

# Do Adult Drug Courts Work?

## National Results from the Multi-Site Adult Drug Court Evaluation (MADCE)



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# The Design

- **Drug Court vs. Comparison Sites:**
  - Drug Court: 23 sites in 7 states (n = 1156)
  - Comparison: 6 sites in 4 states (n = 625)
- **Repeated Measures:** baseline and multiple follow-ups:
  - Interviews at baseline, 6 months, 18 months
  - Oral fluids drug test at 18 months



# Attrition and Selection

- **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



# “Superweighting” Strategy

## *Superweighting:*

Weight cases based on propensity to be in drug court vs. comparison sample and propensity for survey retention at follow-up (See Rempel, 2009).

Compensates for initial differences – higher weights to under- and lower weights to over-represented categories of offenders.



# Threats to Validity: Site Level Bias

## Site-Level Bias:

Are the sites comparable? Or are there site specific differences in offender outcomes?

**Solution:** Adjust for site-level differences using multi-level (hierarchical) modeling techniques:

Incorporate site-level variance ( $n = 29$  sites), not merely individual-level variance ( $n = 1,781$  individuals) & participation status = site-level (Level 2) variable.



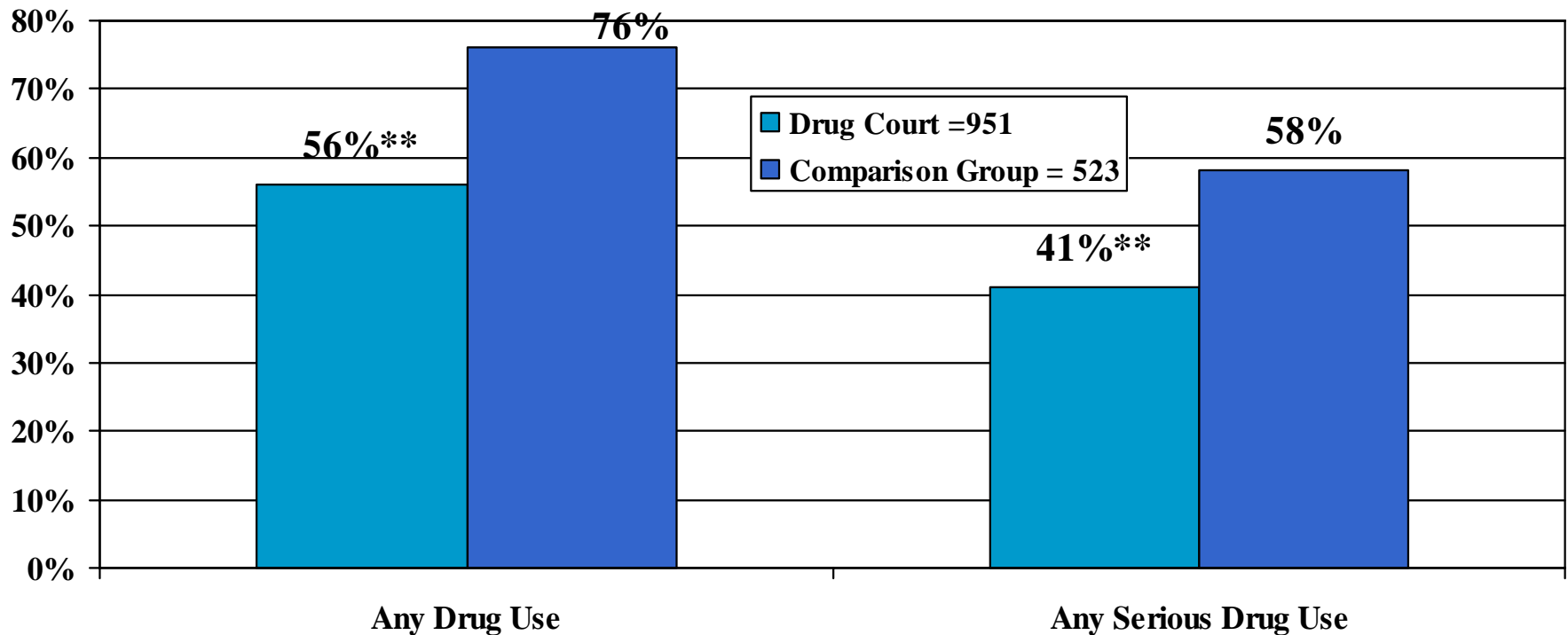
# Core Research Question

## Do drug courts work?

- Do they reduce Drug Use?
- Do they reduce Criminal Activity?
- Do they promote pro-social outcomes for participants?

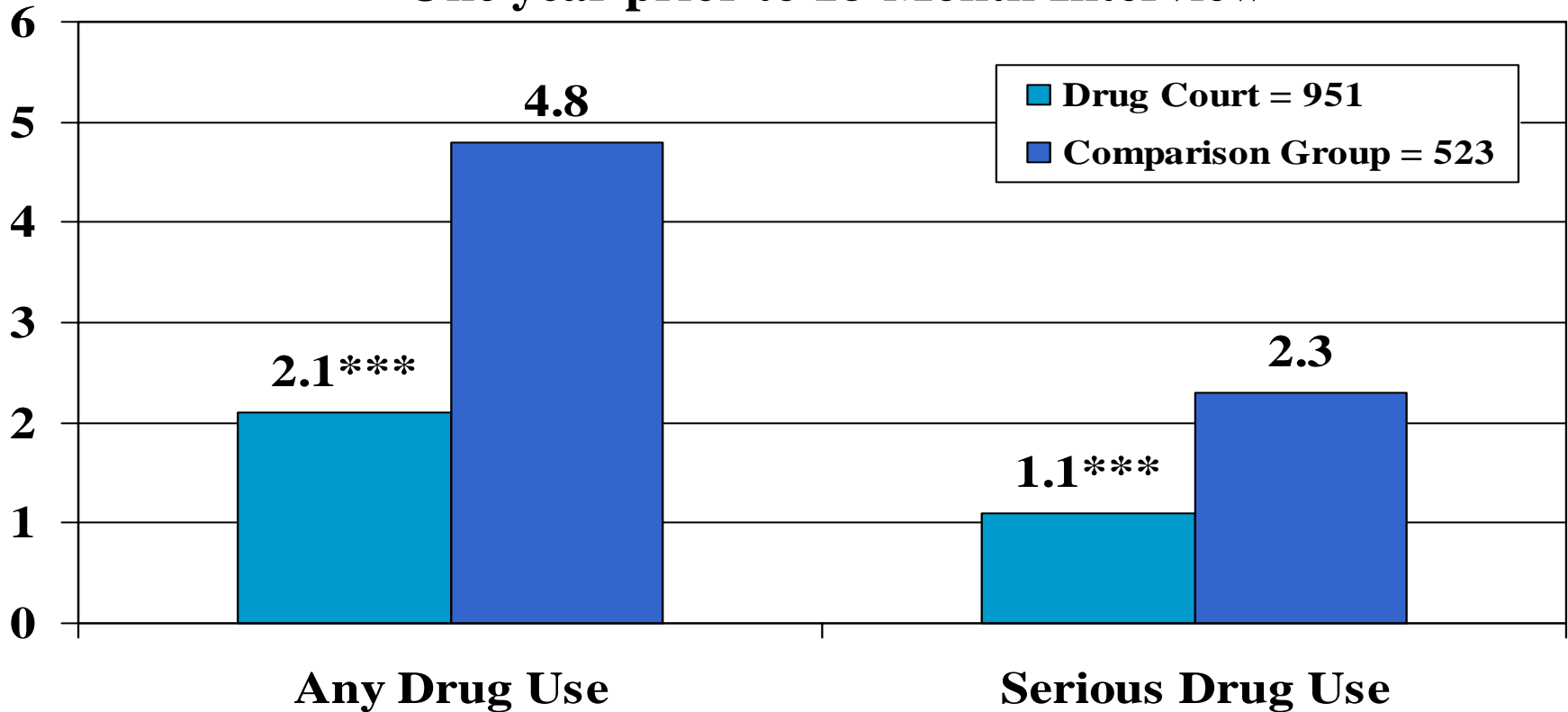
# Results: Drug Use

## Percent Using Drug Use One year prior to 18-Month Interview



# Results: Drug Use

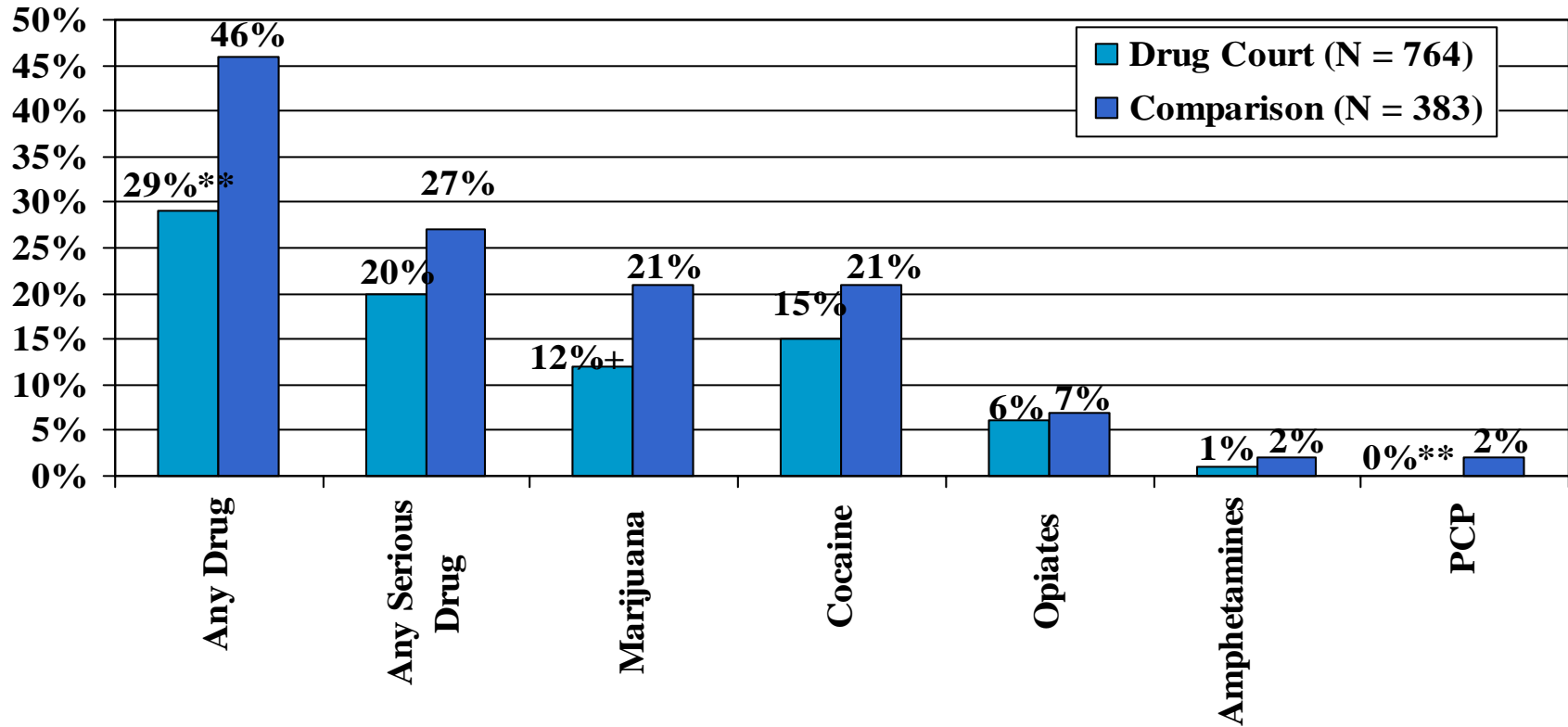
## Days of Drug Use One year prior to 18-Month Interview





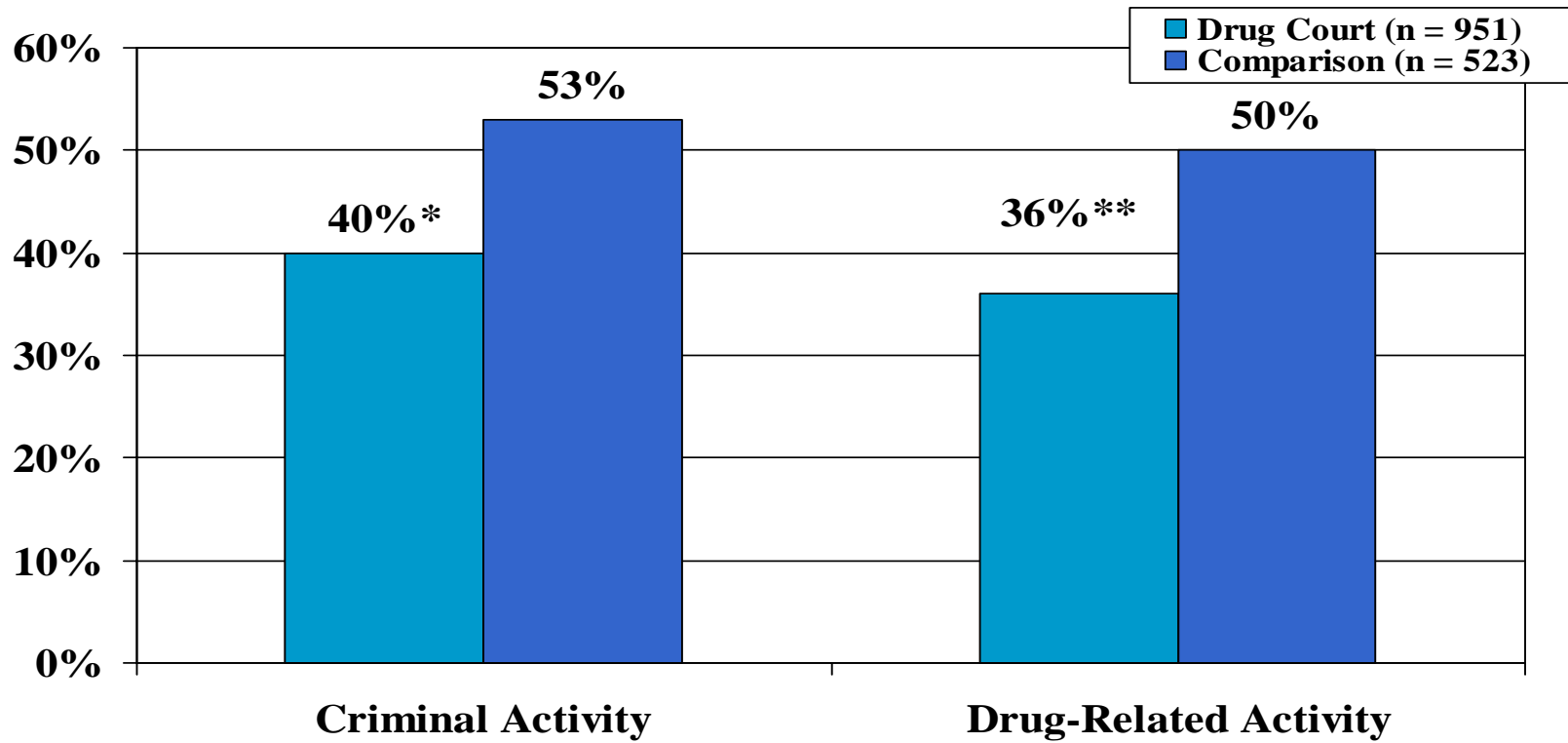
# Results: Drug Use

## Positive Drug Test Results at 18 Months



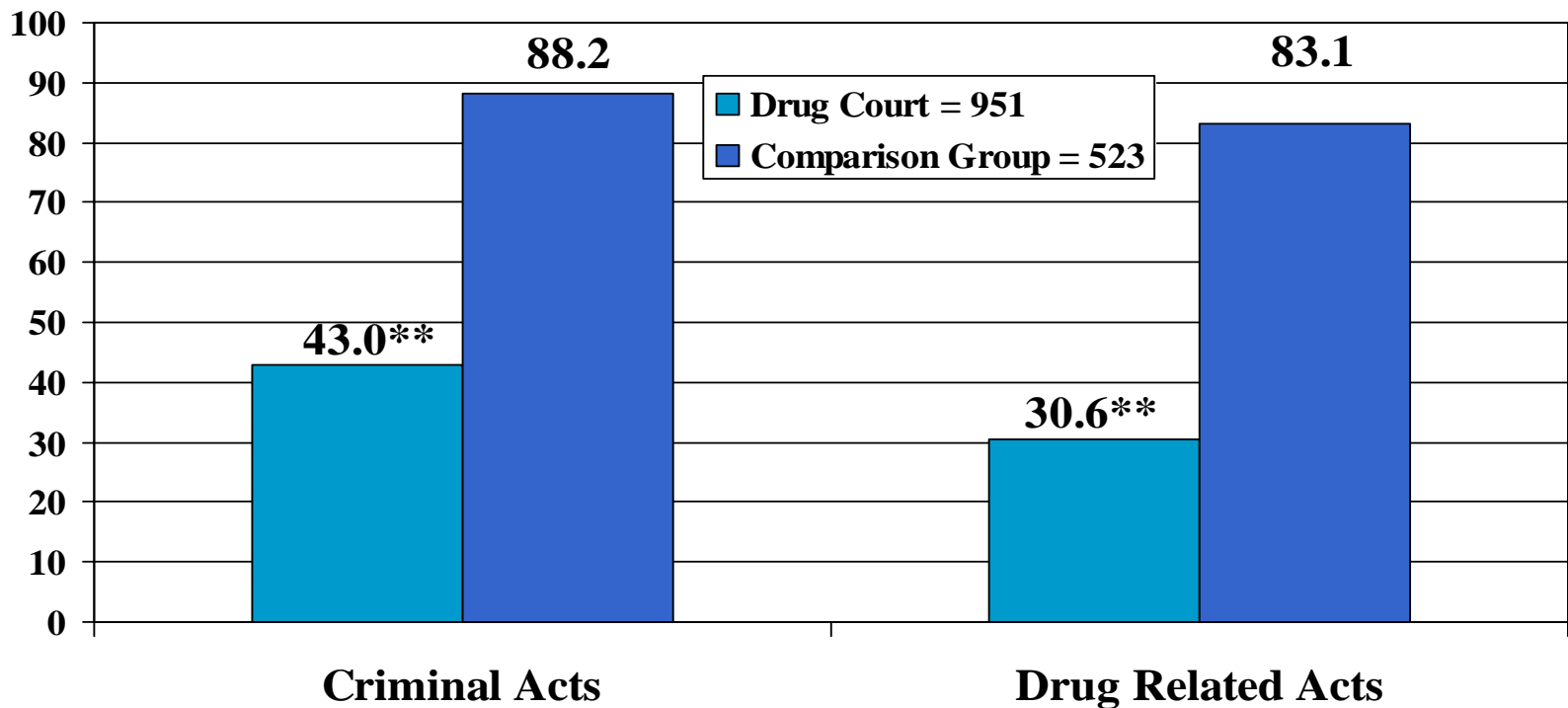
# Results: Criminal Activity

## Percent with Criminal Activity: One Year Prior to 18-month Interview



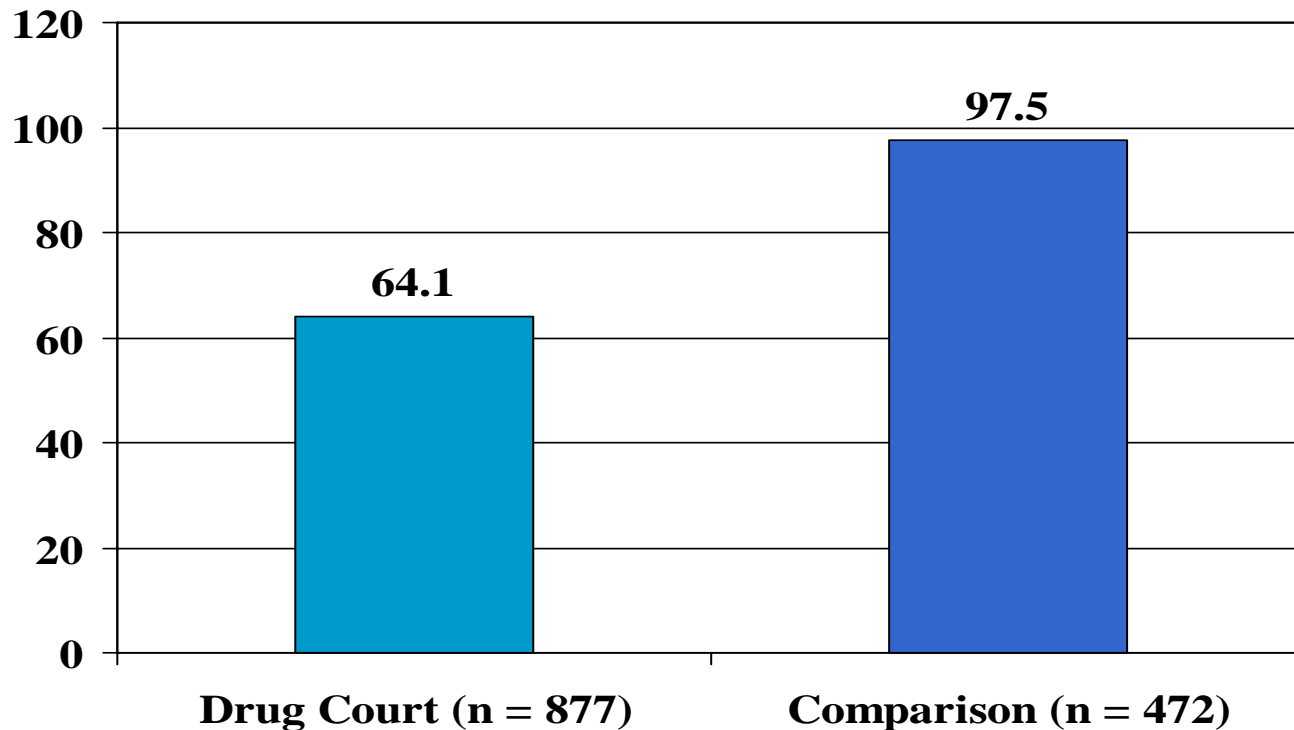
# Results: Criminal Activity

## Number of Criminal Acts One Year Prior to 18-month Interview



# Results: Incarceration

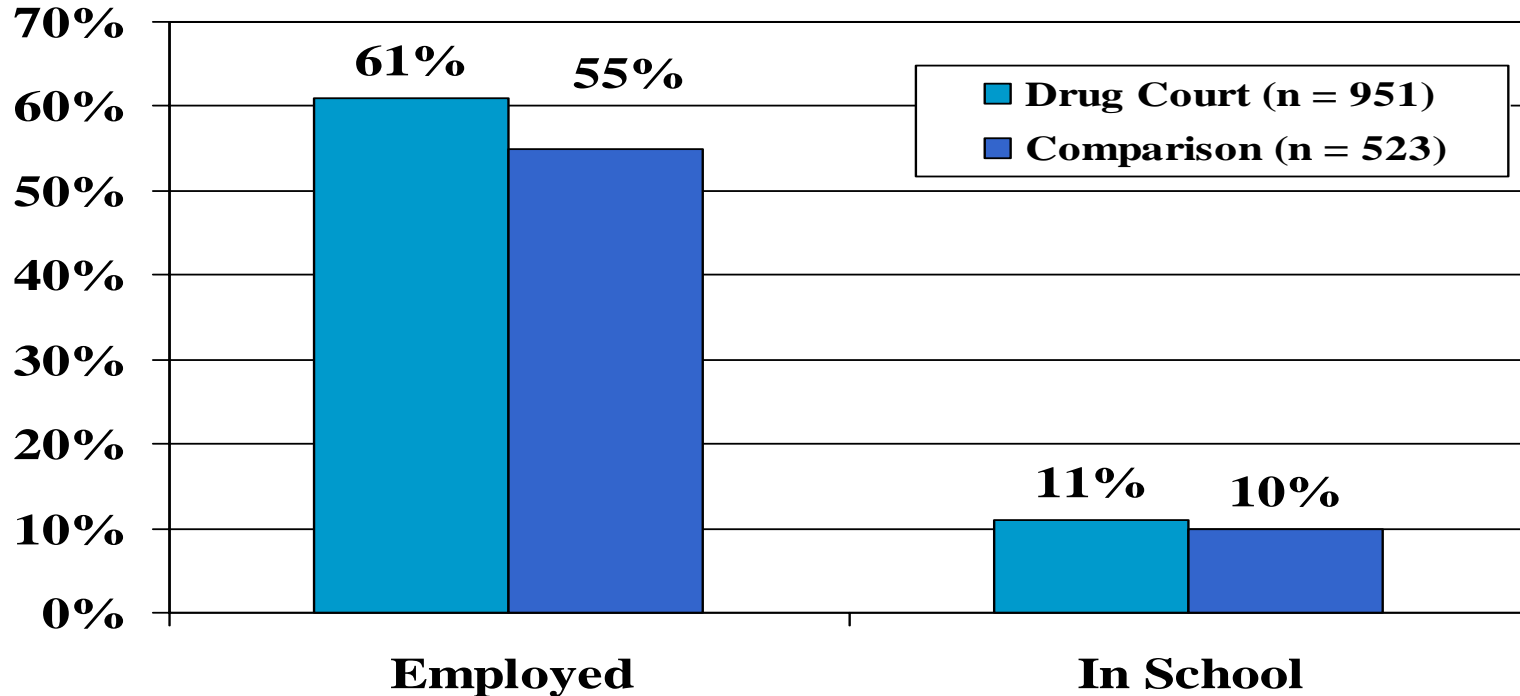
## Days Incarcerated Over 18 Months



# Results:

## Socioeconomic Status #1

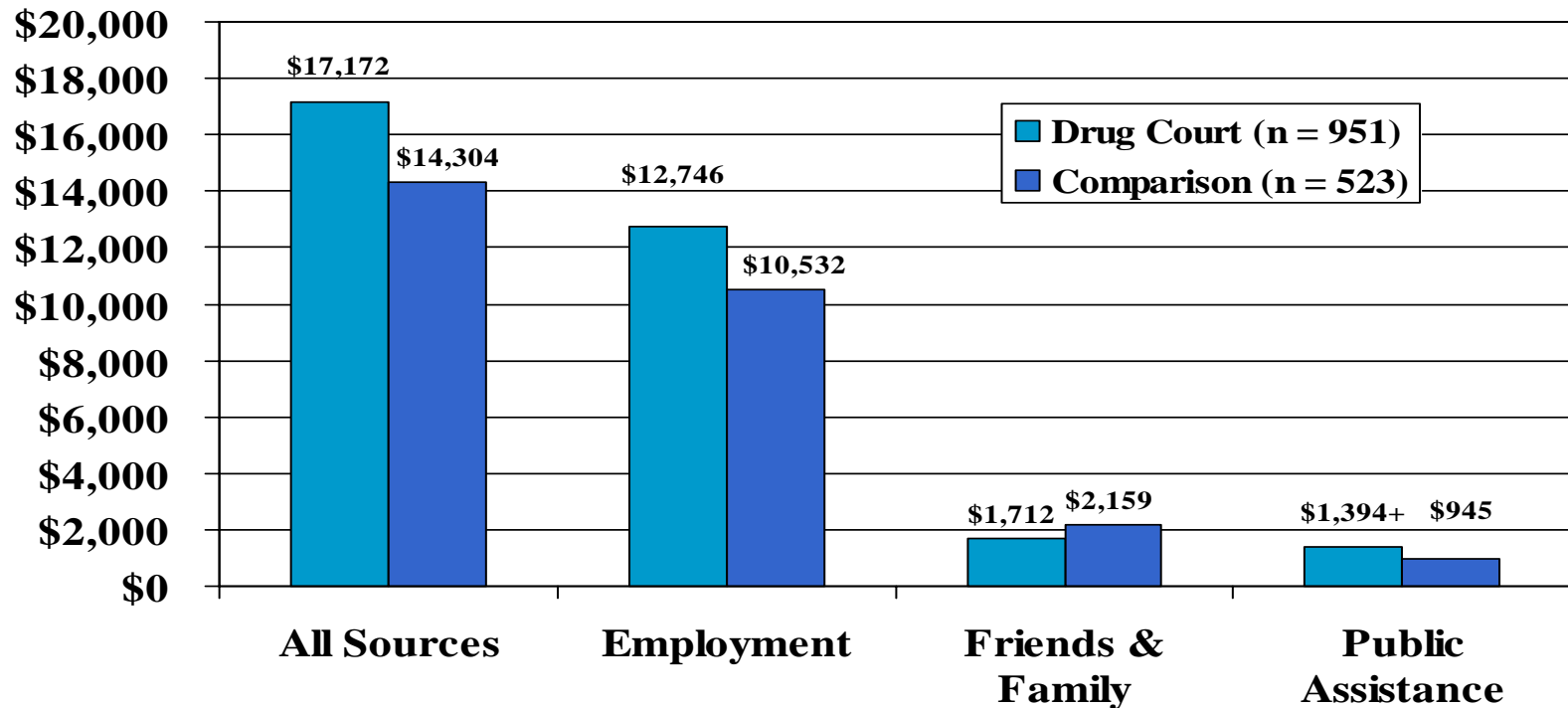
### Employment and School Status at 18 Months



# Results:

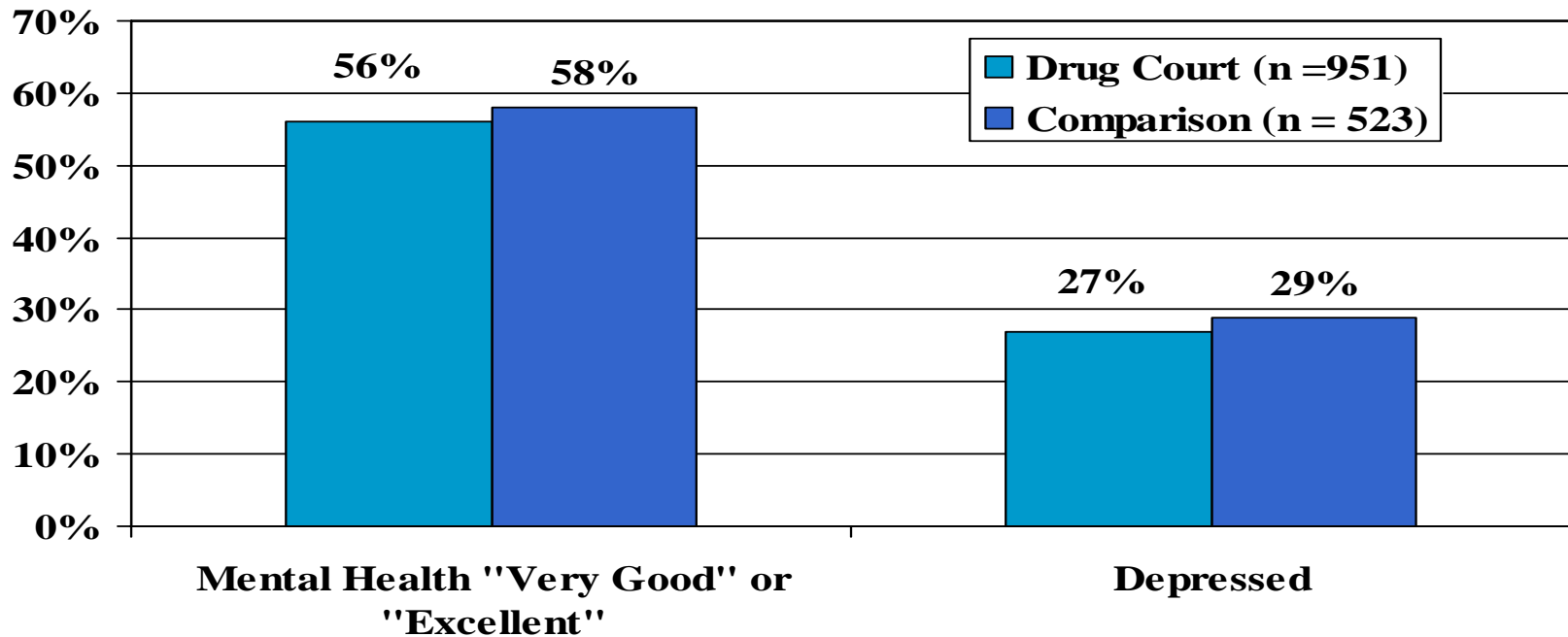
## Socioeconomic Status #2

### Annual Income at 18 Months



# Results: Mental Health

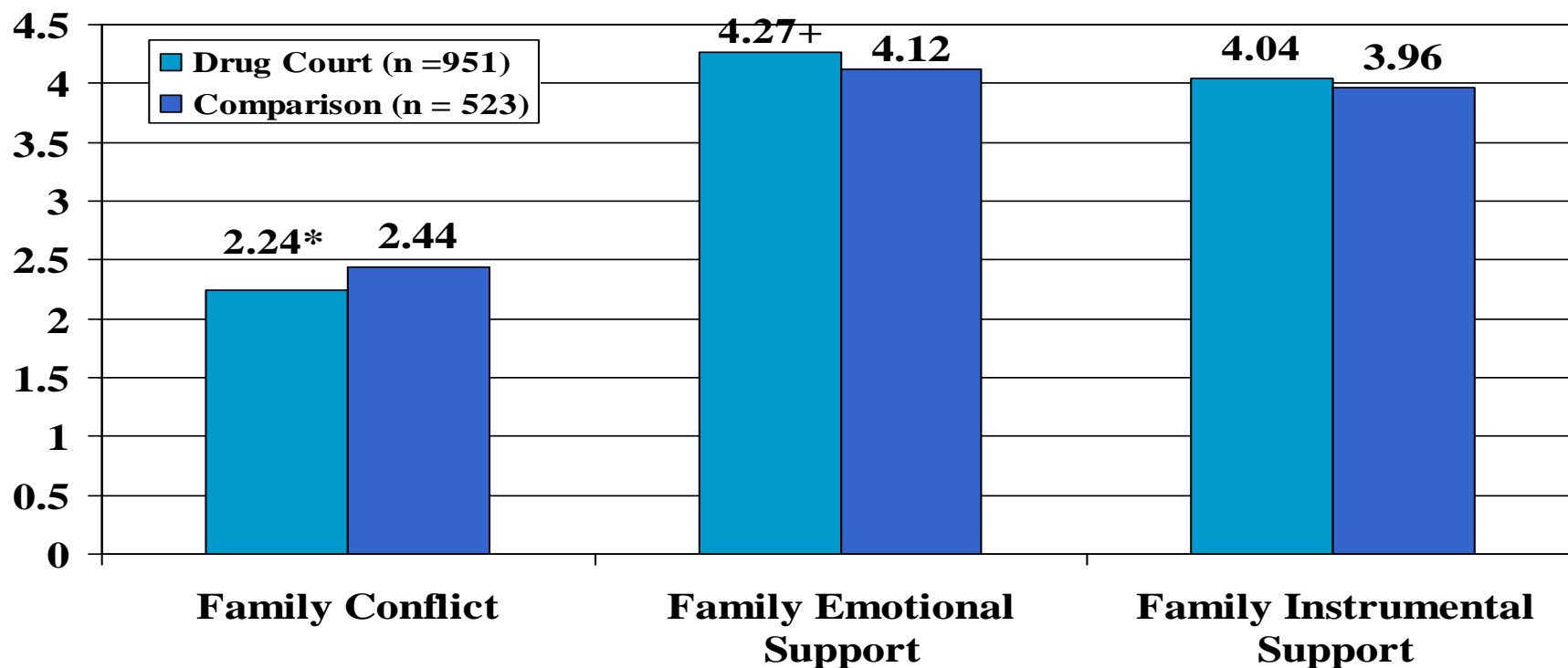
## Mental Health at 18 Months



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

# Results: Family Ties

## Family Relationships at 18 Months (1-5 Scales)



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





# Predictors of Drug Use and Criminal Activity at 18 Months

## Multivariate Analysis (Poisson Distribution) in HLM

### Baseline Individual Characteristics:

- Participant in Drug Court
- Demographics
- Social Ties
- Prior Drug Use and Treatment
- Criminal History
- Mental Health Status

# Predictors of Drug Use at 18 Months

<u>Drug Court Participation</u>		<u>Drug Use and Treatment History</u>	
<b>Participant sample</b>	<b>-.946***</b>	Marijuana	.336
<u>Demographics</u>		<b>Alcohol</b>	<b>.473+</b>
Age	-.003	Cocaine (any form)	.105
Sex	.185	<b>Average days of use/month</b>	<b>.029***</b>
Black	.171	Any residential treatment	.348
Hispanic	.153	<u>Criminal History</u>	
Other racial group	.232	Number of criminal acts	.100
<u>Social Ties</u>		<u>Mental Health</u>	
High school degree or GED	-.104	Depression	.135
Income	.053	<b>Anti-social personality disorder</b>	<b>.307**</b>
Employed or enrolled in school	-.032	Narcissistic personality disorder	.025
Married	-.214	Intercept	4.325***
Homeless (any time in 6 months pre-baseline)	.037	<i>Number of cases</i>	1474
Blood relatives involved with crime or drugs	-.013		

# Predictors of Criminal Activity at 18 Months

<b><u>Drug Court Participation</u></b>		<b><u>Drug Use and Treatment History</u></b>	
Participant sample	<b>-.864**</b>	Alcohol	-.217
<b><u>Demographics</u></b>		Marijuana	.204
Age	<b>-.018*</b>	Cocaine (any form)	-.136
Male	.218+	<b>Average days of use/month</b>	<b>.010*</b>
Black	.042	Any residential treatment	.148
Hispanic	-.135	<b><u>Criminal History</u></b>	
Other Racial Group	.261+	<b>Number of criminal acts</b>	<b>.005**</b>
High school degree/GED	-.058	<b><u>Mental Health</u></b>	
Income	-.001	Depression	.111
<b><u>Social Ties</u></b>		<b>Anti-social personality disorder</b>	<b>.494***</b>
<b>Employed or in school</b>	<b>-.208+</b>	<b>Narcissistic personality disorder</b>	<b>.328**</b>
<b>Married</b>	<b>-.494**</b>	Intercept	4.41***
Homeless (6 months pre-baseline)	.325	Number of Cases	1451
Blood relatives involved w/ crime or drugs	-.020		




# For Whom Do Drug Courts Work?

## Three Predictor Models

➤ Models Consist of:

- Participation status
  - Baseline characteristic
  - Interaction term of participation status and baseline characteristic.
- Significant interaction terms would indicate that the net benefit of the drug court intervention.
- Few interaction terms turned out to be significant in the initial three-variable models.



# MADCE Results: For Whom Do Drug Courts Work?

## For Criminal Activity at 18 Months

- ☒ **Drug Use History**
- ✓ **Prior Criminality: only prior violent convictions (16% of sample)**
- ✓ **Mental Health: only not narcissistic personality**
- ☒ **Social Ties (employment, school, marriage, homelessness, etc.)**
- ✓ **Primary Demographics: only not black**



# MADCE Results: For Whom Do Drug Courts Work?

## For Drug Use at 18 Months:

✓ Drug History

✓ Prior Criminality: only prior violent convictions (16% of sample)

☒ Mental Health

☒ Social Ties (employment, school, marriage, homelessness, etc.)

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

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