges related to Failure to Pay is computed in the following way:
  - In calendar year 2017 (CY 2017), there were 309,484 license suspensions in Miami-Dade county. Of these 309,484 license suspensions, 16,574 were the result of “**Fail to Pay Ct Financial Obligation.**” This means that about 5% of license suspensions in Miami-Dade county result from **Failure to Pay**.
- Apply the 5% ratio to the total number of DWLS bookings (n) for each year; the FTP.Ratio represents the number of bookings that are probably due to Fail to Pay Ct Financial Obligation. For example  $(4050) * .05$  is 203. The following calculations are range estimates for these people. If we assume defendants stayed in prison 1 day, then multiply  $230 * 203$  to get a total one.day.cost of 46,690 for the year. If they stayed two days we get a total two.day.cost of 93,380 ( $2*230*203$ ) for the year. Finally, the average.stay represents multiplying the ALOS of stay in Miami-Dade Corrections and

Rehabilitation, which is less than or equal to 30 days (230\*30\*203)-- thereby leading to a cost of 1,400,700.

*Limitations of the Naïve Analysis:*

- The numbers are not high, but they do make sense
- The numbers could potentially get lower because defendants could have other charges with the DWLS charges, such as major felonies or even the possession of marijuana, which is a jailable offense in Florida. If that is true then we should not count these people or according to Mike's thought we should only count a "portion" of these people in the final number.

**Moving forward:**

It would be in our best interest to determine and pinpoint the people that are actually being booked and jailed for DWLS and not for other charges that could potentially "overshadow" the DWLS charge.

I was able to use the statutes from the bookings dataset and find what the exact statutes mean and what they're charged as (Felony, Misd, Traffic, Infraction, etc.) from [Miami-Dade County CJIS Offense Listing Active Statutes as of 01/07/2019](#).

I decided to create different dummy variable categories that would profile DWLS bookings  
The different dummy variable categories are as follows:

- **1. DWLS\_ONLY:** Defendant's with only DWLS codes (322 & 324 codes). Either all three, all two, or all one are classified as DWLS charges:
  - DWLS/HABITUAL
  - DWLS/3RD & SUBS OFFN
  - DL/POSN OF STOLEN
  - DL/DRV WHL PERM/REVK
  - DL/POSN OF INSTR SIM
  - DW/OL/DWLS/DEATH, INJ
  - DL/POSN SIMILITUDE
  - DL/ID/DEL/STOLE
  - DL/DRV WHL PERM/REVK
  - DWLS/KNOWINGLY"
  - DWLS/FINANCIAL SUSP
  - DWLS/2ND OFFENSE
  - DWLS-NO PRIOR FELONY
  - NO VALID DRIVERS LIC
  - DL/EXPIRED 6 MTHS
  - NO M/CYCLE ENDRSEMNT
  - DWLS/FIN SUSP/SUB V
  - DL/MOTORCYCLE ENDORS
  - NO CDL
  - DL/POSN SUSPENDED
  - "DL/NON-RESIDENT REQ
  - VIOL/DL RESTRICTIONS
  - USE OTH DL/FL LIC SU
  - DL/EXPIRED 4 MTHS+
  - DL/FALSE DISPLAY
  - DL/ID/ALT DOB/POSN
  - DL/>THAN 1 FLORIDA
  - DL/PERMIT UNLAW USE
  - DISP/POSS/FALSE ID
  - DL/FAIL TO SURRENDER
  - ID CARD/UNLAWFUL USE
  - DL/UNLAW USE/TWO NMS
  - DWLS/FIN RESP/REFUSE
- **2. DWLS\_FELONY:** Indicates if the individual has at least one DWLS Felony Charge. DWLS Felony Charges are the following:
  - "DWLS/HABITUAL"
  - "DWLS/3RD & SUBS OFFN"
  - "DL/POSN OF STOLEN"
  - "DL/DRV WHL PERM/REVK"
  - "DL/POSN OF INSTR SIM"
  - "DW/OL/DWLS/DEATH, INJ"
  - "DL/POSN SIMILITUDE"
  - "DL/ID/DEL/STOLE"

- 3. **DWLS\_HIGH**: Those that are MOST Likely only in for DWLS, they must have a combination of the DWLS\_ONLY charges and the following charges:
  - "BENCH WARRANT",
  - "OUT-OF-CNTY/WARRANT"
  - "ALIAS CAPIAS"
  - "PROBATION WARRANT"
  - "ARREST WARRANT"
  - "WRIT/BODILY ATTACH"
  - "PROBATION VIOLATION"
  - "OUT ON FELONY BOND"
  - "PRETRIAL REL/VIOULATE"
  - "BOND SURRENDER"
  - "HOLD FOR MAGISTRATE"
  - "OUT ON PROBATION"
  - "CAPIAS"
  - "WRIT OF ATTACHMENT"
- 4. **Serious\_Driving\_Traffic**: In Miami-Dade, statutes that begin with 316-320 deal with driving/traffic citations. I decided to combine all the statutes from these codes and create the Serious\_Driving\_Traffic variable.

In this variable, a person is demarcated with an "S" (Serious), if they have any of the felony charges from the 316-320 codes, these charges are as followed:

- "FLEE/ELUDE PO/LTS/SR"
- "FLEE/ELUDE PO"
- "LSC/NO SERIOUS INJUR"
- "LSC/SERIOUS BOD INJU"
- "DUI/4TH OR SUBS OFF"
- "FLEE/ELUDE PO/HGH SP"
- "FLEE/ELUDE PO/ATTMPT"
- "DUI/3RD OR SUB CONV"
- "VEH/POSN W/TANK"
- "AGG FLEE/INJ/DAMAGE"
- "DUI/SERIOUS INJURY"
- "RECK DRV/SER INJURY"
- "LSC/INJURY/7-1-14"
- "LSC/INJURY/AT/7/1/14"
- "VEH/ALT ID/POSN/SALE"
- "VEH TITLE/FRAUD/APPL"
- "VIN/POSN COUNTERFEIT"
- "VEH TITLE/POSN/FRAUD"
- "STLN VEH/PROC TITLE"
- "VEH TITLE/FORGED/USE"
- "VIN PLATE REMOV/POSN"
- "LIC/REGISTR/COUNTERF"

Someone is demarcated with an "NS" (Not Serious), if they have any of the misdemeanor, traffic, or infraction charges from the 316-320 codes, these charges are as followed:

- "VEH/DRIVE ON SDWLK"
- "VEH WIHDSH/VIOLATION"
- "VEH INSURANCE/PROOF"
- "VEH/STOP/PARK"
- "LANE CHNG/IMPROPER"
- "CARELESS DRIVING"
- "VEH/DRIVE/UNSAFE"
- "TRAFFIC/IMPROP TURN"
- "FAILURE TO YIELD"
- "SEAT BELT VIOLATION"
- "STP/STND/PK VEH/PROH"
- "DRIVING W/O HEADLTS"
- "IMPROPER U-TURN"
- "MOTORCYCL EQUIP VIOL"
- "SPEEDING/STATE ROAD"
- "TRAFFIC DEV/DISOBAY"
- "VEHICLE WITH NO TAG"
- "WINDOW/BEHIND/DR/TIN"
- "VEH/YIELD/INTERSECTN"
- "SPEEDING/MUN, CNTY"
- "DRIVE WRONG DIRECTN"
- "VEH SIDE WIND/RESTR"
- "IMPR USE OF HIGBEAM"
- "NO TAG/REGISTRATION"
- "DUI/BREATH LEVEL"
- "DUI"
- "LSA/PROP DAMAGE"
- "DUI/DAM/PROP/PERSON"
- "RECKLESS DRIVING"
- "DUI/DWI/TEST/2ND>"
- "DUI/NRML FAC IMPAIRED"
- "LSA/DAM/UNATT VEH"
- "DUI/DWI/2ND TEST/REF"
- "PO/FF/FAIL TO OBEY"
- "DUI/DWI/REF TO TEST"
- "DRAG RACING/HWY"
- "DUI/MINOR/OR .15 >"
- "DUI/BOD INJ ANOTHER"
- "ACCIDENT/FALSE RPT"
- "INS/PRF REQ/MISREP"
- "INTRF/TRF/RR/SIGN"
- "DRG RCNG/HWY/TRAFFIC"
- "OBSTR TRAFF/SOLICIT"
- "RECK DRV/DAMAGE"
- "MOT VEH UNATT >15MIN"
- "POL, FIRE/FAIL OBEY"
- "REFUS TO SIGN SUMMON"
- "REG/EXP/>6MOS/SUB OF"

- |                          |                          |
|--------------------------|--------------------------|
| ○ "VEH REG/NOT HAVE"     | ○ "NON/MOV MIS DEAL LIC" |
| ○ "TEMP TAG MISUSE"      | ○ "VEH REG/FALSE REP"    |
| ○ "LICENSE/UNLAW ALTER"  | ○ "VEH/ATT LIC NOT ASSG" |
| ○ "HANDICP PMT/UNL USE"  | ○ "VEH REG/NON-RESIDENT" |
| ○ "TAG NOT ASSIGNED VEH" | ○ "RCKLS DRVNG/DMG/PR/P" |
| ○ "VEH REG/EXP > 6 MNTH" | ○ "VEH REG/EXP/< 6 MOS"  |
| ○ "REG/ADDR CHANGE"      |                          |

Someone is demarcated with "None", for those who do not have any traffic charges (316-320 codes)

- **5. *minor\_offenses*** – Does the individual have a minor offense – either a County, Municipal, or Noncriminal ordinance – these charges include the following:
 

○ "MARIJUANA/POSSESSION"	○ "STOLEN PROPERTY/POSN"
○ "OBSTRUCT POLICE/FIRE"	○ "ALCOHOL/PUB/MIA BCH"
○ "DRUG PARA/SALE/PROH"	○ "REFUSAL SUB BREATH"
○ "ALC/OPN CONT/VEHICLE"	○ "DUMPING/LITTER LAW"
○ "RESIST ARR W/O VIOL"	○ "INVALID CHARGE"
○ "TRESPASS"	○ "OUT-OF-CNTY/WARRANT"
  
- **6. *major\_felony*** – Felonies in the following statute codes (403, 499, 775, 777, 782, 784, 787, 790, 794, 796, 806, 810, 812, 817, 827, 828, 831, 838, 843, 859, 893, 901, 914, 918, 934, 943, 944, 951). Indicates whether someone has a major\_felony charge:
 

○ FLORIDA LITTER LAW	○ "WEAPON/USE COMT FEL"
○ "PRESCR DRUG/POSSESS"	○ "FIREARM/ALTER ID"
○ "SEX PRED/REG/PRO LOC"	○ "WEAP/POSN/COMT OFFN"
○ "ACC AFT FCT/CAP OFF"	○ "DEADLY MSL/THR/CONSP"
○ "MUR 2/WEAP/AG BAT/AT"	○ "SEX BAT/SC/V>18/D>18"
○ "VEH HOM/RECKLESS"	○ "PROST/COMMIT/ENGAGE"
○ "BATTERY/AGGRAVATED"	○ "PROST/2ND VIOLATION"
○ "BATTERY"	○ "PROST/DERIVE SUPPORT"
○ "BATTERY/LEO/COR/FIRE"	○ "CRIM MIS/200-1000"
○ "BATTERY/AGG/DWEAP"	○ "FIRE/OBSTRUCT EXTIN"
○ "BATTERY/AGG/POL/FIRE"	○ "ARSON 2ND DEGREE"
○ "BATTERY/AGG/PREGNANT"	○ "CRIM MIS/1000+"
○ "ASSAULT/AGG/DWEAP"	○ "CRIM MIS/1000>/ARMED"
○ "ASSAULT/AGG/LEO"	○ "BURG/OCC/DWELL/ATT"
○ "STALKING"	○ "BURGLARY/OCC/DWELL"
○ "ASSAULT/AGG/FIREARM"	○ "BURGLARY/UNOCC/PREJU"
○ "BATTERY/FELONY"	○ "BURGLARY/UNOCC CONVY"
○ "BATT/AGG/BODHRM/WEAP"	○ "BURGLARY/OCC/STRUCT"
○ "ASSAULT/AGG/DW/MASK"	○ "BURGLARY TOOLS/POSN"
○ "BATT/AGG/DDY WPN/ATT"	○ "BURGLARY/ASSLT/ARMED"
○ "BATTERY/ELDERLY"	○ "BURG/ASLT/BATT - PBL"
○ "BATTERY/AGG/LEO"	○ "BURGLARY/UNOCC/DWELL"
○ "BATTERY/ATTEMPT"	○ "BURG/UNOCC DWELL/ATT"
○ "BATT/DOM/STRANGLE"	○ "GRD THEFT/3D/VEHICLE"
○ "ASSAULT/AGGRAVATED"	○ "STOLEN PROP/DEAL IN"
○ "HUMAN TRA<18PBL10/14"	○ "ROBBERY/STRONGARM"
○ "FA/WEAP/POSN/FEL/DEL"	○ "GT 3RD/VEHICLE/CONS"
○ "CONCEALED F/A /CARRY"	○ "GRAND THEFT 3RD DEG"
○ "CCF/POLICE SCANNER"	○ "RBRY/ARM/FA/DW - PBL"
○ "FIREARM/USE COMT FEL"	○ "GRAND THEFT/MV/I/DAM"
○ "F/A POSN/CAREER CRIM"	○ "GRAND THEFT 2ND DEG"
○ "FA/WEAP/POS/FEL/ATT"	○ "ROBBERY/ARMED/WEAPON"
○ "CONCLD FA/CARRY/ATT"	○ "GRD THEFT/3D/FIREARM"
○ "FIREARM/DISCH/VEH"	○ "HIRE PROP/REDLV/300+"
○ "CON WEA/FELON/MASK"	○ "ROBB/CRJCK/ARM - PBL"
○ "FA/WEAP/POS/FEL/CON"	○ "GRAND THEFT 1ST DEG"

- "HIRE PROP/TRICK/300+"
- "RETAIL THEFT/300>"
- "DEAL STOL PROP/SOLIC"
- "STOLEN PROP/DL/CONSP"
- "GRND THFT/VEH/SOLICT"
- "ROBBERY/CARJACKING"
- "GRAND THFT 2ND/CONSP"
- "GRAND THFT 3RD/SOLCT"
- "GRAND THEFT/ARM/CONS"
- "GRAND THEFT 3D/CONSP"
- "ROBBERY/ARMED/MASK"
- "G THFT/VEHICLE/ATTEM"
- "ROBBERY/STRNGARM/ATT"
- "PETIT THEFT 2> CONV"
- "ANTISHPLFT DEV/USE"
- "GND THFT/VEH/ARMED"
- "CREDIT CARD/EQUIP"
- "UNLAW POSS 5+ INDET"
- "CREDIT CARD/TRAFFICK"
- "HIRED VEH/FAIL REDEL"
- "VEH INS CARD/FALSE"
- "CREDIT CARD/FORGERY"
- "ID/USE/POS/FRAUD/CON"
- "ID/USE/POSS/FRAUD"
- "ID/USE/POSSESS/FRD"
- "UNLA POSS STO CREDIT"
- "VEHICLE/OBT BY TRICK"
- "CREDIT CARD/TRF/5-14"
- "CREDIT CARD/TR/15-49"
- "ID/FRD USE/ATTEMPT"
- "CREDIT CARD/DEALING"
- "CHILD NEG NO GR HARM"
- "CHILD ABUSE/AGG/90"
- "CHILD ABUSE/NO HARM"
- "ANIMAL/CRUELTY/INTNT"
- "CNTRFT/LBEL>2500<20K"
- "CONT SUB/PRES BLNK"
- "CNFT/PMT INSTRUMENT"
- "UTTER/FRG/CHECK/ATTP"
- "UTTERING/CHECK"
- "FORGED NOTES/POSN"
- "PUB SERV/THREATEN"
- "PUB SRV/INF PRF/HARM"
- "RESIST OFF W/VIO/FIR"
- "RESIST OFF W/VIO"
- "FLS PERSONATE OFF"
- "TAMPER/ELEC/MONITOR"
- "NARCOTICS/NO PRES"
- "CANN/SELL/DEL/PSNW/I"
- "COCAINE/SELL/MAN/ATT"
- "COCAINE/POSSESSION"
- "CANNABIS/POSN/20+"
- "CONT SUBS/POSS"
- "CANNAB/PUR/POS/SOLIC"
- "CONT SUB/SELL/DEL"

- "CANN/SELL/DEL/ARMED"
- "COKE/SELL/DEL/W/INT"
- "CANN/SELL/DEL/ATTEMP"
- "HER/SELL/DEL W/INT"
- "COKE/SCHOOL/CONSP"
- "COKE/SELL/DEL/ATTEM"
- "COCAINE/PURCHASE"
- "HASH/SELL/POSS/W/INT"
- "ILLDRG/TRF/28G>/<30K"
- "CANN/PURCH/CONSPIRAC"
- "SYN NARC/SELL/DELIV"
- "CONT SUB/PUR/POS W/I"
- "CANN/POSN/OVER 20/AR"
- "CANNABIS/PURCH/ATTMT"
- "PHEN/ECSTASY/TRA/>10"
- "COKE/TRFK/ATTEMPT"
- "CANNABIS/SALE/PRIN"
- "METH/SELL/DEL/W/INT"
- "CON SUB/DEL/SELL/ARM"
- "COCAINE/POSN/F/A"
- "CONT SUBS/SELL/DEL"
- "CONT SUBS/FRAUD"
- "CANN/SELL DEL/SOLIC"
- "CONT SUB/POSN/ARMED"
- "COKE/TRFK/28>/<150K"
- "COCAINE/SELL/SCHOOL"
- "COCAINE/PUR/ATTEMPT"
- "HER/SELL/DEL/W/INT/P"
- "CANN/TRF/25-2000LBS"
- "COCAINE/POSS/CONSP"
- "COKE/SELL/DEL/SOLICI"
- "CANN/SELL/POS/COLLEG"
- "CONT SUBS/POSN/>10GR"
- "DRUGS/TRAFFICKING"
- "AMPHET/TRAFF/ATTEMPT"
- "CANNABIS/SALE/SCHOOL"
- "TRANSPORT/DRUG/PARAP"
- "CONT SUBS/PURCHASE"
- "CANNABIS/PURCHASE"
- "COCAINE/POSS/ATTEMPT"
- "CONT SUB/PUR/POS/SOL"
- "CANN/SELL/POSN W/INT"
- "COCAINE/PUR/POS/SOLI"
- "FLS NAME/ID/AFT ARRT"
- "TAMPER/WIT/VIC/MISD"
- "TAMPER W/EVIDENCE/AT"
- "TAMPER/PHYS EVIDENCE"
- "WARR/OBST/IMPEDE"
- "SEX OFFND/FAIL TO RE"
- "SEX OFND/VIO REGIST"
- "SEX OFF/CHNG ADD7/16"
- "SEAL/PETN/FALSE INFO"
- "ESCAPE"
- "INTRO ARTICLE/JAIL"

## Analysis II: Removing those with any non-DWLS Felony Charge

If we repeat the analysis removing the (1,398) people that had a non-DWLS major felony charge, here are the results. As you can see, they obviously decline because we are removing people from our analysis.

year <dbl>	n <int>	FTP.Ratio <dbl>	one.day.cost <dbl>	two.day.cost <dbl>	average.stay <dbl>
2015	2626	132	30360	60720	910800
2016	3699	185	42550	85100	1276500
2017	3537	177	40710	81420	1221300
2018	3617	181	41630	83260	1248900
2019	146	8	1840	3680	55200

### Limitations

If someone is convicted with a major felony and DWLS charge, how can we be sure that the other felony charge is not from another time and the DWLS is due to someone missing court for that felony charge? Unfortunately, the dataset has poor documentation.

### Resulting Questions/Thoughts to Address to Improve Analysis or Further Confirm Results:

- It is most likely that if someone doesn't have a DWLS felony charge, we can assume that they are staying in prison for 1 or 2 days max, but if we could get the exact number it could bring the number up, but probably not by much!
- The License Suspension Data from Florida DHMSV has other charges that could perhaps drive the ratio number up. In line with the 2014 paper, [Florida Legislature OPPAGA: Options to Exist Modify Use of Driver License Suspension for Non-Driving-Related Reasons](#), I divide the total number of license suspensions in Miami-Dade by the total number of license suspensions due to Failure to Pay Court Financial Obligations (FTP license suspensions /total license suspensions) to compute the FTP ratio. However, there are other "sanctions," such as "Criminal-Fail to Pay" and "Criminal-Failed to Appear" that I am not sure if I should include or not.
  - **We would most likely have to contact the DMV to get further clarification on what these sanctions mean – but they have been dodging our emails.**
- Are those being booked for DWLS and other charges being booked for the DWLS or the other charge? Should we count them and if so how do we rectify it ?
-