

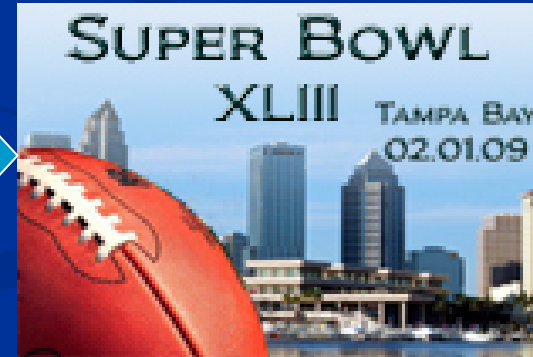
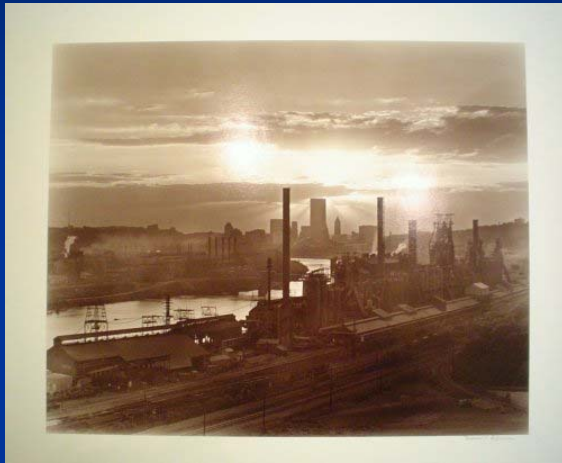
Change in Serious Adolescent Offenders

Edward P. Mulvey, Ph.D.

Western Psychiatric Institute and Clinic
University of Pittsburgh School of Medicine

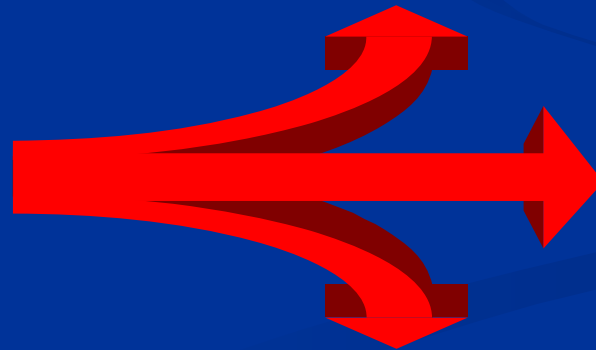
Meeting of Forensic Division
National Association of State Mental Health Program Directors
Pittsburgh, Pennsylvania
September 21, 2008

Welcome to Pittsburgh!



Pathways to Desistance

*A longitudinal study of serious
adolescent offenders*



Supported by

- Office of Juvenile Justice & Delinquency Prevention
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Working Group Members

- Edward Mulvey
- Laurence Steinberg
- Elizabeth Cauffman
- Laurie Chassin
- George Knight
- Carol Schubert
- Sonia Cota-Robles
- Sandra Losoya
- Robert Brame
- Jeffrey Fagan
- Alex Piquero



Figure 1. Age-specific arrest rates for United States Federal Bureau of Investigation's (FBI) index offenses in 1980. (Index offenses include homicide, forcible rape, robbery, aggravated assault, burglary, larceny, and auto theft. From "Criminal Career Research: Its Value for Criminology" by A. Blumstein, J. Cohen, and D. P. Farrington, 1988, *Criminology*, 26, p. 11. Copyright 1988 by the American Society of Criminology. Adapted by permission.)

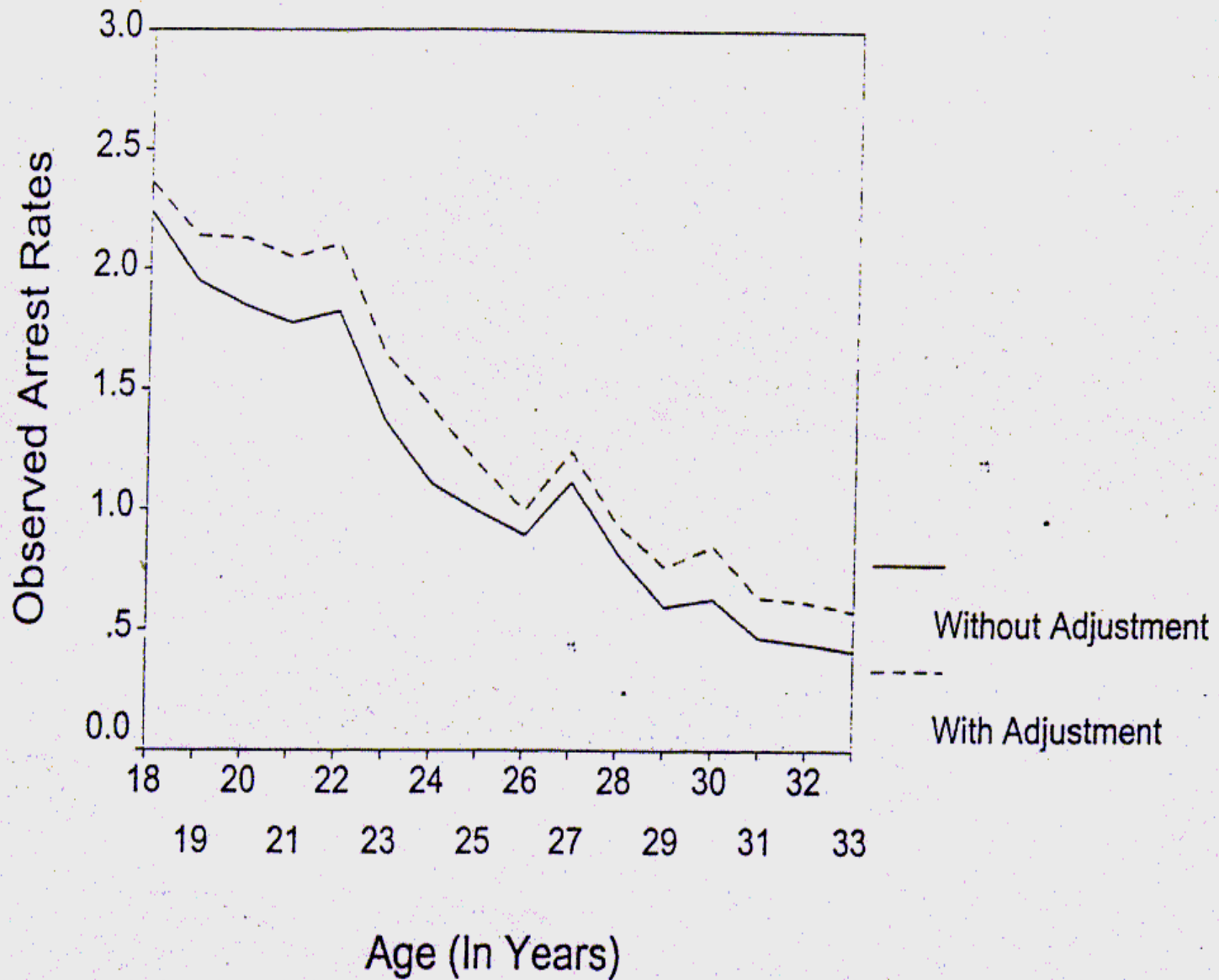


Figure 1. Effects of exposure time on overall arrest rate trends.



Clarion soldier to get Medal of Honor

19-year-old threw himself on grenade to save comrades

Saturday, May 24, 2008

By Milan Simonich, Pittsburgh Post-Gazette

"My intent was to portray Ross as an average boy who made mistakes early in his life and then surprised everybody by doing an extraordinary thing after undergoing a transformation that started with his probation and continued with his Army discipline. **It's important to me to tell people that they can't count a child out because of his mistakes," Tom McGinnis said.**

Reasons for the study

- Richer information about serious adolescent offenders
- Picture of the desistance process
 - Individual maturation
 - Life changes
 - Systems involvement
- Improved practice and policy in juvenile justice
 - Risk assessment
 - Targeted interventions and sanctions

Study Design

- Two sites: Philadelphia and Phoenix
- Enroll serious adolescent offenders
 - 1,354 felony offenders, aged 14 -18
 - Females and adult transfer cases
- Regular interviews over eight years
 - Initial interviews
 - Time point interviews
 - Release interviews
- Other sources of information
 - Collateral interviews
 - Official records

What we look at

- Individual functioning
 - Background characteristics and history
 - Mental health
 - Psychosocial maturity
 - Antisocial behavior (crime, substance use)
 - Attitudes and beliefs
- Social contexts
 - Peer
 - Family
 - Community
- Characteristics of sanctions and interventions

Life Event Calendars

- Living arrangements
- School involvement
- Legal involvement
- Work
- Romantic relationships
- Social service involvement/sanctions

Living Situation Calendar

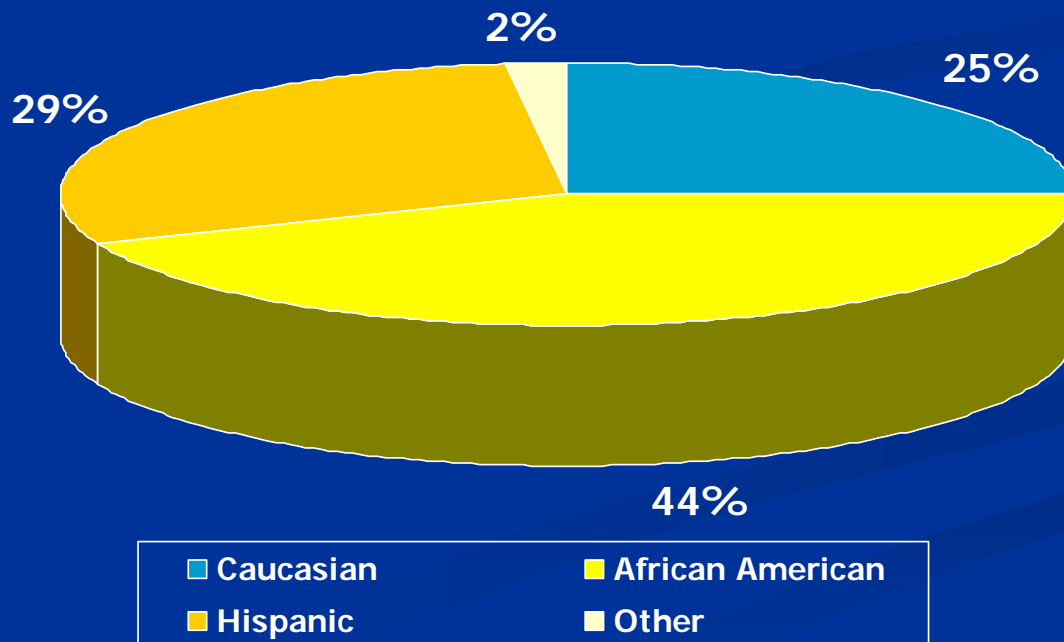
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Subject 1	926 West Huntington St	St Gabe's Hall	926 West Huntington St	St Gabe's Hall	Vision Quest	Youth Forestry Camp
Subject 2	2829 W. Augusta	Madison Street	1008 S. Wilmot	1008 S. Wilmot	1008 S. Wilmot	PO Box 3400
Subject 3	5003 Master St	2nd and Norris	PO Box 1059	PO Box 1059	House of Corrections	PO Box 1059

Progress so far

- Entire sample past the 60 month follow-up point
- Over 90% of interviews completed at each time point
- Over 20,000 interviews completed

Who are these adolescents?

- 16 years old on average
- 86% male
- Average of two prior court appearances
- About half appearing for a felony against a person
- Ethnically diverse

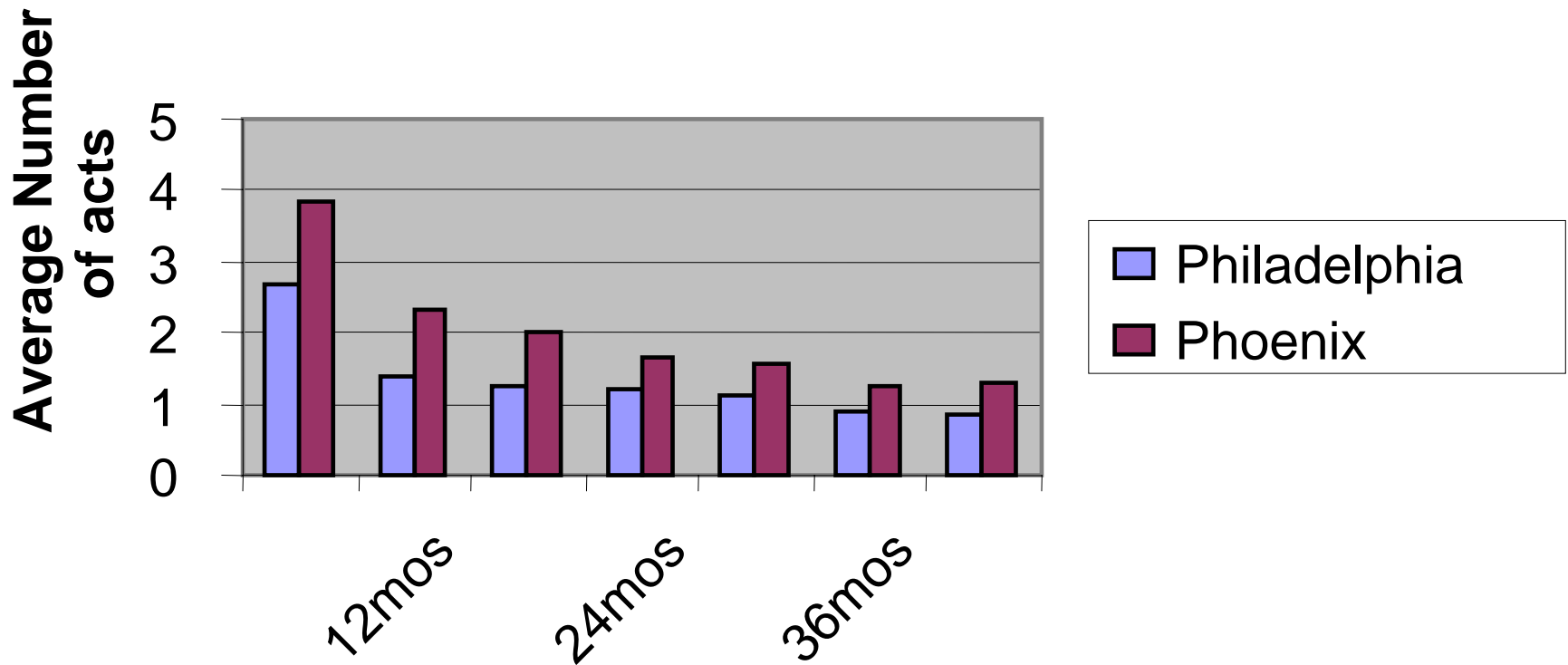


Over the first three years.....

- At least one institutional stay 82%
- Had at least one job 89%
- Average length of each job 6 weeks
- Report being in a gang 18%
- Re-arrested 58%
- Died 2.6% (n = 35)

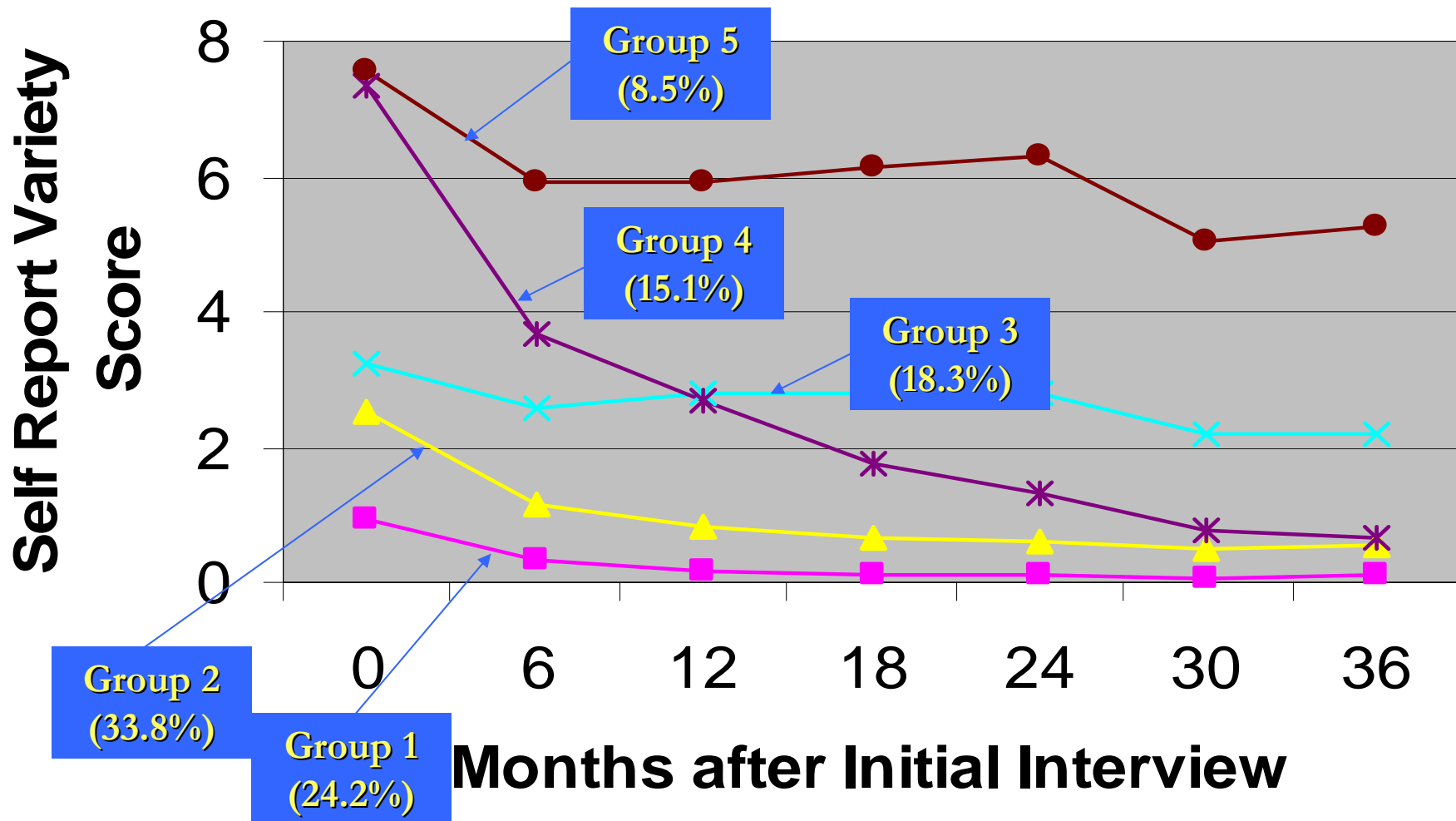
Self-Reported Offending

Mean Self-Reported Offending Across Time by Site



Self Reported Offending over Three Years

Males only



Do Groups 4 and 5 differ at baseline?

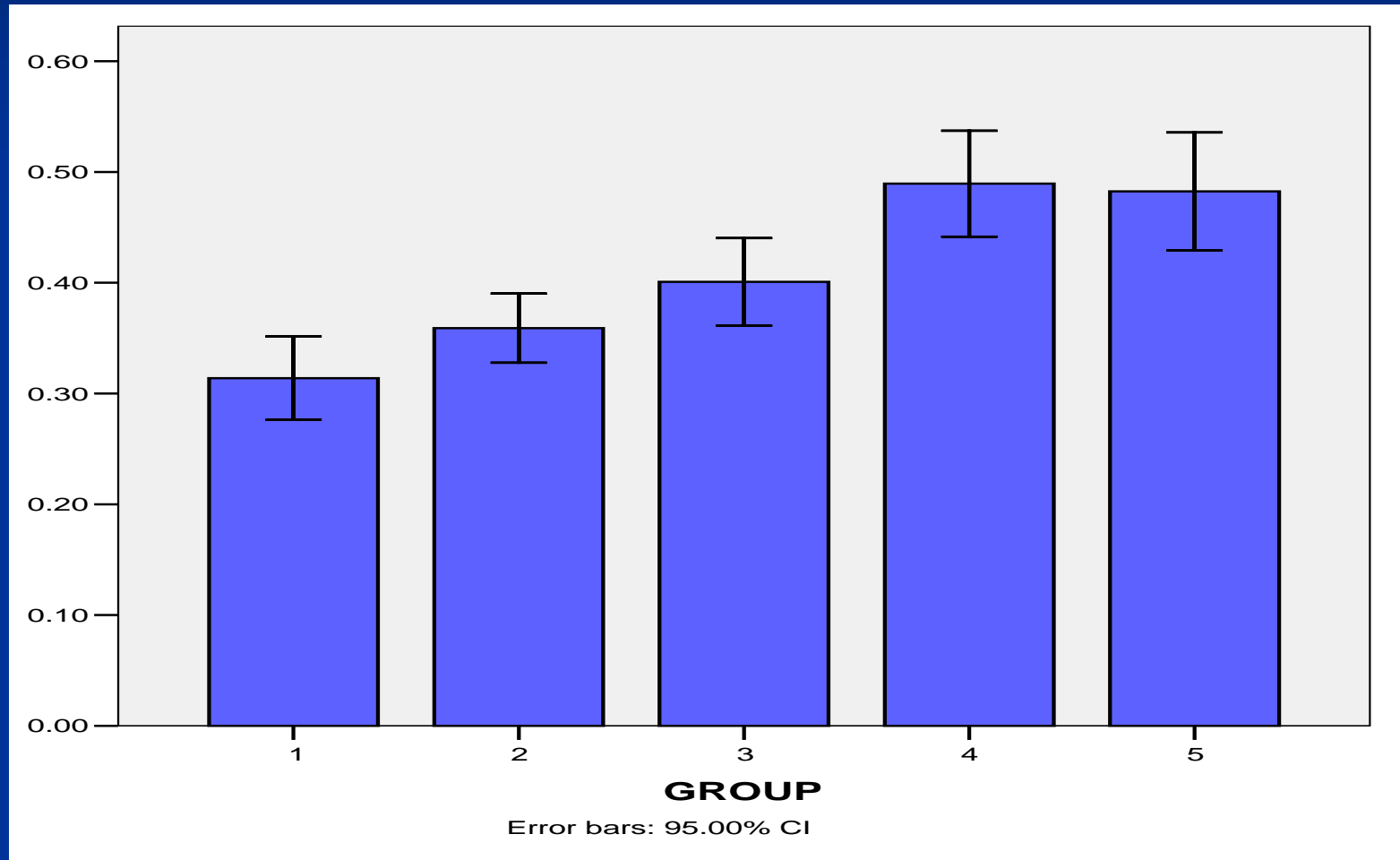
- Demographics
- History of antisocial behavior
- Drug and alcohol problems and level of use
- Psychological maturity
- Attitudes toward the legal system
- Contextual factors
 - Parental influences
 - Peers
 - Neighborhood

Do Groups 4 and 5 differ over three years?

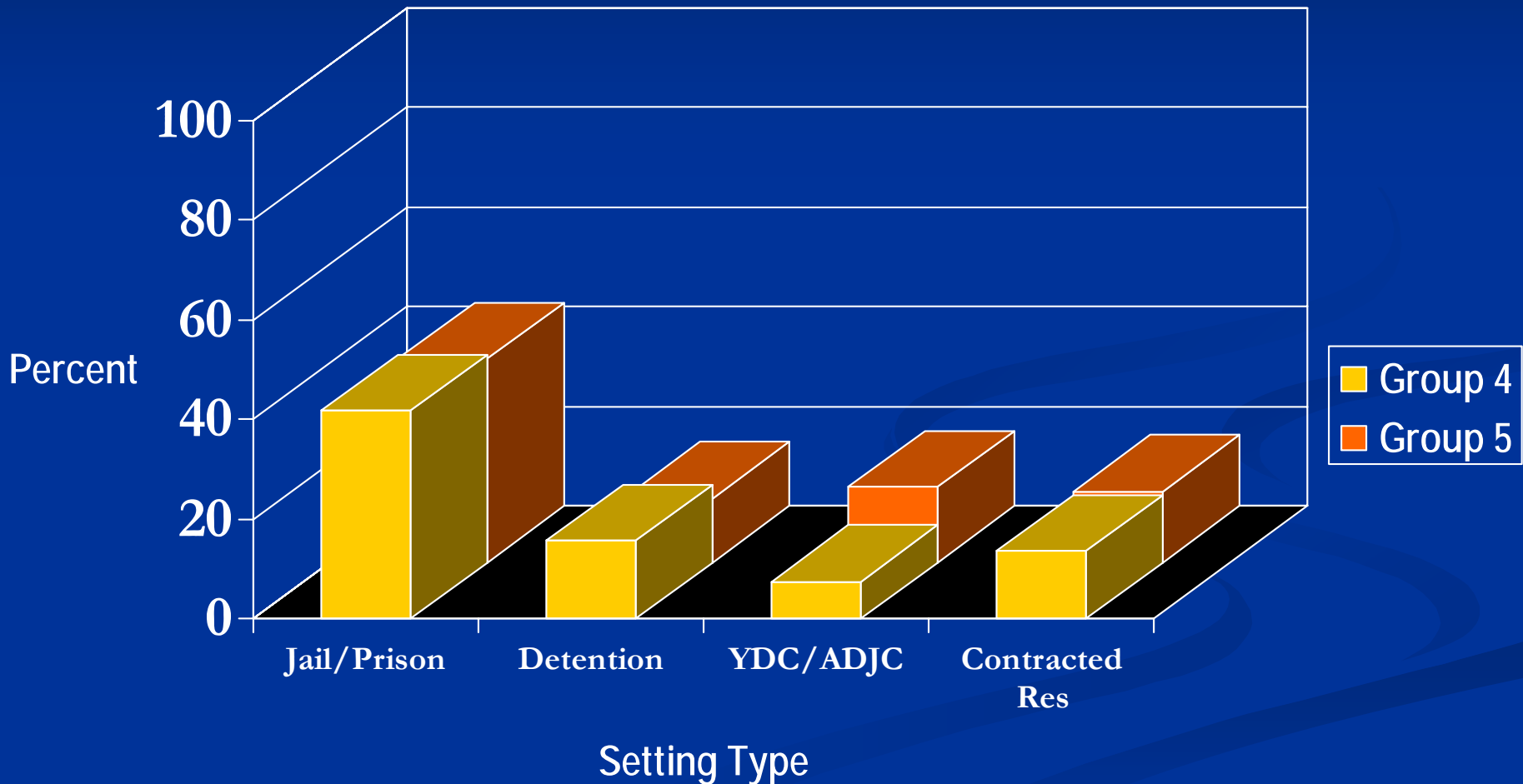
- Justice system intervention
- Social service intervention
- Positive romantic relationship
- Gainful activity
- Ordered lifestyle
 - Number of moves
 - Routine activities
- Substance use

Percent of time in institution over three years for each group

Percent time in institution



Average Percent in Each Setting at Each Time Point



Conclusions

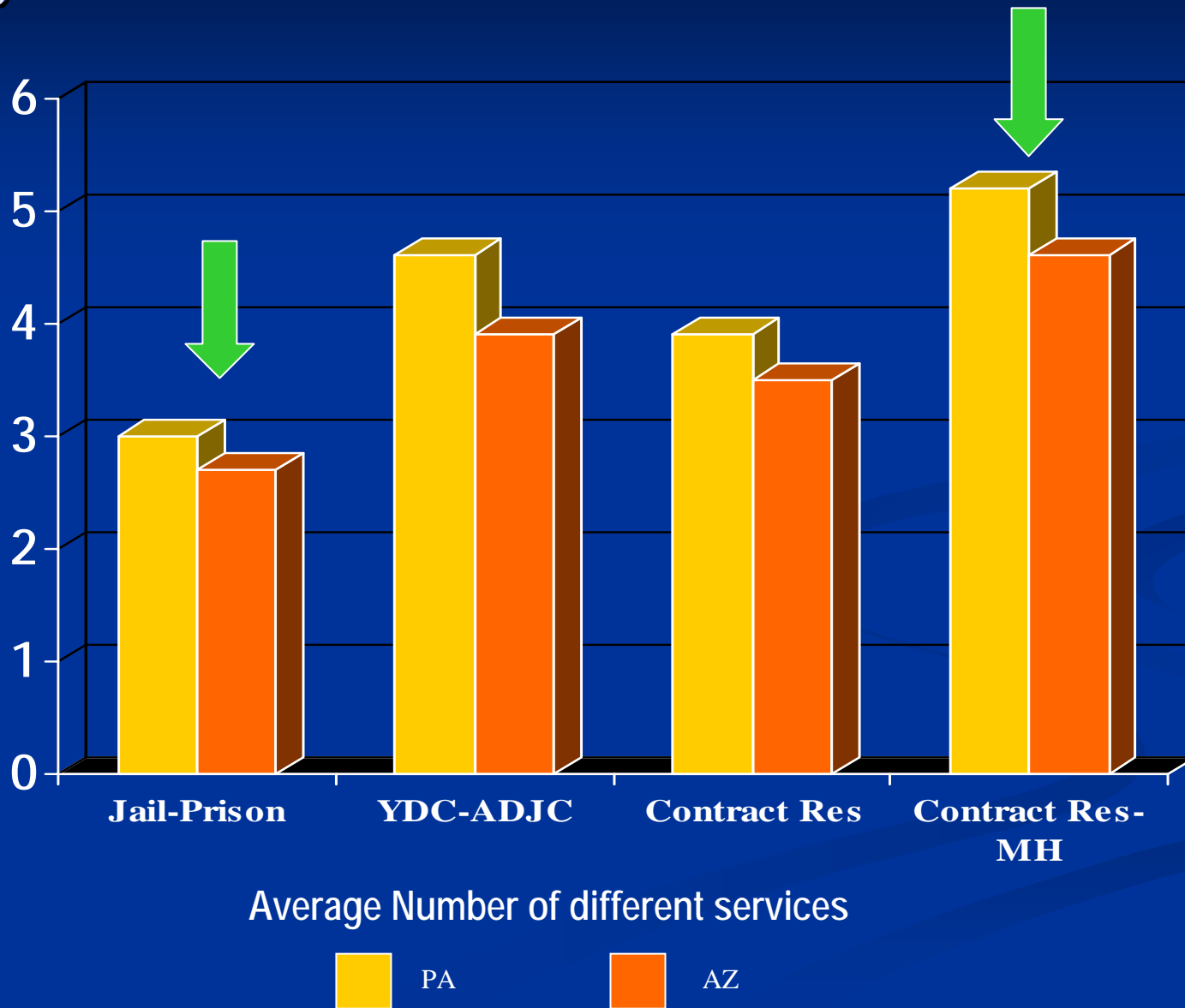
- In serious offenders,
 - Small group (8-9%) with high and continued offending
 - Larger group with high and declining offending (15%)
- Largest group reports low levels of offending, but still spends about 30% of follow up period in institutional care
- Can't predict the high end persisters from desisters very well from baseline characteristics
- Over the follow-up period,
 - Placement history is very similar for these groups
 - level of substance use, gainful activity, and stability of daily routine do differ

Services for Serious Adolescent Offenders

Settings and Services

- **Setting types**
 - Jail-Prison
 - YDC-ADJC (state-run facilities)
 - Contracted Residential
 - Contracted Residential – Mental Health
- **Levels of service within the setting**
 - Substance use treatment
 - Sessions with a psychologist
 - Family-based treatment
 - Groups therapy
 - Job skills training

Level of services provided to youth differs across residential settings

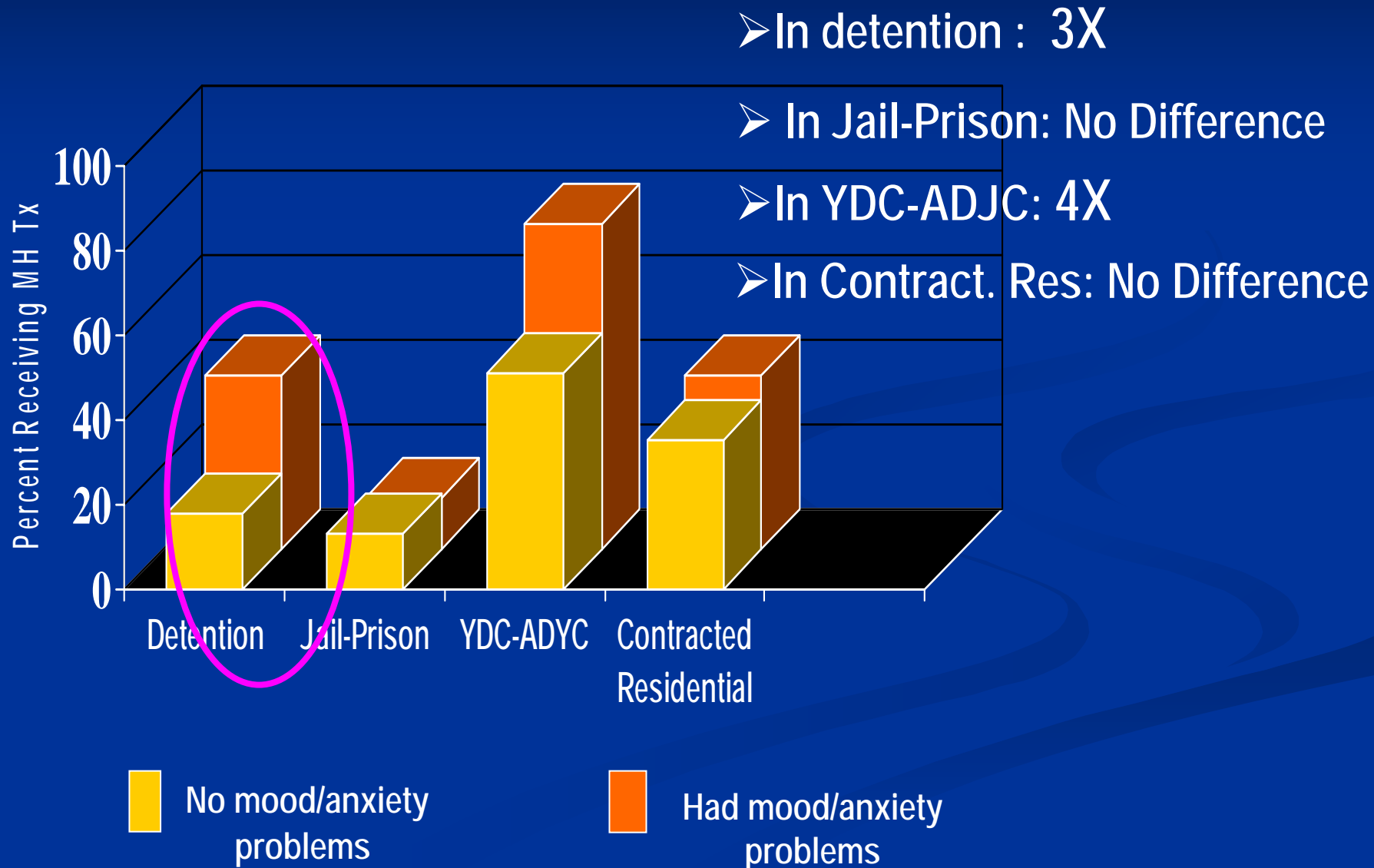


**Is there a link between
risk/need
and getting appropriate
services
in residential care?**

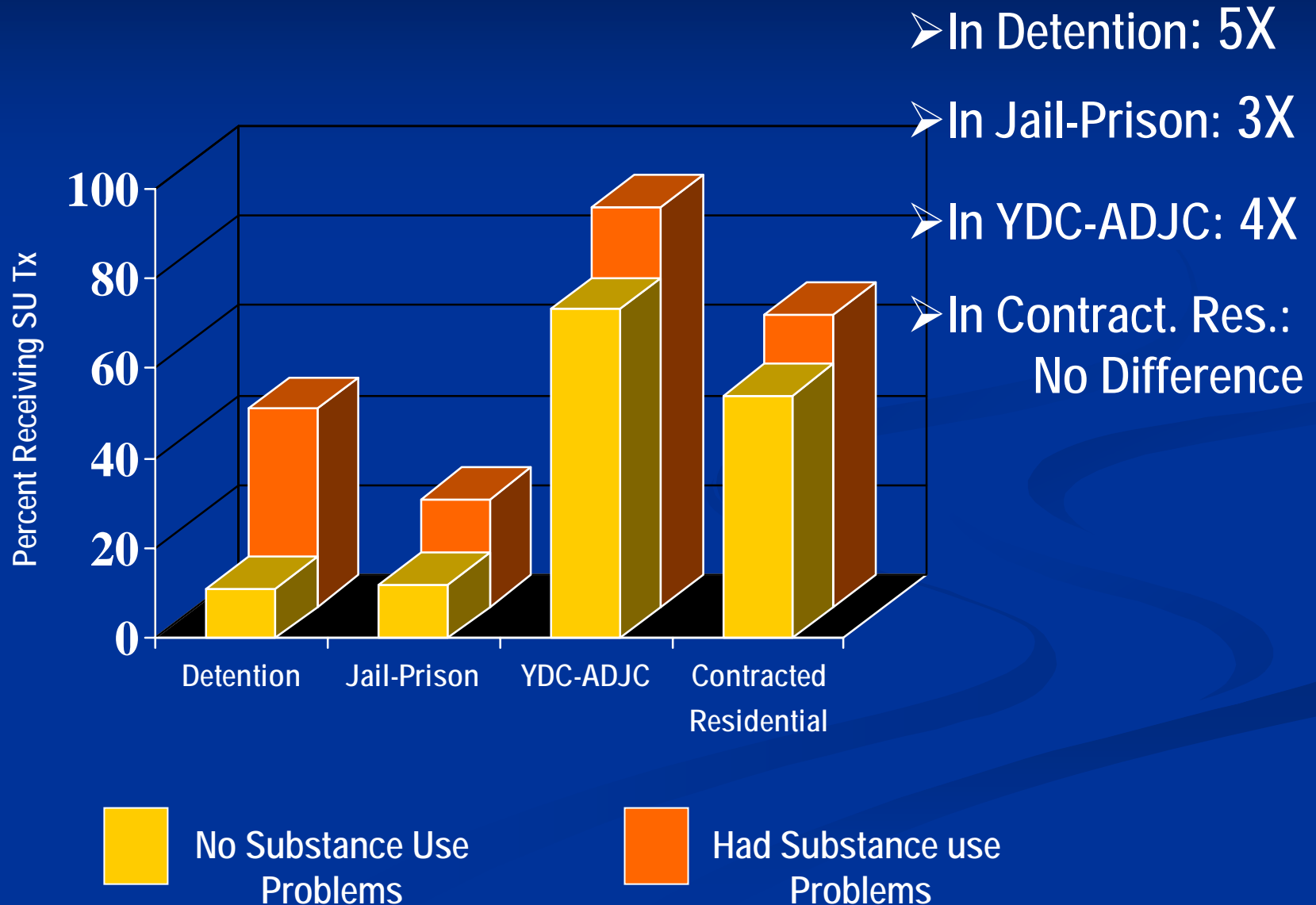
Approach

- Identified two “treatable” types of problems
 - Mood/anxiety problems
 - mental health-related treatment:
individual sessions or treatment on a
mental health unit
 - Substance use problems
 - drug and alcohol services
- Control for site, gender, ethnicity, days in setting
- Focus on four most common settings

Percent Receiving Mental Health Treatment in Different Setting Types



Percent Receiving Substance Use Treatment in Different Setting Types



**What is the relationship
between
supervision/services
and adjustment in the
community after release
from an institution?**

Approach

- Define “aftercare” period
 - Six month following release from placement associated with the study index petition
- Examined outcomes that indicate signs of negative and positive adjustment
 - Engagement in “gainful activity”
 - Antisocial activity
 - System involvement
- Considered duration and intensity of Supervision and Community-based services
 - Duration = Number of aftercare months with at least 1 contact
 - Intensity = Number of contacts per month

Results

In our sample of serious offenders:

- Duration of supervision reduces negative outcomes by about $\frac{1}{2}$ in the aftercare period
- Effects of intensity of services are less clear
- Effects hold when other factors considered
 - Parental monitoring
 - Peer associations
 - Caring adults

Conclusions: Services

- Majority of youth in each setting report receiving multiple types of treatment
- Detention and state-run facilities do a better job matching mental health and substance use treatment with those who need it
- Duration of supervision is important for reducing the chances of negative adjustment

Length of Stay in an Institution

Why are Institutional Placement and Length of Stay Relevant?

- **Benefit-Cost**
- **Personal Freedom (Liberty)**
- **Effects on Development**

Data

- Juvenile Court cases in both sites
- N = 921
 - probation = 502
 - institutional placement = 419
- Outcome is rate of re-arrest (by year)
- 66 variables measured at baseline, including demographic, familial, peer, legal, psychological, mental health related, substance abuse, psycho-social maturity and prior adjustment

Research Questions

- Is there a treatment effect of placement vs. probation on subsequent rate of re-arrest?
- Is there a marginal effect (i.e., benefit) for a longer length of stay out of the community?

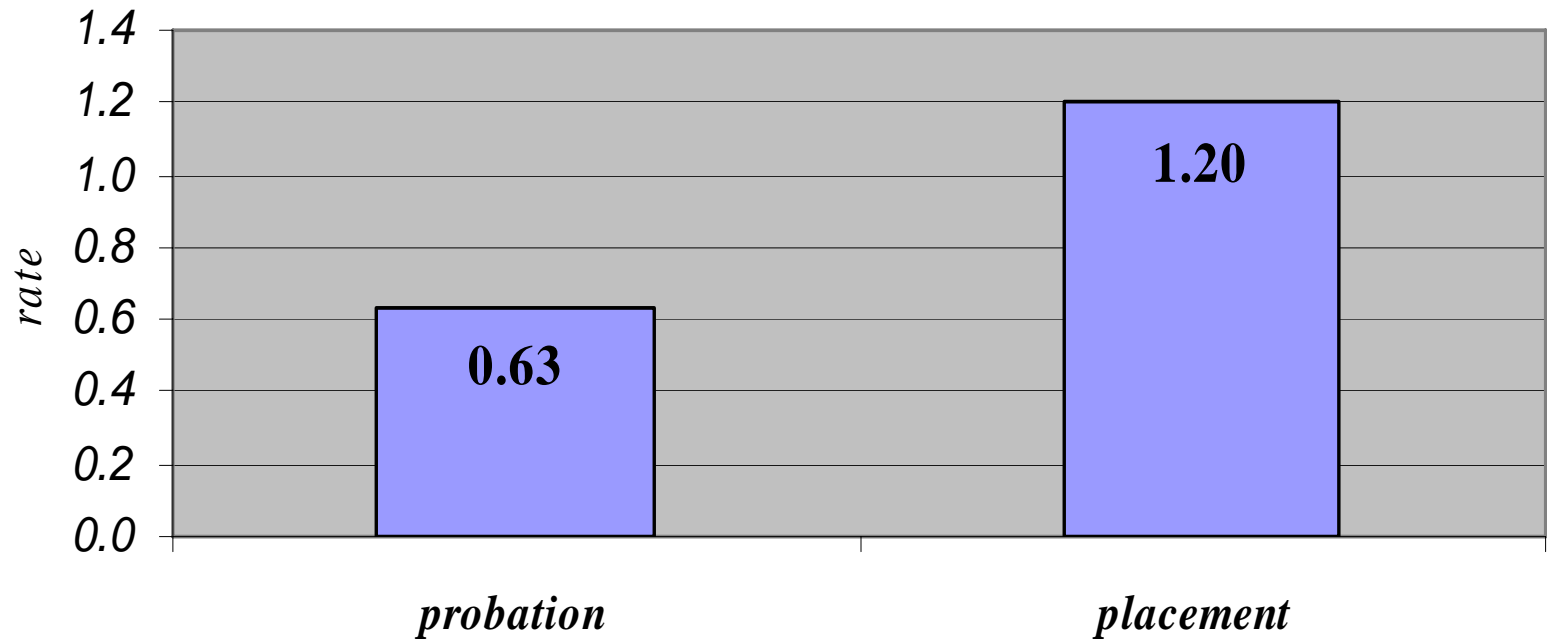
Propensity Score Matching

- What is it?
 - Two step process:
 - A propensity score is calculated for each case. It is the predicted probability that you get placed given all of the background characteristics considered
 - Take each placed case and match it to one or more probation case with similar propensity score
 - We then can look to see if the placed group looks similar to the probation group on a variety of characteristics that might affect the outcome
 - If the groups look alike, we can attribute the difference in the outcomes to the fact that they were placed or put on probation

Placement vs. Probation

Naïve Comparison

Mean Yearly Rate of Re-Arrest,
by Placement Status



Baseline Differences

	placement	probation	t-stat	
# of Priors	3.65	2.38	9.55	
Total Exposure to Violence	5.80	4.51	6.93	
Punishment Cost	12.97	5.37	21.46	
IQ	81.51	86.31	5.52	
PCL - Factor 1	5.46	4.54	3.98	
PCL - Factor 2	9.02	7.33	6.71	
Certainty of Punishment	4.77	5.89	5.92	
Social Capital	2.32	2.08	6.70	
Antisocial Risk-Need	0.14	-0.20	8.71	
Parent Education - SES	6.16	5.45	1.26	

**** Overall, 42 of 66 baseline covariates were *out of balance***

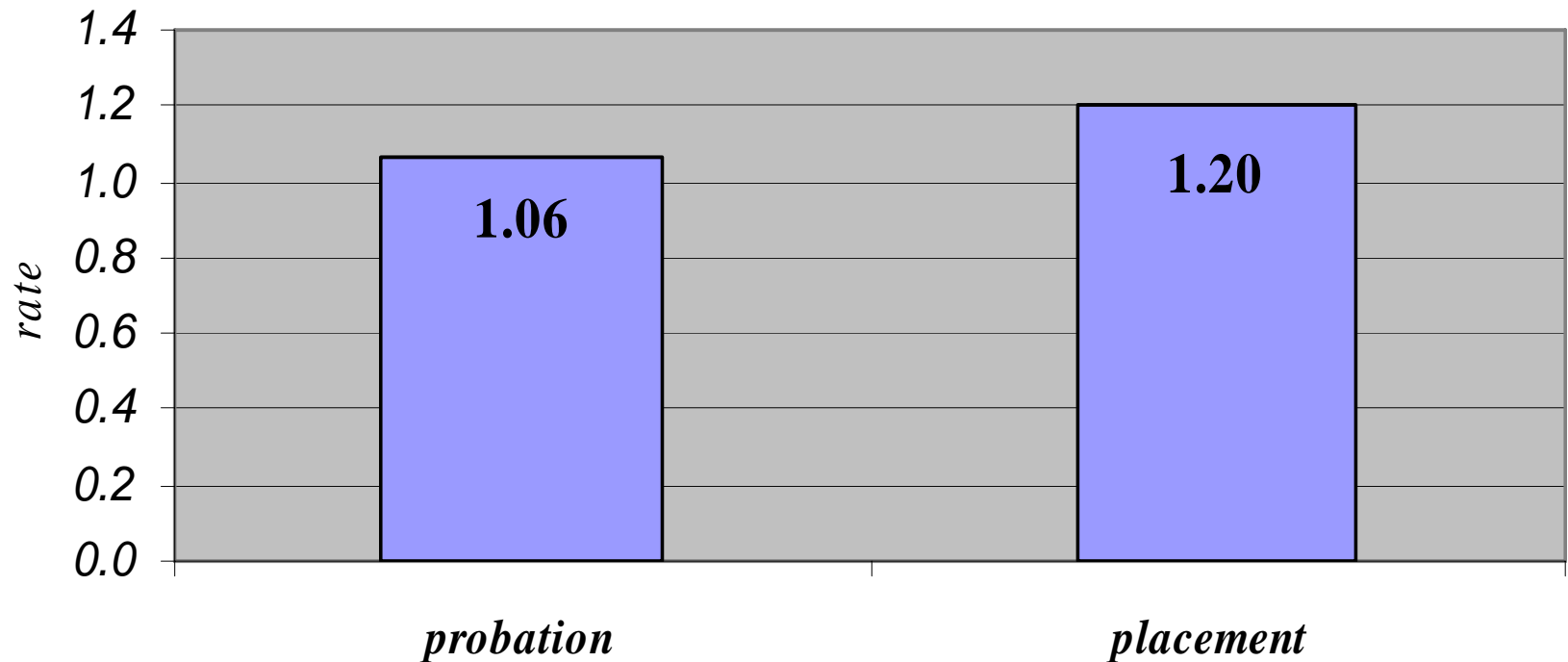
Getting Balanced Groups

- Before propensity score matching, 42 of 66 baseline variables were *out of balance*
- After matching, 64 out of 66 variables are *in balance*
- In other words, we have ruled these 64 variables as potential confounders
- Notice this is better balance than we might expect to have achieved through randomization!

Treatment Effect of Placement

Matched Groups

Mean Yearly Rate of Re-Arrest,
by Placement Status After Matching

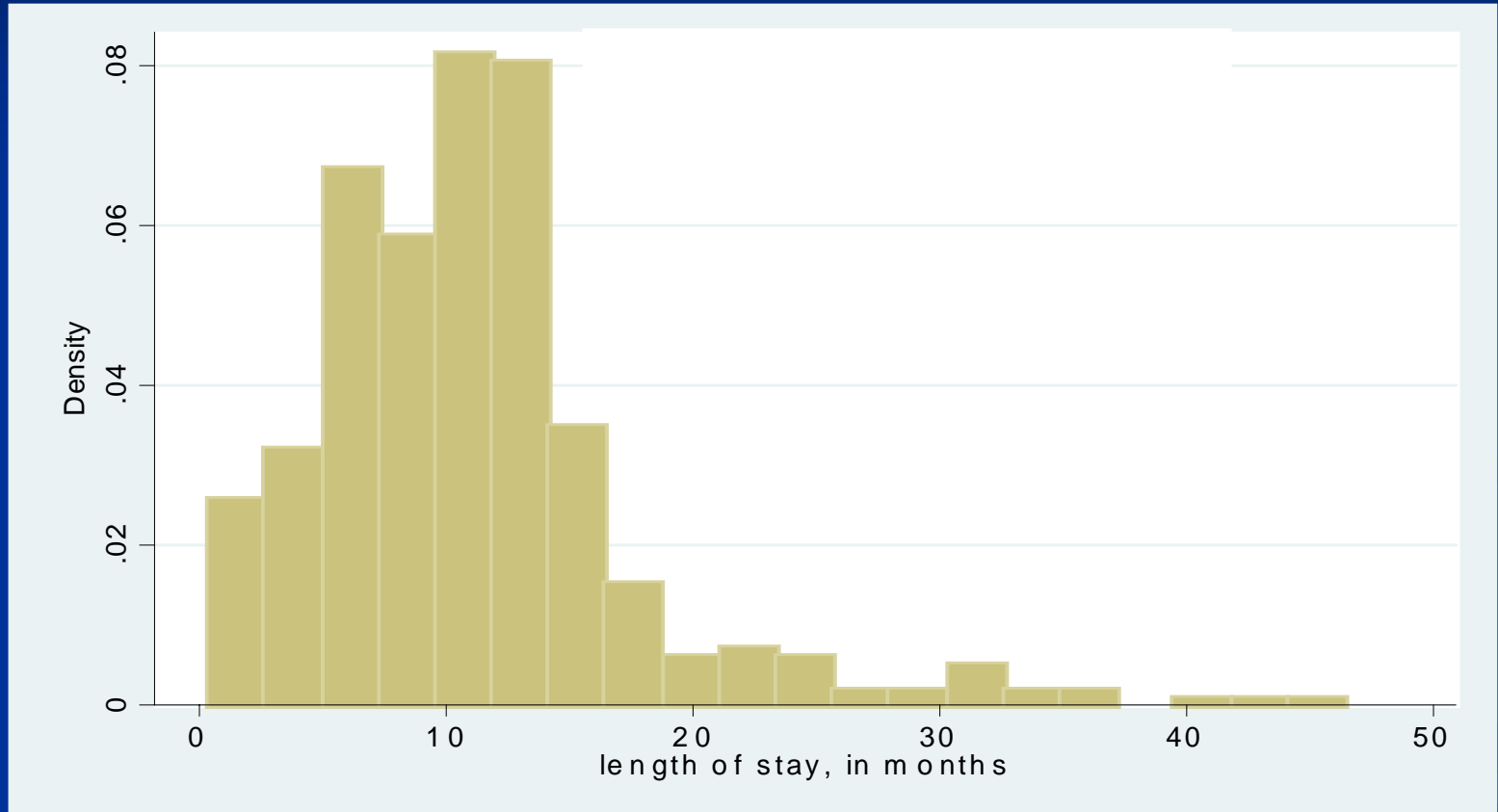


No significant differences between groups in rate of re-arrest

Methodology for Length of Stay

- Treatment is now length of stay, which is not binary
- Length of stay is broken up into four discrete “doses”
- Extension of propensity score methods to get similar cases within different levels of the “dose”
 - **65 of 66** covariates are *in balance*, meaning we can rule them out as confounders
- *Response Curve* is estimated

Dosage Categories

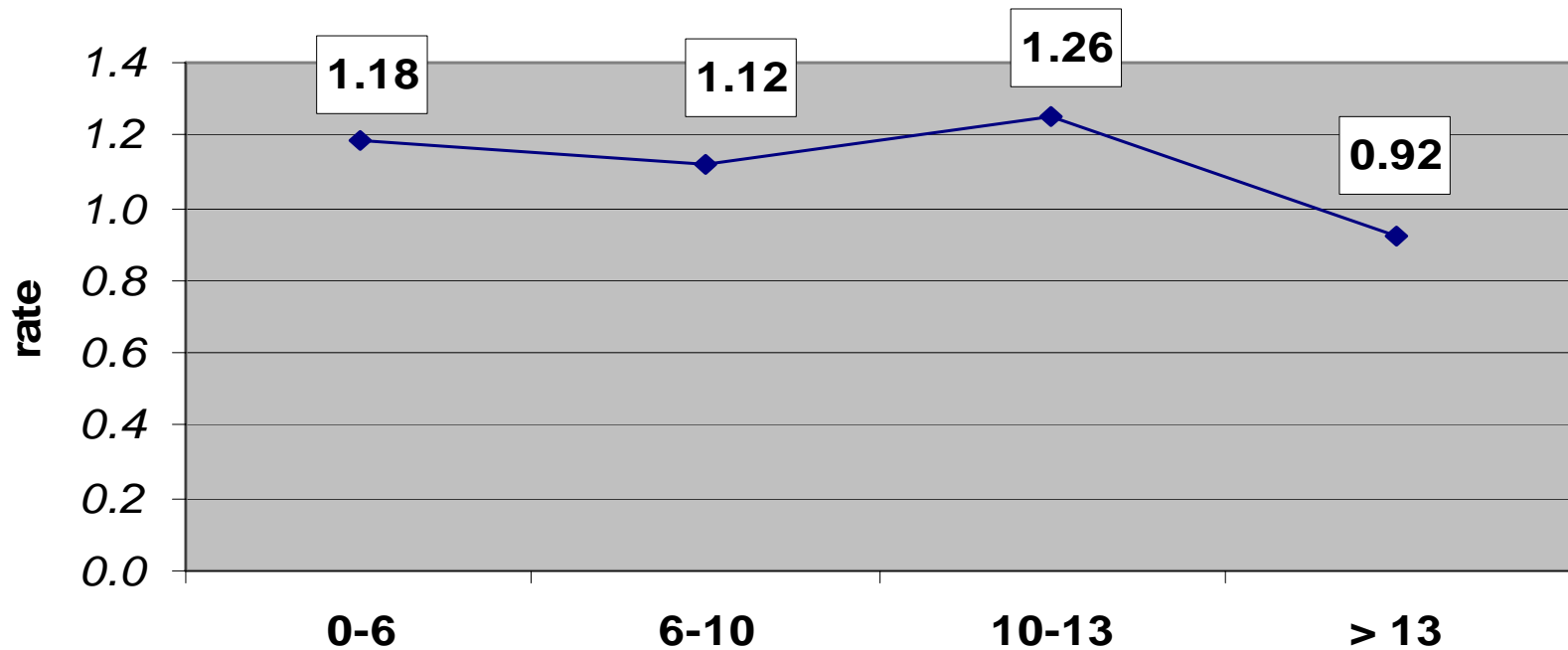


Doses roughly correspond to quartiles: 1) 0-6 mo., 2) 6-10 mo., 3) 10-13 mo., 4) > 13 mo.

Dose-Response Curve

Quartiles as Doses

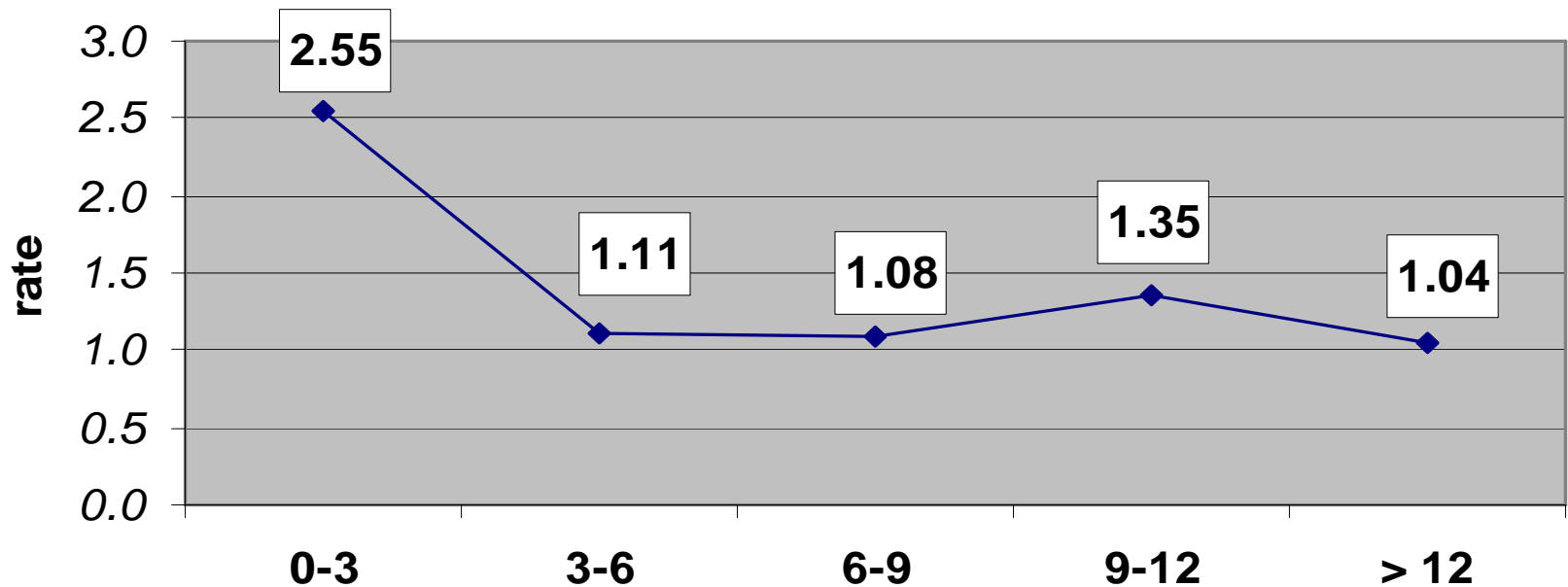
**Expected Rate of Re-Arrest,
by Quartile Dose Category**



Dose-Response Curve

3 Month Intervals as Doses

**Expected Rate of Re-Arrest,
by 3 mo. Dose Category**



Conclusions

- Overall *null* effect of placement on rate of re-arrest
- For intermediate lengths of stay (i.e., 3-13 months), there appears to be *little or no marginal benefit* for longer lengths of stay
- Inference outside this range is limited
 - < 3 mo. – too little power
 - > 13 mo. – too much variability

Future Directions

- Investigate alternative outcomes (e.g., self reports of antisocial activity, involvement in work and school)
- Examine effects by type of placement facility
- Treat exposure to services while in placement as a factor related to outcomes

Transfer to Adult Court

Background

- Body of research indicating that transfer to adult court may have negative effects
- Transfer provision likely to remain in some form
 - Question becomes who is most suited for transfer
- Most prior research considered broad groups and limited outcomes
 - Failed to consider individual differences in response to transfer
- Understanding variability is the first step for identifying possible places for policy revision

Phoenix Sample

- 654 subjects enrolled in Phoenix
 - Serious adolescent offenders, almost all felony offenders
 - age 14-17
 - Males and females
- Most serious adjudicated charge:

Person: 43%	Drug: 16%
Property: 27%	Sex: 3%
Weapons: 7%	Other: 2%
Missing data 2%	
- 193 (29%) processed in adult court, 71% remained in juvenile court

Data

■ Strengths

- Sizable sample still contains a sizable number of youth
- Extensive background information
- Information for a range of outcomes, not just re-arrest

■ Limitations

- May or may not be representative of transferred youth
- Most serious cases (murder/rape/arson) are not yet released
- Small numbers in subgroups precludes ability to do some analyses
- One locale

Outcomes

- 48-month follow-up information used
- Four outcomes:
 - Rate of re-arrest
 - Resumed antisocial activity
 - Return to a facility
 - Gainful activity (working or in school)

How did this transferred group fare?

- Some consistencies with national figures and other studies
 - 75% incarcerated, 19% given probation, 8% dismissed
 - Actually serve about 2/3 of court sentence
 - Time served increased by severity of crime
- Outcomes
 - The majority resumed antisocial activity (49%), were re-arrested (62%) or returned to a facility (88%)
 - The majority (86%) were working or in school for the greater proportion of their time in the community
- Subgroup differences
 - Youth with no prior petitions had lower rate of re-arrest following release
 - Youth who were incarcerated returned to a facility (usually jail) more quickly than those given probation

What factors are related to better or worse outcomes in transferred cases?

- Factors considered
 - Legal:
 - offense type,
 - # of prior petitions
 - age at first petition to court
 - Extra-legal:
 - demographics
 - psychological characteristics
 - risk-need indicators
- Four outcomes
 - Re-arrest
 - Resumed antisocial activity
 - Return to a facility
 - Gainful activity (working or in school)

Results

- Legal factors related to any involvement in antisocial activity, the time to resumed antisocial activity, and return to institutional setting
 - Number of prior petitions (more priors, worse outcomes)
 - Charge type (property offenders do better)
- Risk/need factors related to resumed antisocial activity and return to institutional setting
 - Association with antisocial peers (more antisocial peers, worse outcomes)
- Psychological and Demographic factors not related
- No Legal or Extra-legal factors related to Gainful Activity

**Do youth who are transferred to
adult court fare better or worse
than youth with similar
characteristics who remain in
juvenile court?**

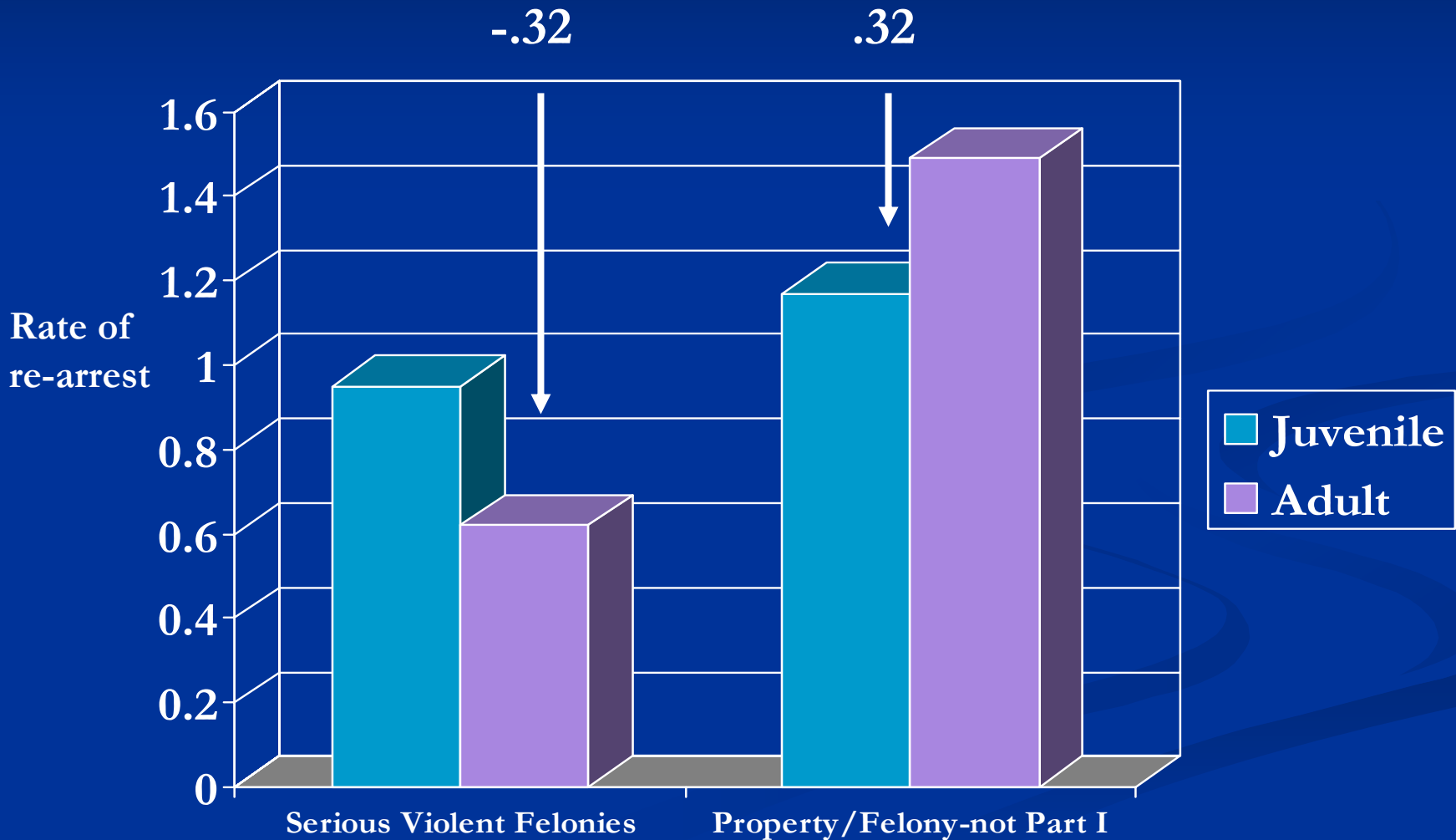
Method

- Propensity score analysis
- Matched the adult court cases with cases that stayed in the juvenile system on 52 covariates
 - Can't match the murder/rape/arson group because no cases with those charges remain in juvenile system
- Once matched, any observed difference can be attributed to the transfer experience itself

Results

- When matched, the transferred group and those retained in juvenile court have the same rate of re-arrest (.91 vs. .94 arrests per year)
- Transfer does differentially affect youth
 - types of offense charged
 - prior offenses

Re-arrest rates by referring charge group (matched samples)



Conclusions: Transfer

- There is variability in outcomes for transferred adolescents
- The act of being transferred is detrimental for some subgroups and effective for others
- Statutory revision could focus on limiting practice to those with prior offenses who are charged with serious violent offenses

Summary

- Transition to adulthood is a period of natural change
- Variability even in serious adolescent offenders
- Services and statutes can be refined to accommodate to this variability

Contact Information

Edward P. Mulvey, Ph.D.

Law and Psychiatry Program

Western Psychiatric Institute and Clinic

University of Pittsburgh School of Medicine

3811 O'Hara Street

Pittsburgh, Pennsylvania 15213

E-mail: mulveyep@upmc.edu

Phone: 412-647-4720