Rehabilitative Programs & Services
Research & Decision Support Analysis

# SHORT-TERM JAIL CONFINEMENT (QUICK DIPS) EFFICACY

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# SHORT-TERM JAIL CONFINEMENT (QUICK DIPS)

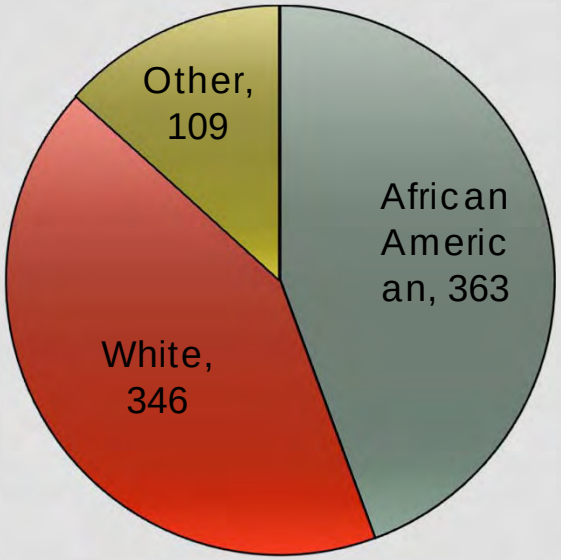
- The Justice Reinvestment Act 2011
- Delegated Authority
- Quick dips: 2 or 3 day periods of confinement in Jail
- Swift and Certain Response to Non-Compliance
- Implemented in July 2012

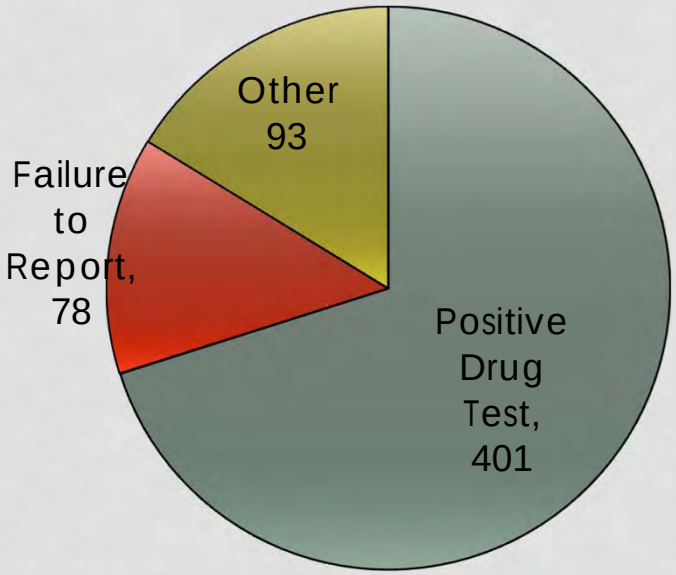
***Commissioner W. David Guice***

# ANALYSIS

- Quick Dip Group
  - 368 that received a quick dip through delegated authority in response to their first violation
- Comparison Group
  - 368 offenders that did not receive a quick dip in response to their first violation
  - Matched on criminal history, demographic characteristics, and type of violation using propensity score matching (PSM)
- Outcome measures
  - Intermediate Outcomes
    - Quick dips, confinement in response to a violation (CRV), delegated authority conditions other than a quick dip
  - Supervision outcomes

# SAMPLE




- Age Ranged from 16 to 61 with the average of 29
- 581(78.9%) Males, 155 (21.1%) Females

# MATCHING

- Variables likely to Predict Non-Compliance or Selection for a Quick Dip
  - White
  - Adult
  - Felon
  - Supervision Level 3 or Lower
  - Family Environment/Living Situation
  - Substance Abuse Need
  - Supervised in an Urban or Rural County
  - Prior NC Misdemeanor Convictions
  - Prior NC Community Supervision Sentence
  - Type of first Violation General Non-Compliance
  - Type of first Violation Substance Abuse Non-Compliance

# MATCHING

Covariate Balance between Quick Dip and Comparison Groups before Corrective Modeling

| Variable | *Summary Statistics* | | | | | | *Test of Significance* | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Quick Dip Group** | | | **Comparison Group** | | | | | |
| | **N** | **Mean** | **Std Err** | **N** | **Mean** | **Std Err** | **df** | **t** | **p value** |
| Gender Male | 368 | 0.81 | 0.0204 | 59,667 | 0.73 | 0.00181 | 60,033 | -3.42 | 0.0006 |
| White | 368 | 0.48 | 0.0261 | 59,667 | 0.46 | 0.00204 | 60,033 | -0.76 | 0.4471 |
| Adult | 368 | 0.50 | 0.0261 | 59,667 | 0.48 | 0.00196 | 60,033 | -5.53 | <.0001 |
| Felon | 368 | 0.46 | 0.0260 | 59,667 | 0.31 | 0.00191 | 60,033 | -5.85 | <.0001 |
| Supervision Level 3 or Lower | 368 | 0.98 | 0.0060 | 59,667 | 0.75 | 0.00177 | 60,033 | -10.80 | <.0001 |
| Family Environment/Living Situation | 368 | 0.75 | 0.0226 | 59,667 | 0.68 | 0.00191 | 60,033 | -2.87 | 0.0041 |
| Substance Abuse Need | 368 | 0.75 | 0.0226 | 59,667 | 0.63 | 0.00198 | 60,033 | -4.80 | <.0001 |
| Supervised in Urban County | 368 | 0.44 | 0.0259 | 59,667 | 0.38 | 0.00199 | 60,033 | -2.35 | 0.0185 |
| Prior NC Misdemeanor Convictions | 368 | 0.50 | 0.0261 | 59,667 | 0.50 | 0.00204 | 60,033 | 0.02 | 0.9876 |
| Prior NC Community Supervision | 368 | 0.49 | 0.0257 | 59,667 | 0.49 | 0.00204 | 60,033 | -1.23 | 0.2183 |
| General Non-Compliance | 368 | 0.23 | 0.0221 | 59,667 | 0.14 | 0.00142 | 60,033 | -5.12 | <.0001 |
| Substance Abuse Non-Compliance | 368 | 0.57 | 0.0258 | 59,667 | 0.24 | 0.00173 | 60,033 | -15.60 | <.0001 |

# MATCHING

Covariate Balance between Quick Dip and Comparison Groups after Corrective Modeling

| Variable | *Summary Statistics* | | | | | | *Test of Significance* | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Quick Dip Group** | | | **Comparison Group** | | | | | |
| | **N** | **Mean** | **Std Err** | **N** | **Mean** | **Std Err** | **df** | **t** | **p value** |
| Gender Male | 368 | 0.81 | 0.0204 | 368 | 0.77 | 0.0221 | 734 | -1.54 | 0.1247 |
| White | 368 | 0.48 | 0.0261 | 368 | 0.46 | 0.0260 | 734 | -59.00 | 0.5553 |
| Adult | 368 | 0.50 | 0.0261 | 368 | 0.50 | 0.0261 | 734 | 0.00 | 1.0000 |
| Felon | 368 | 0.46 | 0.0260 | 368 | 0.46 | 0.0260 | 734 | 0.00 | 1.0000 |
| Supervision Level 3 or Lower | 368 | 0.98 | 0.0060 | 368 | 0.98 | 0.0060 | 734 | 0.00 | 1.0000 |
| Family Environment/Living Situation | 368 | 0.75 | 0.0226 | 368 | 0.75 | 0.0226 | 734 | 0.00 | 1.0000 |
| Substance Abuse Need | 368 | 0.75 | 0.0226 | 368 | 0.75 | 0.0226 | 734 | 0.00 | 1.0000 |
| Supervised in Urban County | 368 | 0.44 | 0.0259 | 368 | 0.44 | 0.0259 | 734 | 0.00 | 1.0000 |
| Prior NC Misdemeanor Convictions | 368 | 0.52 | 0.0261 | 368 | 0.54 | 0.0260 | 734 | 0.52 | 0.6056 |
| Prior NC Community Supervision | 368 | 0.58 | 0.0257 | 368 | 0.58 | 0.0258 | 734 | -0.22 | 0.8230 |
| General Non-Compliance | 368 | 0.23 | 0.0221 | 368 | 0.02 | 0.0221 | 734 | 0.00 | 1.0000 |
| Substance Abuse Non-Compliance | 368 | 0.58 | 0.0258 | 368 | 0.58 | 0.0258 | 734 | 0.00 | 1.0000 |

# PROPENSITY SCORE MATCHING (PSM)

- A propensity score was created for each offender using multivariate regression
- Greedy match with nearest neighbor within caliper matching

**Logit Model to create Propensity Scores**

| Parameter | Estimate | SE | Chi-Square | P |
|---|---|---|---|---|
| Intercept | -9.3877 | 0.4659 | 405.928 | <.0001 |
| Adult | 0.2730 | 0.1058 | 6.6649 | 0.0098 |
| Felon | 0.4641 | 0.1059 | 19.2193 | <.0001 |
| Supervision Level 3 or lower[1] | 2.8571 | 0.4524 | 39.8832 | <.0001 |
| Supervised in Urban County[2] | 0.2157 | 0.1060 | 4.1411 | 0.0419 |
| Substance Abuse history | 0.2438 | 0.1217 | 4.0113 | 0.0452 |
| First Violation for General Non-Compliance[3] | 1.6723 | 0.1618 | 106.84 | <.0001 |
| First Violation for Substance Abuse Non-Compliance | 1.9359 | 0.1388 | 194.617 | <.0001 |
| n | 60,035 | | | |
| c | 0.799 | | | |
| Likelihood ratio (9) | 477.2334 | | | |
| p | <.0001 | | | |

# INTERMEDIATE OUTCOMES

- Quick Dips
- Confinement in Response to a Violation(CRV)
- Conditions imposed through Delegated Authority other than a quick dip

# SUPERVISION OUTCOMES

| | Positive Outcome | | Negative[5] Outcome | |
|---|---|---|---|---|
| | Count | Percent | Count | Percent |
| Quick Dip Group | 284 | 77.17% | 84 | 22.83% |
| Comparison Group | 169 | 45.92% | 199 | 54.08% |
| Total | 453 | 61.55% | 283 | 38.45% |

| Statistic | DF | Value | Prob |
|---|---|---|---|
| Chi-square | 1 | 75.9257 | <.001 |

- Positive outcomes included active supervision status, completion, moved to unsupervised probation, and satisfactory termination
- Negative outcomes included absconding, revocation, terminal CRV and unsatisfactorily terminated

# CONCLUSIONS

- Offenders in that received a quick dip had greater supervision compliance than offenders in the comparison group.
- 284 (77.2%) of offenders in the quick dip group had positive outcomes compared to 169(45.9%)
- 234 (63.6%) were still active at the end of the period compared to 99 (26.9%)

# QUESTIONS?