

# Dosage: How Much is Enough?

By:

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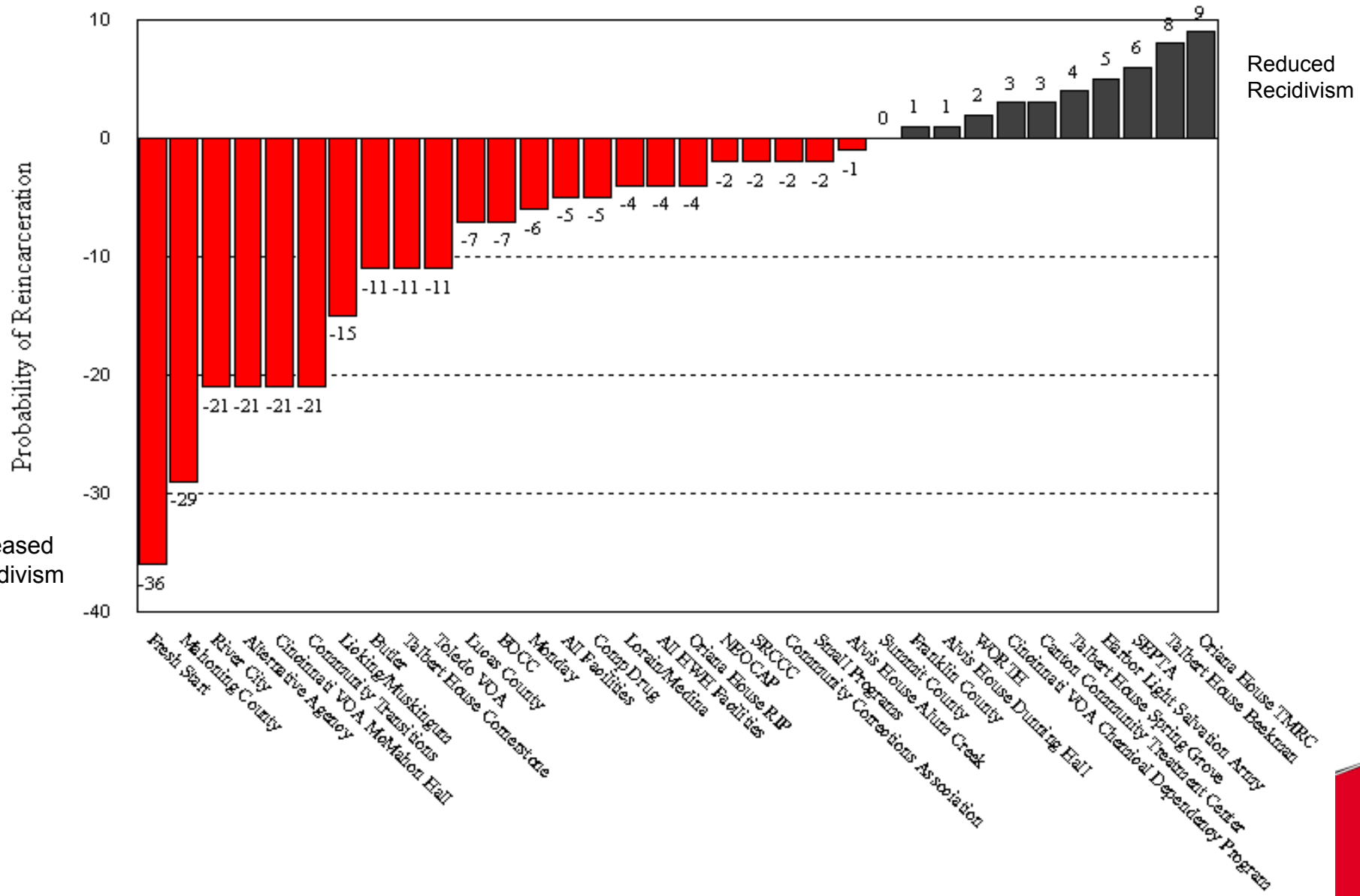
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# Risk Principle

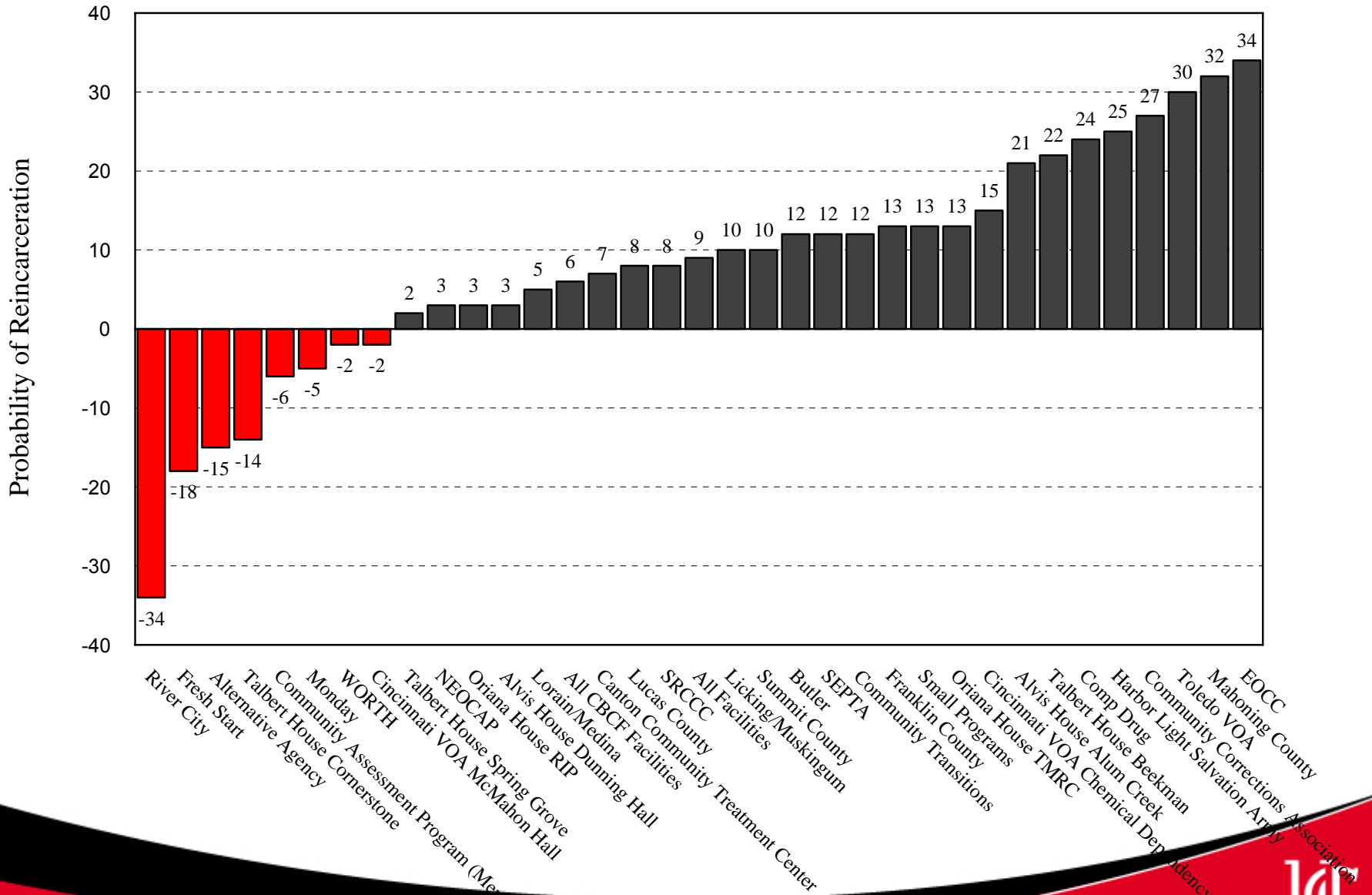
- Research by Andrews, Bonta, Lowenkamp, Latessa and others have clearly established the application of the risk principle across different populations.
- As a general rule treatment effects are stronger if we target higher risk offenders, and harm can be done to low risk offenders

We saw it in our 2002 Study of Halfway  
Houses and CBCFs

# Treatment Effects for Low Risk Offenders

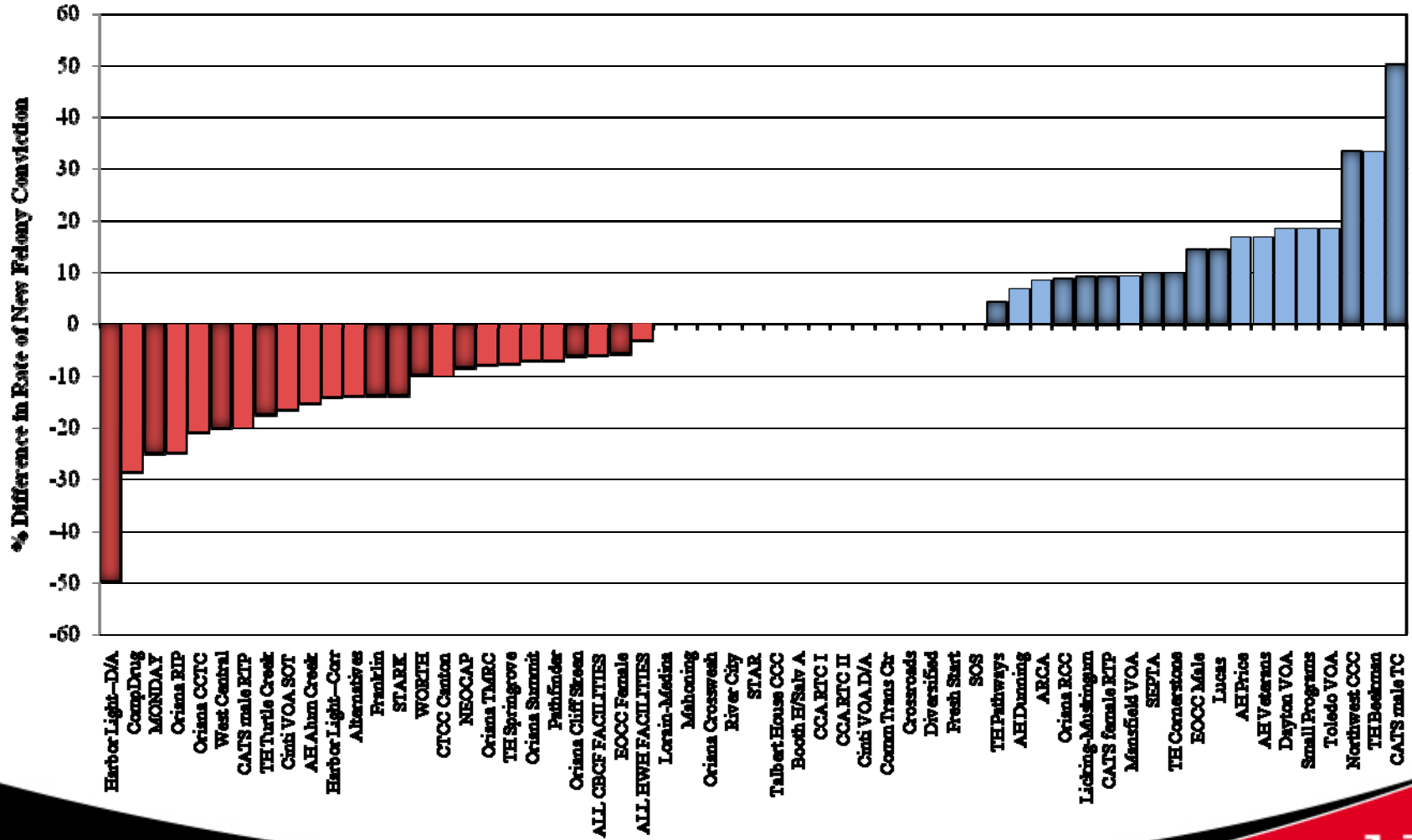


# Treatment Effects For High Risk Offenders

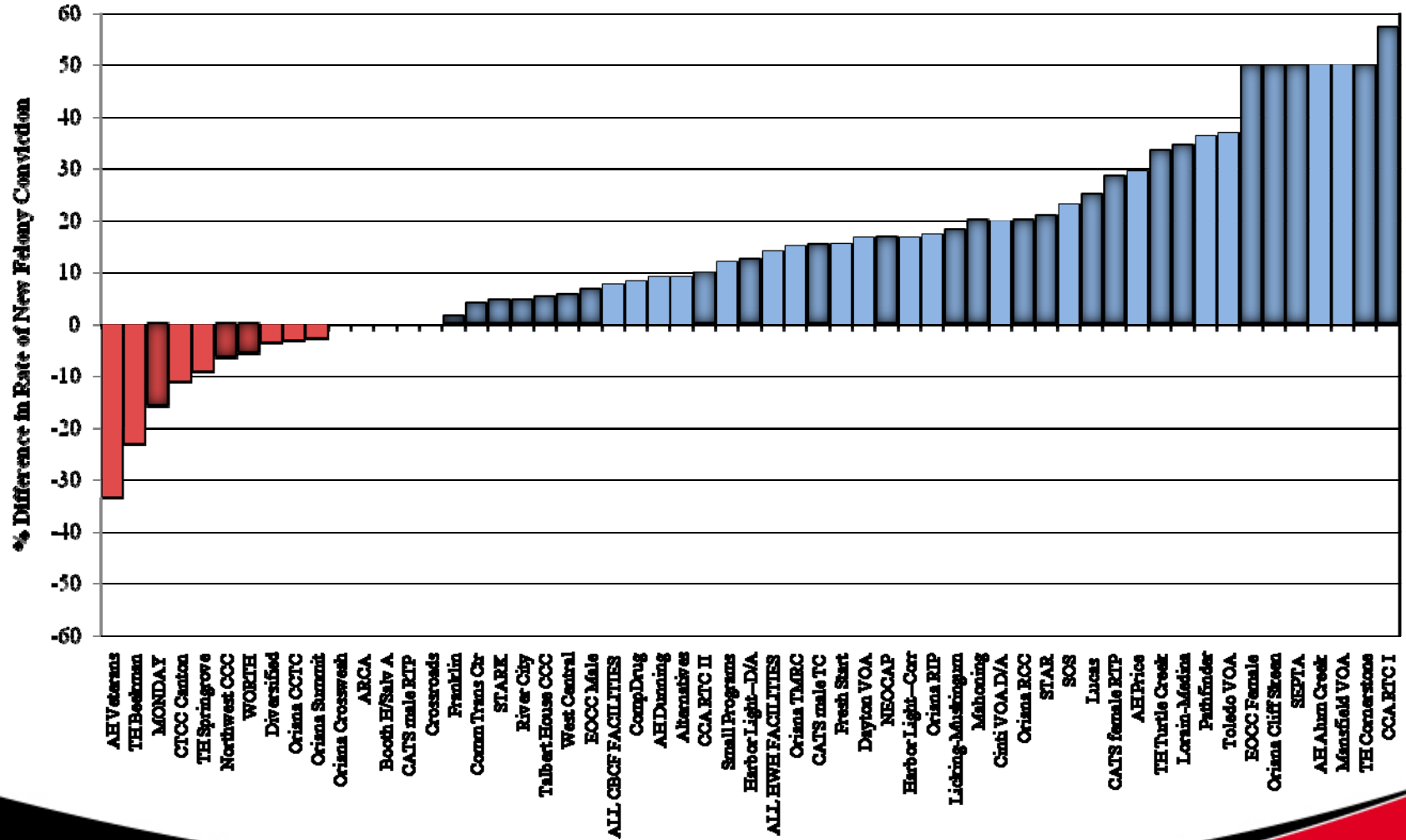


**We saw it in our 2010 STUDY OF Halfway Houses and  
CBCFS**

# Treatment Effects for Low Risk



# Treatment Effects for High Risk

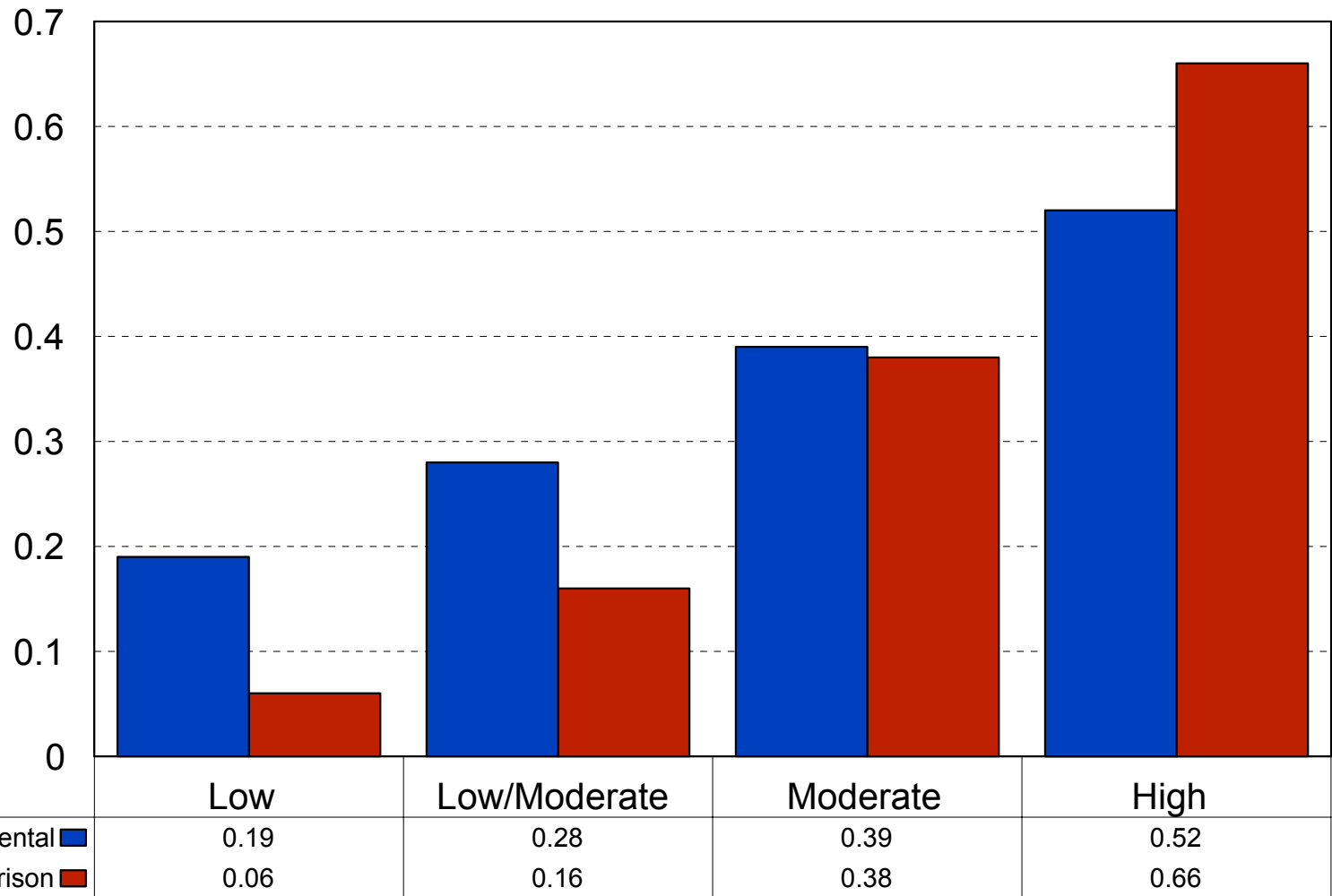


# Average Difference in Recidivism by Risk for Halfway House Offenders

Low risk	↑	recidivism by 3%
Moderate risk	↓	recidivism by 6%
High risk	↓	recidivism by 14%

We have seen it with Females

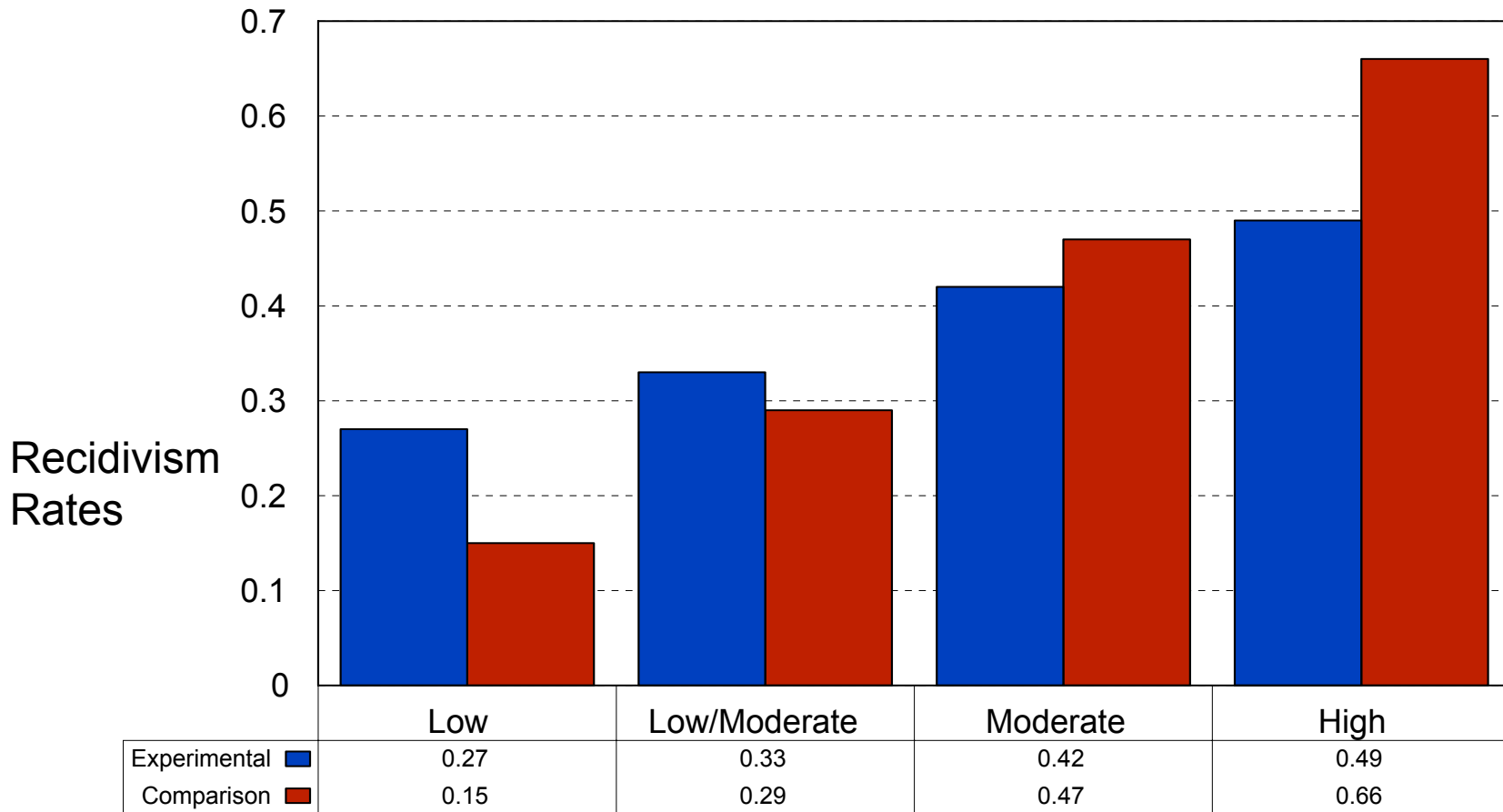
## Recidivism Rates by Risk Levels for Females: New Arrest (Felony or Misd).



and CBCF House Study all treatment cases. N=1,340

# We have seen it with Sex Offenders

## Recidivism Rates by Risk Levels for Sex Offenders: New Arrest (Felony or Misd).



Ohio ½ and CBCF House Study: Successful terminations only. N=390

# However, there are Three Elements to the Risk Principle

1. Target those offenders with higher probability of recidivism
2. Intensive treatment for lower risk offender can increase recidivism
3. Provide most intensive treatment to higher risk offenders

# The question is: What does more “intensive” treatment mean in practice?

- Most studies show that the longer someone is in treatment the greater the effects, however:
- Effects tend to diminish if treatment goes too long

## Another related issue is the nature of dynamic risk factors

- Some are acute and can change quickly – i.e. employment
- Others are stable and take longer to change – i.e. anti social attitudes, lack of coping or problem solving skills

Little prior research in  
corrections examining the  
dosage of treatment needed  
to achieve effect

# Bourgon and Armstrong 2006

## Study of Treatment “Dosage” in a Prison Setting

- 620 Incarcerated Males
- Three variations in Cognitive Behavioral Treatment:
  - 100 hours
  - 200 hours
  - 300 hours
- Comprehensive assessments were conducted and offenders assigned based on risk level and needs
- Recidivism defined as incarceration (either a new conviction or revocation); one year follow-up.
- Dosage of treatment appeared to be an important factor:

Bourgon, G, and B. Armstrong (2006). Transferring the Principles of Effective Treatment into a “Real World” Setting. *Criminal Justice and Behavior*, 32 (1): 3-25.

## Dosage Continued:

- Reductions in recidivism increased between 1.2% to 1.7% for each additional 20 hours of treatment
- For Moderate risk offenders with few needs, 100 hours was sufficient to reduce recidivism
- A 100 hour program had no effect on high risk offenders
- For offenders deemed appropriate (i.e. either high risk or multiple needs, but not both), 200 hours were required to significantly reduce recidivism
- If the offender is high risk & has multiple needs it may require in excess of 300 hours of treatment to affect recidivism

# Talbert House Dosage Study

- **Conceptual** understanding of the risk principle versus **operationalization** of the risk principle in real world setting to achieve maximum outcome
- “Can we **quantify** how much more service to provide to high risk offenders?”

# The Program

- 100-bed CBCF for adult male felons
- Prison diversion program
- Average length of stay = 4 months
- Serves 3 counties
- Cognitive-behavioral treatment modality

# Talbert House Dosage Study

- Implemented new dosage protocol at CBCF to better align risk/need and treatment dosage
  - Implementation began 1/08
- Minimum hours dictated by risk level (LSI-R)
- Maximum hours dictated by individual criminogenic needs

**Community Correctional Center  
Risk Level Structure Guide**

	<b>High</b>	<b>Medium High</b>	<b>Medium</b>	<b>Low/ Moderate</b>	<b>Low</b>
<b>LSI Score Range</b>	34+	31-33	24-30	19-23	0-18
<b>Length of Stay Target (days)</b>	147	133	119	105	60
Corrective Thinking	200	180	132	92	52
AOD	62	54	46	38	28
Individualized Relapse Prevention					21
Anger Management	24	24	24	24	if needed
Domestic Violence	24	15	15	15	if needed
Vocational*	15	15	15	15	8
Life Skills*	16	16	16	16	8
Personal Development*	10	10	10	10	if needed
*not counted in dosage total					
<b>Total hours available:</b>	<b>351</b>	<b>314</b>	<b>258</b>	<b>210</b>	<b>117</b>

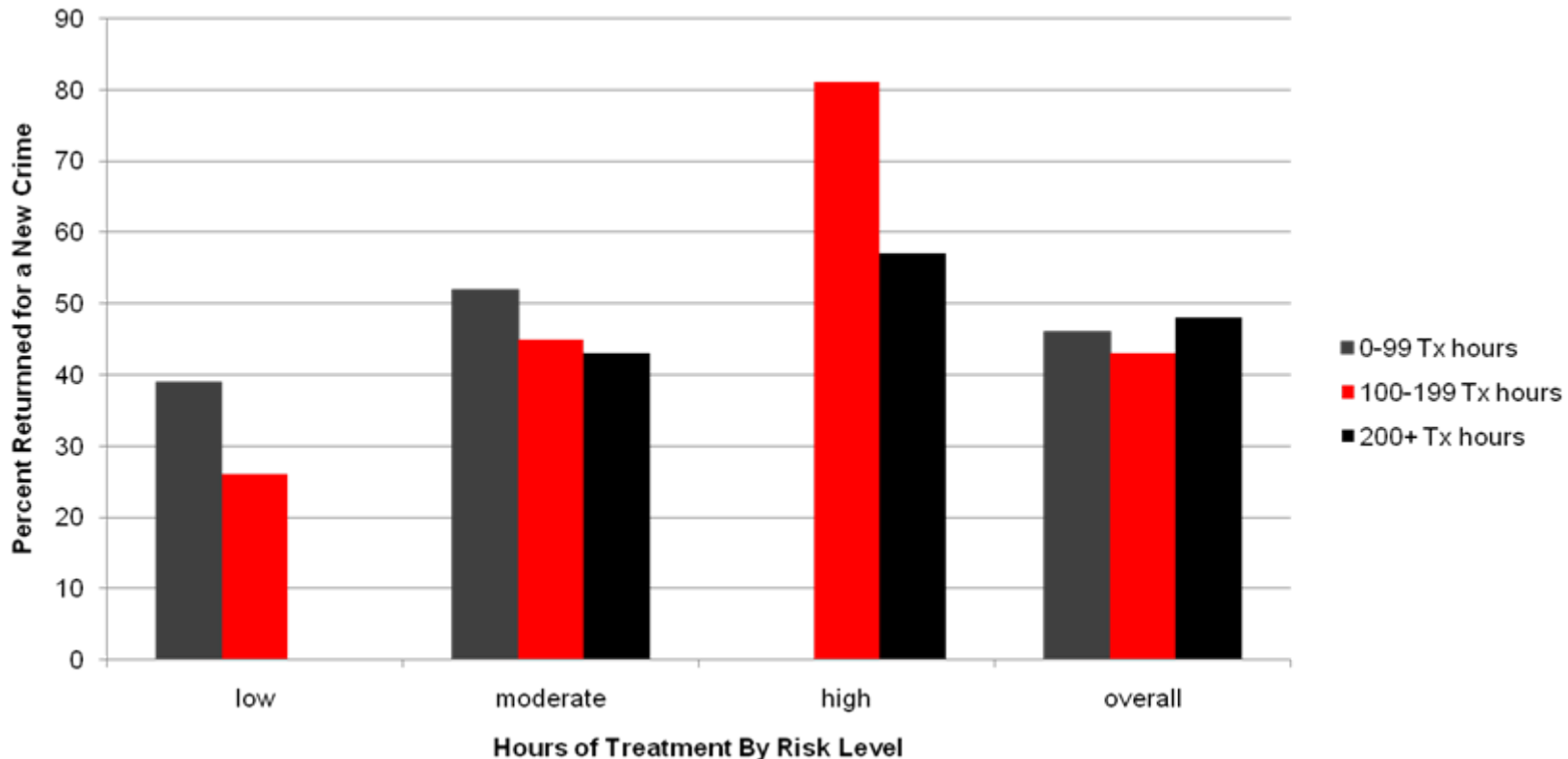
# Methodology

- Sample size = 689 clients
- Clients successfully discharged between 8/30/06 and 8/30/09
  - 300 clients pre-implementation
  - 123 clients during implementation
  - 266 clients post-implementation
- Excluded sex offenders
- Dosage defined as number of group hours per client
- Multiple measures of recidivism – arrest, conviction, reincarceration
  - All offenders out of program minimum of 12 months

# Sample Characteristics

- 89% White
- Average age 33
- 60% single, never married
- 43% less than high school education
- 95.5% Felony 3, 4 or 5
  - Almost half Felony 5
- 80% moderate risk or higher
- 88% have probability of substance abuse per SASSI

# Recidivism Rates by Treatment Intensity and Risk Levels



	low	moderate	high	overall
0-99 Tx hours	39	52		46
100-199 Tx hours	26	45	81	43
200+ Tx hours		43	57	48

Average low=78, Moderate= 155 High =241

# Findings

- We see large decreases in recidivism when dosage levels go from 100 to 200 hours for high risk offenders. Went from 81% to 57%.
- The results are consistent, but not as strong for moderate and low risk offenders

# Conclusions

- Supports previous research including the risk principle
- Indicates that we cannot have “one size” fits all programs

# Work to be Done

- What is limit of effects?
- Other groups (i.e. females, juveniles, sex offenders, etc.)
- Other factors that influence effects (i.e. targets for change, type of treatment, fidelity, etc.)

# Treatment Characteristics and Outcome: Results from 2010 Ohio CBCF/HWH Study

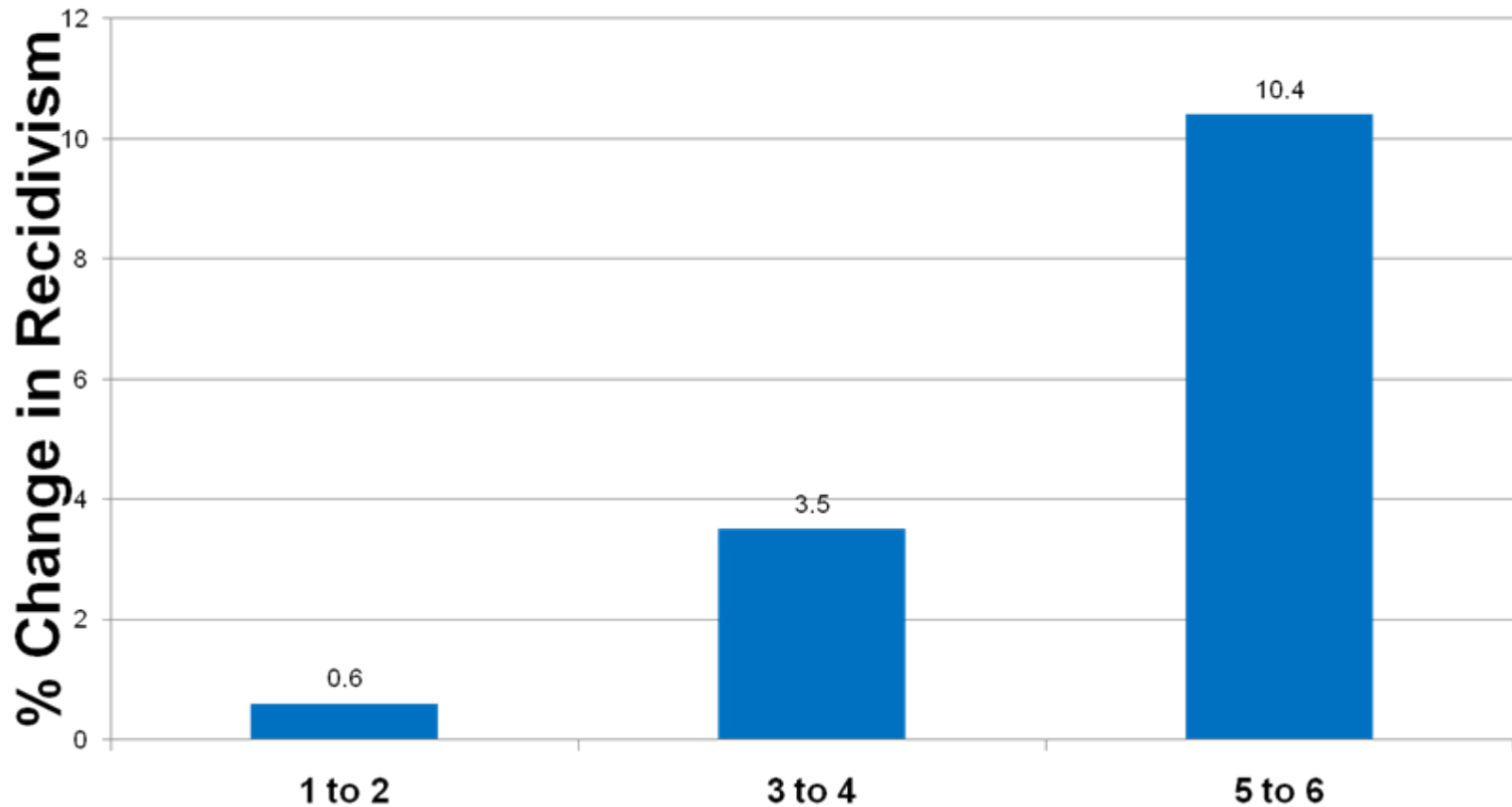
# Methodology

- Sample includes over 20,000 offenders (treatment and comparison groups)
- Follow-up was 2 years
- 20 Community Based Correctional Facilities
- 44 Halfway Houses
- Each site was visited and information was gathered about the programs

For a complete description of the methodology and results see: Follow-up Evaluation of Ohio's Community Based Correctional Facilities and Halfway House Programs – Outcome Study. Available at [www.uc.edu/criminaljustice](http://www.uc.edu/criminaljustice)

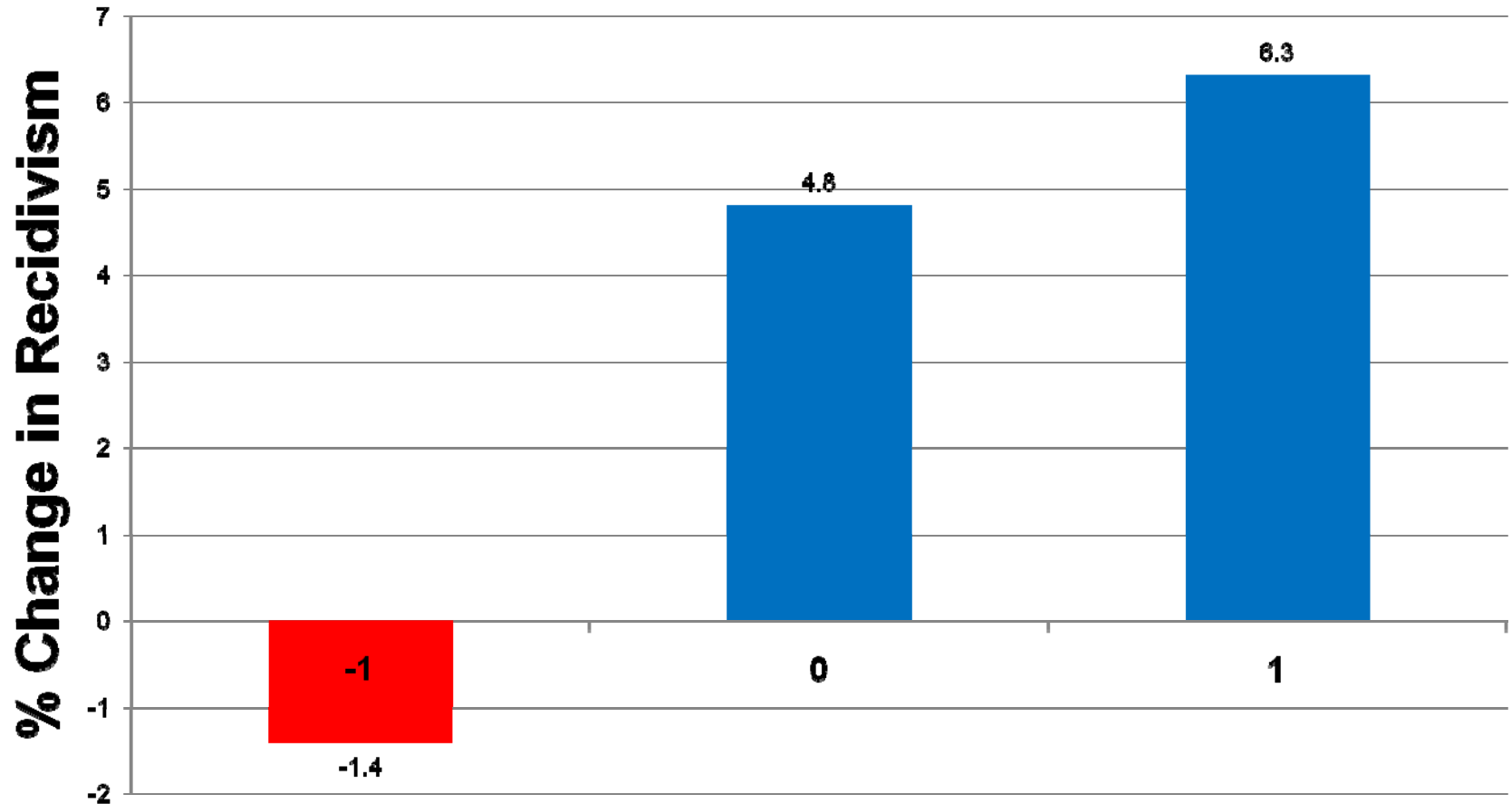
# Treatment Characteristics

# Treatment Targets



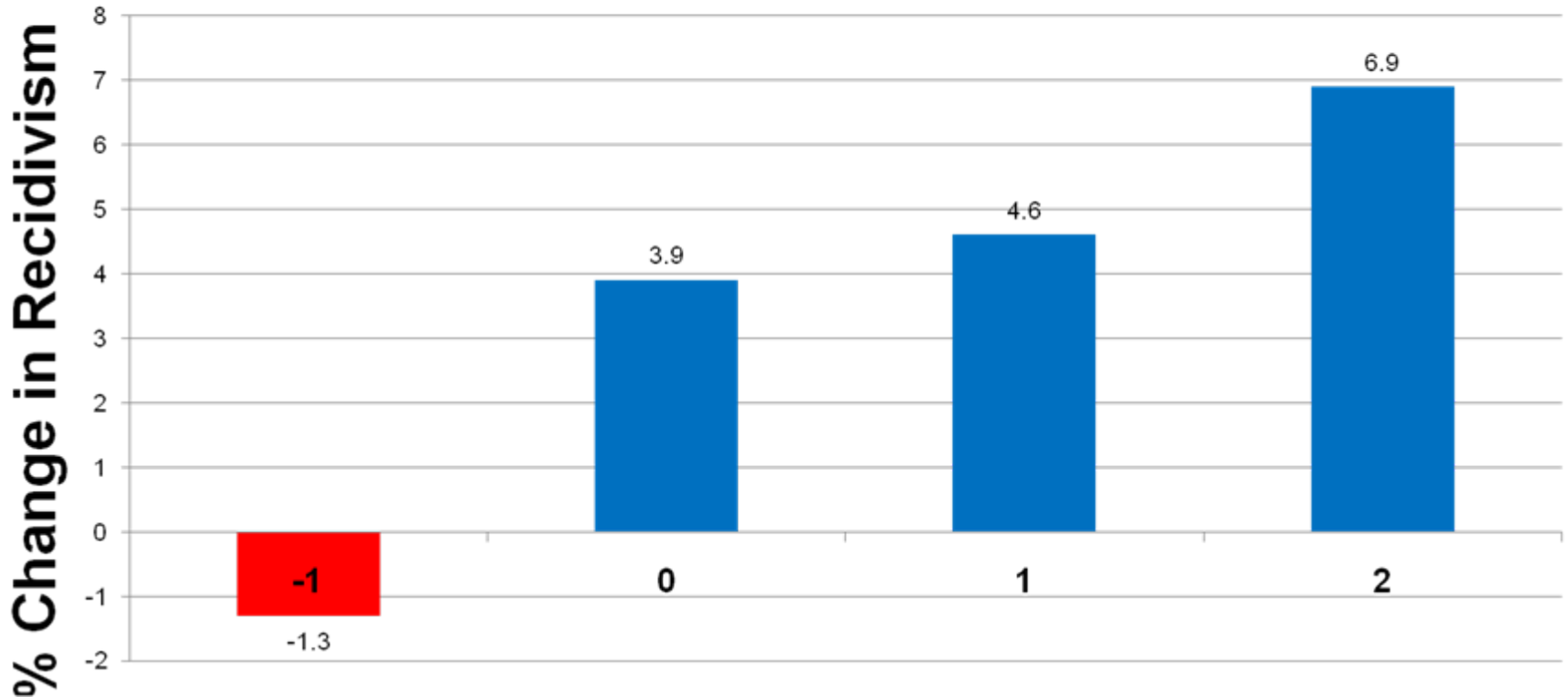
Criteria: 1) criminal attitudes. 2) Interpersonal relationship skills. 3) relationships with significant others. 4) vocational skills. 5) self-control. 6) personality attributes.

# Cognitive-behavioral Group Scale



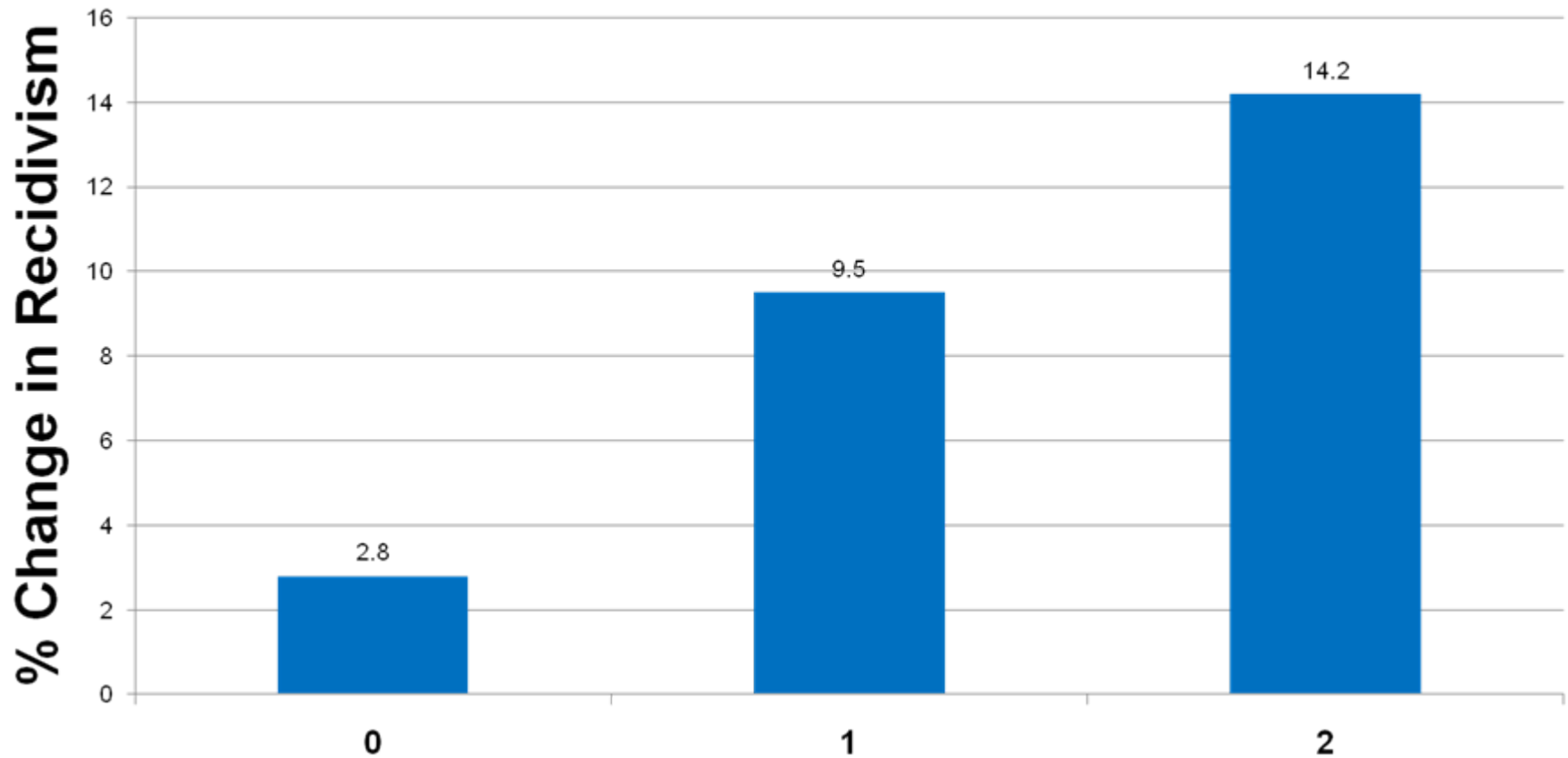
-1= Cog group offered but not well done. 0= Not offered. 1= Group offered and offered at least 4 or more hours per week and at least 50% of time in role playing.

# Domestic Violence Group Scale



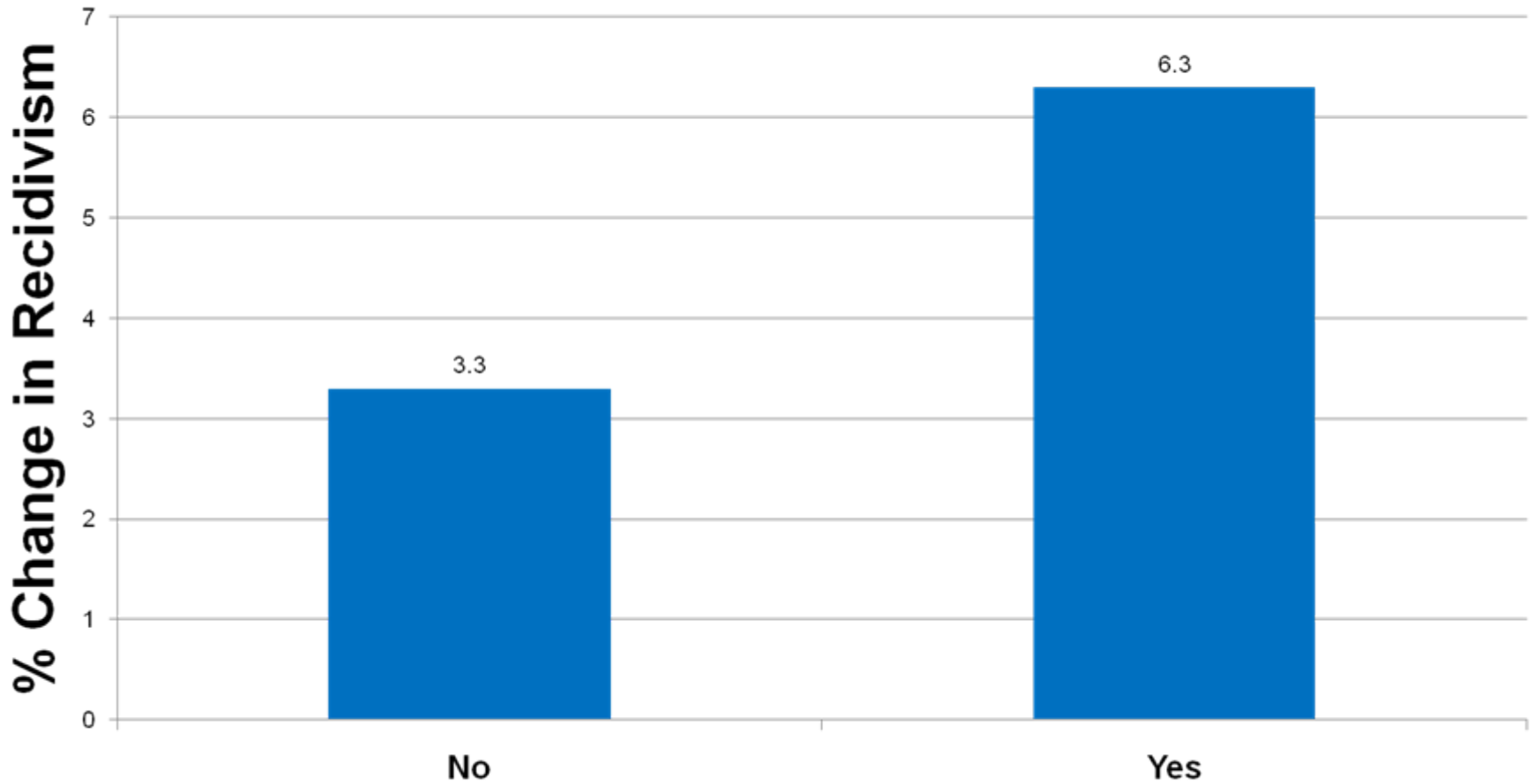
-1=DV offered but no positive attributes. 0=No DV group. 1=Group with one or two positive attributes. 2=Group offered with 3 positive attributes. Attributes 1) at least 10 sessions, 2) incorporated role play, 3) staff trained on curriculum

# Gender-specific Group Scale



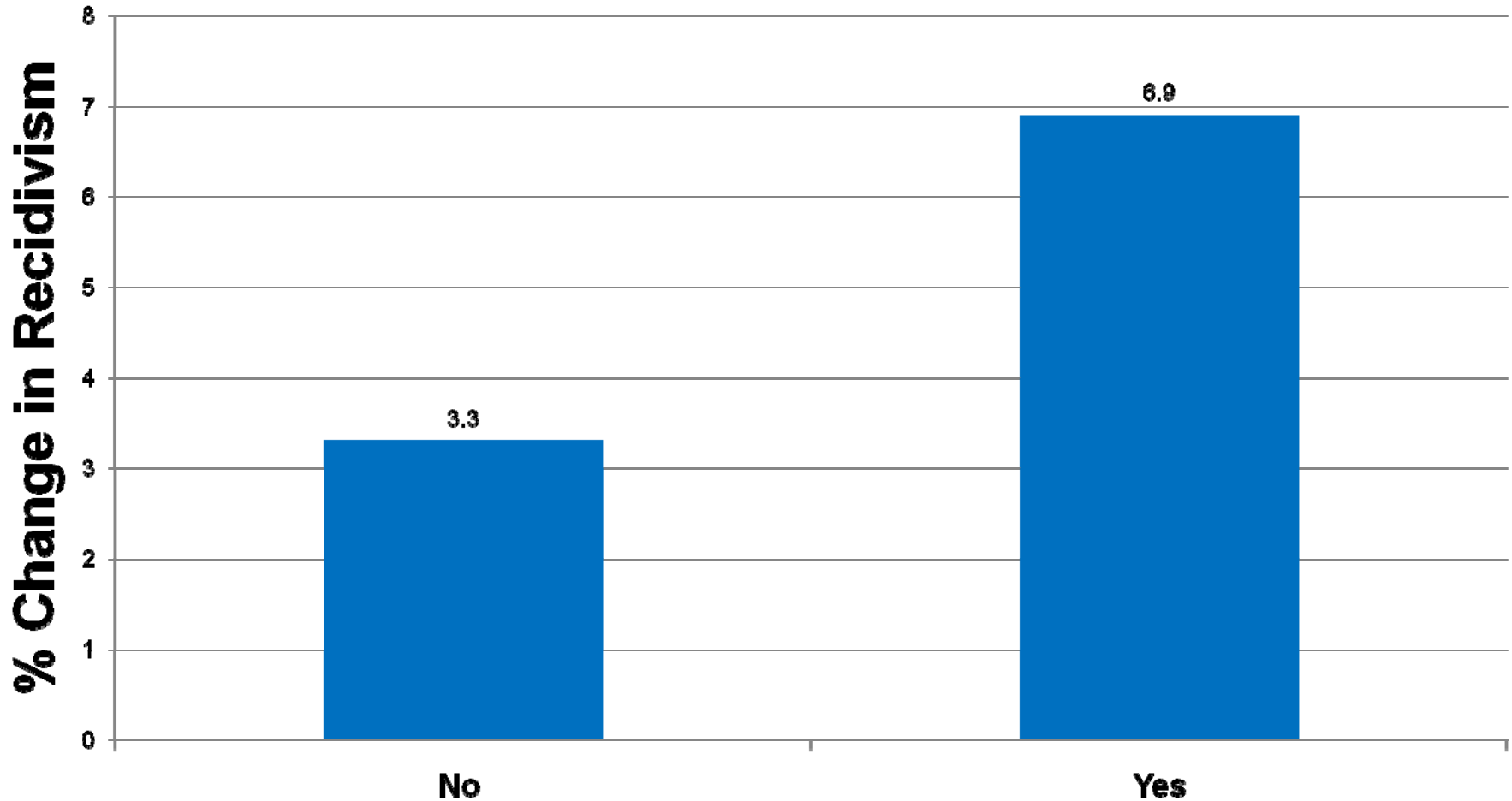
0=No group offered. 1=offered group. 2=Offered with at least one positive attribute. Positive attributes: 1) use of curriculum. 2) role playing. 3) at least 4 sessions.

# Dual Diagnosis Group



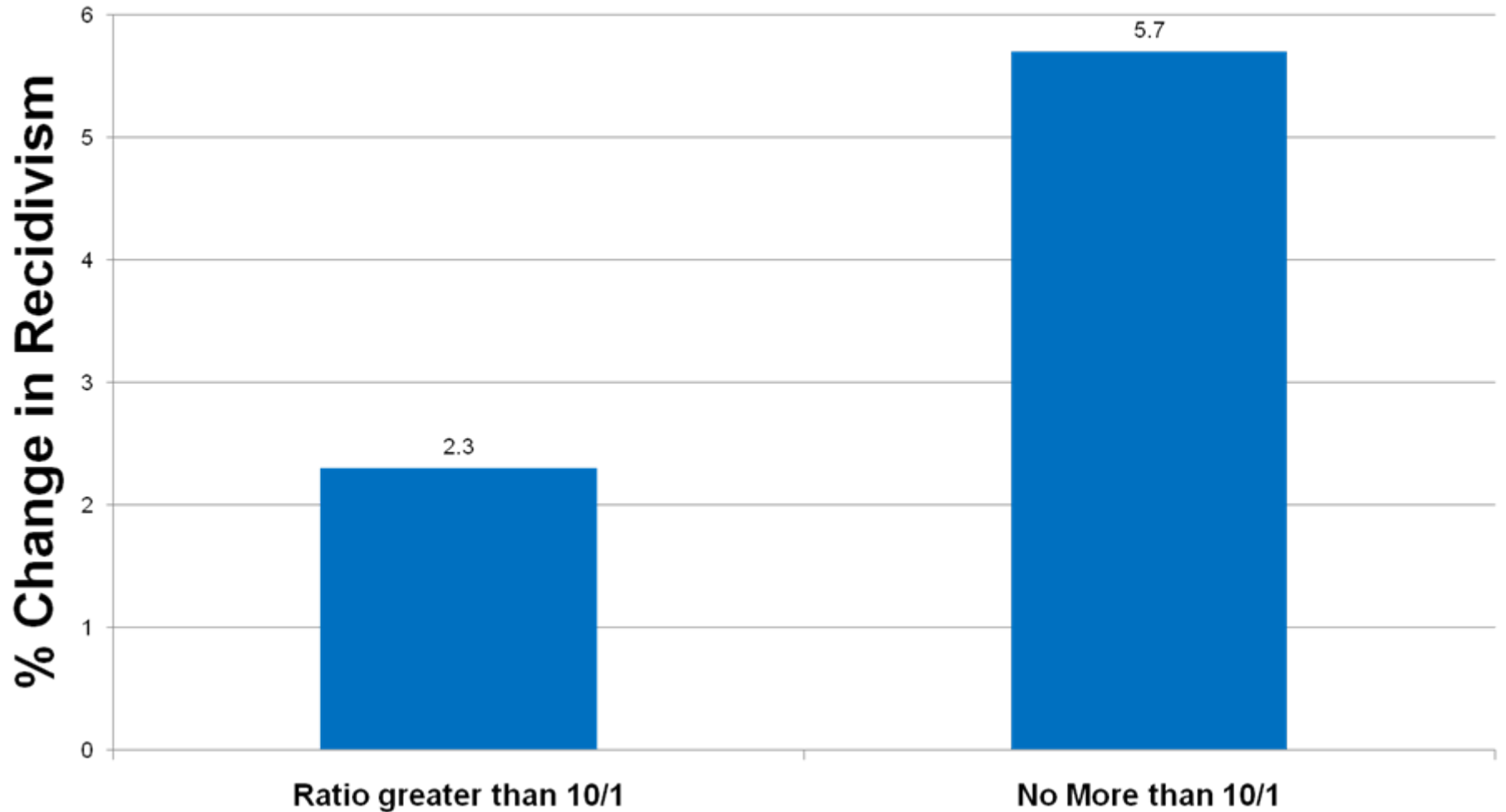
Note only 4 programs offered these groups.

# Use of Graduated Practice

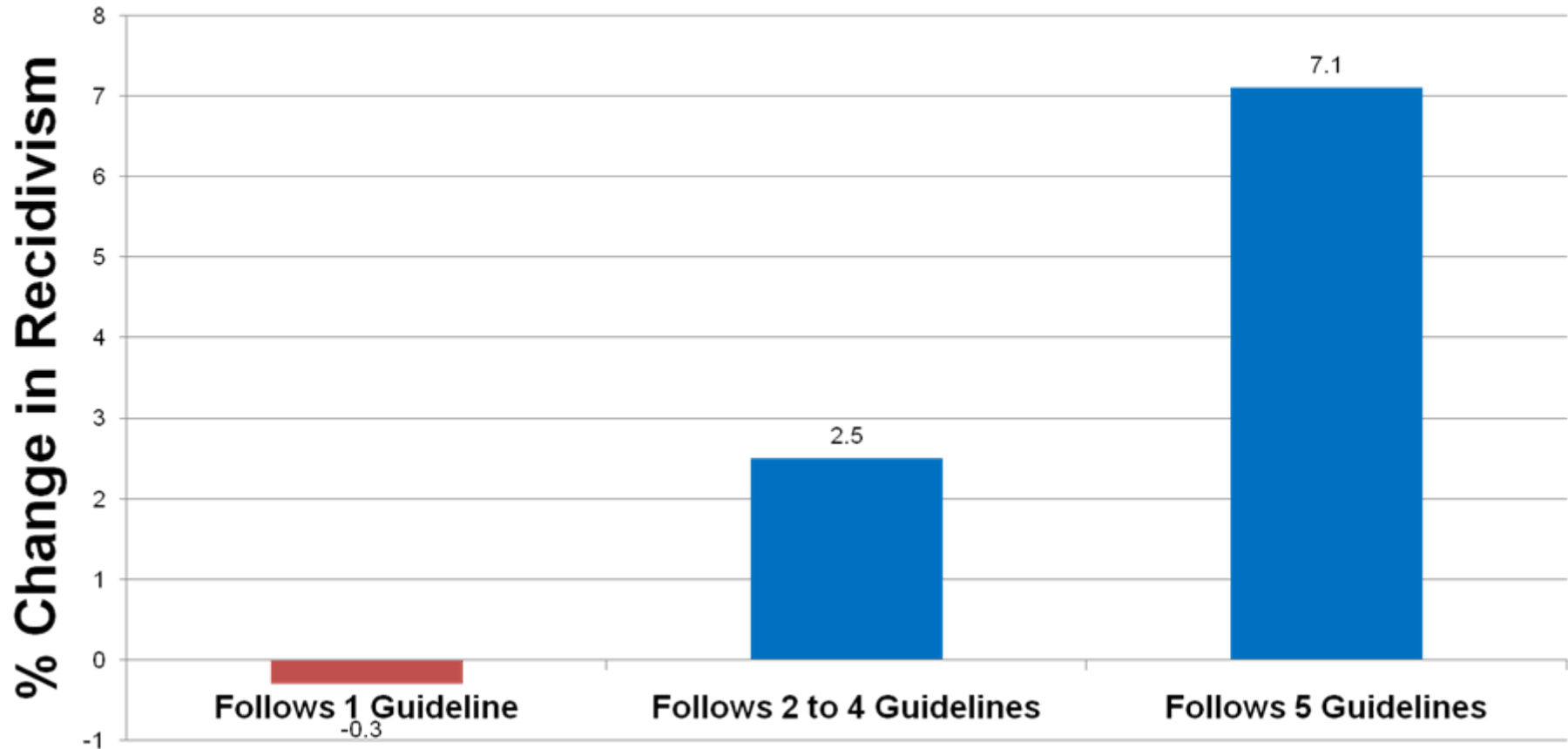


Note, only one program consistently offered graduated practice of skills in increasingly difficult situations.

# Group Size

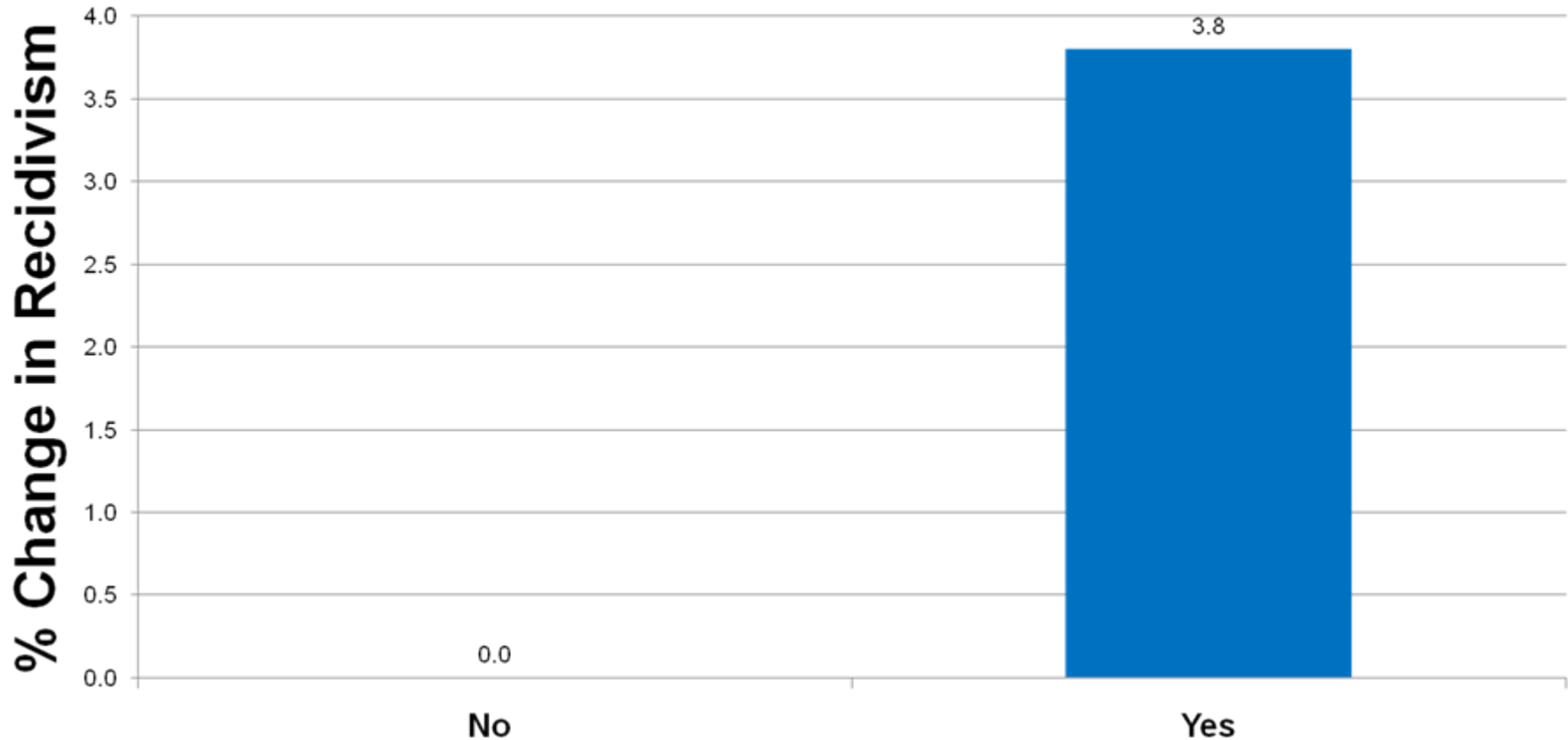


# Punishment Process



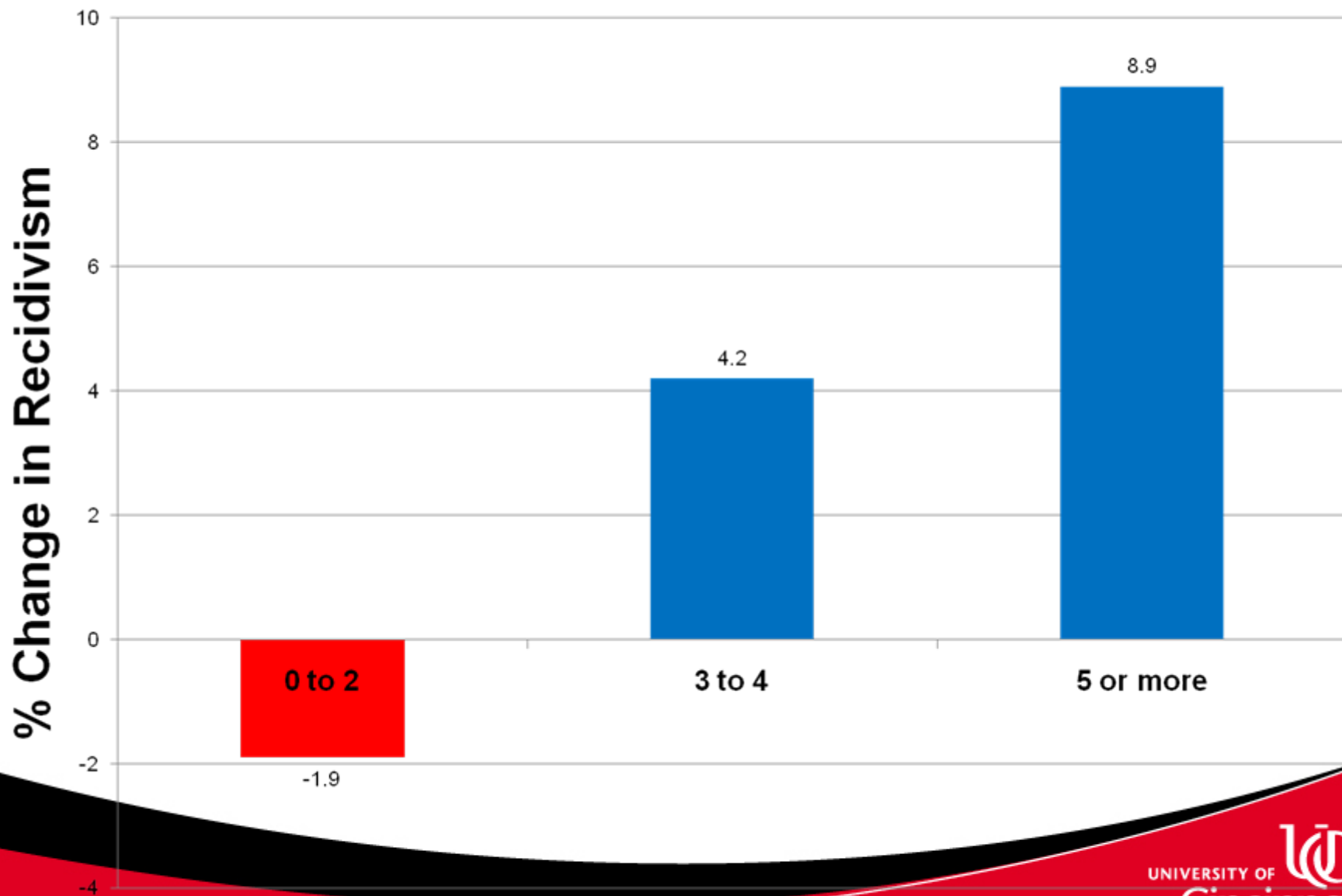
Guidelines: 1) based on exhibiting anti social behavior. 2) explanation provided. 3) individualized (not group). 4) undesirable to offender. 5) written policy on use.

# Appropriate Types of Punishment



Criteria: In appropriate includes shaming or using txt activities (i.e. thinking reports).  
Appropriate includes response costs (work or loss of privileges).

# Treatment Categories



# Lessons

- Provide more treatment to higher risk: at least 200 hours
- Offering poor quality groups may be worse than no groups at all
- Use behavioral techniques