

Review of NIJ's Multi-Site Adult Drug Court Evaluation



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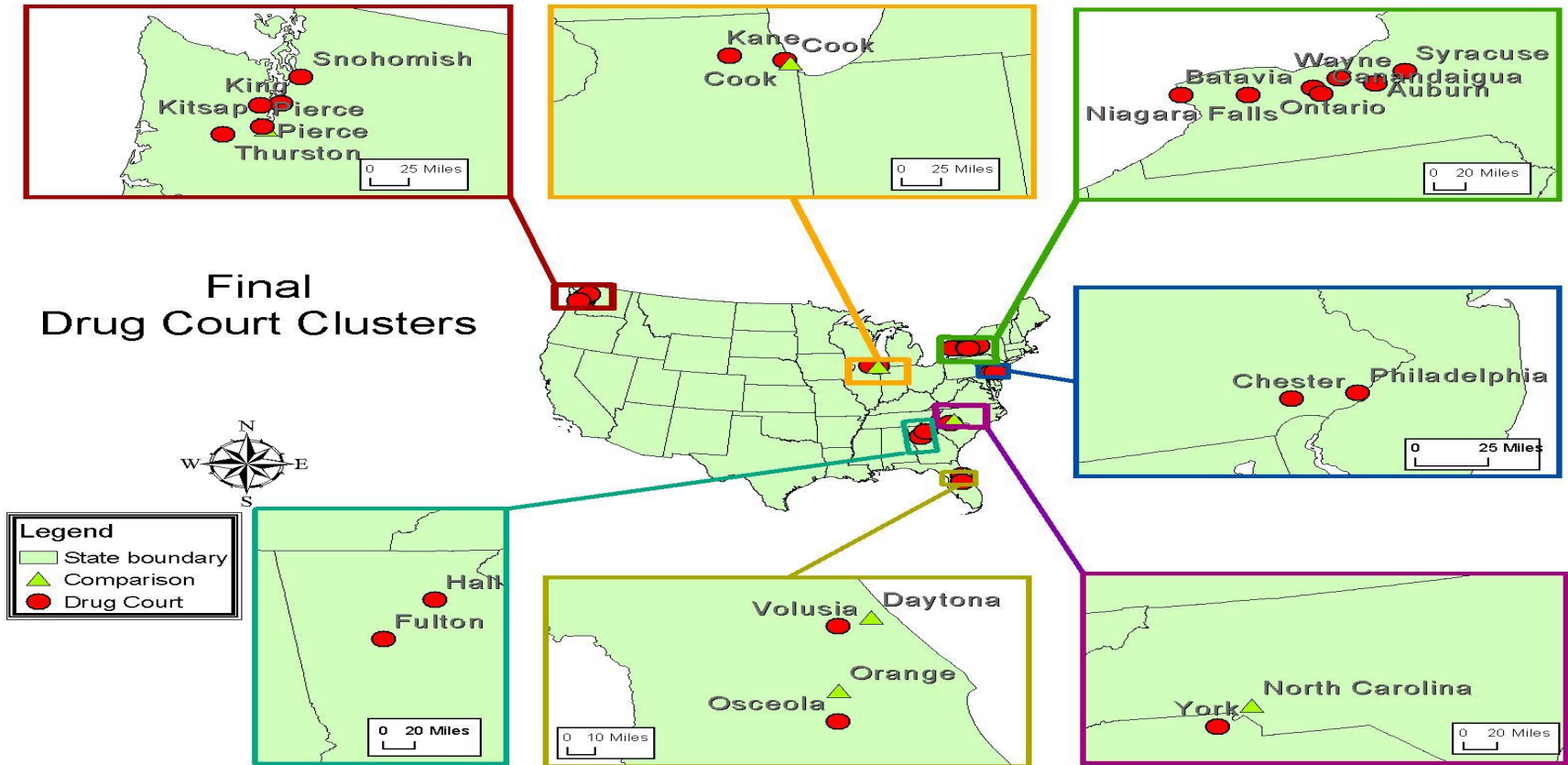
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About the Study

- **Research Partnership:** The Urban Institute, Center for Court Innovation, & Research Triangle Institute, with funding from the National Institute of Justice (NIJ)
- **Drug Court vs. Comparison Sites:**
 - Drug Court: 23 sites in 7 geographic clusters (n = 1,156)
 - Comparison: 6 sites in 4 geographic clusters (n = 625)
- **Repeated Measures:** baseline and multiple follow-ups:
 - Interviews at baseline, 6 months, 18 months
 - Oral fluids drug test at 18 months
 - Official recidivism records up to 24 months

Drug Court and Comparison Sites



Nature of the Intervention: Drug Court vs. Comparison Sites

Interventions Received in Six Months After Baseline

	Drug Court (n = 1,009)	Comparison (n = 524)
Percent of offenders with any treatment	83%***	36%
Average days in treatment	59***	23
Percent with any judicial status hearings	93%***	14%
Average number of status hearings	10.3***	1.2
Percent with supervision officer contact	96%**	71%
Average number of contacts	17.2***	6.4
Percent with any drug test	95%***	61%
Average number of drug tests	30.9***	4.3
Percent receiving any judicial sanction	50%***	15%
Percent receiving praise from the judge	76%***	10%

+p<.10, * p<.05, ** p<.01, ***p<.001.



Impact Methodology (In Brief)

- **Attrition:** Follow-Up Contact Rates at 18 Months:
 - Drug Court: 82% (follow-up N = 951)
 - Comparison Offenders: 84% (follow-up N = 523)
- **Baseline Drug Court vs. Comparison Group Differences:** Significant differences on 37 of 61 baseline characteristics (spanning demographics, community ties, mental and physical health, drug use history, treatment history, and criminal history)
- **Statistical Adjustment:** All results are statistically adjusted to compensate for differences at baseline (“propensity score adjustments” and “super weighting”)



Research Questions (Simplified)

1. Do drug courts reduce drug use, criminal behavior, and other associated offender problems (*do they work*)?
2. Do drug courts generate cost savings for the criminal justice system or other public institutions (*do they save money*)?
3. For which, if any, categories of offenders are drug courts especially effective or less effective (*for whom do they work*)?
4. Which drug court policies and offender perceptions explain their overall impact (*how do they work*)?



Part 1. Do Drug Courts Work?

- **Retention**
- **Drug Use**
- **Criminal Behavior**
- **Other Psychosocial Outcomes:**
 - Socioeconomic Status (education, employment, income)
 - Mental Health
 - Family Support (conflict, instrumental support, emotional support)
 - Homelessness

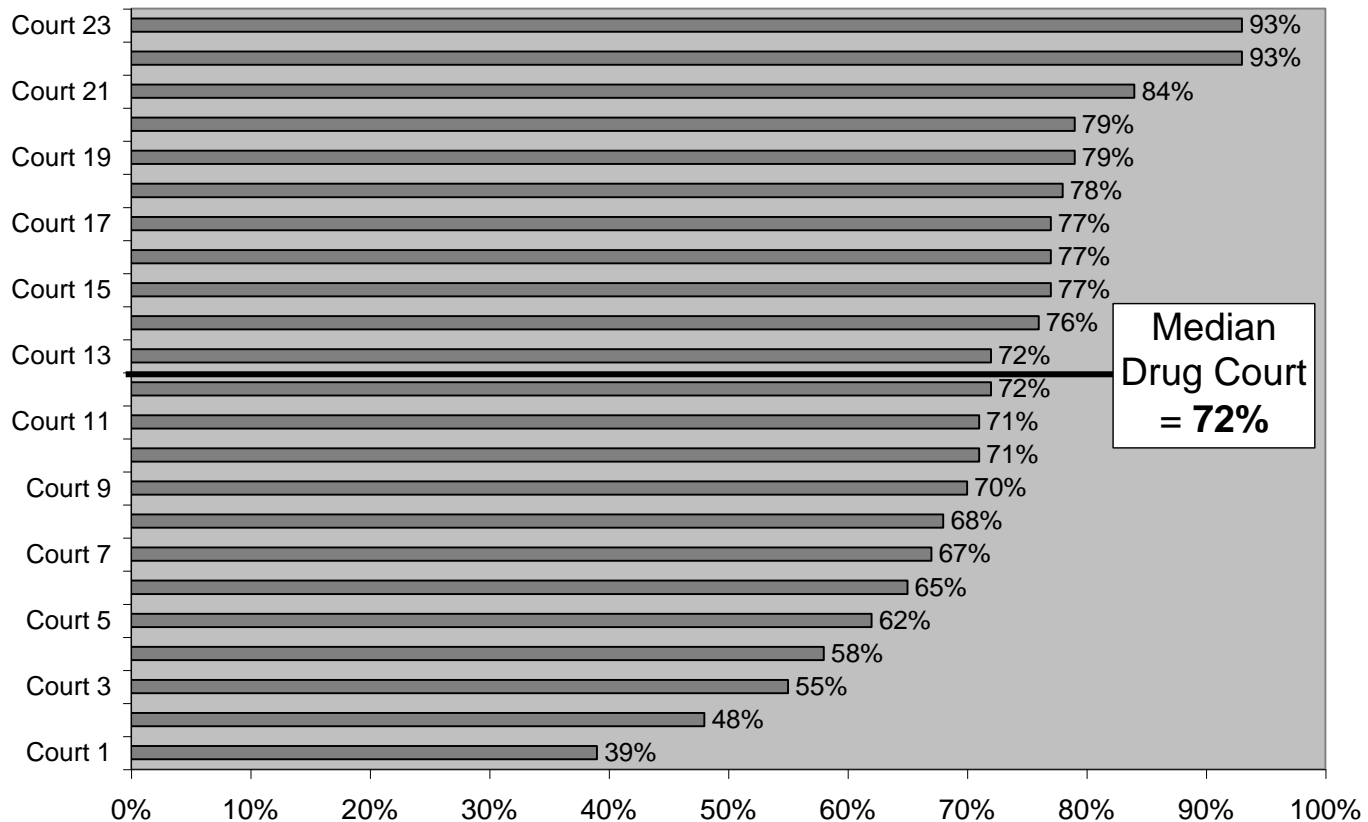


Retention: Literature to Date

- **Significance:** Longstanding treatment literature linking more time retained to less recidivism and drug use at follow-up
- **Treatment Generally:** Low retention rates: e.g., range from 10-30% at one year (Condelli and DeLeon 1993; Lewis and Ross 1994)
- **Adult Drug Courts:** Most commonly cited national one-year retention rate = 60% (Belenko 1998)

18-Month Retention Rates: All 23 Sites in MADCE Study

18-Month Retention Rates By Site (n = 951)





Drug Use: Literature to Date

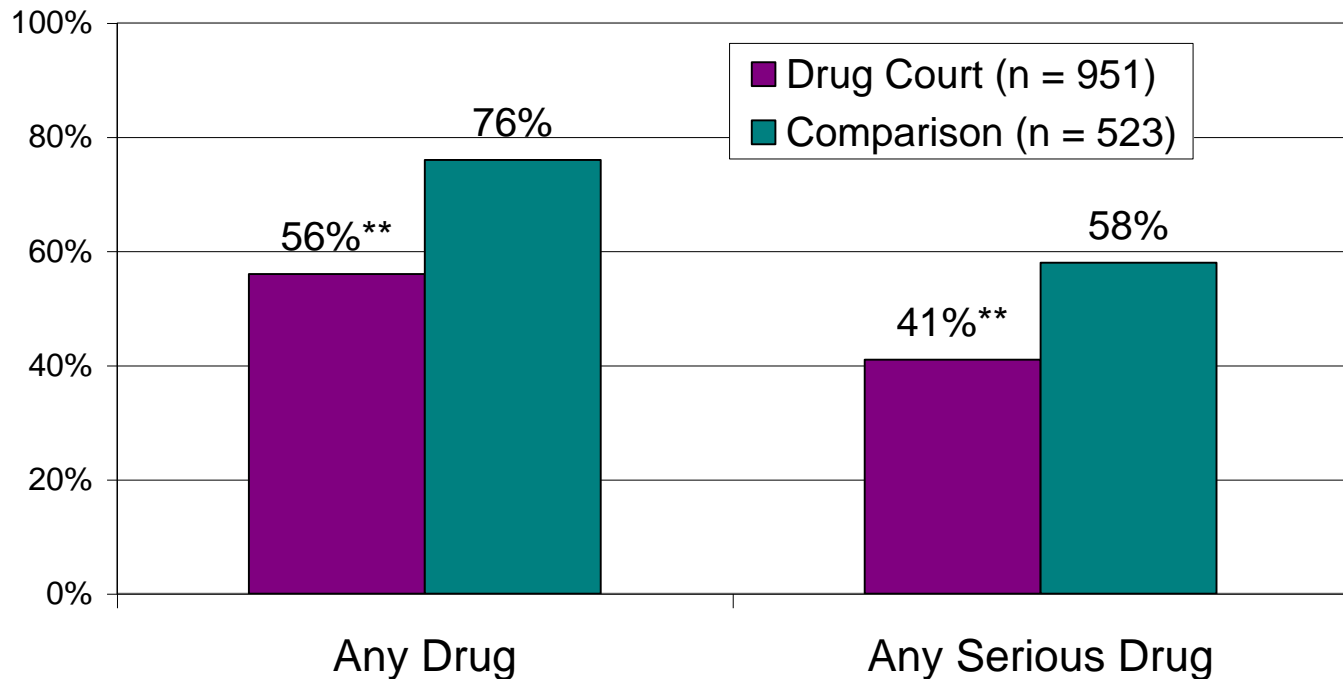
■ Barely Any Prior Research:

- Maricopa County (AZ): Less likely to use “serious” drugs (heroin or cocaine); no effect on marijuana use (Deschenes et al. 1995)
- Brooklyn (NY): Less likely to use drugs over one year (Harrell et al. 2001)
- Baltimore (MD): Fewer days of drug use/month over three years – but effects not statistically significant (Gottfredson et al. 2003)
- Chester County (PA): Less likely to use drugs while in program (or under probation supervision for the comparison group) (Brewster 2001)

■ Low sample size or other design flaws in all prior studies

Drug Use: Year Prior to 18-Month Interview

**Percent Used Drugs:
One Year Prior to 18-Month Interview**

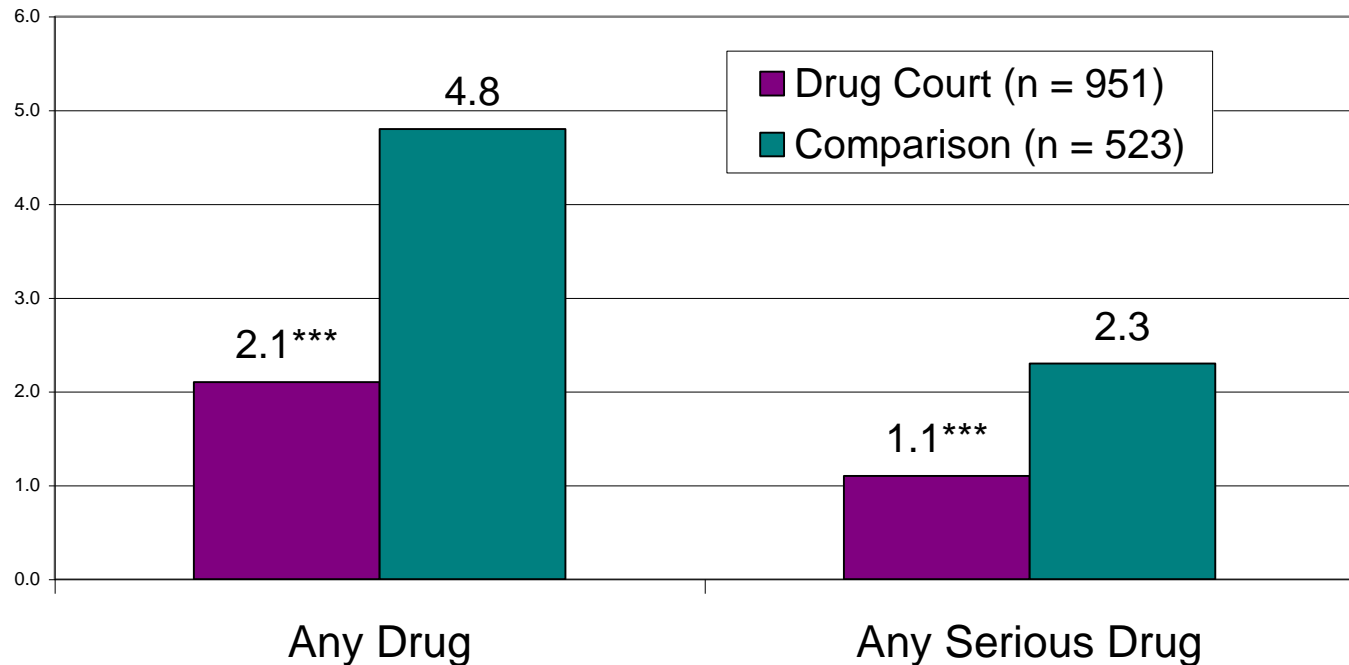


+ p < .10 * p < .05 ** p < .01 *** p < .001

Note: Measures are reported use of eight drugs: alcohol, marijuana, cocaine, heroin, amphetamines, hallucinogens, prescription drugs (illegal use), and methadone (illegal use). "Serious" drugs omit marijuana and light alcohol use (less than four drinks per day for women and less than five for men).

Drug Use: Year Prior to 18-Month Interview

Days of Drug Use Per Month: One Year Prior to 18-Month Interview

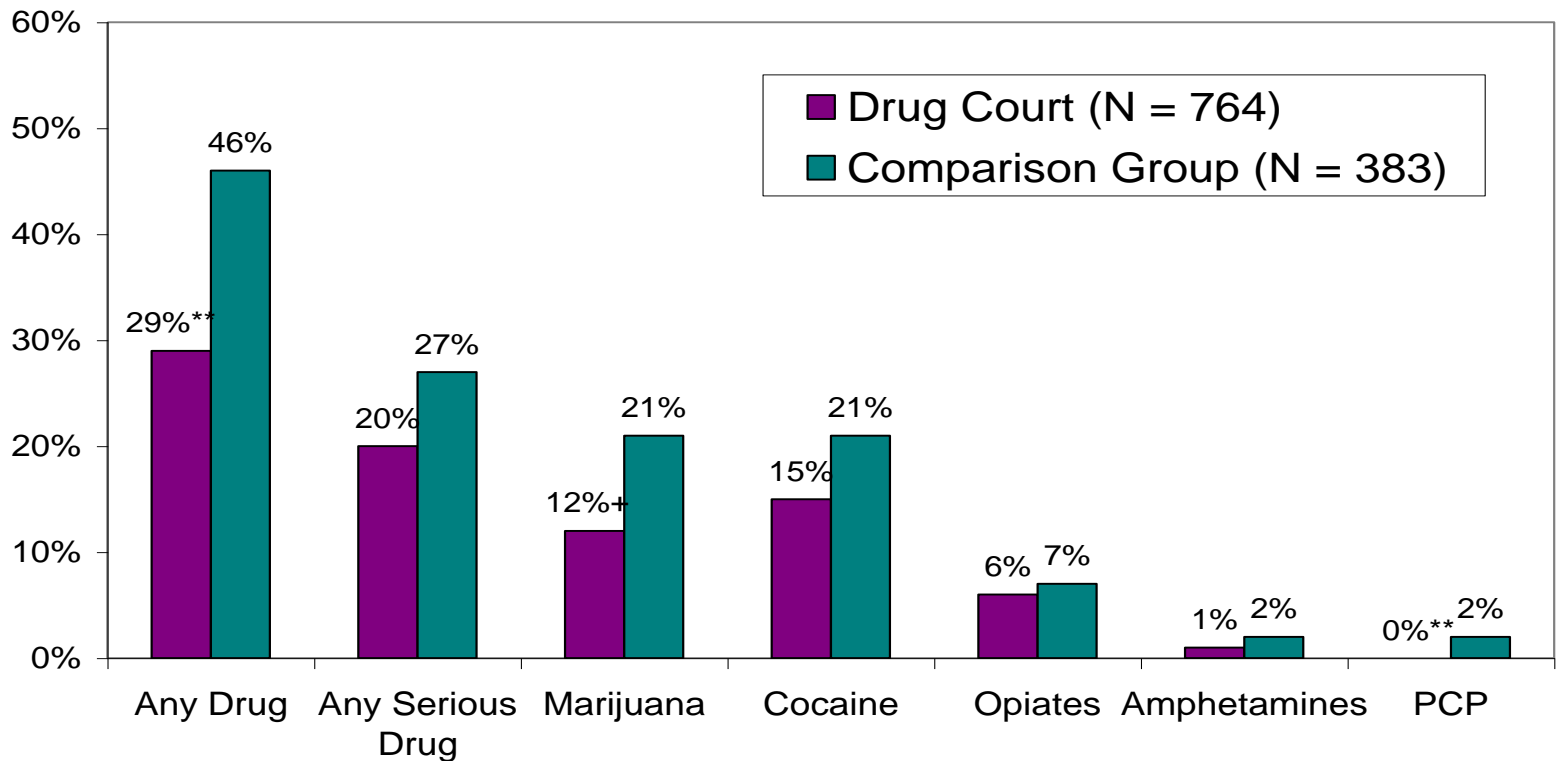


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Drug Use: Drug Test Results at 18 Months

Drug Test Results at 18 Months

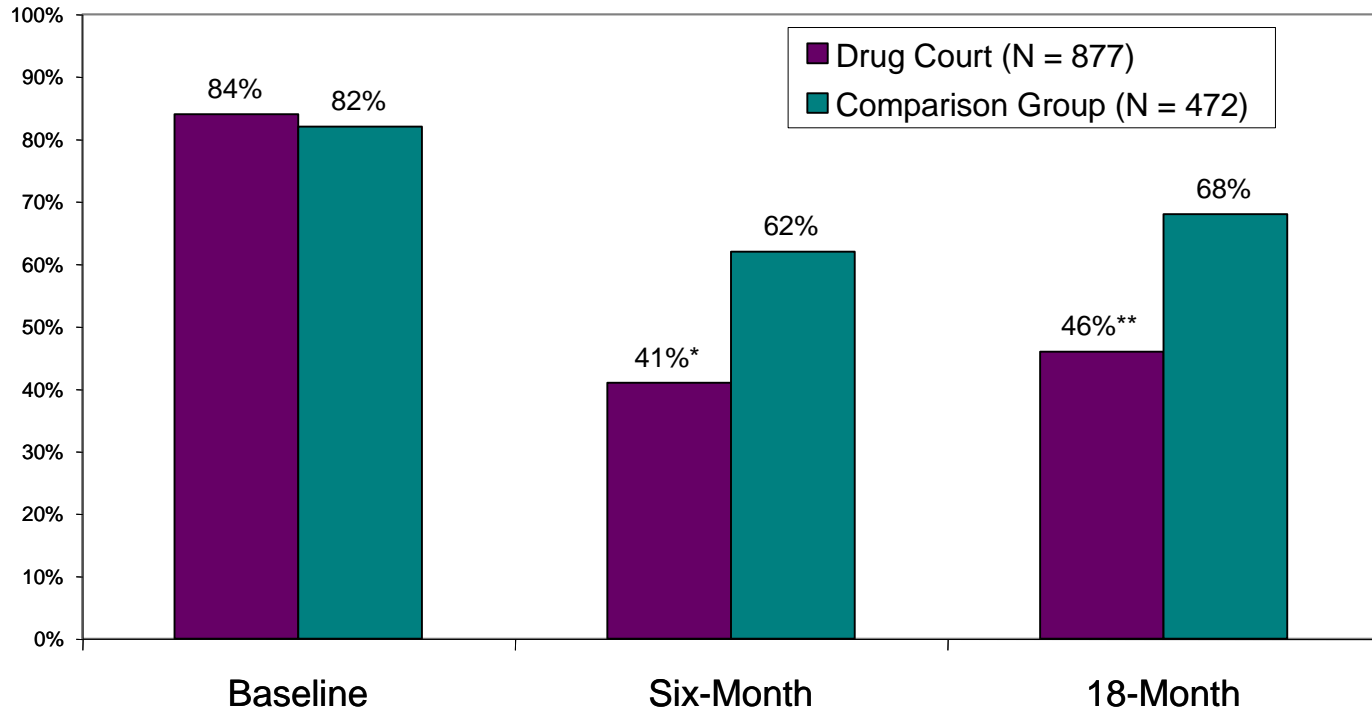


+ p < .10 * p < .05 ** p < .01 *** p < .001

Note: Serious drug use is defined to include any of the listed drugs except marijuana.

Drug Use: Trajectory of Change

The Trajectory of Recovery: Percent Used Drugs in Prior Six Months



+ p < .10, * p < .05, ** p < .01, *** p < .001.



Criminal Behavior: Literature to Date

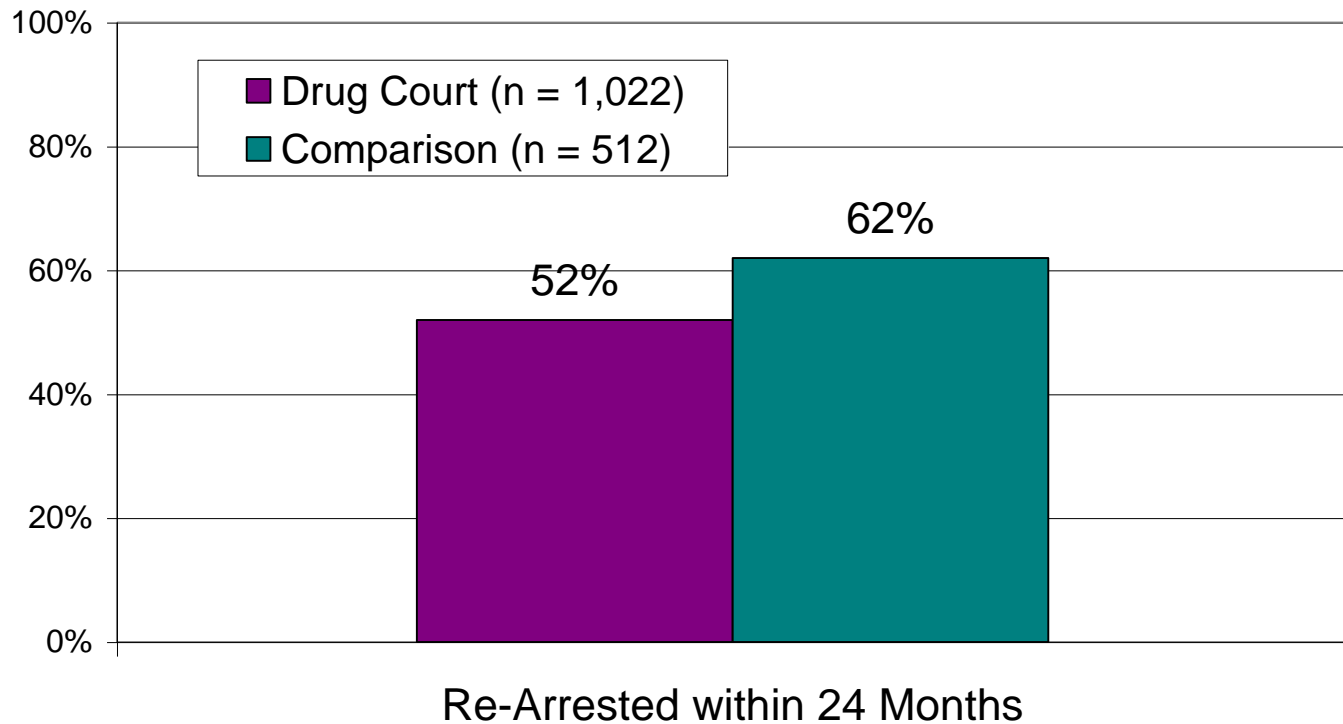
■ Official Recidivism:

- Forty-eight (48) of 55 drug courts produced lower re-arrest or re-conviction rates than their comparison groups (Wilson et al. 2006)
- Average recidivism reduction relative to comparison group = 26%
- Effects up to three years (e.g., Goldkamp et al. 2001; Gottfredson et al. 2006; Rempel et al. 2003)
- Longer-term (10+ year) effects uncertain (Finigan et al. 2007; Macklin et al. 2009)
- Magnitude of impact varies widely by site

■ Criminal Behavior (whether or not officially detected): Little research, beyond Brooklyn (Harrell et al. 2001) & Baltimore (Gottfredson et al. 2005).

Official Recidivism: Re-Arrests Over 24 Months

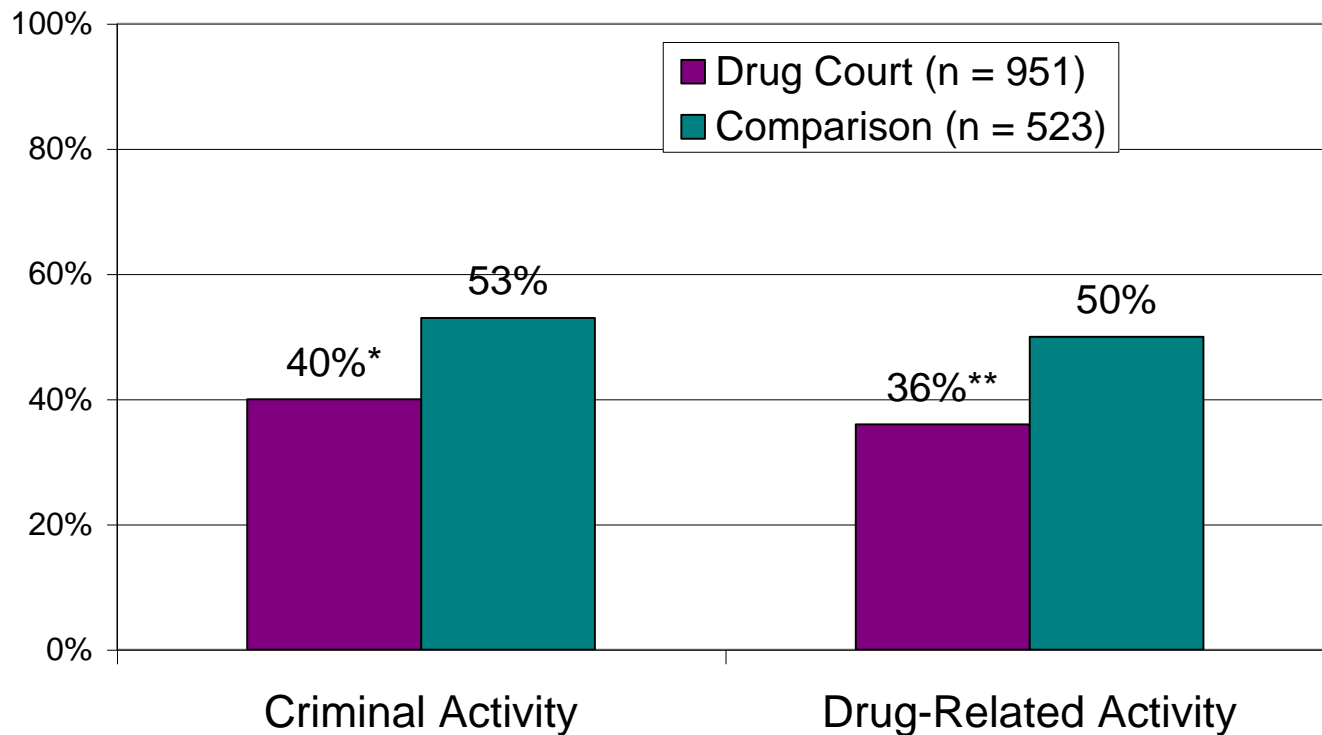
**Percent with Re-Arrest:
24 Months Post-Enrollment**



+ p < .10 * p < .05 ** p < .01 *** p < .001

Criminal Behavior: Year Prior to 18-Month Interview

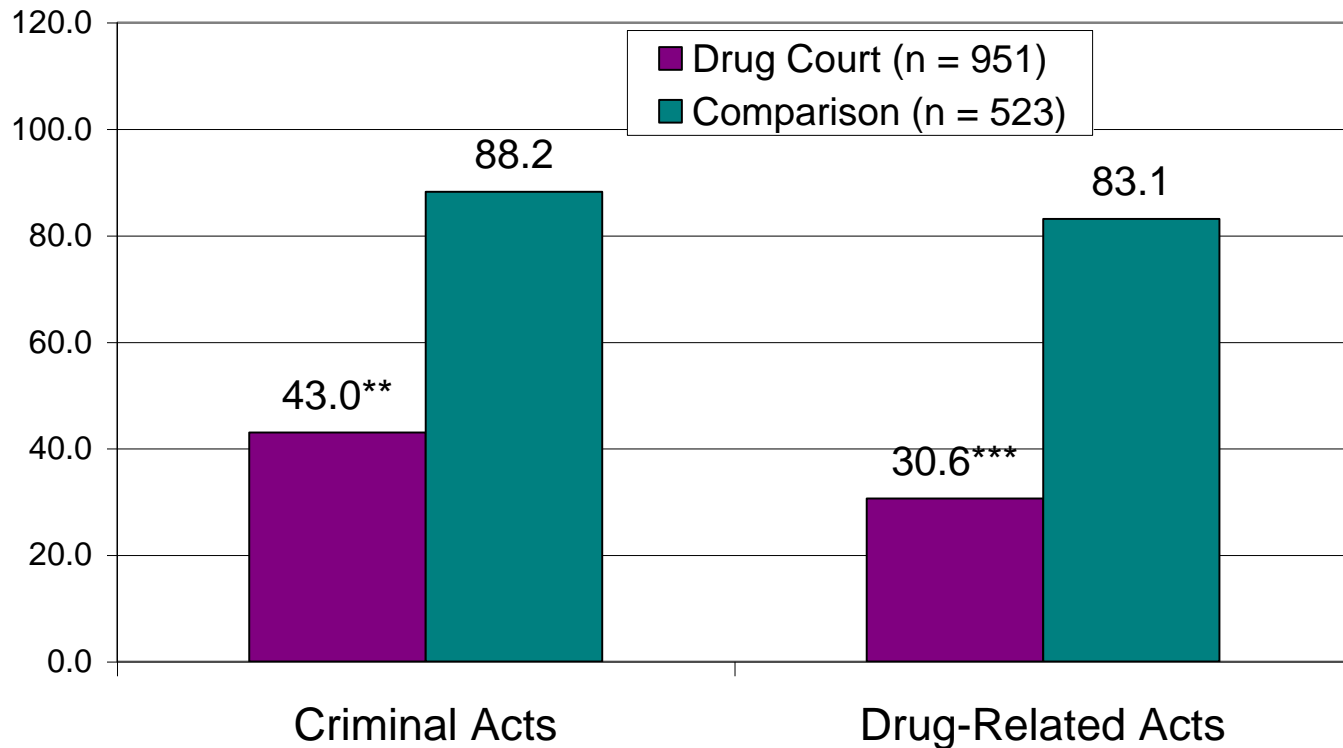
**Percent with Criminal Activity:
One Year Prior to 18-Month Interview**



+ p < .10 * p < .05 ** p < .01 *** p < .001

Criminal Behavior: Year Prior to 18-Month Interview

Number of Criminal Acts:
One Year Prior to 18-Month Interview



+ p < .10 * p < .05 ** p < .01 *** p < .001

Criminal Behavior: Year Prior to 18-Month Interview

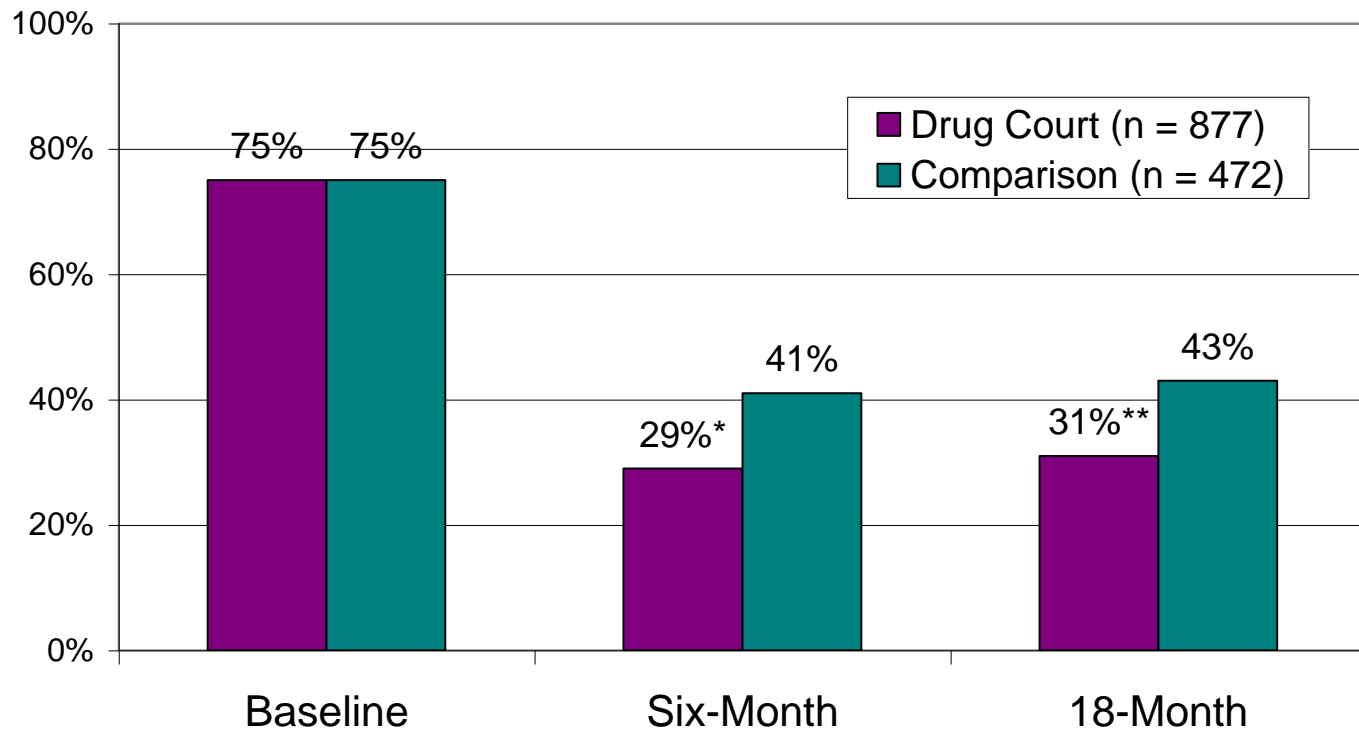
Criminal Behavior: Year Prior to 18-Month Survey

Outcome Measure	Drug Court	Comparison Group
1) Any drug use or possession	34% **	50%
2) Any drug sales	9% *	16%
3) Any other drug crimes (manufacturing, trafficking, etc.)	2%	2%
4) Any DWI/DUI	13% *	20%
5) Any violent crime/crime against people	4%	3%
6) Any weapons possession	7%	8%
7) Any property crimes	3% *	6%
8) Any public order crimes (e.g., prostitution, vagrancy)	1%	1%

+p<.10, * p<.05, ** p<.01, ***p<.001.

Criminal Behavior: Trajectory of Behavior Change

**Criminal Activity in Prior Six Months:
Baseline vs. Six-Month vs. 18-Month Interviews**



+ p < .10 * p < .05 ** p < .01 *** p < .001

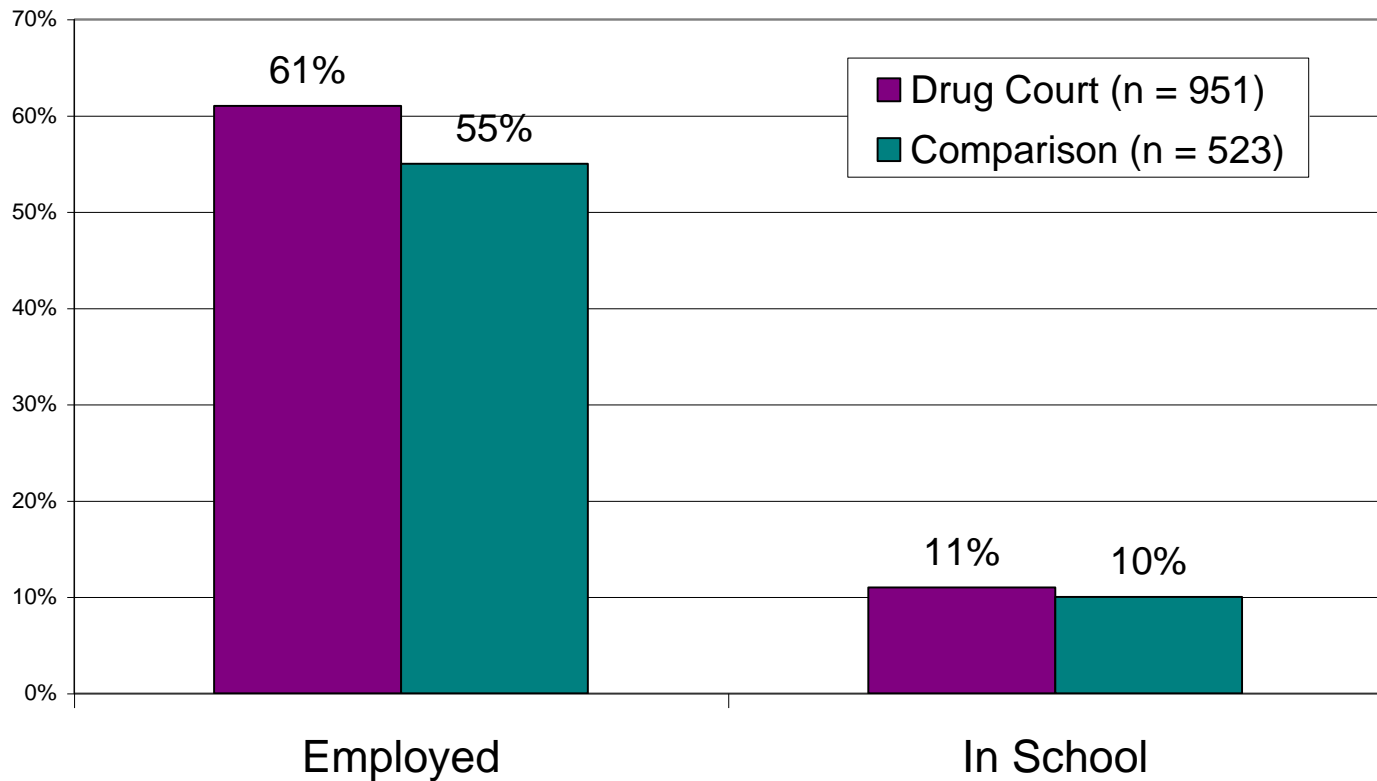


Other Psychosocial Outcomes: Literature to Date

- **Mixed Results – with Barely Any Prior Research:**
 - Brooklyn (NY): fewer reported health or social relationship problems over one year – but effects not statistically significant (Harrell et al. 2001)
 - Baltimore (MD): no difference in employment, physical or mental health, and social relationships over three years (Gottfredson et al. 2003)
 - Santa Barbara (CA): fewer health or family-related problems over one year (Cosden et al. 2000)
- **Low sample size or other design flaws in all prior studies**

Other Psychosocial Outcomes: Socioeconomic Status #1

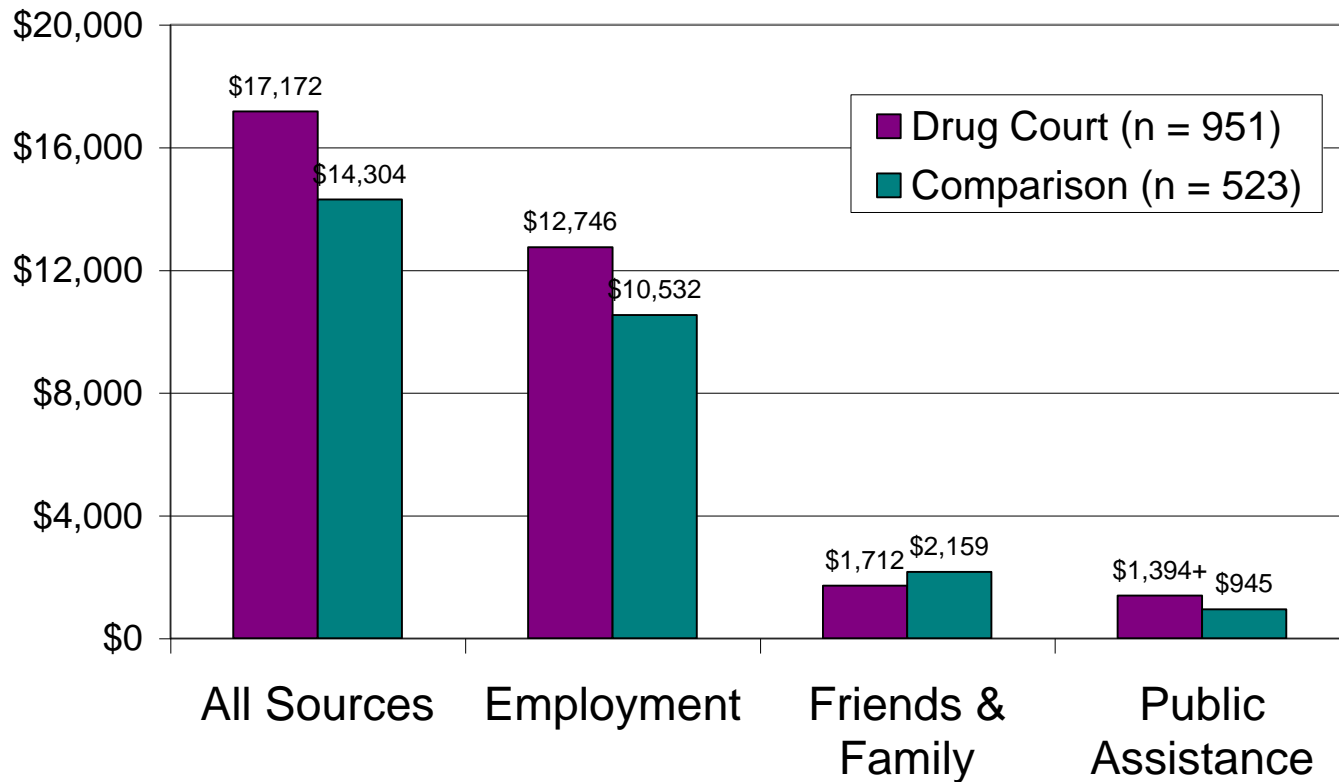
Employment and School Status at 18 Months



+ p < .10 * p < .05 ** p < .01 *** p < .001

Other Psychosocial Outcomes: Socioeconomic Status #2

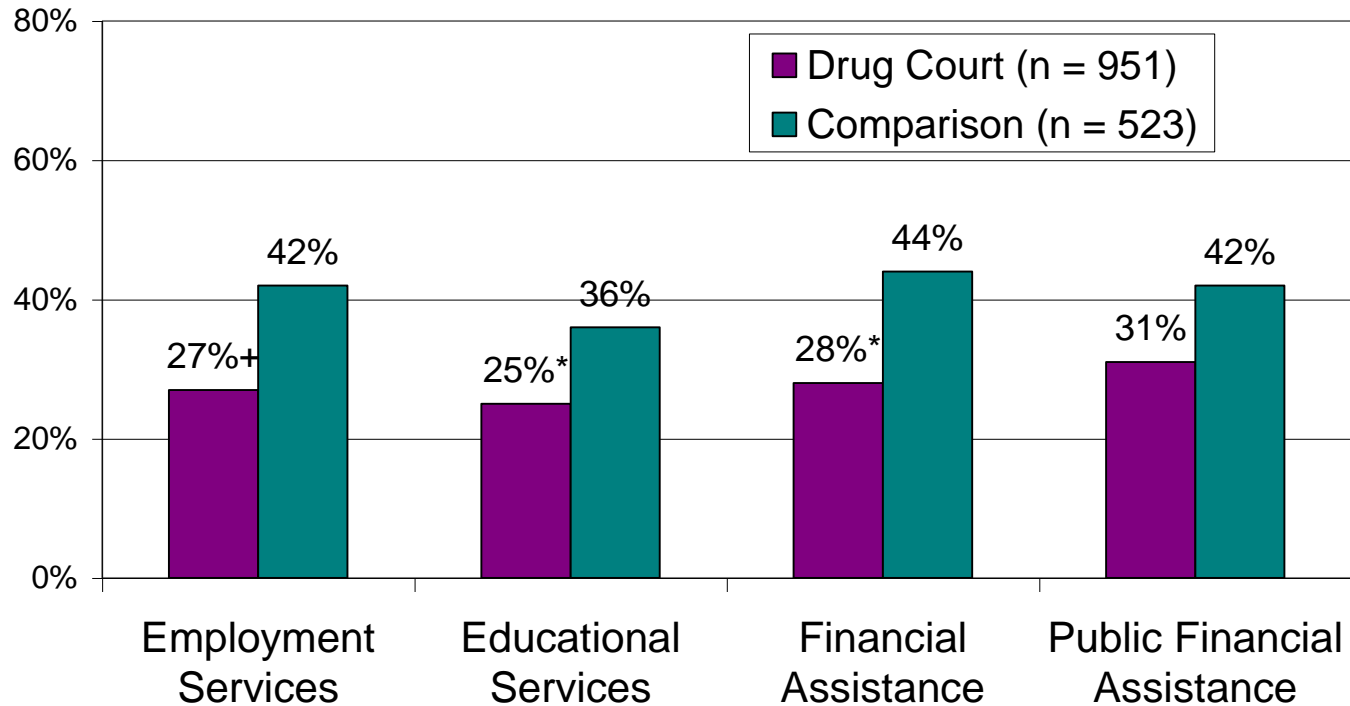
Annual Income at 18 Months



+ p < .10 * p < .05 ** p < .01 *** p < .001

Other Psychosocial Outcomes: Socioeconomic Status #3

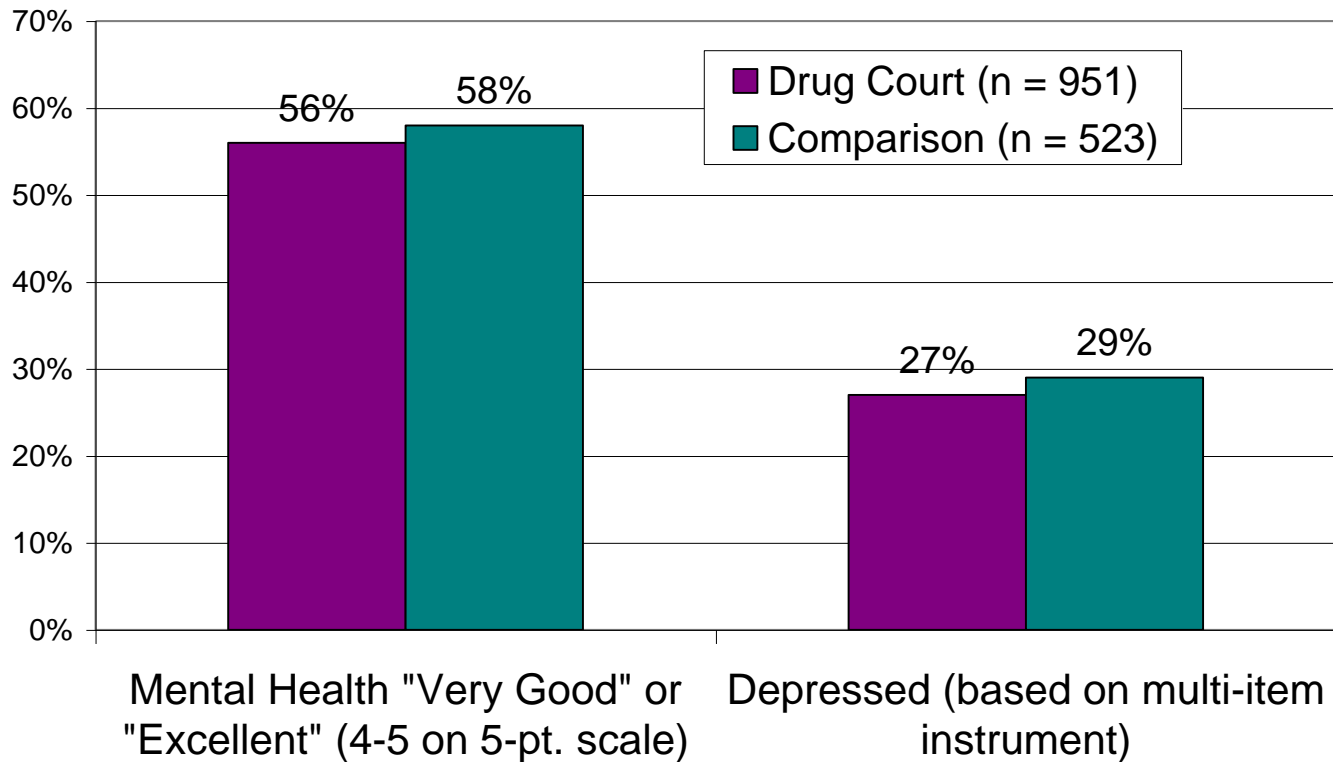
Service Needs at 18 Months: (In the Past Year, Did the Offender Want or Need...)



+ p < .10 * p < .05 ** p < .01 *** p < .001

Other Psychosocial Outcomes: Mental Health

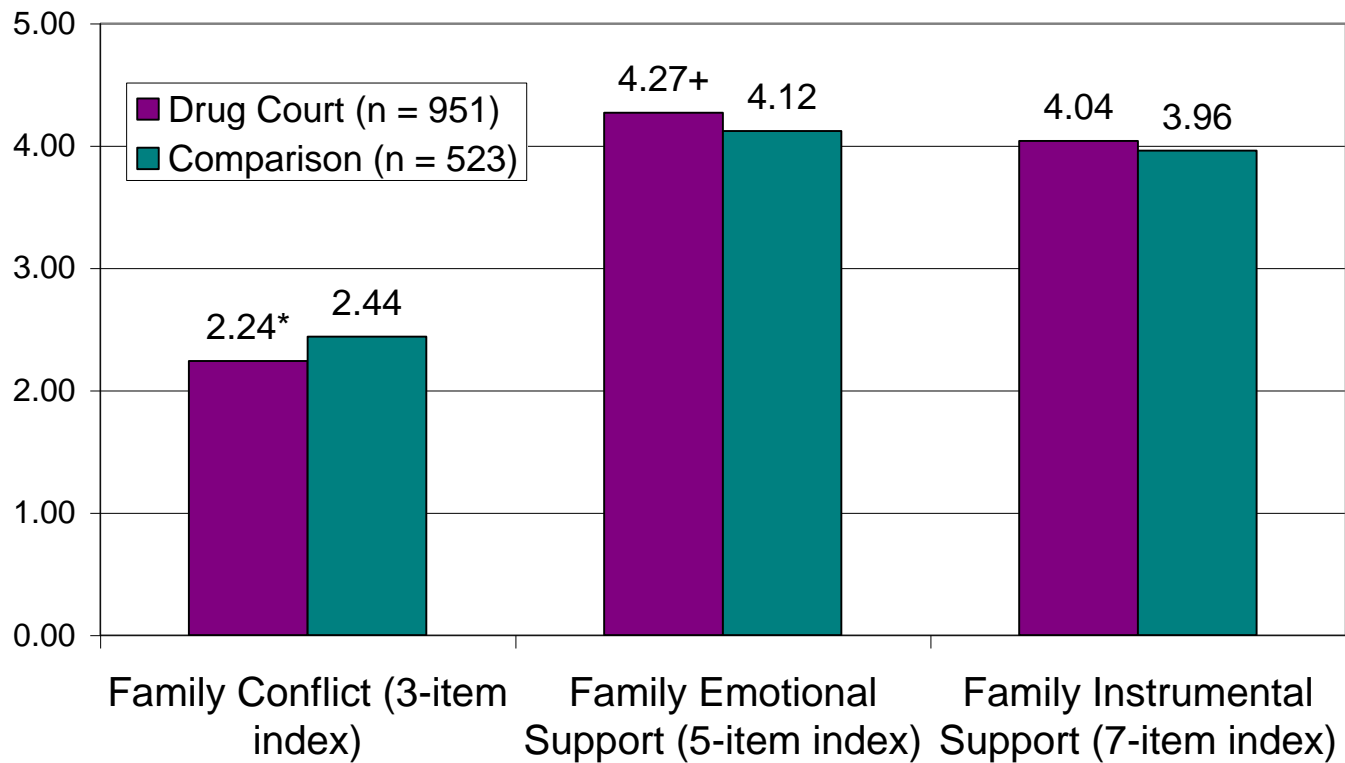
Mental Health at 18 Months



+ p < .10 * p < .05 ** p < .01 *** p < .001

Other Psychosocial Outcomes: Family Support

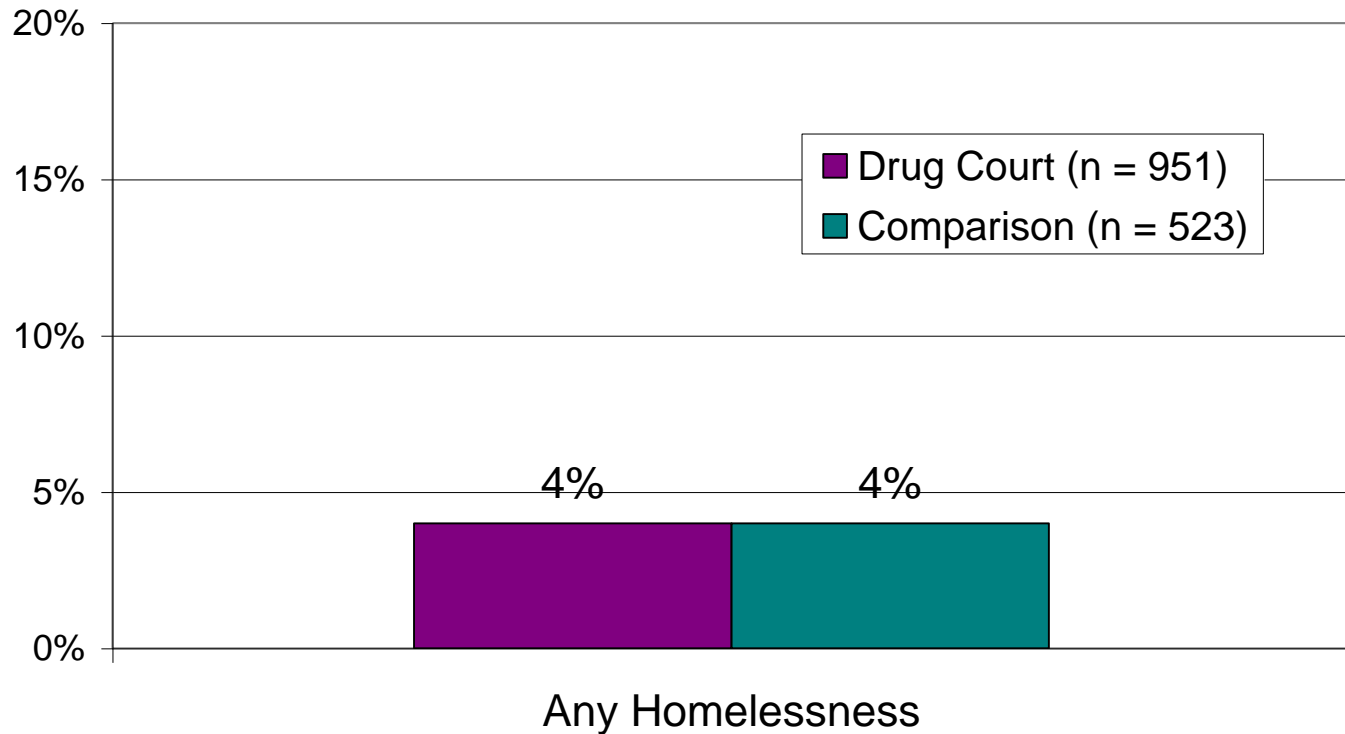
Family Relationships at 18 Months (1-5 Scales)



+ p < .10 * p < .05 ** p < .01 *** p < .001

Other Psychosocial Outcomes: Homelessness

Homelessness: Homeless at Any Time in Prior Year



+ p < .10 * p < .05 ** p < .01 *** p < .001



MADCE Review:

Part 1. Do Drug Courts Work?

- **Retention:** YES
- **Drug Use:** YES
- **Criminal Behavior:** YES
- **Other Psychosocial Outcomes:** MIXED
 - Socioeconomic Status: MODEST EFFECT (mostly non-significant)
 - Mental Health/Depression: NO
 - Family Ties: MIXED: Significant reduction in family conflict; little or no effect on family emotional or instrumental support
 - Homelessness: NO

Part 2. Do They Save Money?

Literature To Date

- **Consistent Cost Savings:** e.g., California, Maryland, Washington, Portland (OR), and St. Louis (MO)
- **Washington State:** Six sites: \$3,892 saved per participant in the five sites that reduced recidivism (Barnoski and Aos 2003)
- **California:** Nine sites: \$5,139 saved per participant in the median site across all nine (Carey et al. 2005)
- **The Essential Story:** Greater investments up front compensated by lower recidivism rates (and attendant savings)



MADCE: Categories Considered

Category	Sub-Category	Examples
1. Social Productivity	A. Employment B. Education C. Services and Support Given	Employment College Child support, community service
2. Criminal Justice System	A. Monitoring B. Police C. Courts D. Corrections E. Drug court	Probation officer time, drug tests, electronic monitor Arrests Hearings Jail and prison (sanction or otherwise) Case manager, administrative costs
3. Crime and Victimization		32 sub-categories of crime defined by NIBRS
4. Service Use	A. Drug treatment B. Medical treatment C. Mental health treatment D. Other	ER, Detox, Residential, Outpatient, Methadone Non-drug hospital stays Non-drug stays in mental health facility Halfway houses, public housing, shelters
5. Financial Support Use	A. Government B. Other	Welfare, disability, and other entitlements Money from family and friends

MADCE Cost Outcomes

	Hierarchical Results (over the full follow-up)		
	Treatment	Control	Net Benefits
Social Productivity	\$20,355	\$18,361	\$1,994
Criminal Justice	- \$4,869	- \$5,863	\$994
Crime/Victimization	- \$6,665	- \$18,231	\$11,566**
Service Use	- \$15,326	- \$7,191	- \$8,135**
Financial Support	- \$4,579	- \$3,744	- \$835
Total	- \$11,206	- \$16,886	\$5,680

Cost Details #1: Program Investments

	Hierarchical Results (over full follow-up)		
	Treatment	Control	Net Benefits
Time with probation officer	4.7 hours	5 hours	\$6
Drug tests	65.4 tests	12.3 tests	- \$410***
Electronic monitoring	3 days	1.6 days	- \$6
Status hearings	20.6 hearings	1.5 hearings	- \$288***
Time with case manager	12.9 hours	1.1 hours	- \$306***
Months in program	12.2 months	1.2 months	- \$800***
Residential drug treatment	37.8 days	14.4 days	- \$4,431
Medicinal treatment	6.5 sessions	3.3 sessions	- \$73
Individual counseling	15.6 sessions	2.4 sessions	- \$1,070***
Group counseling	63.1 sessions	13.5 session	- \$514***

Cost Details #2: Crime, Arrests, and Incarceration

	Hierarchical Results		
	Treatment	Control	Net Benefits
Crime	\$6,665	\$18,231	\$11,566**
Arrests	\$45	\$165	\$120**
Non-status hearings	1.3	1.8	\$8*
Days incarcerated	\$2,467	\$5,262	\$2,795*

Cost Details #3: Other Outcomes

	Hierarchical Results (over the full follow-up)		
	Treatment	Control	Net Benefits
Earnings	\$19,833	\$18,029	\$1,804
Community service	0.5 sessions	0 sessions	\$16*
Hospitalization (non-drug)	1.3 days	1.2 days	- \$496
Mental health treatment	1.7 days	1.0 days	- \$148
Homeless shelter	2.2 nights	3.9 nights	\$45
Halfway house	61.5 nights	19.7 nights	- \$2,059**
Public housing	2.6 days	2.1 days	- \$14
Section 8 housing	2.6 days	2.1 days	- \$28
Gov. financial support	\$2,248	\$1,032	- \$1,216**
Family/friends financial support	\$2,393	\$2,681	\$288



MADCE Review:


Part 2. Do They Save Money?

- **Bottom Line Answer:** Yes (apparently): Savings *amount* consistent with prior studies (though not statistically significant)
- **Major Costs and Benefits:**
 - Greatest Cost: Drug Treatment
 - Greatest Benefit: Reduced Crime and Victimization
 - Results Internal to Criminal Justice System: small up-front costs compensated by reduced re-arrests and re-incarcerations
- **Major Caveat:** 18-Month Follow-Up (*Is that how early one would expect to find meaningful differences in arrests, employment, hospital and mental health service use?*)



Part 3. For Whom Do They Work?

- **Basic Demographics**
- **Social Ties/Stake in Conformity**
- **Drug Use History**
- **Prior Criminality**
- **Mental Health**



For Whom Do Drug Courts Work: Understanding the Question

Note of Interpretation:

- “For whom do drug courts work especially well” is a different question from “what are the baseline risk factors”?

For example:

- In theory, might interventions like drug courts work better for those who are at an inherently higher risk for future criminal behavior? Yes. (E.g., see Marlowe et al. 2003; NIC 2010)



For Whom Do Drug Courts Work: Reduced Drug Use

- X **Basic Demographics**
- X **Social Ties/Stake in Conformity**
- ✓ **Drug Use History:** *average days of drug use*
- X **Prior Criminality**
- ✓ **Mental Health:** *not narcissism and not depression*

Overall: Drug courts had a differential impact among 3 of 17 subgroups.

Conclusion: The drug court impact is not greatly limited to subgroups.



For Whom Do Drug Courts Work: Reduced Criminal Behavior?

- ✓ **Primary Demographics:** *not black*
- ✗ **Social Ties/Stake in Conformity**
- ✗ **Drug Use History**
- ✓ **Prior Criminality:** *prior violent convictions* (16% of sample)
- ✓ **Mental Health:** *not narcissism*

Overall: Drug courts had a differential impact among 3 of 17 subgroups.

Conclusion: The drug court impact is not greatly limited to subgroups.



MADCE Review:

Part 3. For Whom They Work?

- **Risk Factors:** younger age; more prior use; more prior criminal behavior; and co-occurring depression, narcissism, and ASPD
- **Differential Impacts:**
 - General Finding: Extremely few differential impacts
 - Key Exceptions (e.g.): More prior drug use; not narcissistic personality
 - Caveat to Exceptions: No confirmatory literature



Part 4. How Do They Work?

- **Policies and Practices**
- **Offender Perceptions**



Policies and Practices

- **Limitation:** Measured at individual level but need court-level data to avoid the “compliance confound” (as in forthcoming NYS evaluation)



Policies and Practices

- **Limitation:** Measured at individual level but need court-level data to avoid the “compliance confound” (as in forthcoming NYS evaluation)

- **Policies and Practices:**

- Treatment
- Judicial Status Hearings
- Drug Testing
- Supplemental Services: employment services linked to employment
- Case Management
- Sanctions and Incentives
- Team Collaboration/Regular Meetings

Purple = some evidence

Red = little or no evidence

Brown = no data at all



Offender Perceptions

- **Procedural Justice (fairness of court procedures)**
- **Distributive Justice (fairness of court outcome: win/lose)**
- **Perceived Consequences of Noncompliance**
 1. Perceptions of legal consequence of failure (leverage)
 2. Perceptions of interim sanction certainty and severity
- **Motivation to Change**



Procedural & Distributive Justice: Literature to Date

- Procedural more influential than distributive justice (e.g., Casper, Tyler, and Fisher 1988; Tyler and Huo 2002; Sunshine and Tyler 2003)
- Procedural justice perceptions can increase law-abiding (e.g., Lind et al. 1993; Paternoster et al. 1997; Tyler and Huo 2002)
- Judge may have greatest influence on overall perceptions (Abuwala and Farole 2008; Frazer 2006; Gottfredson et al. 2009)
- Only one prior drug court impact study: the Baltimore Experiment (Gottfredson et al. 2009)



Consequences of Noncompliance: Literature to Date

■ Failure Consequence:

- Greater legal exposure (e.g., higher jail/prison alternatives) improves outcomes (e.g., Anglin et al. 1989; DeLeon 1988; Hiller et al. 1998; Rempel and DeStefano 2001)
- Perceptions of legal exposure are critical (Young and Belenko 2002)

■ Interim Sanctions (e.g., see Marlowe and Kirby 1999; Taxman et al. 1991):

- Certainty: sanction for every infraction
- Celerity: Impose soon after the infraction
- Severity: sufficiently serious to deter future misconduct
- Consistency: apply similar sanctions for similar misconduct
- ❖ Drug Court Research: Little drug court evidence (possible exception of Harrell et al. 1998)



Procedural Justice Dimensions

- **Voice:** Litigants' side is heard.
- **Respect:** Litigants are treated with dignity and respect.
- **Neutrality:** Decision-making is unbiased and trustworthy.
- **Understanding:** Litigants comprehend court language and decisions.

Source: See Tyler 1990; see also Frazer 2006.



Procedural Justice: Sample Items

- **Voice:**
 - You felt you had the opportunity to express your views in the court.
 - People in the court spoke up on your behalf.

- **Respect:**
 - You felt pushed around in the court case by people with more power than you.
 - You feel that you were treated with respect in the court.

- **Neutrality:**
 - All sides had a fair chance to bring out the facts in court.
 - You were disadvantaged ... because of your age, income, sex, race...

- **Understanding** (highest rated area: drug court mean = 4.19, 1-5 scale):
 - You understood what was going on in the court.
 - You understood what your rights were during the processing of the case.



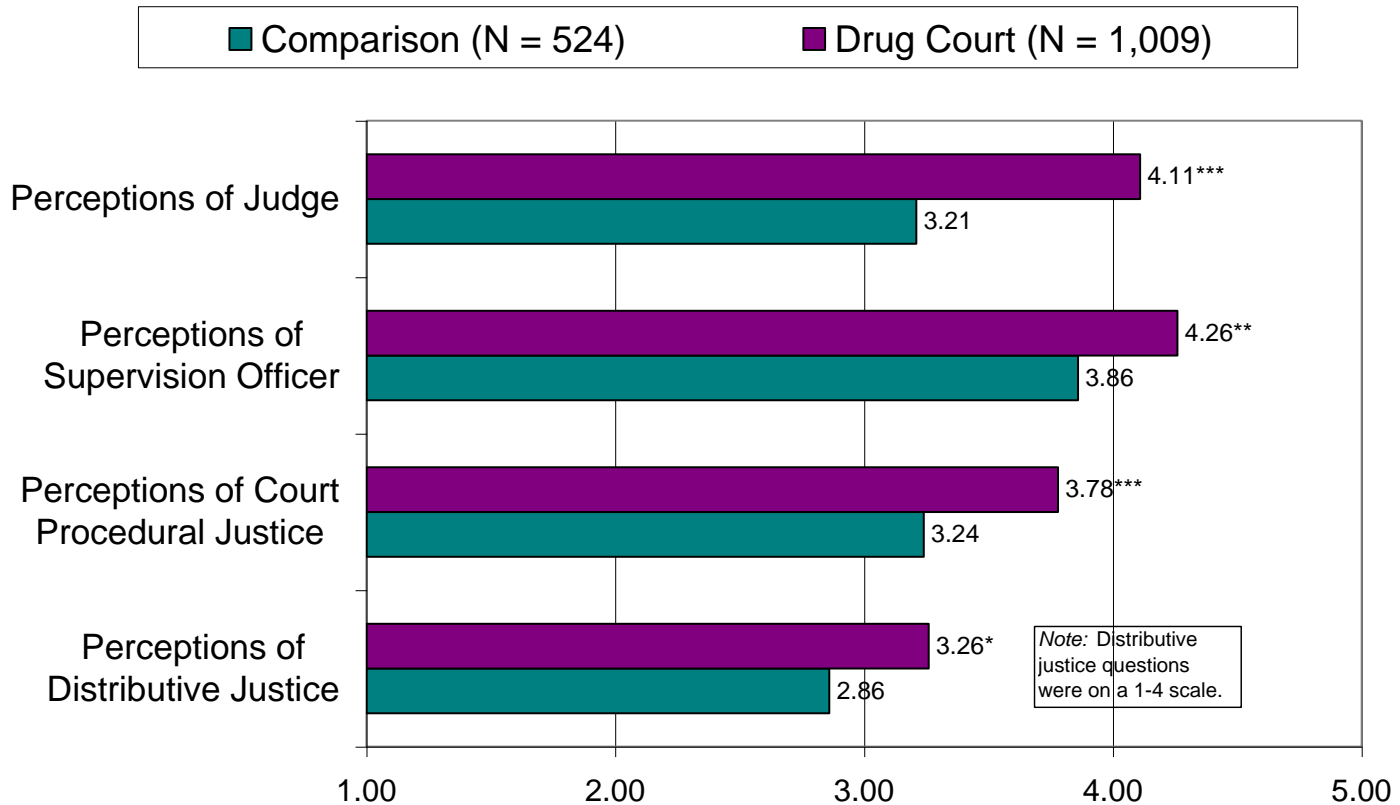
Perceptions of the Judge: Question Items

The Judge (each item asked separately; results averaged to create overall score):

- Is knowledgeable about your case
- Knows you by name
- Helps you to succeed
- Emphasizes the importance of drug and alcohol treatment
- Is intimidating or unapproachable
- Remembers your situations and needs from hearing to hearing
- Gives you a chance to tell your side of the story
- Can be trusted to treat you fairly
- Treats you with respect

Procedural and Distributive Justice: Six-Month Interview Results

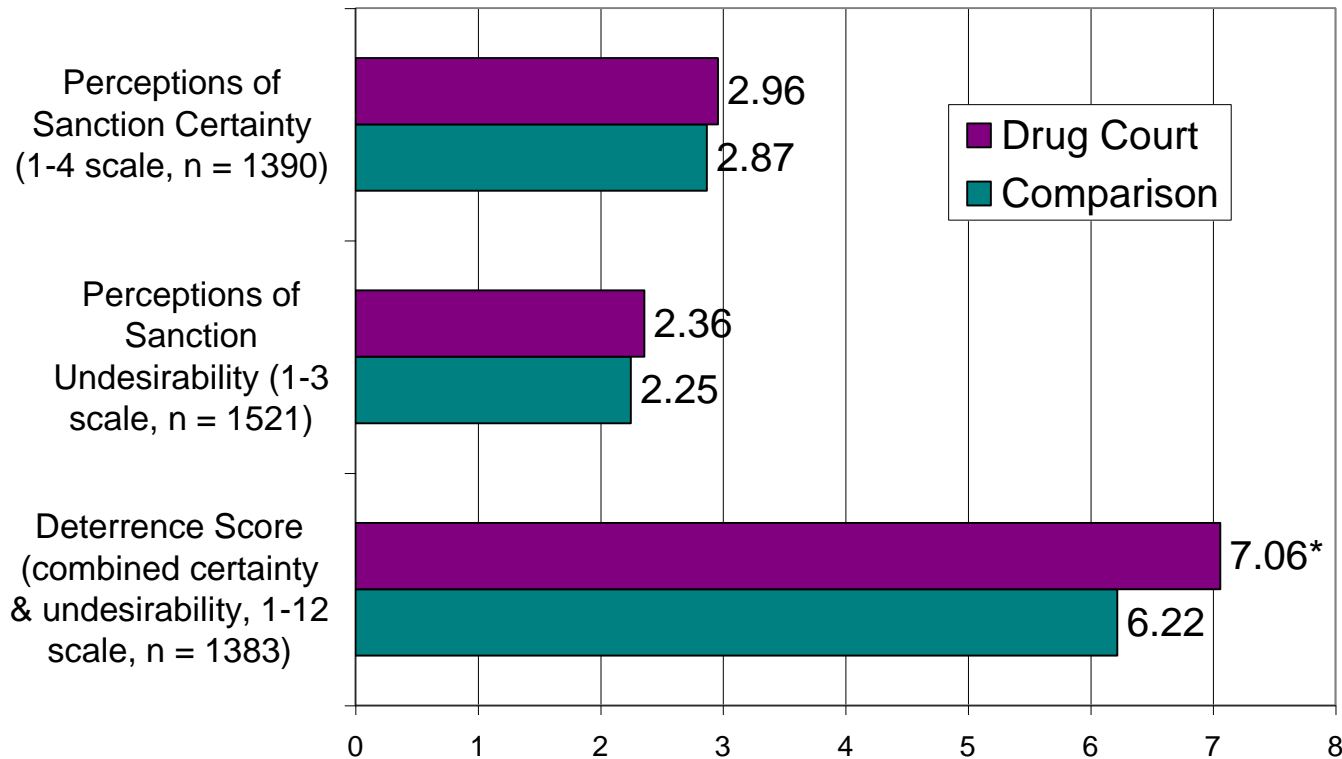
Offender Perceptions of Fairness



* p < .05 ** p < .01 *** p < .001

Perceptions of Interim Sanctions: Six-Month Interview Results

Offender Perceptions of Interim Sanctions



+ p < .10 * p < .05 ** p < .01 *** p < .001



Impact of Offender Perceptions: Reduced Drug Use and Crime

■ Procedural and Distributive Justice:

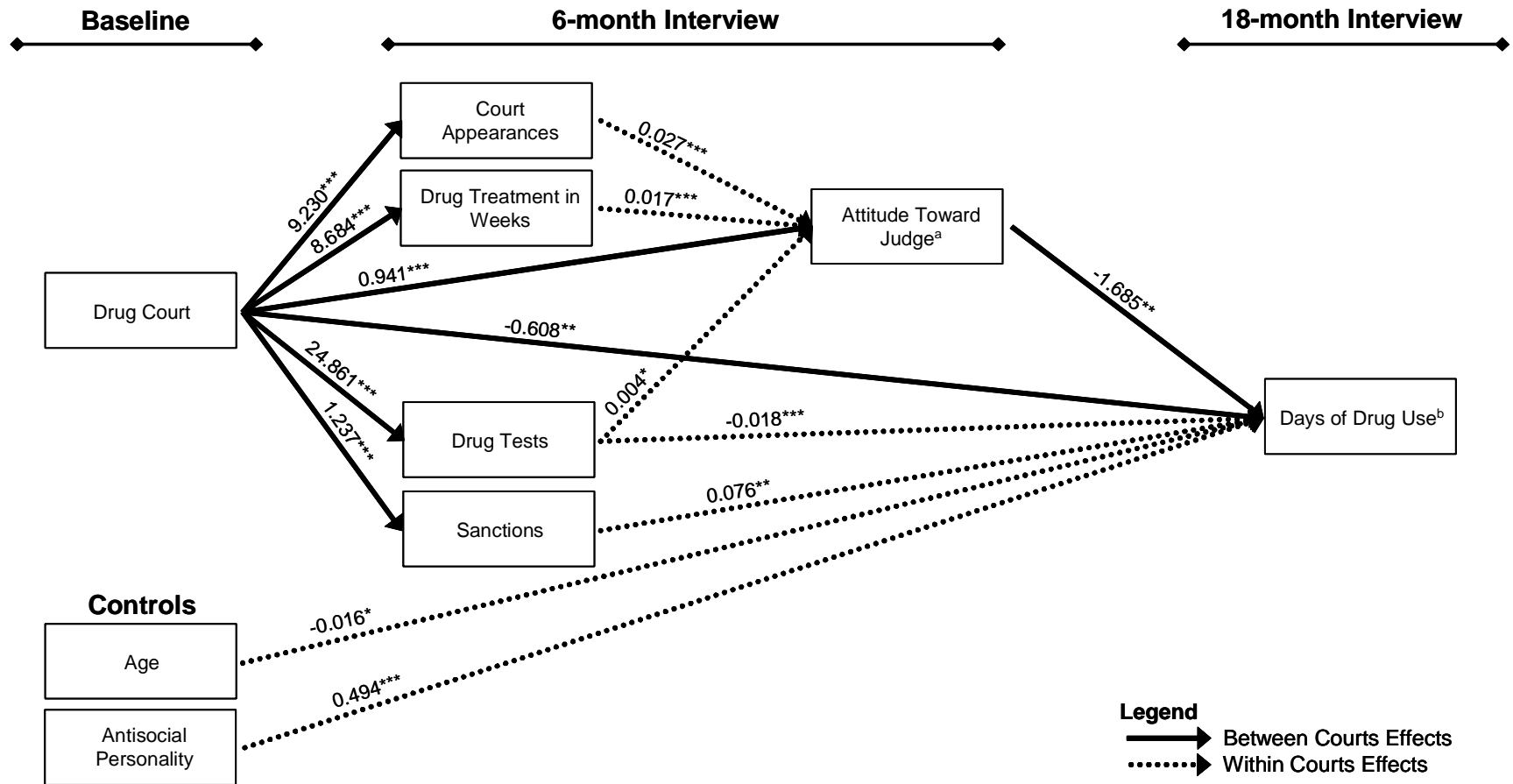
- ✓ Judge
- x Supervision officer/case manager
- ✓ Court procedural justice
- ✓ Distributive justice (fairness of court outcome: win/lose)

■ Consequences of Noncompliance:

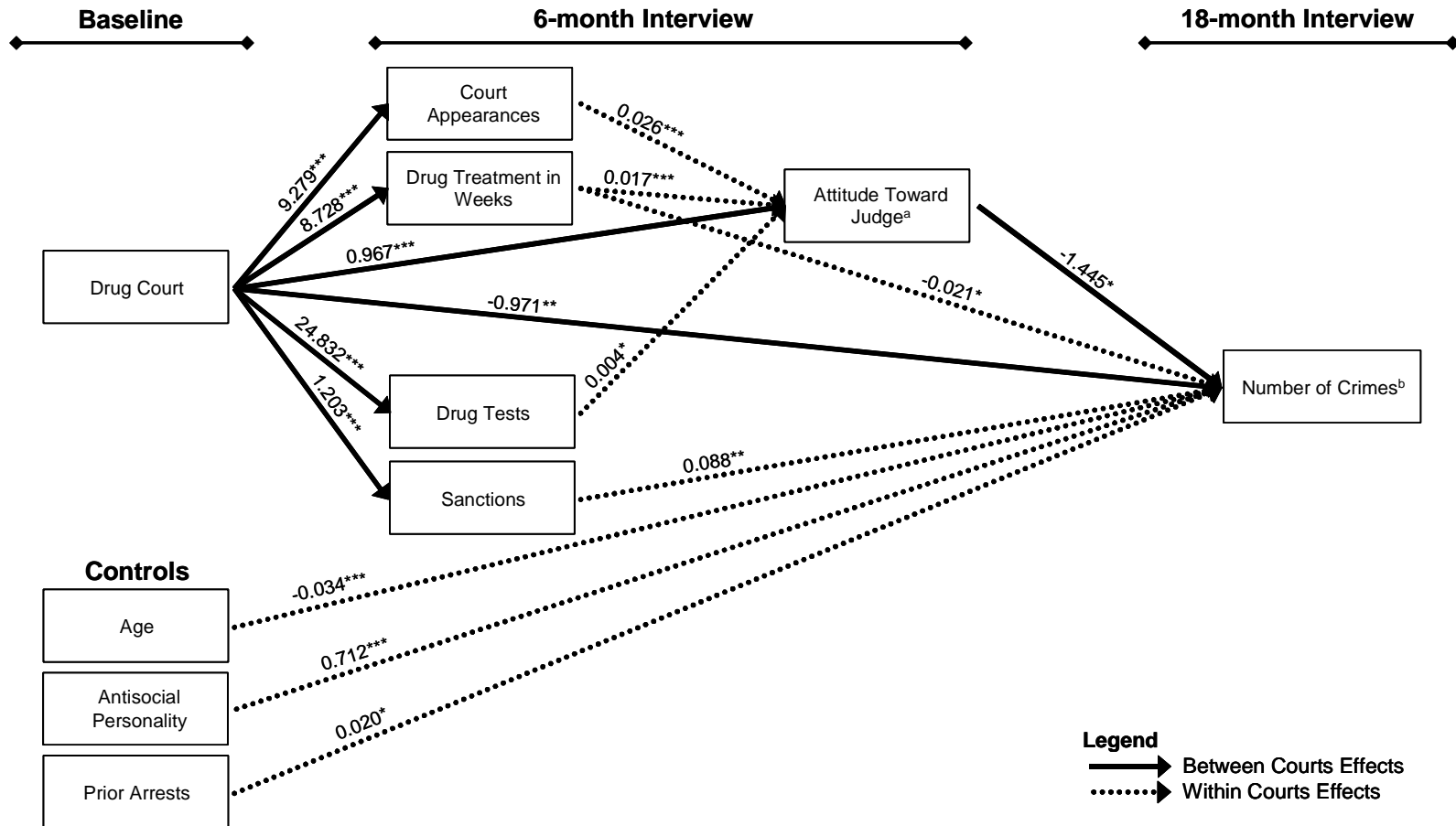
- ✓ Failure consequence (“how bad is sentence upon failure”)
- x Sanction certainty/severity (“how likely would court respond” to drug use and “how bad would it be” to receive interim sanctions)

■ Motivation to Change

Explanatory Model: Reduced Days of Drug Use (N = 1,297)



Explanatory Model: Reduced Number of Crimes (N = 1,259)





MADCE Review:

Part 4. How Do Drug Courts Work?

■ Policies and Practices:

- Measurement Limitations: Results suggestive/measurement difficult
- Most Consistent Effects: **Judicial status hearings, drug testing, and treatment; also, employment services for likelihood of employment**

■ Offender Perceptions:

- Procedural Justice: **YES** (especially perceptions of the judge)
- Distributive Justice: **YES**
- Severity of Failure Consequence (“extremely bad”): **YES**
- Certainty/Severity of Interim Sanctions: **NO**
- Motivation to Change: **NO**



General Limitations

- **One Study:** not definitive by itself
- **18-Month Period:** not a lengthy post-program timeframe
- **Evaluating Drug Court Policies:** findings often suggestive, though evidence much stronger where backed by perception data
- **Depth of Findings:** illuminates whether drug courts work and which general factors are important (e.g., treatment, the judge, perceived legal pressure, sanctions), but does not fully explain the specific mechanisms through which these factors operate



MADCE Final Report Details

- Final Report – release in early 2011
 - Executive Summary
 - Volume One: Study Overview and Design
 - Volume Two: A National Portrait of Adult Drug Courts
 - Volume Three: The Drug Court Experience
 - Volume Four: The Impact of Drug Courts



Postscript: The Challenge of Scale

- **The Problem:** How expand access to adult drug courts?
 - Enroll average of 40 participants/year (Zweig, Rossman, and Roman, forthcoming)
 - Enrolled less than 4% of eligible arrestees in 2007: e.g., 55,000 participants of 1.5 million likely eligible (Bhati, Roman, and Chalfin 2008)
- **The Bottom-Line:** Bridging the gap between a proven successful model and deep system change



What Do You Think?